WEAVER
BOOS
CONSULTANTS

May 15, 2014
Project No. 0058-378-01

U.S. EPA, Region 5
Ralph Metcalfe Building
77 West Jackson Blvd.
Chicago, IL 60604-3590
Attn: Mr. Peter Ramanauska

RE: Self-Implementing Cleanup and Disposal of PCB Remediation Waste Notification and Certification
Ivy Tower Renovation Project
635 South Lafayette Blvd.
South Bend, Indiana

Dear Mr. Ramanauska:

On behalf of the Property Owner, Studebaker Building 84 LLC, Weaver Boos Consultants, LLC (Weaver Boos) is providing this written notification and certification of a proposed cleanup and disposal of PCB remediation waste, in accordance with 40 CFR Part 761 Section 761.61.

The Studebaker Building 84 LLC, in partnership with the South Bend Redevelopment Commission, is renovating the three building complex know as Ivy Tower for future multi-use development. Prior to renovation activities commencing, the concrete floor slab and underlying soil associated with one subgrade room (identified as Transformer Room #3 which was formerly occupied by electrical transformers) was screened for the presence of polychlorinated biphenyls (PCBs) to determine disposal options for the material including possible reuse on-site. Screening included the collection of three composite concrete samples, T-4-1, T-4-2, T-4-3 (each composite comprised of three individual concrete cores of the floor) and the collection of additional discrete samples of concrete and underlying soil at five other locations (SS-1, SS-2, SS-3, SS-4, and SS-5).

The three composite concrete samples were collected from a 3-4 inch layer of surface concrete. The five discrete concrete samples (Concrete-1, Concrete-2, Concrete-3, Concrete-4, and Concrete-5) were collected from an underlying 11-13 inch subfloor layer of concrete (total floor thickness was approximately 14-17 inches thick. Varying concentrations of PCB-1260 were identified in all of the composite concrete samples (surface concrete layer) collected with lesser concentrations if any detected in the underlying concrete floor layer and soil. The project

4085 Meghan Beeler Court • South Bend, Indiana 46628 • Phone: (574) 271-3447 • Fax: (574) 271-3343
www.weaverboos.com

location, building layout, and sample locations are illustrated in the attached **Figures**. Sample concentrations are tabulated in the attached **Table 1**.

The Property is not listed or enrolled in any federal or state remediation program. Historically, the building complex (comprised of three adjoining buildings) was originally constructed by the Studebaker Automotive Corporation in 1923 (Building 84), 1944 (Building 112), and 1945 (Building 113). Transformer Room #3 is located below grade between Buildings 84 and 113. The floor of the room is approximately 12-14 feet below grade. Currently the space does contain non-PCB electrical components (switchgear) and a dry transformer and would meet the regulatory definition of a low occupancy area under 40 CFR Part 761. As part of the renovation, the switchgear and dry transformer will be removed and electrical system rerouted and the space filled with clean granular soil backfill.

Section 761.61 (a) (3) (A) – Nature of contamination

Please see attached photographs for following discussion. One subgrade transformer room (1800 square feet) was identified to the north of Building 112 and south of Building 84. Access to the room is via two concrete staircases that lead to the ground surface. The room is identified on the attached figures as Transformer Room #3. The transformers are no longer present. Weaver Boos observed oil-staining on the floor surface.

Section 761.61 (a) (3) (B) – Sample Collection and Analyses Summary

Due to the historical usage of the rooms, the floor staining, and since the building complex is to undergo renovation activities, Weaver Boos screened the floor slab and underlying soil for the presence of PCBs to determine disposal options. Initially, Weaver Boos cored the floor at nine locations on May 17, 2013, collected the concrete samples, and then composited three samples each to comprise a representative sample from the western third, central third, and eastern third of the floor (T-4-1, T-4-2, and T-4-3) (see **Figure 3**). Each composited core sample (approximately 8 oz.) was submitted to Test America for PCB analysis using EPA Method 8082. The results of the analyses are tabulated in **Table 1.** The concrete floor was discovered to be comprised of two slabs, the first layers is approximately 3-4 inches whereas the second underlying layer is approximately 11-13 inches in thickness. The cores on May 17, 2013 were from the 3-4 inch upper layer of concrete.

On February 3, 2014, Weaver Boos collected samples of soil at five locations (SS-1, SS-2, SS-3, SS-4, and SS-5) below the concrete floor slab (**see Figure 3**). The samples were collected at approximately one foot below the floor slab and three-four feet below the floor slab and also tested for PCBs. In addition, discrete concrete samples were collected from the second

underlying concrete slab (11-13 inch layer) at the same sample locations as the soil samples. These samples are identified as Concrete-1, Concrete-2, Concrete-3, Concrete-4, and Concrete-5 in **Table 1**. The objective was to assess the potential vertical migration of PCB material.

Since reuse on-site was a possible disposal option for the concrete the results are compared to the Indiana Remediation Closure Guide (RCG) Screening Levels for the various exposure pathways and the 40 CFR Part 761.61 PCB cleanup goal for low occupancy. In addition, the PCB concentrations were evaluated to determine the regulatory status should the concrete need to be disposed off-site.

Floor Slab/3-4 inch Concrete Surface Layer

Three composite samples were collected from Transformer Room #3. The results of analyses indicated PCB (PCB-1260) concentrations ranging from 43 parts per million (ppm) to 720 ppm. PCB concentrations from all three samples exceed the 40 CFR Part 761.61 Cleanup Levels for unrestricted low occupancy areas. Two of the three samples are at or below the 40 CFR Part 761.61 Cleanup Level for restricted low occupancy areas (using a concrete cap, for example). Two of the three samples exceed 50 ppm.

Floor Slab/11-13 inch Concrete Underlying Layer

Five discrete samples were collected from Transformer Room #3. The results of the analysis indicate PCB (PCB-1260) concentrations in four of the five samples collected but at trace levels not exceeding any regulatory cleanup or disposal screening level. No samples exceeded 1 ppm.

Underlying Soil (Sand)/1' Below Floor Slab

A set of five discrete soil samples were collected from approximately 1 foot below the floor slab. The results of the analysis indicate PCB (PCB-1260) concentrations in all five samples collected. Four of the five samples contained PCB concentrations below the 40 CFR Part 761.61 Cleanup Levels for unrestricted low occupancy areas. Two of the five soil samples contained PCB concentrations that exceeded the RCG Soil Screening Level for Commercial Direct Contact and Soil Migration to Groundwater Exposure Pathways. No samples exceeded 27 ppm.

Underlying Soil (Sand)/3-4' Below Floor Slab

A set of five discrete soil samples were collected from 3-4 feet below the floor slab. The results of the analysis indicate PCB (PCB-1260) concentrations in four of the five samples collected. None of the soil samples exceeded the 40 CFR Part 761.61 Cleanup Levels for unrestricted low occupancy area or the RCG Soil Screening Level for Commercial Direct Contact Exposure

Pathway. Two samples did exceed the RCG Soil Screening Level for Soil Migration to Groundwater Exposure Pathway. No samples exceeded 4.6 ppm.

Decontamination consisted of a wash using Alconox/Liquinox detergent, followed by a triple rinse using commercially prepared distilled water. Soil samples collected for PCB analyses were placed in 8-ounce glass sample containers. Concrete samples were placed in 2-gallon plastic freezer bags. The sample containers were tightly capped/closed, labeled, and logged onto chain-of-custody forms used to track the samples from the point of collection to receipt by the laboratory. Once logged onto the chain-of-custody, the samples were placed in a cooler and surrounded with ice to maintain a temperature of approximately 4°C during transportation to the laboratory.

Section 761.61 (a) (3) (C) – Location and Extent of Contaminated Area

The location and extent of the identified contaminated area is shown on **Figures 4-6**. The extent of PCB-impacts is widespread across the entire floor of the surface layer of concrete. Based on the size of each area and approximate thickness of concrete at the surface (4 inches) the amount of contaminated concrete is 22-23 cubic yards. The underlying concrete layer (12 inches) the amount is approximately 66-67 cubic yards. Based on the results of the investigation the primary impacts are confined to the surface 3-4 inch layer of concrete with some indications of vertical migration into the underlying concrete and soil, possibly occurring at joints, wall junctions, and cracks in the concrete floor.

Section 761.61 (a) (3) (D) – Cleanup Plan

The Studebaker Building 84 LLC, in partnership with South Bend Redevelopment Commission, is renovating the three building complex know as Ivy Tower for future multi-use development. The renovation of the complex is primarily the responsibility of the Property Owner but the South Bend Redevelopment Commission will be contracting with a qualified firm to complete the PCB cleanup. The contractor will be responsible for the removal, transportation and disposal of PCB-impacted concrete and/or soil material. Weaver Boos will be responsible for overseeing the overall cleanup. Disposal options, dependent upon the results of waste characterization, include reuse on-site, disposal of material at a permitted RCRA Subtitle D Landfill, or disposal of material at a permitted RCRA Subtitle C hazardous waste treatment, storage, or disposal (TSD) facility.

According to Part 761 the cleanup level for bulk PCB remediation waste in low occupancy areas is 25 ppm. However, the current Indiana remediation cleanup goals are more restrictive (see **Table 1**) and will also govern the cleanup plan. Also under consideration is the location of the

PCB-impacted material (12-14 feet below grade) and the planned reused of the space (none, the space will be filled with clean granular inert material).

Transformer room floor concrete that contains PCB sample concentrations that are less that the Indiana remediation cleanup goals will be reused on-site. Transformer room floor concrete that contains PCB sample concentrations that exceed the Indiana remediation cleanup goals and are below 50 ppm will be disposed of at a licensed RCRA Subtitle D disposal facility subject to landfill approval. Transformer room floor concrete that contains PCB sample concentrations that equal or exceed 50 ppm will be disposed of at a licensed RCRA Subtitle C hazardous waste landfill or state authorized PCB disposal facility subject to facility approval.

Based on the results of the PCB analyses, the entire 3-4 inch surface layer of floor concrete will not be reused on or off-site and will be disposed of at a permitted RCRA Subtitle C hazardous waste landfill or state authorized PCB disposal landfill. Although minimally impacted, the underlying 11-13 inch subsurface layer of concrete will be disposed of at a permitted RCRA Subtitle D landfill due to indications of vertical migration into the soil.

A safety plan will be developed to address possible worker exposure to the PCB-impacted material. The safety plan will be consistent with NIOSH Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, OSHA regulations (particularly in 29 CFR 1910 and 1926), state and local regulations, and other USEPA guidance.

To verify the cleanup of the material sampling and analysis will be conducted in accordance with subpart O of Part 761. It is anticipated that once the concrete floor slabs are removed the resultant floor of the excavation will consist of fine sand. As a result, a minimum of three samples will be collected from the floor and tested for PCBs. It is anticipated that the cleanup should be completed in two weeks. Laboratory results should be received two weeks after the removal of the waste material.

The soil will be covered with 12-14 feet of clean fill (prohibiting direct contact) and the Property Owner has agreed to prohibit groundwater usage via deed restriction. The 1800 square foot area will be surveyed. Further, groundwater samples will be collected immediately downgradient prior to cleanup and tested for PCBs to identify any groundwater impact. If no groundwater impacts are identified then the proposed cleanup level (where no further soil remediation activity occurs) will be 25 ppm. All excavations will be backfilled with compacted structural inert fill.

In the event that unanticipated higher concentrations or wider distributions of PCB waste is found then additional excavation and additional sampling verification is proposed. Other

alternatives may be considered including engineering control measures should additional excavation not be feasible.

Section 761.61 (a) (3) (E) – Statement of Certification

The Property Owner where the cleanup site is located, Studebaker Building 84 LLC, and party conducting the cleanup, Weaver Boos Consultants, LLC, hereby attest and certify that all sampling plans, sample collection procedures, and instrumental/chemical analysis procedures used to assess or characterize the PCB contamination at the cleanup site, are on file at following location, and are available for EPA inspection.

Studebaker Building 84 LLC
635 South Lafayette Blvd
South Bend, Indiana 46601

By:

Shawn E. Peterson	VP	5/19/14
Name – Shawn E. Peterson	Title	Date

By: Weaver Boos Consultants, LLC

Edward B Stefanek	Senior Project Manager	May 15, 2014
Name – Edward B Stefanek	Title	Date

In accordance with the federal regulations, this notification and certification is being submitted at least 30 days prior to the date the cleanup is to begin. On behalf of the Studebaker Building 84 LLC, Weaver Boos understands that the USEPA may respond in writing approving the self-implementing cleanup, disapproving the self-implementing cleanup, or requiring additional information. If the USEPA does not respond within 30 calendar days of receiving the notice, Weaver Boos will assume that the notification is complete and acceptable and proceed with the cleanup.

If you have any questions feel free to contact me at (574-271-3447) or by email at estefanek@weaverboos.com.

Very truly yours,
Weaver Boos Consultants, LLC

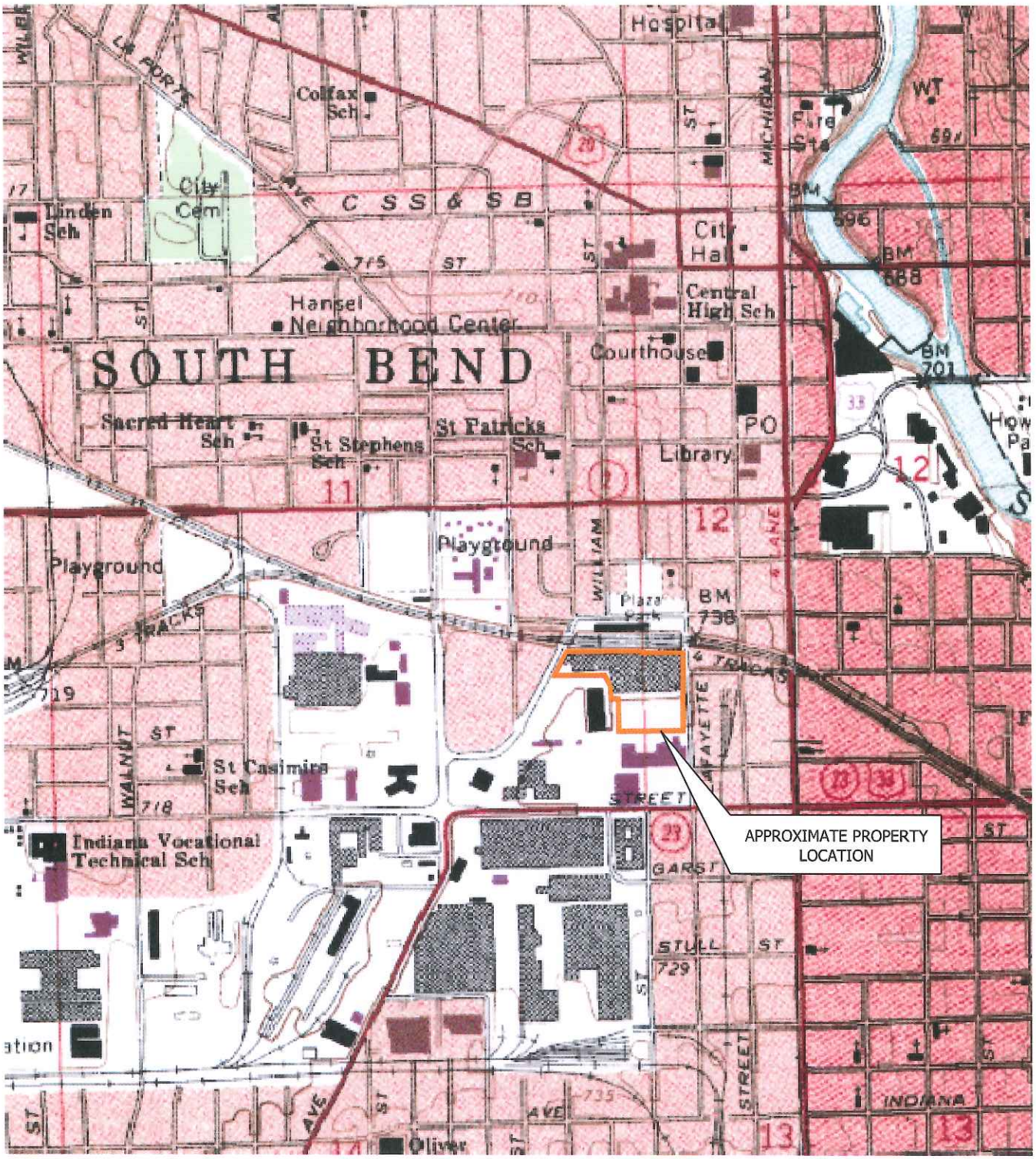
Edward B. Stefanek
Senior Project Manager

Enclosure: Attachment 1 – Figures and Table
Attachment 2 - Photographs
Attachment 3 – Laboratory Analytical Reports

cc: Mr. Shawn Peterson, Union Station Technology Center
Mr. Chris Dressel, City of South Bend
Mr. George Ritchotte, IDEM

ATTACHMENT 1

FIGURES AND TABLES



APPROXIMATE GRAPHIC SCALE

1200 0 600 1200 2400

1 inch = 1200 ft.

N

SITE LOCATION MAP

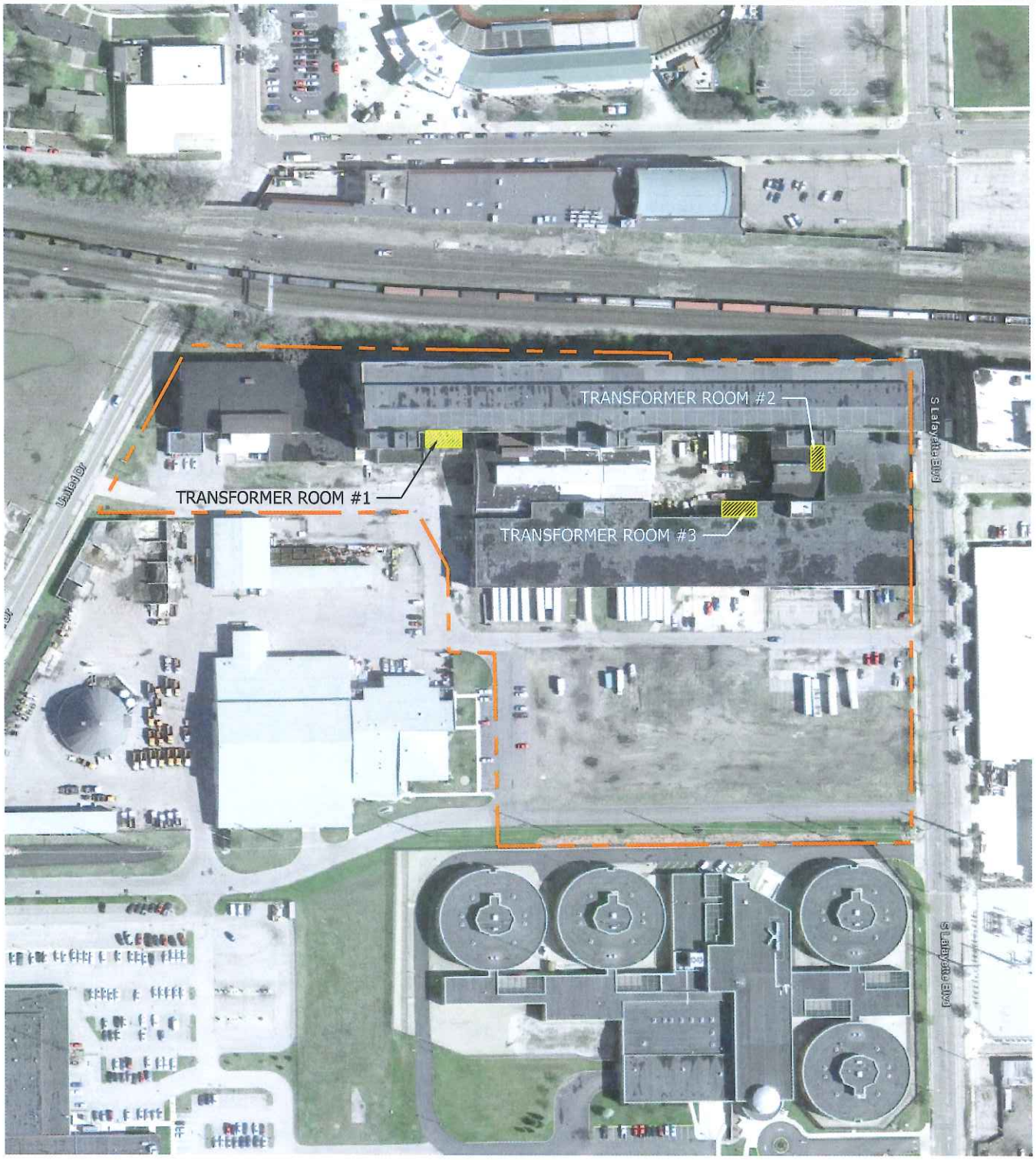
635 S. LAFAYETTE BLVD.
SOUTH BEND, IN

Weaver Boos Consultants
4085 MEGHAN BEELER COURT
SOUTH BEND, IN 46628
(574) 271-3447

DRAWN BY: RMD/JDT	DATE: 5/08/2014	FILE: 0058-378-01
REVIEWED BY: ES	CAD: SITELOC.DWG	FIGURE 1

SOURCE: IMAGE ADAPTED FROM MAPCARD SOUTH BEND WEST DATED 1987.

COPYRIGHT © 2013 WEAVER BOOS CONSULTANTS, LLC. ALL RIGHTS RESERVED.



APPROXIMATE GRAPHIC SCALE

200 0 100 200 400

1 inch = 200 ft.

N

SITE LAYOUT MAP

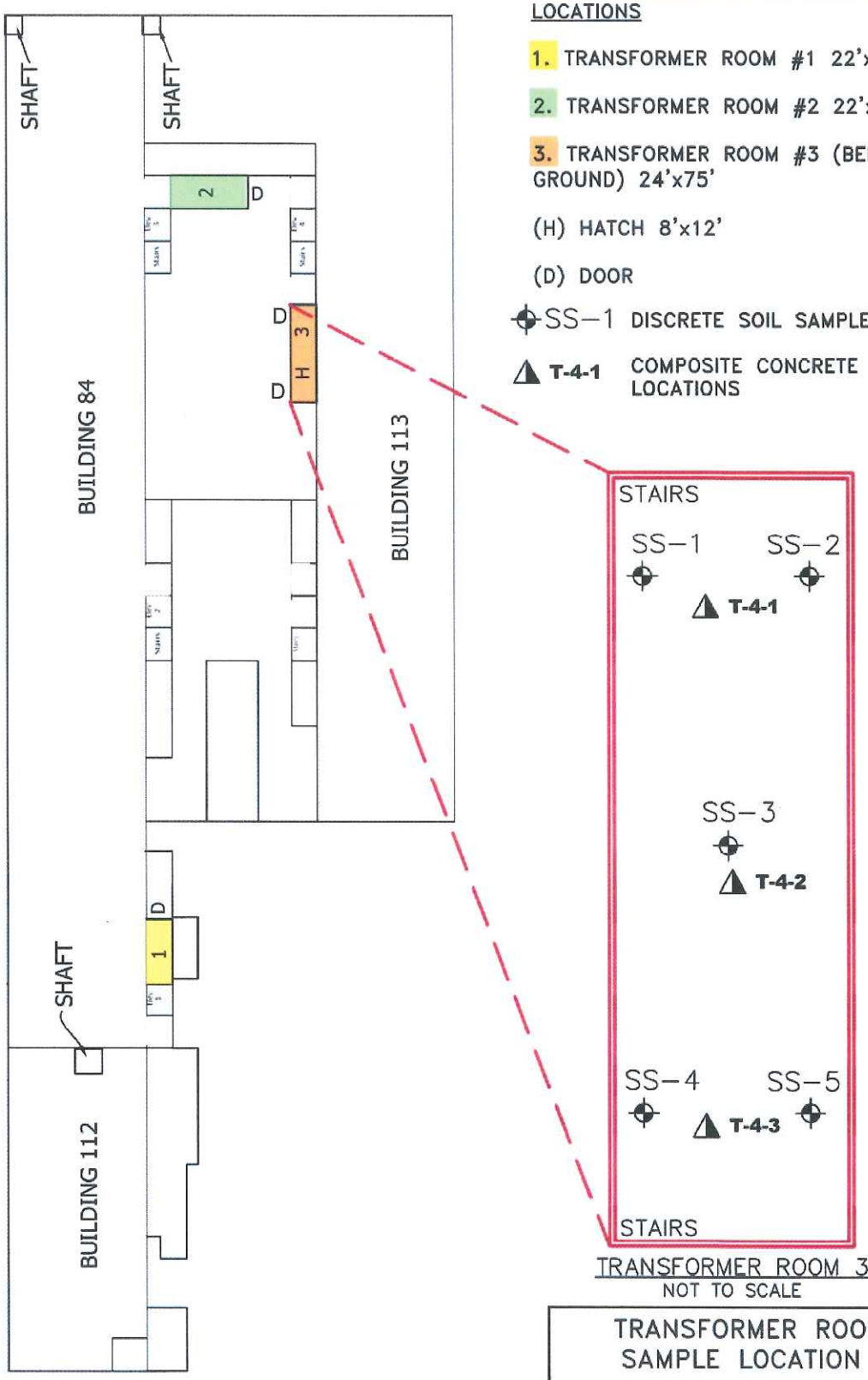
635 S. LAFAYETTE BLVD.
SOUTH BEND, IN

Weaver Boos Consultants
4085 MEGHAN BEELER COURT
SOUTH BEND, IN 46628
(574) 271-3447

DRAWN BY: RMD/JDT	5/08/2014	FILE: 0058-378-01
REVIEWED BY: ES	CAD: SITELOC.DWG	FIGURE 2

SOURCE: IMAGE ADAPTED FROM GOOGLE EARTH IMAGERY DATED APRIL 2011.

©COPYRIGHT 2013 WEAVER BOOS CONSULTANTS, LLC. ALL RIGHTS RESERVED.



LOCATIONS

1. TRANSFORMER ROOM #1 22'x48'
2. TRANSFORMER ROOM #2 22'x60'
3. TRANSFORMER ROOM #3 (BELOW GROUND) 24'x75'

(H) HATCH 8'x12'

(D) DOOR

SS-1 DISCRETE SOIL SAMPLE LOCATIONS

T-4-1 COMPOSITE CONCRETE SAMPLE LOCATIONS

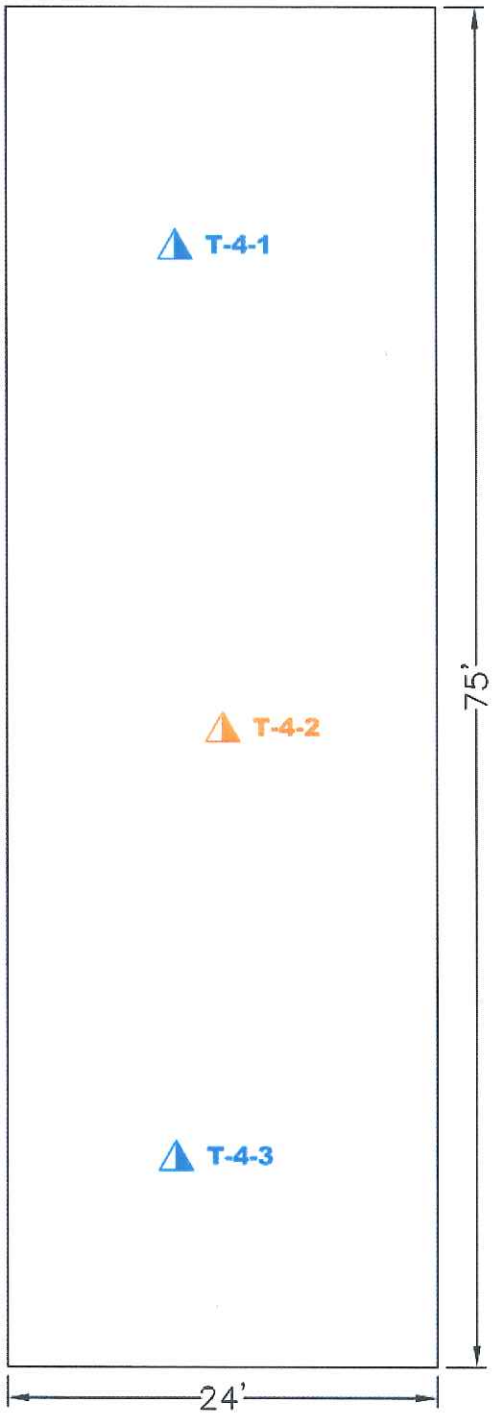
TRANSFORMER ROOM #3
SAMPLE LOCATION MAP

635 S. LAFAYETTE BLVD.
SOUTH BEND, IN

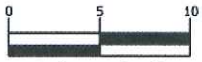
Weaver Boos Consultants
4085 MEGHAN BEELER COURT
SOUTH BEND, IN 46628
(574) 271-3447

DRAWN BY: RMD/JDT	DATE: 5/08/2014	FILE: 0058-378-01
REVIEWED BY: ES	CAD: SITELOC.DWG	FIGURE 3

COPYRIGHT © 2013 WEAVER BOOS CONSULTANTS, LLC. ALL RIGHTS RESERVED.



APPROXIMATE GRAPHIC SCALE



1 inch = 10 ft.

LEGEND

T-4-1 DENOTES PCB CONCENTRATIONS > 50PPM

T-4-2 DENOTES PCB CONCENTRATIONS > 1PPM BUT ≤ 50PPM

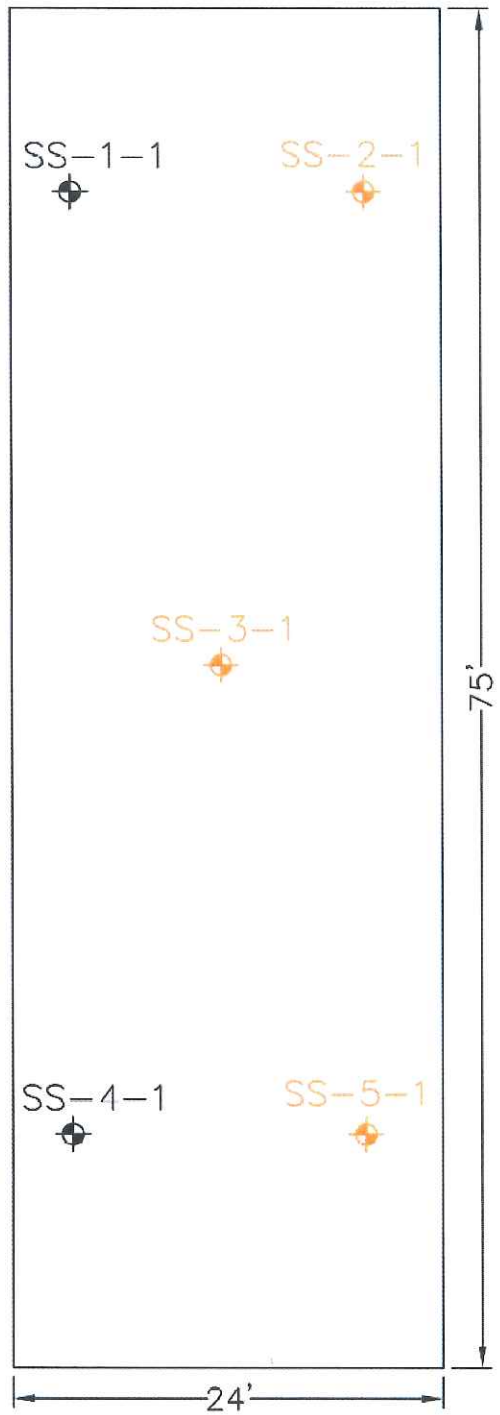
COPYRIGHT © 2013 WEAVER BOOS CONSULTANTS, LLC. ALL RIGHTS RESERVED.

TRANSFORMER ROOM #3
COMPOSITE CONCRETE SAMPLE
CONCENTRATIONS

635 S. LAFAYETTE BLVD.
SOUTH BEND, IN

Weaver Boos Consultants
4085 MEGHAN BEELER COURT
SOUTH BEND, IN 46628
(574) 271-3447

DRAWN BY: RMD/JDT	DATE: 5/08/2014	FILE: 0058-378-01
REVIEWED BY: ES	CAD: SITELOC.DWG	FIGURE 4



APPROXIMATE GRAPHIC SCALE

0 5 10

1 inch = 10 ft.

LEGEND

SS-1 DENOTES SOIL BORING LOCATION

SS-1 DENOTES PCB CONCENTRATIONS > 1PPM BUT ≤ 50PPM

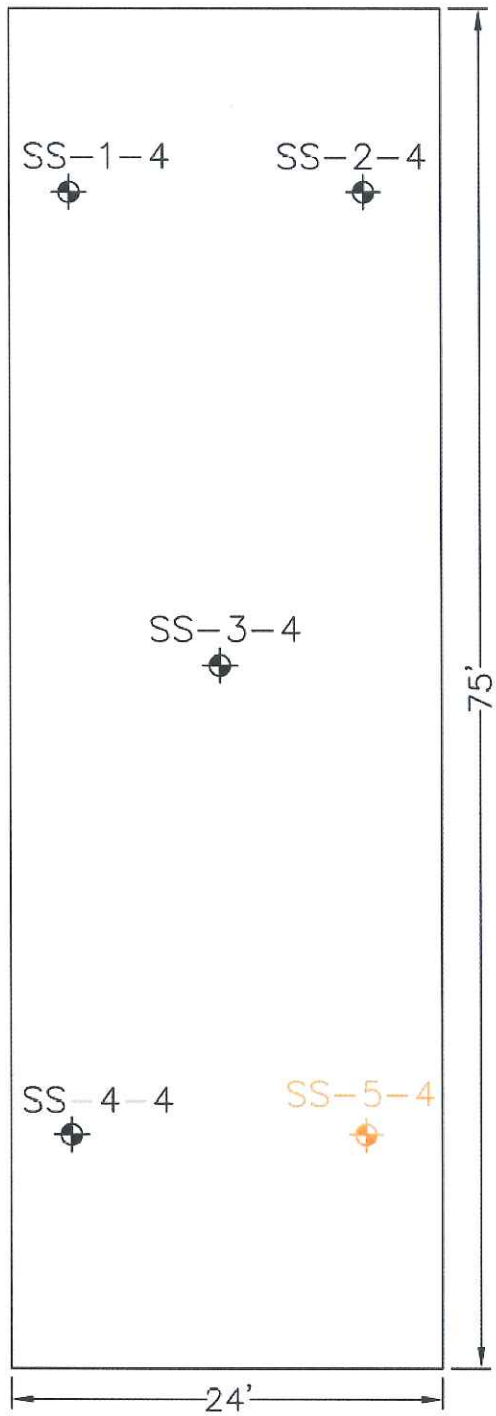
* SOIL SAMPLES COLLECTED 1 FOOT BELOW SLAB

COPYRIGHT © 2013 WEAVER BOOS CONSULTANTS, LLC. ALL RIGHTS RESERVED.

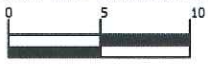
TRANSFORMER ROOM #3
SOIL SAMPLE
CONCENTRATION MAP (1')
635 S. LAFAYETTE BLVD.
SOUTH BEND, IN

Weaver Boos Consultants
4085 MEGHAN BEELER COURT
SOUTH BEND, IN 46628
(574) 271-3447

DRAWN BY: RMD/JDT	DATE: 5/08/2014	FILE: 0058-378-01
REVIEWED BY: ES	CAD: SITELOC.DWG	FIGURE 5



APPROXIMATE GRAPHIC SCALE



1 inch = 10 ft.

LEGEND

SS-1 DENOTES SOIL BORING LOCATION

SS-1 DENOTES PCB CONCENTRATIONS > 1PPM BUT ≤ 50PPM

* SOIL SAMPLES COLLECTED 3-4 FEET BELOW SLAB

COPYRIGHT © 2013 WEAVER BOOS CONSULTANTS, LLC. ALL RIGHTS RESERVED.

TRANSFORMER ROOM #3
SOIL SAMPLE
CONCENTRATION MAP (3'-4')
635 S. LAFAYETTE BLVD.
SOUTH BEND, IN

Weaver Boos Consultants
4085 MEGHAN BEELER COURT
SOUTH BEND, IN 46628
(574) 271-3447

DRAWN BY: RMD/JDT	DATE: 5/08/2014	FILE: 0058-378-01
REVIEWED BY: ES	CAD: SITELOC.DWG	FIGURE 6

Table 1
PCB-1260 Concentrations
Subgrade Transformer Room
Ivy Tower Complex
South Bend, Indiana

Sample ID	Concentration (mg/kg)	IDEM Remediation Closure Guide Screening Level (Soil)				40 CFR PART 761.61 CLEANUP LEVELS	40 CFR PART 761.61 CLEANUP LEVELS
		Residential DC (mg/kg)	Commerical DC (mg/kg)	Excavation (mg/kg)	Soil MTG (mg/kg)	Low Occupancy Areas (mg/kg)	Low Occupancy Areas with Cap* (mg/kg)
Composite Concrete Samples First Slab							
T-4-1	**720**					≤25	≤100
T-4-2	**43**					≤25	≤100
T-4-3	**100**					≤25	≤100
Discrete Concrete Samples Underlying Second Slab							
Concrete-1	**ND**					≤25	≤100
Concrete-2	**0.069**					≤25	≤100
Concrete-3	**0.69**					≤25	≤100
Concrete-4	**0.035**					≤25	≤100
Concrete-5	**0.068**					≤25	≤100
Soil Samples One Foot Below Slab							
SS-1-1	**0.11**	3.1	7.4	460	1.6	≤25	
SS-2-1	**27**	3.1	7.4	460	1.6	≤25	
SS-3-1	**5**	3.1	7.4	460	1.6	≤25	
SS-4-1	**0.11**	3.1	7.4	460	1.6	≤25	
SS-5-1	**17**	3.1	7.4	460	1.6	≤25	
Soil Samples Three-Four Feet Below Slab							
SS-1-4	**ND**	3.1	7.4	460	1.6	≤25	
SS-2-4	**0.066**	3.1	7.4	460	1.6	≤25	
SS-3-4	**2.4**	3.1	7.4	460	1.6	≤25	
SS-4-4	**0.021**	3.1	7.4	460	1.6	≤25	
SS-5-4	**4.6**	3.1	7.4	460	1.6	≤25	

40 CFR Part 761.61 cleanup level in high occupancy areas is ≤ 1 ppm

Soil/Concrete PCB Concentration above Low Occupany Cleanup Level

Soil PCB Concentration above Commerical Direct Contact, Residential Direct Contact, and Soil Migration to Groundwater (MTG)

Soil PCB Concentration above Soil MTG and Residential Direct Contract

Soil PCB Concentration above Soil MTG

PCB Waste Concentration ≥ 50 ppm shall be disposed in a hazardous waste disposal facility or state-approved PCB disposal facility.

PCB Waste Concentration between < 50 ppm shall be disposed in a non-hazardous waste disposal facility upon approval from facility.

* 10 in. clean clay cap meeting CFR requirements or 6-inch clean asphalt or concrete cap, and deed restriction

ATTACHMENT 2

PHOTOGRAPHS

ATTACHMENT 3

LABORATORY ANALYTICAL REPORTS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Valparaiso
2400 Cumberland Drive
Valparaiso, IN 46383
Tel: (219)464-2389

TestAmerica Job ID: 510-92384-1
Client Project/Site: Ivy Tower

For:
Weaver Boos Consultants LLC
4085 Meghan Beeler Court
South Bend, Indiana 46628

Attn: Ed Stefanek

Robin M Kintz

Authorized for release by:
5/31/2013 1:19:49 PM

Robin Kintz, Customer Service Manager
robinm.kintz@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Definitions/Glossary 3
Case Narrative 4
Client Sample Results 5
Surrogate Summary 9
QC Sample Results 10
QC Association Summary 11
Lab Chronicle 12
Certification Summary 15
Method Summary 16
Sample Summary 17
Chain of Custody 18
Receipt Checklists 20

Definitions/Glossary

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 510-92384-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
X	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 510-92384-1

Job ID: 510-92384-1

Laboratory: TestAmerica Valparaiso

Narrative

Job Narrative
510-92384-1

Comments
No additional comments.

Receipt
The samples were received on 5/20/2013 4:50 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.1° C.

GC Semi VOA
Method(s) 8082: The following samples were diluted to bring the concentration of target analytes within the calibration range: T-3-2 (510-92384-8), T-3-3 (510-92384-9), T-4-1 (510-92384-10), T-4-2 (510-92384-11), T-4-3 (510-92384-12). Elevated reporting limits (RLs) are provided.

Method(s) 8082: Due to the level of dilution required for the following sample, surrogate recoveries are not reported: T-4-1 (510-92384-10), T-4-2 (510-92384-11), T-4-3 (510-92384-12).

Method(s) 8082: DCB recovery for the following sample was outside control limits: T-3-1 (510-92384-7). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No other analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Client Sample Results

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 510-92384-1

5

Client Sample ID: T-1-1

Lab Sample ID: 510-92384-1
Matrix: Solid

Date Collected: 05/16/13 00:00
Date Received: 05/20/13 16:50

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<16		16		ug/Kg		05/29/13 17:11	05/30/13 10:34	1
PCB-1221	<16		16		ug/Kg		05/29/13 17:11	05/30/13 10:34	1
PCB-1232	<16		16		ug/Kg		05/29/13 17:11	05/30/13 10:34	1
PCB-1242	<16		16		ug/Kg		05/29/13 17:11	05/30/13 10:34	1
PCB-1248	<16		16		ug/Kg		05/29/13 17:11	05/30/13 10:34	1
PCB-1254	<16		16		ug/Kg		05/29/13 17:11	05/30/13 10:34	1
PCB-1260	**290**		16		ug/Kg		05/29/13 17:11	05/30/13 10:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*66*		*50 - 116*	*05/29/13 17:11*	*05/30/13 10:34*	*1*
DCB Decachlorobiphenyl	*70*		*48 - 142*	*05/29/13 17:11*	*05/30/13 10:34*	*1*

Client Sample ID: T-1-2

Lab Sample ID: 510-92384-2
Matrix: Solid

Date Collected: 05/16/13 00:00
Date Received: 05/20/13 16:50

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<17		17		ug/Kg		05/29/13 17:11	05/30/13 11:01	1
PCB-1221	<17		17		ug/Kg		05/29/13 17:11	05/30/13 11:01	1
PCB-1232	<17		17		ug/Kg		05/29/13 17:11	05/30/13 11:01	1
PCB-1242	<17		17		ug/Kg		05/29/13 17:11	05/30/13 11:01	1
PCB-1248	<17		17		ug/Kg		05/29/13 17:11	05/30/13 11:01	1
PCB-1254	<17		17		ug/Kg		05/29/13 17:11	05/30/13 11:01	1
PCB-1260	**160**		17		ug/Kg		05/29/13 17:11	05/30/13 11:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*65*		*50 - 116*	*05/29/13 17:11*	*05/30/13 11:01*	*1*
DCB Decachlorobiphenyl	*73*		*48 - 142*	*05/29/13 17:11*	*05/30/13 11:01*	*1*

Client Sample ID: T-1-3

Lab Sample ID: 510-92384-3
Matrix: Solid

Date Collected: 05/16/13 00:00
Date Received: 05/20/13 16:50

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<16		16		ug/Kg		05/29/13 17:11	05/30/13 11:15	1
PCB-1221	<16		16		ug/Kg		05/29/13 17:11	05/30/13 11:15	1
PCB-1232	<16		16		ug/Kg		05/29/13 17:11	05/30/13 11:15	1
PCB-1242	<16		16		ug/Kg		05/29/13 17:11	05/30/13 11:15	1
PCB-1248	<16		16		ug/Kg		05/29/13 17:11	05/30/13 11:15	1
PCB-1254	<16		16		ug/Kg		05/29/13 17:11	05/30/13 11:15	1
PCB-1260	**190**		16		ug/Kg		05/29/13 17:11	05/30/13 11:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*67*		*50 - 116*	*05/29/13 17:11*	*05/30/13 11:15*	*1*
DCB Decachlorobiphenyl	*73*		*48 - 142*	*05/29/13 17:11*	*05/30/13 11:15*	*1*

Client Sample ID: T-2-1

Lab Sample ID: 510-92384-4
Matrix: Solid

Date Collected: 05/16/13 00:00
Date Received: 05/20/13 16:50

5

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<16		16		ug/Kg		05/29/13 17:11	05/30/13 11:28	1
PCB-1221	<16		16		ug/Kg		05/29/13 17:11	05/30/13 11:28	1
PCB-1232	<16		16		ug/Kg		05/29/13 17:11	05/30/13 11:28	1
PCB-1242	<16		16		ug/Kg		05/29/13 17:11	05/30/13 11:28	1
PCB-1248	<16		16		ug/Kg		05/29/13 17:11	05/30/13 11:28	1
PCB-1254	<16		16		ug/Kg		05/29/13 17:11	05/30/13 11:28	1
PCB-1260	**180**		16		ug/Kg		05/29/13 17:11	05/30/13 11:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*66*		*50 - 116*	*05/29/13 17:11*	*05/30/13 11:28*	*1*
DCB Decachlorobiphenyl	*122*		*48 - 142*	*05/29/13 17:11*	*05/30/13 11:28*	*1*

Client Sample ID: T-2-2

Lab Sample ID: 510-92384-5
Matrix: Solid

Date Collected: 05/16/13 00:00
Date Received: 05/20/13 16:50

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<16		16		ug/Kg		05/29/13 17:11	05/30/13 11:42	1
PCB-1221	<16		16		ug/Kg		05/29/13 17:11	05/30/13 11:42	1
PCB-1232	<16		16		ug/Kg		05/29/13 17:11	05/30/13 11:42	1
PCB-1242	<16		16		ug/Kg		05/29/13 17:11	05/30/13 11:42	1
PCB-1248	<16		16		ug/Kg		05/29/13 17:11	05/30/13 11:42	1
PCB-1254	<16		16		ug/Kg		05/29/13 17:11	05/30/13 11:42	1
PCB-1260	**26**		16		ug/Kg		05/29/13 17:11	05/30/13 11:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*74*		*50 - 116*	*05/29/13 17:11*	*05/30/13 11:42*	*1*
DCB Decachlorobiphenyl	*75*		*48 - 142*	*05/29/13 17:11*	*05/30/13 11:42*	*1*

Client Sample ID: T-2-3

Lab Sample ID: 510-92384-6
Matrix: Solid

Date Collected: 05/16/13 00:00
Date Received: 05/20/13 16:50

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<16		16		ug/Kg		05/29/13 17:11	05/30/13 11:56	1
PCB-1221	<16		16		ug/Kg		05/29/13 17:11	05/30/13 11:56	1
PCB-1232	<16		16		ug/Kg		05/29/13 17:11	05/30/13 11:56	1
PCB-1242	<16		16		ug/Kg		05/29/13 17:11	05/30/13 11:56	1
PCB-1248	<16		16		ug/Kg		05/29/13 17:11	05/30/13 11:56	1
PCB-1254	<16		16		ug/Kg		05/29/13 17:11	05/30/13 11:56	1
PCB-1260	**110**		16		ug/Kg		05/29/13 17:11	05/30/13 11:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*79*		*50 - 116*	*05/29/13 17:11*	*05/30/13 11:56*	*1*
DCB Decachlorobiphenyl	*76*		*48 - 142*	*05/29/13 17:11*	*05/30/13 11:56*	*1*

Client Sample Results

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 510-92384-1

5

Client Sample ID: T-3-1

Lab Sample ID: 510-92384-7
Matrix: Solid

Date Collected: 05/16/13 00:00
Date Received: 05/20/13 16:50

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<16		16		ug/Kg		05/29/13 17:11	05/30/13 12:10	1
PCB-1221	<16		16		ug/Kg		05/29/13 17:11	05/30/13 12:10	1
PCB-1232	<16		16		ug/Kg		05/29/13 17:11	05/30/13 12:10	1
PCB-1242	<16		16		ug/Kg		05/29/13 17:11	05/30/13 12:10	1
PCB-1248	<16		16		ug/Kg		05/29/13 17:11	05/30/13 12:10	1
PCB-1254	<16		16		ug/Kg		05/29/13 17:11	05/30/13 12:10	1
PCB-1260	**290**		16		ug/Kg		05/29/13 17:11	05/30/13 12:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*86*		*50 - 116*	*05/29/13 17:11*	*05/30/13 12:10*	*1*
DCB Decachlorobiphenyl	*193*	*X*	*48 - 142*	*05/29/13 17:11*	*05/30/13 12:10*	*1*

Client Sample ID: T-3-2

Lab Sample ID: 510-92384-8
Matrix: Solid

Date Collected: 05/16/13 00:00
Date Received: 05/20/13 16:50

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<82		82		ug/Kg		05/29/13 17:11	05/30/13 13:59	5
PCB-1221	<82		82		ug/Kg		05/29/13 17:11	05/30/13 13:59	5
PCB-1232	<82		82		ug/Kg		05/29/13 17:11	05/30/13 13:59	5
PCB-1242	<82		82		ug/Kg		05/29/13 17:11	05/30/13 13:59	5
PCB-1248	<82		82		ug/Kg		05/29/13 17:11	05/30/13 13:59	5
PCB-1254	<82		82		ug/Kg		05/29/13 17:11	05/30/13 13:59	5
PCB-1260	**430**		82		ug/Kg		05/29/13 17:11	05/30/13 13:59	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*86*		*50 - 116*	*05/29/13 17:11*	*05/30/13 13:59*	*5*
DCB Decachlorobiphenyl	*102*		*48 - 142*	*05/29/13 17:11*	*05/30/13 13:59*	*5*

Client Sample ID: T-3-3

Lab Sample ID: 510-92384-9
Matrix: Solid

Date Collected: 05/16/13 00:00
Date Received: 05/20/13 16:50

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<80		80		ug/Kg		05/29/13 17:11	05/30/13 14:13	5
PCB-1221	<80		80		ug/Kg		05/29/13 17:11	05/30/13 14:13	5
PCB-1232	<80		80		ug/Kg		05/29/13 17:11	05/30/13 14:13	5
PCB-1242	<80		80		ug/Kg		05/29/13 17:11	05/30/13 14:13	5
PCB-1248	<80		80		ug/Kg		05/29/13 17:11	05/30/13 14:13	5
PCB-1254	<80		80		ug/Kg		05/29/13 17:11	05/30/13 14:13	5
PCB-1260	**550**		80		ug/Kg		05/29/13 17:11	05/30/13 14:13	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*86*		*50 - 116*	*05/29/13 17:11*	*05/30/13 14:13*	*5*
DCB Decachlorobiphenyl	*127*		*48 - 142*	*05/29/13 17:11*	*05/30/13 14:13*	*5*

5

Client Sample ID: T-4-1

Lab Sample ID: 510-92384-10
Matrix: Solid

Date Collected: 05/17/13 00:00
Date Received: 05/20/13 16:50

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<66000		66000		ug/Kg		05/29/13 17:11	05/30/13 15:35	4000
PCB-1221	<66000		66000		ug/Kg		05/29/13 17:11	05/30/13 15:35	4000
PCB-1232	<66000		66000		ug/Kg		05/29/13 17:11	05/30/13 15:35	4000
PCB-1242	<66000		66000		ug/Kg		05/29/13 17:11	05/30/13 15:35	4000
PCB-1248	<66000		66000		ug/Kg		05/29/13 17:11	05/30/13 15:35	4000
PCB-1254	<66000		66000		ug/Kg		05/29/13 17:11	05/30/13 15:35	4000
PCB-1260	**720000**		66000		ug/Kg		05/29/13 17:11	05/30/13 15:35	4000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*0*	*D*	*50 - 116*	*05/29/13 17:11*	*05/30/13 15:35*	*4000*
DCB Decachlorobiphenyl	*0*	*D*	*48 - 142*	*05/29/13 17:11*	*05/30/13 15:35*	*4000*

Client Sample ID: T-4-2

Lab Sample ID: 510-92384-11
Matrix: Solid

Date Collected: 05/17/13 00:00
Date Received: 05/20/13 16:50

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<3200		3200		ug/Kg		05/29/13 17:11	05/30/13 15:48	200
PCB-1221	<3200		3200		ug/Kg		05/29/13 17:11	05/30/13 15:48	200
PCB-1232	<3200		3200		ug/Kg		05/29/13 17:11	05/30/13 15:48	200
PCB-1242	<3200		3200		ug/Kg		05/29/13 17:11	05/30/13 15:48	200
PCB-1248	<3200		3200		ug/Kg		05/29/13 17:11	05/30/13 15:48	200
PCB-1254	<3200		3200		ug/Kg		05/29/13 17:11	05/30/13 15:48	200
PCB-1260	**43000**		3200		ug/Kg		05/29/13 17:11	05/30/13 15:48	200

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*0*	*D*	*50 - 116*	*05/29/13 17:11*	*05/30/13 15:48*	*200*
DCB Decachlorobiphenyl	*0*	*D*	*48 - 142*	*05/29/13 17:11*	*05/30/13 15:48*	*200*

Client Sample ID: T-4-3

Lab Sample ID: 510-92384-12
Matrix: Solid

Date Collected: 05/17/13 00:00
Date Received: 05/20/13 16:50

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<8200		8200		ug/Kg		05/29/13 17:11	05/30/13 16:02	500
PCB-1221	<8200		8200		ug/Kg		05/29/13 17:11	05/30/13 16:02	500
PCB-1232	<8200		8200		ug/Kg		05/29/13 17:11	05/30/13 16:02	500
PCB-1242	<8200		8200		ug/Kg		05/29/13 17:11	05/30/13 16:02	500
PCB-1248	<8200		8200		ug/Kg		05/29/13 17:11	05/30/13 16:02	500
PCB-1254	<8200		8200		ug/Kg		05/29/13 17:11	05/30/13 16:02	500
PCB-1260	**100000**		8200		ug/Kg		05/29/13 17:11	05/30/13 16:02	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*0*	*D*	*50 - 116*	*05/29/13 17:11*	*05/30/13 16:02*	*500*
DCB Decachlorobiphenyl	*0*	*D*	*48 - 142*	*05/29/13 17:11*	*05/30/13 16:02*	*500*

Surrogate Summary

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 510-92384-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
		TCX2	DCB2
Lab Sample ID	Client Sample ID	(50-116)	(48-142)
510-92384-1	T-1-1	66	70
510-92384-2	T-1-2	65	73
510-92384-3	T-1-3	67	73
510-92384-4	T-2-1	66	122
510-92384-5	T-2-2	74	75
510-92384-6	T-2-3	79	76
510-92384-7	T-3-1	86	193 X
510-92384-8	T-3-2	86	102
510-92384-9	T-3-3	86	127
510-92384-10	T-4-1	0 D	0 D
510-92384-11	T-4-2	0 D	0 D
510-92384-12	T-4-3	0 D	0 D
LCS 500-187880/3-A	Lab Control Sample	90	87
MB 500-187880/1-A	Method Blank	93	91

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

6

QC Sample Results

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 510-92384-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-187880/1-A
Matrix: Solid
Analysis Batch: 187913

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 187880

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<17		17		ug/Kg		05/29/13 17:11	05/30/13 08:31	1
PCB-1221	<17		17		ug/Kg		05/29/13 17:11	05/30/13 08:31	1
PCB-1232	<17		17		ug/Kg		05/29/13 17:11	05/30/13 08:31	1
PCB-1242	<17		17		ug/Kg		05/29/13 17:11	05/30/13 08:31	1
PCB-1248	<17		17		ug/Kg		05/29/13 17:11	05/30/13 08:31	1
PCB-1254	<17		17		ug/Kg		05/29/13 17:11	05/30/13 08:31	1
PCB-1260	<17		17		ug/Kg		05/29/13 17:11	05/30/13 08:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*93*		*50 - 116*	*05/29/13 17:11*	*05/30/13 08:31*	*1*
DCB Decachlorobiphenyl	*91*		*48 - 142*	*05/29/13 17:11*	*05/30/13 08:31*	*1*

Lab Sample ID: LCS 500-187880/3-A
Matrix: Solid
Analysis Batch: 187913

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 187880

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	167	149		ug/Kg		89	59 - 110
PCB-1260	167	157		ug/Kg		94	69 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*90*		*50 - 116*
DCB Decachlorobiphenyl	*87*		*48 - 142*

QC Association Summary

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 510-92384-1

GC Semi VOA

Prep Batch: 187880

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
510-92384-1	T-1-1	Total/NA	Solid	3541	
510-92384-2	T-1-2	Total/NA	Solid	3541	
510-92384-3	T-1-3	Total/NA	Solid	3541	
510-92384-4	T-2-1	Total/NA	Solid	3541	
510-92384-5	T-2-2	Total/NA	Solid	3541	
510-92384-6	T-2-3	Total/NA	Solid	3541	
510-92384-7	T-3-1	Total/NA	Solid	3541	
510-92384-8	T-3-2	Total/NA	Solid	3541	
510-92384-9	T-3-3	Total/NA	Solid	3541	
510-92384-10	T-4-1	Total/NA	Solid	3541	
510-92384-11	T-4-2	Total/NA	Solid	3541	
510-92384-12	T-4-3	Total/NA	Solid	3541	
LCS 500-187880/3-A	Lab Control Sample	Total/NA	Solid	3541	
MB 500-187880/1-A	Method Blank	Total/NA	Solid	3541	

Analysis Batch: 187913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
510-92384-1	T-1-1	Total/NA	Solid	8082	187880
510-92384-2	T-1-2	Total/NA	Solid	8082	187880
510-92384-3	T-1-3	Total/NA	Solid	8082	187880
510-92384-4	T-2-1	Total/NA	Solid	8082	187880
510-92384-5	T-2-2	Total/NA	Solid	8082	187880
510-92384-6	T-2-3	Total/NA	Solid	8082	187880
510-92384-7	T-3-1	Total/NA	Solid	8082	187880
510-92384-8	T-3-2	Total/NA	Solid	8082	187880
510-92384-9	T-3-3	Total/NA	Solid	8082	187880
510-92384-10	T-4-1	Total/NA	Solid	8082	187880
510-92384-11	T-4-2	Total/NA	Solid	8082	187880
510-92384-12	T-4-3	Total/NA	Solid	8082	187880
LCS 500-187880/3-A	Lab Control Sample	Total/NA	Solid	8082	187880
MB 500-187880/1-A	Method Blank	Total/NA	Solid	8082	187880

Lab Chronicle

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 510-92384-1

Client Sample ID: T-1-1
Lab Sample ID: 510-92384-1
Date Collected: 05/16/13 00:00
Matrix: Solid
Date Received: 05/20/13 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			187880	05/29/13 17:11	DEA	TAL CHI
Total/NA	Analysis	8082		1	187913	05/30/13 10:34	GMO	TAL CHI

Client Sample ID: T-1-2
Lab Sample ID: 510-92384-2
Date Collected: 05/16/13 00:00
Matrix: Solid
Date Received: 05/20/13 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			187880	05/29/13 17:11	DEA	TAL CHI
Total/NA	Analysis	8082		1	187913	05/30/13 11:01	GMO	TAL CHI

Client Sample ID: T-1-3
Lab Sample ID: 510-92384-3
Date Collected: 05/16/13 00:00
Matrix: Solid
Date Received: 05/20/13 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			187880	05/29/13 17:11	DEA	TAL CHI
Total/NA	Analysis	8082		1	187913	05/30/13 11:15	GMO	TAL CHI

Client Sample ID: T-2-1
Lab Sample ID: 510-92384-4
Date Collected: 05/16/13 00:00
Matrix: Solid
Date Received: 05/20/13 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			187880	05/29/13 17:11	DEA	TAL CHI
Total/NA	Analysis	8082		1	187913	05/30/13 11:28	GMO	TAL CHI

Client Sample ID: T-2-2
Lab Sample ID: 510-92384-5
Date Collected: 05/16/13 00:00
Matrix: Solid
Date Received: 05/20/13 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			187880	05/29/13 17:11	DEA	TAL CHI
Total/NA	Analysis	8082		1	187913	05/30/13 11:42	GMO	TAL CHI

Client Sample ID: T-2-3
Lab Sample ID: 510-92384-6
Date Collected: 05/16/13 00:00
Matrix: Solid
Date Received: 05/20/13 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			187880	05/29/13 17:11	DEA	TAL CHI
Total/NA	Analysis	8082		1	187913	05/30/13 11:56	GMO	TAL CHI

Lab Chronicle

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 510-92384-1

Client Sample ID: T-3-1

Lab Sample ID: 510-92384-7
Matrix: Solid

Date Collected: 05/16/13 00:00
Date Received: 05/20/13 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			187880	05/29/13 17:11	DEA	TAL CHI
Total/NA	Analysis	8082		1	187913	05/30/13 12:10	GMO	TAL CHI

Client Sample ID: T-3-2

Lab Sample ID: 510-92384-8
Matrix: Solid

Date Collected: 05/16/13 00:00
Date Received: 05/20/13 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			187880	05/29/13 17:11	DEA	TAL CHI
Total/NA	Analysis	8082		5	187913	05/30/13 13:59	GMO	TAL CHI

Client Sample ID: T-3-3

Lab Sample ID: 510-92384-9
Matrix: Solid

Date Collected: 05/16/13 00:00
Date Received: 05/20/13 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			187880	05/29/13 17:11	DEA	TAL CHI
Total/NA	Analysis	8082		5	187913	05/30/13 14:13	GMO	TAL CHI

Client Sample ID: T-4-1

Lab Sample ID: 510-92384-10
Matrix: Solid

Date Collected: 05/17/13 00:00
Date Received: 05/20/13 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			187880	05/29/13 17:11	DEA	TAL CHI
Total/NA	Analysis	8082		4000	187913	05/30/13 15:35	GMO	TAL CHI

Client Sample ID: T-4-2

Lab Sample ID: 510-92384-11
Matrix: Solid

Date Collected: 05/17/13 00:00
Date Received: 05/20/13 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			187880	05/29/13 17:11	DEA	TAL CHI
Total/NA	Analysis	8082		200	187913	05/30/13 15:48	GMO	TAL CHI

Client Sample ID: T-4-3

Lab Sample ID: 510-92384-12
Matrix: Solid

Date Collected: 05/17/13 00:00
Date Received: 05/20/13 16:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			187880	05/29/13 17:11	DEA	TAL CHI
Total/NA	Analysis	8082		500	187913	05/30/13 16:02	GMO	TAL CHI

Lab Chronicle

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 510-92384-1

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

9

Certification Summary

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 510-92384-1

Laboratory: TestAmerica Valparaiso

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Illinois	NELAP	5	200065	02-28-14
Indiana	State Program	5	M-64-4	12-31-13
Indiana	State Program	5	C-64-01	11-26-15
Kentucky (UST)	State Program	4	57	01-31-14
New Hampshire	NELAP	1	2837	01-31-14
USDA	Federal		P330-11-00073	02-09-14
Washington	State Program	10	C842	08-18-13

Laboratory: TestAmerica Chicago

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40461	05-31-13
California	NELAP	9	01132CA	04-30-14
Georgia	State Program	4	N/A	04-30-14
Georgia	State Program	4	939	04-30-14
Hawaii	State Program	9	N/A	04-30-14
Illinois	NELAP	5	100201	04-30-14
Indiana	State Program	5	C-IL-02	04-30-14
Iowa	State Program	7	82	05-01-14
Kansas	NELAP	7	E-10161	10-31-13
Kentucky	State Program	4	90023	12-31-13
Kentucky (UST)	State Program	4	66	04-30-14
Louisiana	NELAP	6	30720	06-30-13
Massachusetts	State Program	1	M-IL035	06-30-13
Mississippi	State Program	4	N/A	04-30-14
North Carolina DENR	State Program	4	291	12-31-13
North Dakota	State Program	8	R-194	04-30-14
Oklahoma	State Program	6	8908	08-31-13
South Carolina	State Program	4	77001	05-31-13 *
Texas	NELAP	6	T104704252-09-TX	02-28-14
USDA	Federal		P330-12-00038	02-06-15
Virginia	NELAP	3	460142	06-14-13
Wisconsin	State Program	5	999580010	08-31-13
Wyoming	State Program	8	8TMS-Q	07-15-13

* Expired certification is currently pending renewal and is considered valid.

Method Summary

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 510-92384-1

Method	Method Description	Protocol	Laboratory
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 510-92384-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
510-92384-1	T-1-1	Solid	05/16/13 00:00	05/20/13 16:50
510-92384-2	T-1-2	Solid	05/16/13 00:00	05/20/13 16:50
510-92384-3	T-1-3	Solid	05/16/13 00:00	05/20/13 16:50
510-92384-4	T-2-1	Solid	05/16/13 00:00	05/20/13 16:50
510-92384-5	T-2-2	Solid	05/16/13 00:00	05/20/13 16:50
510-92384-6	T-2-3	Solid	05/16/13 00:00	05/20/13 16:50
510-92384-7	T-3-1	Solid	05/16/13 00:00	05/20/13 16:50
510-92384-8	T-3-2	Solid	05/16/13 00:00	05/20/13 16:50
510-92384-9	T-3-3	Solid	05/16/13 00:00	05/20/13 16:50
510-92384-10	T-4-1	Solid	05/17/13 00:00	05/20/13 16:50
510-92384-11	T-4-2	Solid	05/17/13 00:00	05/20/13 16:50
510-92384-12	T-4-3	Solid	05/17/13 00:00	05/20/13 16:50

TestAmerica Valparaiso
2400 Cumberland Drive
Valparaiso, IN 46383
Phone (219) 464-2389 Fax (219) 462-2953

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: ED STEFANEK	Lab PM: Kintz, Robin M	Carrier Tracking No(s):	COC No: 510-21859-7153.2
Client Contact: Ed Stefanek	Phone: 574-271-3447	E-Mail: robinm.kintz@testamericainc.com		Page:
Company: Weaver Boos Consultants LLC				Job #:
Address: 4085 Meghan Beeler Court	Due Date Requested:			
City: South Bend	TAT Requested (days): NORMAL TAT			
State, Zip: IN, 46628				
Phone: 574-271-3447(Tel)	PO #:			
Email: estefanek@weaverboos.com	WO #:			
Project Name: ~~Western Avenue Baseline, LLC~~ IVY TOWER	Project #: ~~51002649~~ 51002407 DR 5/21/13			
Site: ~~Western Avenue Baseline, LLC~~ SOUTH BEND	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

92384

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	[redacted]	8082 - PCBs	[redacted]	[redacted]	[redacted]	[redacted]	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	N	N	N	N	A	X	
-1 T-1-1	5-16	PM	C	CONCRETE			X						SAMPLES NEED
-2 T-1-2	5-16	PM	C	CONCRETE			X						TO BE CRUSHED
-3 T-1-3	5-16	PM	C	"			X						COMBINED THEN
-4 T-2-1	5-16	PM	C	"			X						ANALYZED
-5 T-2-2	5-16	PM	C	"			X						1 COMPOSITE SAMPLE=
-6 T-2-3	5-16	PM	C	"			X						3 CORES
-7 T-3-1	5-16	AM	C	"			X						
-8 T-3-2	5-16	AM	C	"			X						
-9 T-3-3	5-16	AM	C	"			X						
-10 T-4-1	5-17	AM	C	CONCRETE			X						
-11 T-4-2	5-17	AM	C	"			X						
-12 T-4-3	5-17	AM	C	"			X						

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☒ Archive For 2 Months

Deliverable Requested: I, II, III, IV, Other (specify) RESULTS ONLY

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: CST

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Edward Stefanek	5-20-13 1:00 PM	We. BOOS	Jerry Hulin	5/20/13 1438	TestAmerica
Jerry Hulin	5/20/13 1650	TestAmerica	[illegible]	5/20/13 1650	TestAmerica

Blue 48 Quart Cooler [illegible] 4.1 Corrected 4.1

5/31/2013

Temperature readings: _____

Client Sample ID	Lab ID	Container Type	Container pH	Preservative Added (mls)	Lot #
T-1-1	510-92384-A-1	Plastic Bag	—		
T-1-2	510-92384-A-2	Plastic Bag	—		
T-1-3	510-92384-A-3	Plastic Bag	—		
T-2-1	510-92384-A-4	Plastic Bag	—		
T-2-2	510-92384-A-5	Plastic Bag	—		
T-2-3	510-92384-A-6	Plastic Bag	—		
T-3-1	510-92384-A-7	Plastic Bag	—		
T-3-2	510-92384-A-8	Plastic Bag	—		
T-3-3	510-92384-A-9	Plastic Bag	—		
T-4-1	510-92384-A-10	Plastic Bag	—		
T-4-2	510-92384-A-11	Plastic Bag	—		
T-4-3	510-92384-A-12	Plastic Bag	—		

13

All samples were exported.

DR 5/21/13

Login Sample Receipt Checklist

Client: Weaver Boos Consultants LLC

Job Number: 510-92384-1

Login Number: 92384
List Number: 1
Creator: Richter, Debbie D

List Source: TestAmerica Valparaiso

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

Login Sample Receipt Checklist

Client: Weaver Boos Consultants LLC

Job Number: 510-92384-1

Login Number: 92384
List Number: 1
Creator: Lunt, Jeff T

List Source: TestAmerica Chicago
List Creation: 05/21/13 02:11 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-71084-1
TestAmerica Sample Delivery Group: 0058-378-01
Client Project/Site: Ivy Tower

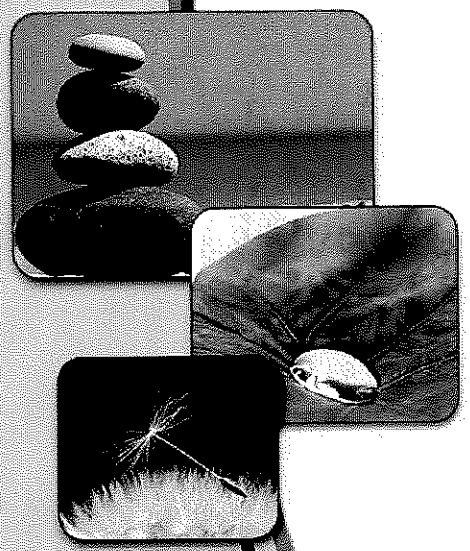
For:
Weaver Boos Consultants LLC
4085 Meghan Beeler Court
South Bend, Indiana 46628

Attn: Ed Stefanek

Robin M Kintz

Authorized for release by:
2/13/2014 8:21:48 AM

Robin Kintz, Project Manager II
(708)534-5200
robinm.kintz@testamericainc.com



LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 6
Sample Summary 7
Client Sample Results 8
Definitions 23
QC Association 24
Surrogate Summary 26
QC Sample Results 27
Chronicle 29
Certification Summary 32
Chain of Custody 33
Receipt Checklists 34

Case Narrative

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 500-71084-1
SDG: 0058-378-01

Job ID: 500-71084-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-71084-1

Comments
No additional comments.

Receipt
The samples were received on 2/4/2014 4:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.6° C.

GC Semi VOA
Method(s) 8082, 8082A: The following samples were diluted to bring the concentration of target analytes within the calibration range: CONCRETE-3 (500-71084-13), SS-2-1 (500-71084-3), SS-3-1 (500-71084-5), SS-3-4 (500-71084-6), SS-5-1 (500-71084-9), SS-5-4 (500-71084-10). Elevated reporting limits (RLs) are provided.

Method(s) 8082A: Surrogate recovery for the following sample(s) was outside control limits: SS-3-4 (500-71084-6). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8082A: The following samples required a dilution due to the nature of the sample matrix: SS-2-1 (500-71084-3), SS-3-1 (500-71084-5), SS-5-1 (500-71084-9), SS-5-4 (500-71084-10). Because of this dilution, the surrogate spike concentrations in the samples were reduced to a level where the recovery calculation does not provide useful information.

No other analytical or quality issues were noted.

Metals
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Detection Summary

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 500-71084-1
SDG: 0058-378-01

4

Client Sample ID: SS-1-1 — Lab Sample ID: 500-71084-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	110		17		ug/Kg	1	☼	8082A	Total/NA

Client Sample ID: SS-1-2 — Lab Sample ID: 500-71084-2

No Detections.

Client Sample ID: SS-2-1 — Lab Sample ID: 500-71084-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	27000		1800		ug/Kg	100	☼	8082A	Total/NA

Client Sample ID: SS-2-4 — Lab Sample ID: 500-71084-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	66		17		ug/Kg	1	☼	8082A	Total/NA

Client Sample ID: SS-3-1 — Lab Sample ID: 500-71084-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	5000		420		ug/Kg	20	☼	8082A	Total/NA

Client Sample ID: SS-3-4 — Lab Sample ID: 500-71084-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	2400		180		ug/Kg	10	☼	8082A	Total/NA

Client Sample ID: SS-4-1 — Lab Sample ID: 500-71084-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	110		18		ug/Kg	1	☼	8082A	Total/NA

Client Sample ID: SS-4-4 — Lab Sample ID: 500-71084-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	21		17		ug/Kg	1	☼	8082A	Total/NA

Client Sample ID: SS-5-1 — Lab Sample ID: 500-71084-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	17000		1900		ug/Kg	100	☼	8082A	Total/NA

Client Sample ID: SS-5-4 — Lab Sample ID: 500-71084-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	4600		320		ug/Kg	20	☼	8082A	Total/NA

Client Sample ID: CONCRETE-1 — Lab Sample ID: 500-71084-11

No Detections.

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 500-71084-1
SDG: 0058-378-01

Client Sample ID: CONCRETE-2 — Lab Sample ID: 500-71084-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	69		17		ug/Kg	1	☼	8082	Total/NA

Client Sample ID: CONCRETE-3 — Lab Sample ID: 500-71084-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	690		86		ug/Kg	5	☼	8082	Total/NA

Client Sample ID: CONCRETE-4 — Lab Sample ID: 500-71084-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	35		17		ug/Kg	1	☼	8082	Total/NA

Client Sample ID: CONCRETE-5 — Lab Sample ID: 500-71084-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
PCB-1260	68		17		ug/Kg	1	☼	8082	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 500-71084-1
SDG: 0058-378-01

Method	Method Description	Protocol	Laboratory
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 500-71084-1
SDG: 0058-378-01

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-71084-1	SS-1-1	Solid	02/03/14 00:00	02/04/14 16:45
500-71084-2	SS-1-2	Solid	02/03/14 00:00	02/04/14 16:45
500-71084-3	SS-2-1	Solid	02/03/14 00:00	02/04/14 16:45
500-71084-4	SS-2-4	Solid	02/03/14 00:00	02/04/14 16:45
500-71084-5	SS-3-1	Solid	02/03/14 00:00	02/04/14 16:45
500-71084-6	SS-3-4	Solid	02/03/14 00:00	02/04/14 16:45
500-71084-7	SS-4-1	Solid	02/03/14 00:00	02/04/14 16:45
500-71084-8	SS-4-4	Solid	02/03/14 00:00	02/04/14 16:45
500-71084-9	SS-5-1	Solid	02/03/14 00:00	02/04/14 16:45
500-71084-10	SS-5-4	Solid	02/03/14 00:00	02/04/14 16:45
500-71084-11	CONCRETE-1	Solid	02/03/14 00:00	02/04/14 16:45
500-71084-12	CONCRETE-2	Solid	02/03/14 00:00	02/04/14 16:45
500-71084-13	CONCRETE-3	Solid	02/03/14 00:00	02/04/14 16:45
500-71084-14	CONCRETE-4	Solid	02/03/14 00:00	02/04/14 16:45
500-71084-15	CONCRETE-5	Solid	02/03/14 00:00	02/04/14 16:45

Client Sample Results

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 500-71084-1
SDG: 0058-378-01

Client Sample ID: SS-1-1
Date Collected: 02/03/14 00:00
Date Received: 02/04/14 16:45

Lab Sample ID: 500-71084-1
Matrix: Solid
Percent Solids: 94.2

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<17		17		ug/Kg	☼	02/05/14 16:53	02/06/14 02:45	1
PCB-1221	<17		17		ug/Kg	☼	02/05/14 16:53	02/06/14 02:45	1
PCB-1232	<17		17		ug/Kg	☼	02/05/14 16:53	02/06/14 02:45	1
PCB-1242	<17		17		ug/Kg	☼	02/05/14 16:53	02/06/14 02:45	1
PCB-1248	<17		17		ug/Kg	☼	02/05/14 16:53	02/06/14 02:45	1
PCB-1254	<17		17		ug/Kg	☼	02/05/14 16:53	02/06/14 02:45	1
PCB-1260	**110**		17		ug/Kg	☼	02/05/14 16:53	02/06/14 02:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*81*		*50 - 116*	*02/05/14 16:53*	*02/06/14 02:45*	*1*
DCB Decachlorobiphenyl	*99*		*48 - 142*	*02/05/14 16:53*	*02/06/14 02:45*	*1*

Client Sample Results

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 500-71084-1
SDG: 0058-378-01

Client Sample ID: SS-1-2
Date Collected: 02/03/14 00:00
Date Received: 02/04/14 16:45

Lab Sample ID: 500-71084-2
Matrix: Solid
Percent Solids: 98.1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<17		17		ug/Kg	☼	02/05/14 16:53	02/06/14 03:25	1
PCB-1221	<17		17		ug/Kg	☼	02/05/14 16:53	02/06/14 03:25	1
PCB-1232	<17		17		ug/Kg	☼	02/05/14 16:53	02/06/14 03:25	1
PCB-1242	<17		17		ug/Kg	☼	02/05/14 16:53	02/06/14 03:25	1
PCB-1248	<17		17		ug/Kg	☼	02/05/14 16:53	02/06/14 03:25	1
PCB-1254	<17		17		ug/Kg	☼	02/05/14 16:53	02/06/14 03:25	1
PCB-1260	<17		17		ug/Kg	☼	02/05/14 16:53	02/06/14 03:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*76*		*50 - 116*	*02/05/14 16:53*	*02/06/14 03:25*	*1*
DCB Decachlorobiphenyl	*96*		*48 - 142*	*02/05/14 16:53*	*02/06/14 03:25*	*1*

Client Sample Results

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 500-71084-1
SDG: 0058-378-01

Client Sample ID: SS-2-1
Date Collected: 02/03/14 00:00
Date Received: 02/04/14 16:45

Lab Sample ID: 500-71084-3
Matrix: Solid
Percent Solids: 88.0

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<1800		1800		ug/Kg	☼	02/05/14 16:53	02/06/14 11:02	100
PCB-1221	<1800		1800		ug/Kg	☼	02/05/14 16:53	02/06/14 11:02	100
PCB-1232	<1800		1800		ug/Kg	☼	02/05/14 16:53	02/06/14 11:02	100
PCB-1242	<1800		1800		ug/Kg	☼	02/05/14 16:53	02/06/14 11:02	100
PCB-1248	<1800		1800		ug/Kg	☼	02/05/14 16:53	02/06/14 11:02	100
PCB-1254	<1800		1800		ug/Kg	☼	02/05/14 16:53	02/06/14 11:02	100
PCB-1260	**27000**		1800		ug/Kg	☼	02/05/14 16:53	02/06/14 11:02	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*0*	*D*	*50 - 116*	*02/05/14 16:53*	*02/06/14 11:02*	*100*
DCB Decachlorobiphenyl	*0*	*D*	*48 - 142*	*02/05/14 16:53*	*02/06/14 11:02*	*100*

Client Sample Results

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 500-71084-1
SDG: 0058-378-01

Client Sample ID: SS-2-4
Date Collected: 02/03/14 00:00
Date Received: 02/04/14 16:45

Lab Sample ID: 500-71084-4
Matrix: Solid
Percent Solids: 97.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<17		17		ug/Kg	☼	02/05/14 16:53	02/06/14 03:53	1
PCB-1221	<17		17		ug/Kg	☼	02/05/14 16:53	02/06/14 03:53	1
PCB-1232	<17		17		ug/Kg	☼	02/05/14 16:53	02/06/14 03:53	1
PCB-1242	<17		17		ug/Kg	☼	02/05/14 16:53	02/06/14 03:53	1
PCB-1248	<17		17		ug/Kg	☼	02/05/14 16:53	02/06/14 03:53	1
PCB-1254	<17		17		ug/Kg	☼	02/05/14 16:53	02/06/14 03:53	1
PCB-1260	**66**		17		ug/Kg	☼	02/05/14 16:53	02/06/14 03:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*72*		*50 - 116*	*02/05/14 16:53*	*02/06/14 03:53*	*1*
DCB Decachlorobiphenyl	*91*		*48 - 142*	*02/05/14 16:53*	*02/06/14 03:53*	*1*

Client Sample Results

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 500-71084-1
SDG: 0058-378-01

Client Sample ID: SS-3-1
Date Collected: 02/03/14 00:00
Date Received: 02/04/14 16:45

Lab Sample ID: 500-71084-5
Matrix: Solid
Percent Solids: 74.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<420		420		ug/Kg	☼	02/05/14 16:53	02/06/14 11:16	20
PCB-1221	<420		420		ug/Kg	☼	02/05/14 16:53	02/06/14 11:16	20
PCB-1232	<420		420		ug/Kg	☼	02/05/14 16:53	02/06/14 11:16	20
PCB-1242	<420		420		ug/Kg	☼	02/05/14 16:53	02/06/14 11:16	20
PCB-1248	<420		420		ug/Kg	☼	02/05/14 16:53	02/06/14 11:16	20
PCB-1254	<420		420		ug/Kg	☼	02/05/14 16:53	02/06/14 11:16	20
PCB-1260	**5000**		420		ug/Kg	☼	02/05/14 16:53	02/06/14 11:16	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*0*	*D*	*50 - 116*	*02/05/14 16:53*	*02/06/14 11:16*	*20*
DCB Decachlorobiphenyl	*0*	*D*	*48 - 142*	*02/05/14 16:53*	*02/06/14 11:16*	*20*

Client Sample Results

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 500-71084-1
SDG: 0058-378-01

Client Sample ID: SS-3-4
Date Collected: 02/03/14 00:00
Date Received: 02/04/14 16:45

Lab Sample ID: 500-71084-6
Matrix: Solid
Percent Solids: 90.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<180		180		ug/Kg	☼	02/05/14 16:53	02/06/14 09:54	10
PCB-1221	<180		180		ug/Kg	☼	02/05/14 16:53	02/06/14 09:54	10
PCB-1232	<180		180		ug/Kg	☼	02/05/14 16:53	02/06/14 09:54	10
PCB-1242	<180		180		ug/Kg	☼	02/05/14 16:53	02/06/14 09:54	10
PCB-1248	<180		180		ug/Kg	☼	02/05/14 16:53	02/06/14 09:54	10
PCB-1254	<180		180		ug/Kg	☼	02/05/14 16:53	02/06/14 09:54	10
PCB-1260	**2400**		180		ug/Kg	☼	02/05/14 16:53	02/06/14 09:54	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*111*		*50 - 116*	*02/05/14 16:53*	*02/06/14 09:54*	*10*
DCB Decachlorobiphenyl	*143*	*X*	*48 - 142*	*02/05/14 16:53*	*02/06/14 09:54*	*10*

Client Sample Results

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 500-71084-1
SDG: 0058-378-01

Client Sample ID: SS-4-1
Date Collected: 02/03/14 00:00
Date Received: 02/04/14 16:45

Lab Sample ID: 500-71084-7
Matrix: Solid
Percent Solids: 90.3

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<18		18		ug/Kg	☼	02/05/14 16:53	02/06/14 04:47	1
PCB-1221	<18		18		ug/Kg	☼	02/05/14 16:53	02/06/14 04:47	1
PCB-1232	<18		18		ug/Kg	☼	02/05/14 16:53	02/06/14 04:47	1
PCB-1242	<18		18		ug/Kg	☼	02/05/14 16:53	02/06/14 04:47	1
PCB-1248	<18		18		ug/Kg	☼	02/05/14 16:53	02/06/14 04:47	1
PCB-1254	<18		18		ug/Kg	☼	02/05/14 16:53	02/06/14 04:47	1
PCB-1260	**110**		18		ug/Kg	☼	02/05/14 16:53	02/06/14 04:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*73*		*50 - 116*	*02/05/14 16:53*	*02/06/14 04:47*	*1*
DCB Decachlorobiphenyl	*95*		*48 - 142*	*02/05/14 16:53*	*02/06/14 04:47*	*1*

7

Client Sample Results

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 500-71084-1
SDG: 0058-378-01

Client Sample ID: SS-4-4
Date Collected: 02/03/14 00:00
Date Received: 02/04/14 16:45

Lab Sample ID: 500-71084-8
Matrix: Solid
Percent Solids: 95.8

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<17		17		ug/Kg	☼	02/05/14 16:53	02/06/14 05:01	1
PCB-1221	<17		17		ug/Kg	☼	02/05/14 16:53	02/06/14 05:01	1
PCB-1232	<17		17		ug/Kg	☼	02/05/14 16:53	02/06/14 05:01	1
PCB-1242	<17		17		ug/Kg	☼	02/05/14 16:53	02/06/14 05:01	1
PCB-1248	<17		17		ug/Kg	☼	02/05/14 16:53	02/06/14 05:01	1
PCB-1254	<17		17		ug/Kg	☼	02/05/14 16:53	02/06/14 05:01	1
PCB-1260	**21**		17		ug/Kg	☼	02/05/14 16:53	02/06/14 05:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*71*		*50 - 116*	*02/05/14 16:53*	*02/06/14 05:01*	*1*
DCB Decachlorobiphenyl	*95*		*48 - 142*	*02/05/14 16:53*	*02/06/14 05:01*	*1*

Client Sample Results

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 500-71084-1
SDG: 0058-378-01

Client Sample ID: SS-5-1
Date Collected: 02/03/14 00:00
Date Received: 02/04/14 16:45

Lab Sample ID: 500-71084-9
Matrix: Solid
Percent Solids: 84.6

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<1900		1900		ug/Kg	☼	02/05/14 16:53	02/06/14 11:30	100
PCB-1221	<1900		1900		ug/Kg	☼	02/05/14 16:53	02/06/14 11:30	100
PCB-1232	<1900		1900		ug/Kg	☼	02/05/14 16:53	02/06/14 11:30	100
PCB-1242	<1900		1900		ug/Kg	☼	02/05/14 16:53	02/06/14 11:30	100
PCB-1248	<1900		1900		ug/Kg	☼	02/05/14 16:53	02/06/14 11:30	100
PCB-1254	<1900		1900		ug/Kg	☼	02/05/14 16:53	02/06/14 11:30	100
PCB-1260	**17000**		1900		ug/Kg	☼	02/05/14 16:53	02/06/14 11:30	100

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*0*	*D*	*50 - 116*	*02/05/14 16:53*	*02/06/14 11:30*	*100*
DCB Decachlorobiphenyl	*0*	*D*	*48 - 142*	*02/05/14 16:53*	*02/06/14 11:30*	*100*

Client Sample Results

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 500-71084-1
SDG: 0058-378-01

Client Sample ID: SS-5-4
Date Collected: 02/03/14 00:00
Date Received: 02/04/14 16:45

Lab Sample ID: 500-71084-10
Matrix: Solid
Percent Solids: 98.9

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<320		320		ug/Kg	☼	02/05/14 16:53	02/06/14 11:43	20
PCB-1221	<320		320		ug/Kg	☼	02/05/14 16:53	02/06/14 11:43	20
PCB-1232	<320		320		ug/Kg	☼	02/05/14 16:53	02/06/14 11:43	20
PCB-1242	<320		320		ug/Kg	☼	02/05/14 16:53	02/06/14 11:43	20
PCB-1248	<320		320		ug/Kg	☼	02/05/14 16:53	02/06/14 11:43	20
PCB-1254	<320		320		ug/Kg	☼	02/05/14 16:53	02/06/14 11:43	20
PCB-1260	**4600**		320		ug/Kg	☼	02/05/14 16:53	02/06/14 11:43	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*0*	*D*	*50 - 116*	*02/05/14 16:53*	*02/06/14 11:43*	*20*
DCB Decachlorobiphenyl	*0*	*D*	*48 - 142*	*02/05/14 16:53*	*02/06/14 11:43*	*20*

Client Sample Results

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 500-71084-1
SDG: 0058-378-01

Client Sample ID: CONCRETE-1
Date Collected: 02/03/14 00:00
Date Received: 02/04/14 16:45

Lab Sample ID: 500-71084-11
Matrix: Solid
Percent Solids: 95.0

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<17		17		ug/Kg	☼	02/10/14 07:32	02/11/14 15:02	1
PCB-1221	<17		17		ug/Kg	☼	02/10/14 07:32	02/11/14 15:02	1
PCB-1232	<17		17		ug/Kg	☼	02/10/14 07:32	02/11/14 15:02	1
PCB-1242	<17		17		ug/Kg	☼	02/10/14 07:32	02/11/14 15:02	1
PCB-1248	<17		17		ug/Kg	☼	02/10/14 07:32	02/11/14 15:02	1
PCB-1254	<17		17		ug/Kg	☼	02/10/14 07:32	02/11/14 15:02	1
PCB-1260	<17		17		ug/Kg	☼	02/10/14 07:32	02/11/14 15:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*102*		*50 - 116*	*02/10/14 07:32*	*02/11/14 15:02*	*1*
DCB Decachlorobiphenyl	*118*		*48 - 142*	*02/10/14 07:32*	*02/11/14 15:02*	*1*

Client Sample Results

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 500-71084-1
SDG: 0058-378-01

Client Sample ID: CONCRETE-2
Date Collected: 02/03/14 00:00
Date Received: 02/04/14 16:45

Lab Sample ID: 500-71084-12
Matrix: Solid
Percent Solids: 95.0

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<17		17		ug/Kg	☼	02/10/14 07:32	02/11/14 15:43	1
PCB-1221	<17		17		ug/Kg	☼	02/10/14 07:32	02/11/14 15:43	1
PCB-1232	<17		17		ug/Kg	☼	02/10/14 07:32	02/11/14 15:43	1
PCB-1242	<17		17		ug/Kg	☼	02/10/14 07:32	02/11/14 15:43	1
PCB-1248	<17		17		ug/Kg	☼	02/10/14 07:32	02/11/14 15:43	1
PCB-1254	<17		17		ug/Kg	☼	02/10/14 07:32	02/11/14 15:43	1
PCB-1260	**69**		17		ug/Kg	☼	02/10/14 07:32	02/11/14 15:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*99*		*50 - 116*	*02/10/14 07:32*	*02/11/14 15:43*	*1*
DCB Decachlorobiphenyl	*117*		*48 - 142*	*02/10/14 07:32*	*02/11/14 15:43*	*1*

Client Sample Results

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 500-71084-1
SDG: 0058-378-01

Client Sample ID: CONCRETE-3
Date Collected: 02/03/14 00:00
Date Received: 02/04/14 16:45

Lab Sample ID: 500-71084-13
Matrix: Solid
Percent Solids: 96.4

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<86		86		ug/Kg	☼	02/10/14 07:32	02/12/14 09:19	5
PCB-1221	<86		86		ug/Kg	☼	02/10/14 07:32	02/12/14 09:19	5
PCB-1232	<86		86		ug/Kg	☼	02/10/14 07:32	02/12/14 09:19	5
PCB-1242	<86		86		ug/Kg	☼	02/10/14 07:32	02/12/14 09:19	5
PCB-1248	<86		86		ug/Kg	☼	02/10/14 07:32	02/12/14 09:19	5
PCB-1254	<86		86		ug/Kg	☼	02/10/14 07:32	02/12/14 09:19	5
PCB-1260	**690**		86		ug/Kg	☼	02/10/14 07:32	02/12/14 09:19	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*110*		*50 - 116*	*02/10/14 07:32*	*02/12/14 09:19*	*5*
DCB Decachlorobiphenyl	*100*		*48 - 142*	*02/10/14 07:32*	*02/12/14 09:19*	*5*

7

Client Sample Results

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 500-71084-1
SDG: 0058-378-01

Client Sample ID: CONCRETE-4
Date Collected: 02/03/14 00:00
Date Received: 02/04/14 16:45

Lab Sample ID: 500-71084-14
Matrix: Solid
Percent Solids: 95.2

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<17		17		ug/Kg	☼	02/10/14 07:32	02/11/14 16:10	1
PCB-1221	<17		17		ug/Kg	☼	02/10/14 07:32	02/11/14 16:10	1
PCB-1232	<17		17		ug/Kg	☼	02/10/14 07:32	02/11/14 16:10	1
PCB-1242	<17		17		ug/Kg	☼	02/10/14 07:32	02/11/14 16:10	1
PCB-1248	<17		17		ug/Kg	☼	02/10/14 07:32	02/11/14 16:10	1
PCB-1254	<17		17		ug/Kg	☼	02/10/14 07:32	02/11/14 16:10	1
PCB-1260	**35**		17		ug/Kg	☼	02/10/14 07:32	02/11/14 16:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*99*		*50 - 116*	*02/10/14 07:32*	*02/11/14 16:10*	*1*
DCB Decachlorobiphenyl	*107*		*48 - 142*	*02/10/14 07:32*	*02/11/14 16:10*	*1*

Client Sample Results

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 500-71084-1
SDG: 0058-378-01

Client Sample ID: CONCRETE-5
Date Collected: 02/03/14 00:00
Date Received: 02/04/14 16:45

Lab Sample ID: 500-71084-15
Matrix: Solid
Percent Solids: 94.1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<17		17		ug/Kg	☼	02/10/14 07:32	02/11/14 16:24	1
PCB-1221	<17		17		ug/Kg	☼	02/10/14 07:32	02/11/14 16:24	1
PCB-1232	<17		17		ug/Kg	☼	02/10/14 07:32	02/11/14 16:24	1
PCB-1242	<17		17		ug/Kg	☼	02/10/14 07:32	02/11/14 16:24	1
PCB-1248	<17		17		ug/Kg	☼	02/10/14 07:32	02/11/14 16:24	1
PCB-1254	<17		17		ug/Kg	☼	02/10/14 07:32	02/11/14 16:24	1
PCB-1260	68		17		ug/Kg	☼	02/10/14 07:32	02/11/14 16:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*90*		*50 - 116*	*02/10/14 07:32*	*02/11/14 16:24*	*1*
DCB Decachlorobiphenyl	*107*		*48 - 142*	*02/10/14 07:32*	*02/11/14 16:24*	*1*

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery exceeds the control limits
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
X	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 500-71084-1
SDG: 0058-378-01

GC Semi VOA

Prep Batch: 222172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-71084-1	SS-1-1	Total/NA	Solid	3541	
500-71084-1 MS	SS-1-1	Total/NA	Solid	3541	
500-71084-1 MSD	SS-1-1	Total/NA	Solid	3541	
500-71084-2	SS-1-2	Total/NA	Solid	3541	
500-71084-3	SS-2-1	Total/NA	Solid	3541	
500-71084-4	SS-2-4	Total/NA	Solid	3541	
500-71084-5	SS-3-1	Total/NA	Solid	3541	
500-71084-6	SS-3-4	Total/NA	Solid	3541	
500-71084-7	SS-4-1	Total/NA	Solid	3541	
500-71084-8	SS-4-4	Total/NA	Solid	3541	
500-71084-9	SS-5-1	Total/NA	Solid	3541	
500-71084-10	SS-5-4	Total/NA	Solid	3541	
LCS 500-222172/2-A	Lab Control Sample	Total/NA	Solid	3541	
MB 500-222172/1-A	Method Blank	Total/NA	Solid	3541	

Analysis Batch: 222182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-71084-1	SS-1-1	Total/NA	Solid	8082A	222172
500-71084-1 MS	SS-1-1	Total/NA	Solid	8082A	222172
500-71084-1 MSD	SS-1-1	Total/NA	Solid	8082A	222172
500-71084-2	SS-1-2	Total/NA	Solid	8082A	222172
500-71084-3	SS-2-1	Total/NA	Solid	8082A	222172
500-71084-4	SS-2-4	Total/NA	Solid	8082A	222172
500-71084-5	SS-3-1	Total/NA	Solid	8082A	222172
500-71084-6	SS-3-4	Total/NA	Solid	8082A	222172
500-71084-7	SS-4-1	Total/NA	Solid	8082A	222172
500-71084-8	SS-4-4	Total/NA	Solid	8082A	222172
500-71084-9	SS-5-1	Total/NA	Solid	8082A	222172
500-71084-10	SS-5-4	Total/NA	Solid	8082A	222172
LCS 500-222172/2-A	Lab Control Sample	Total/NA	Solid	8082A	222172
MB 500-222172/1-A	Method Blank	Total/NA	Solid	8082A	222172

Prep Batch: 222607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-71084-11	CONCRETE-1	Total/NA	Solid	3541	
500-71084-11 MS	CONCRETE-1	Total/NA	Solid	3541	
500-71084-11 MSD	CONCRETE-1	Total/NA	Solid	3541	
500-71084-12	CONCRETE-2	Total/NA	Solid	3541	
500-71084-13	CONCRETE-3	Total/NA	Solid	3541	
500-71084-14	CONCRETE-4	Total/NA	Solid	3541	
500-71084-15	CONCRETE-5	Total/NA	Solid	3541	
LCS 500-222607/2-A	Lab Control Sample	Total/NA	Solid	3541	
MB 500-222607/1-A	Method Blank	Total/NA	Solid	3541	

Analysis Batch: 222761

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-71084-11	CONCRETE-1	Total/NA	Solid	8082	222607
500-71084-11 MS	CONCRETE-1	Total/NA	Solid	8082	222607
500-71084-11 MSD	CONCRETE-1	Total/NA	Solid	8082	222607
500-71084-12	CONCRETE-2	Total/NA	Solid	8082	222607
500-71084-13	CONCRETE-3	Total/NA	Solid	8082	222607

QC Association Summary

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 500-71084-1
SDG: 0058-378-01

GC Semi VOA (Continued)

Analysis Batch: 222761 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-71084-14	CONCRETE-4	Total/NA	Solid	8082	222607
500-71084-15	CONCRETE-5	Total/NA	Solid	8082	222607
LCS 500-222607/2-A	Lab Control Sample	Total/NA	Solid	8082	222607
MB 500-222607/1-A	Method Blank	Total/NA	Solid	8082	222607

General Chemistry

Analysis Batch: 222127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-71084-1	SS-1-1	Total/NA	Solid	Moisture	
500-71084-1 DU	SS-1-1	Total/NA	Solid	Moisture	
500-71084-2	SS-1-2	Total/NA	Solid	Moisture	
500-71084-3	SS-2-1	Total/NA	Solid	Moisture	
500-71084-4	SS-2-4	Total/NA	Solid	Moisture	
500-71084-5	SS-3-1	Total/NA	Solid	Moisture	
500-71084-6	SS-3-4	Total/NA	Solid	Moisture	
500-71084-7	SS-4-1	Total/NA	Solid	Moisture	
500-71084-8	SS-4-4	Total/NA	Solid	Moisture	
500-71084-9	SS-5-1	Total/NA	Solid	Moisture	
500-71084-10	SS-5-4	Total/NA	Solid	Moisture	
500-71084-11	CONCRETE-1	Total/NA	Solid	Moisture	
500-71084-12	CONCRETE-2	Total/NA	Solid	Moisture	
500-71084-13	CONCRETE-3	Total/NA	Solid	Moisture	
500-71084-14	CONCRETE-4	Total/NA	Solid	Moisture	
500-71084-15	CONCRETE-5	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 500-71084-1
SDG: 0058-378-01

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	TCX1 (50-116)	DCB1 (48-142)
500-71084-11	CONCRETE-1	102	118
500-71084-11 MS	CONCRETE-1	94	112
500-71084-11 MSD	CONCRETE-1	93	108
500-71084-12	CONCRETE-2	99	117
500-71084-13	CONCRETE-3	110	100
500-71084-14	CONCRETE-4	99	107
500-71084-15	CONCRETE-5	90	107
LCS 500-222607/2-A	Lab Control Sample	82	92
MB 500-222607/1-A	Method Blank	82	91

Percent Surrogate Recovery (Acceptance Limits)

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid **Prep Type: Total/NA**

Lab Sample ID	Client Sample ID	TCX1 (50-116)	DCB1 (48-142)
500-71084-1	SS-1-1	81	99
500-71084-1 MS	SS-1-1	76	94
500-71084-1 MSD	SS-1-1	78	97
500-71084-2	SS-1-2	76	96
500-71084-3	SS-2-1	0 D	0 D
500-71084-4	SS-2-4	72	91
500-71084-5	SS-3-1	0 D	0 D
500-71084-6	SS-3-4	111	143 X
500-71084-7	SS-4-1	73	95
500-71084-8	SS-4-4	71	95
500-71084-9	SS-5-1	0 D	0 D
500-71084-10	SS-5-4	0 D	0 D
LCS 500-222172/2-A	Lab Control Sample	72	92
MB 500-222172/1-A	Method Blank	78	96

Percent Surrogate Recovery (Acceptance Limits)

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

QC Sample Results

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 500-71084-1
SDG: 0058-378-01

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-222607/1-A
Matrix: Solid
Analysis Batch: 222761

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 222607

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<17		17		ug/Kg		02/10/14 07:32	02/11/14 14:35	1
PCB-1221	<17		17		ug/Kg		02/10/14 07:32	02/11/14 14:35	1
PCB-1232	<17		17		ug/Kg		02/10/14 07:32	02/11/14 14:35	1
PCB-1242	<17		17		ug/Kg		02/10/14 07:32	02/11/14 14:35	1
PCB-1248	<17		17		ug/Kg		02/10/14 07:32	02/11/14 14:35	1
PCB-1254	<17		17		ug/Kg		02/10/14 07:32	02/11/14 14:35	1
PCB-1260	<17		17		ug/Kg		02/10/14 07:32	02/11/14 14:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*82*		*50 - 116*	*02/10/14 07:32*	*02/11/14 14:35*	*1*
DCB Decachlorobiphenyl	*91*		*48 - 142*	*02/10/14 07:32*	*02/11/14 14:35*	*1*

Lab Sample ID: LCS 500-222607/2-A
Matrix: Solid
Analysis Batch: 222761

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 222607

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	167	165		ug/Kg		99	59 - 110
PCB-1260	167	171		ug/Kg		103	69 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*82*		*50 - 116*
DCB Decachlorobiphenyl	*92*		*48 - 142*

Lab Sample ID: 500-71084-11 MS
Matrix: Solid
Analysis Batch: 222761

Client Sample ID: CONCRETE-1
Prep Type: Total/NA
Prep Batch: 222607

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	<17		172	196	F1	ug/Kg	☼	114	59 - 110
PCB-1260	<17		172	220	F1	ug/Kg	☼	121	69 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*94*		*50 - 116*
DCB Decachlorobiphenyl	*112*		*48 - 142*

Lab Sample ID: 500-71084-11 MSD
Matrix: Solid
Analysis Batch: 222761

Client Sample ID: CONCRETE-1
Prep Type: Total/NA
Prep Batch: 222607

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	<17		171	196	F1	ug/Kg	☼	115	59 - 110	0	30
PCB-1260	<17		171	219	F1	ug/Kg	☼	121	69 - 120	1	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*93*		*50 - 116*
DCB Decachlorobiphenyl	*108*		*48 - 142*

QC Sample Results

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 500-71084-1
SDG: 0058-378-01

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-222172/1-A
Matrix: Solid
Analysis Batch: 222182

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 222172

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<17		17		ug/Kg		02/05/14 16:53	02/06/14 02:17	1
PCB-1221	<17		17		ug/Kg		02/05/14 16:53	02/06/14 02:17	1
PCB-1232	<17		17		ug/Kg		02/05/14 16:53	02/06/14 02:17	1
PCB-1242	<17		17		ug/Kg		02/05/14 16:53	02/06/14 02:17	1
PCB-1248	<17		17		ug/Kg		02/05/14 16:53	02/06/14 02:17	1
PCB-1254	<17		17		ug/Kg		02/05/14 16:53	02/06/14 02:17	1
PCB-1260	<17		17		ug/Kg		02/05/14 16:53	02/06/14 02:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*78*		*50 - 116*	*02/05/14 16:53*	*02/06/14 02:17*	*1*
DCB Decachlorobiphenyl	*96*		*48 - 142*	*02/05/14 16:53*	*02/06/14 02:17*	*1*

Lab Sample ID: LCS 500-222172/2-A
Matrix: Solid
Analysis Batch: 222182

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 222172

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	167	154		ug/Kg		92	59 - 110
PCB-1260	167	168		ug/Kg		101	69 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*72*		*50 - 116*
DCB Decachlorobiphenyl	*92*		*48 - 142*

Lab Sample ID: 500-71084-1 MS
Matrix: Solid
Analysis Batch: 222182

Client Sample ID: SS-1-1
Prep Type: Total/NA
Prep Batch: 222172

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	<17		176	171		ug/Kg	☼	97	59 - 110
PCB-1260	110		176	264		ug/Kg	☼	87	69 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Tetrachloro-m-xylene	*76*		*50 - 116*
DCB Decachlorobiphenyl	*94*		*48 - 142*

Lab Sample ID: 500-71084-1 MSD
Matrix: Solid
Analysis Batch: 222182

Client Sample ID: SS-1-1
Prep Type: Total/NA
Prep Batch: 222172

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	<17		175	164		ug/Kg	☼	93	59 - 110	4	30
PCB-1260	110		175	337	F1	ug/Kg	☼	129	69 - 120	24	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*78*		*50 - 116*
DCB Decachlorobiphenyl	*97*		*48 - 142*

Lab Chronicle

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 500-71084-1
SDG: 0058-378-01

Client Sample ID: SS-1-1

Date Collected: 02/03/14 00:00
Date Received: 02/04/14 16:45

Lab Sample ID: 500-71084-1
Matrix: Solid
Percent Solids: 94.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			222172	02/05/14 16:53	DEA	TAL CHI
Total/NA	Analysis	8082A		1	222182	02/06/14 02:45	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	222127	02/05/14 12:47	LWN	TAL CHI

Client Sample ID: SS-1-2

Date Collected: 02/03/14 00:00
Date Received: 02/04/14 16:45

Lab Sample ID: 500-71084-2
Matrix: Solid
Percent Solids: 98.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			222172	02/05/14 16:53	DEA	TAL CHI
Total/NA	Analysis	8082A		1	222182	02/06/14 03:25	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	222127	02/05/14 12:47	LWN	TAL CHI

12

Client Sample ID: SS-2-1

Date Collected: 02/03/14 00:00
Date Received: 02/04/14 16:45

Lab Sample ID: 500-71084-3
Matrix: Solid
Percent Solids: 88.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			222172	02/05/14 16:53	DEA	TAL CHI
Total/NA	Analysis	8082A		100	222182	02/06/14 11:02	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	222127	02/05/14 12:47	LWN	TAL CHI

Client Sample ID: SS-2-4

Date Collected: 02/03/14 00:00
Date Received: 02/04/14 16:45

Lab Sample ID: 500-71084-4
Matrix: Solid
Percent Solids: 97.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			222172	02/05/14 16:53	DEA	TAL CHI
Total/NA	Analysis	8082A		1	222182	02/06/14 03:53	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	222127	02/05/14 12:47	LWN	TAL CHI

Client Sample ID: SS-3-1

Date Collected: 02/03/14 00:00
Date Received: 02/04/14 16:45

Lab Sample ID: 500-71084-5
Matrix: Solid
Percent Solids: 74.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			222172	02/05/14 16:53	DEA	TAL CHI
Total/NA	Analysis	8082A		20	222182	02/06/14 11:16	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	222127	02/05/14 12:47	LWN	TAL CHI

Lab Chronicle

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 500-71084-1
SDG: 0058-378-01

Client Sample ID: SS-3-4

Lab Sample ID: 500-71084-6
Matrix: Solid
Percent Solids: 90.8

Date Collected: 02/03/14 00:00
Date Received: 02/04/14 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			222172	02/05/14 16:53	DEA	TAL CHI
Total/NA	Analysis	8082A		10	222182	02/06/14 09:54	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	222127	02/05/14 12:47	LWN	TAL CHI

Client Sample ID: SS-4-1

Lab Sample ID: 500-71084-7
Matrix: Solid
Percent Solids: 90.3

Date Collected: 02/03/14 00:00
Date Received: 02/04/14 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			222172	02/05/14 16:53	DEA	TAL CHI
Total/NA	Analysis	8082A		1	222182	02/06/14 04:47	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	222127	02/05/14 12:47	LWN	TAL CHI

Client Sample ID: SS-4-4

Lab Sample ID: 500-71084-8
Matrix: Solid
Percent Solids: 95.8

Date Collected: 02/03/14 00:00
Date Received: 02/04/14 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			222172	02/05/14 16:53	DEA	TAL CHI
Total/NA	Analysis	8082A		1	222182	02/06/14 05:01	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	222127	02/05/14 12:47	LWN	TAL CHI

Client Sample ID: SS-5-1

Lab Sample ID: 500-71084-9
Matrix: Solid
Percent Solids: 84.6

Date Collected: 02/03/14 00:00
Date Received: 02/04/14 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			222172	02/05/14 16:53	DEA	TAL CHI
Total/NA	Analysis	8082A		100	222182	02/06/14 11:30	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	222127	02/05/14 12:47	LWN	TAL CHI

Client Sample ID: SS-5-4

Lab Sample ID: 500-71084-10
Matrix: Solid
Percent Solids: 98.9

Date Collected: 02/03/14 00:00
Date Received: 02/04/14 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			222172	02/05/14 16:53	DEA	TAL CHI
Total/NA	Analysis	8082A		20	222182	02/06/14 11:43	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	222127	02/05/14 12:47	LWN	TAL CHI

Lab Chronicle

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 500-71084-1
SDG: 0058-378-01

Client Sample ID: CONCRETE-1

Lab Sample ID: 500-71084-11
Matrix: Solid
Percent Solids: 95.0

Date Collected: 02/03/14 00:00
Date Received: 02/04/14 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			222607	02/10/14 07:32	STW	TAL CHI
Total/NA	Analysis	8082		1	222761	02/11/14 15:02	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	222127	02/05/14 12:47	LWN	TAL CHI

Client Sample ID: CONCRETE-2

Lab Sample ID: 500-71084-12
Matrix: Solid
Percent Solids: 95.0

Date Collected: 02/03/14 00:00
Date Received: 02/04/14 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			222607	02/10/14 07:32	STW	TAL CHI
Total/NA	Analysis	8082		1	222761	02/11/14 15:43	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	222127	02/05/14 12:47	LWN	TAL CHI

Client Sample ID: CONCRETE-3

Lab Sample ID: 500-71084-13
Matrix: Solid
Percent Solids: 96.4

Date Collected: 02/03/14 00:00
Date Received: 02/04/14 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			222607	02/10/14 07:32	STW	TAL CHI
Total/NA	Analysis	8082		5	222761	02/12/14 09:19	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	222127	02/05/14 12:47	LWN	TAL CHI

Client Sample ID: CONCRETE-4

Lab Sample ID: 500-71084-14
Matrix: Solid
Percent Solids: 95.2

Date Collected: 02/03/14 00:00
Date Received: 02/04/14 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			222607	02/10/14 07:32	STW	TAL CHI
Total/NA	Analysis	8082		1	222761	02/11/14 16:10	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	222127	02/05/14 12:47	LWN	TAL CHI

Client Sample ID: CONCRETE-5

Lab Sample ID: 500-71084-15
Matrix: Solid
Percent Solids: 94.1

Date Collected: 02/03/14 00:00
Date Received: 02/04/14 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			222607	02/10/14 07:32	STW	TAL CHI
Total/NA	Analysis	8082		1	222761	02/11/14 16:24	GMO	TAL CHI
Total/NA	Analysis	Moisture		1	222127	02/05/14 12:47	LWN	TAL CHI

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Certification Summary

Client: Weaver Boos Consultants LLC
Project/Site: Ivy Tower

TestAmerica Job ID: 500-71084-1
SDG: 0058-378-01

Laboratory: TestAmerica Chicago

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alabama	State Program	4	40461	04-30-14
California	NELAP	9	01132CA	04-30-14 *
Georgia	State Program	4	N/A	04-30-14
Hawaii	State Program	9	N/A	04-30-14
Illinois	NELAP	5	100201	04-30-14
Indiana	State Program	5	C-IL-02	04-30-14 *
Iowa	State Program	7	82	05-01-14
Kansas	NELAP	7	E-10161	10-31-14
Kentucky (UST)	State Program	4	66	04-30-14
Louisiana	NELAP	6	30720	06-30-14
Massachusetts	State Program	1	M-IL035	06-30-14
Mississippi	State Program	4	N/A	04-30-14
North Carolina DENR	State Program	4	291	12-31-14
North Dakota	State Program	8	R-194	04-30-14
Oklahoma	State Program	6	8908	08-31-14
South Carolina	State Program	4	77001	04-30-14
Texas	NELAP	6	T104704252-09-TX	02-28-14
USDA	Federal		P330-12-00038	02-06-15
Wisconsin	State Program	5	999580010	08-31-14
Wyoming	State Program	8	8TMS-Q	04-30-14

13

* Expired certification is currently pending renewal and is considered valid.

TestAmerica

THE LEADER IN ENVIRONMI

2417 Bond Street, University Pa
Phone: 708.534.5200 Fax:

500-71084 COC

(optional)
Report To
Contact:
Company:
Address:
Address:
Phone:
Fax:
E-Mail:

(optional)
Bill To
Contact:
Company:
Address:
Address:
Phone:
Fax:
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-71084

Chain of Custody Number:

Page ____ of ____

Temperature °C of Cooler:

Client: WEAVER BOOS CONSULTANTS
Client Project #: 0058-378-01
Project Name: IVY TOWER
Project Location/State: SOUTH BEND, IN
Lab Project #:
Sampler: ED STEFANEK
Lab PM:

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	PCBs	Comments
1		SS-1-1	2/3/14		1	SOIL	X	
2		SS-1-4	"		1	SOIL	X	
3		SS-2-1	"		1	SOIL	X	
4		SS-2-4	"		1	SOIL	X	
5		SS-3-1	"		1	SOIL	X	
6		SS-3-4	"		1	SOIL	X	
7		SS-4-1	"		1	SOIL	X	
8		SS-4-4	"		1	SOIL	X	
9		SS-5-1	"		1	SOIL	X	
10		SS-5-4	"		1	SOIL	X	
11		CONCRETE-1	2/3/14		1	CONCRETE	X	
12		CONCRETE-2	"		1	"	X	
13		CONCRETE-3	"		1	"	X	
14		CONCRETE-4	"		1	"	X	
15		CONCRETE-5	"		1	"	X	

Turnaround Time Required (Business Days): NORMAL
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
[ ] Return to Client [ ] Disposal by Lab [X] Archive for 1 Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Ed Stefanek	Weaver Boos	2/4/14	4:00 PM	[illegible]	TAL	2/4/14	1530
[illegible]	TAL	2/4/14	1535	[illegible]	TA	2/4/14	1535
[illegible]	TA	2/4/14	1645	[illegible]	TA	2/4/14	1645

Lab Courier
Shipped
Hand Delivered

Matrix Key
WW - Wastewater
W - Water
S - Soil
SL - Sludge
MS - Miscellaneous
OL - Oil
A - Air
SE - Sediment
SO - Soil
L - Leachate
WI - Wipe
DW - Drinking Water
O - Other

Client Comments
CONCRETE NEEDS TO BE CRUSHED AND TESTED FOR PCBS

Lab Comments:

TAL-4124-500 (1209)

2/13/2014

Login Sample Receipt Checklist

Client: Weaver Boos Consultants LLC

Job Number: 500-71084-1
SDG Number: 0058-378-01

Login Number: 71084
List Number: 1
Creator: James, Jeff A

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	