

From: Adam Tegen <ategen@manitowoc.org>
Sent: Thursday, May 7, 2020 9:51 AM
To: Beggs, Tauren R - DNR
Cc: Byers, Harris; Greg Minikel; Nicholas Mueller
Subject: Manitowoc Soil Sampling Along Waldo
Attachments: Waldo Soil Sampling.pdf

Good morning Tauren,

Attached is a letter report summarizing the soil testing that was completed with the intent of utilizing soils from our Waldo Boulevard project as fill on the Riverpoint District (CN Peninsula) project. Please review at your earliest convenience and let me know of any questions or concerns.

Sincerely,

Adam Tegen
Community Development Director
900 Quay Street
Manitowoc, WI 54220
920-686-6931
ategen@manitowoc.org
www.manitowoc.org





Stantec Consulting Services Inc.
12075 Corporate Parkway Suite 200, Mequon WI 53092-2649

May 5, 2020
File: 193805824

Attention: Mr. Adam Tegen
Community Development Director
900 Quay Street
Manitowoc, WI 54220

Dear Mr. Tegen,

Reference: Sampling of Excavation Soil Along Waldo Boulevard, Manitowoc, Wisconsin

Stantec Consulting Services Inc. (Stantec) has prepared this letter report following collection and laboratory analysis of soil samples from active excavations and soil piles along Waldo Boulevard. The purpose of this sampling was to complete baseline characterization of representative soil targeted as potential fill for the Riverpoint District property.

BACKGROUND

Vinton Construction Company (Vinton) is completing utility work along Waldo Drive concurrent with replacement of the driving surface. The project is expected to generate roughly 8,000 to 10,000 cubic yards of excess soil that Vinton has offered to the City of Manitowoc for fill at the Riverpoint District property. As the Riverpoint District is undergoing investigation under chapter NR 700 of the Wisconsin Administrative Code (WAC), and at the recommendation of the Wisconsin Department of Natural Resources Project Manager (Tauren Beggs), sampling of representative soil prior to placement on the Riverpoint District property was warranted.

METHODS

Stantec met onsite with Vinton on April 21, 2020 and collected multiple composite soil samples of soils Vinton considered representative of potential fill for the Riverpoint District property. Soil samples were collected from sidewalls of open/active excavations and/or from stockpiles of soils adjacent to previously completed excavations. Sample locations are illustrated on Figure 1 and further summarized below.

Sample Location	Sample Type	Sample Interval	Photograph (Attachment A)
18th Excav.	Sidewall of an Active Excavation	2-10 Feet	Attachment A, Photo No. 3
16th Excav.		6-8 Feet	Attachment A, Photo No. 6-7
14th Excav.		2-7 Feet	Attachment A, Photo No. 8-9
Fleetwood Excav.		18-20 Feet	Attachment A, Photo No. 10-12
Fleetwood Pile	Surface of Existing Soil Pile	0-20 Feet	Attachment A, Photo No. 13-15
18th Pile		Unknown	Attachment A, Photo No. 1-2, 4
17th-18th Pile		6-8 Feet	Attachment A, Photo No. 5

May 5, 2020
Mr. Adam Tegen
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Reference: Sampling of Excavation Soil Along Waldo Boulevard, Manitowoc, Wisconsin

Soil from each sample location was composited onsite and aliquots submitted to Eurofins TestAmerica (Chicago, Illinois) under chain-of-custody procedures for eight Resource Conservation and Recovery Act (RCRA) metals, polycyclic aromatic hydrocarbon (PAH), and/or volatile organic compound (VOC) analysis. The laboratory report is provided in Attachment B and detected constituents compared to ch. NR 720 WAC health-based residual contaminant limits (RCL) and background threshold values (BTM) on Table 1.

RESULTS

Soils encountered appear to be native or reworked native soils with varying quantities of fines, which is consistent with the geotechnical investigation of Waldo Boulevard completed by River Valley Testing Corp. in 2011. As summarized on Table 1, photoionization detector measurements were all less than 1 instrument unit. Additionally, as noted on Table 1, the concentrations of detected constituents (except arsenic) in soil samples were all less than the most restrictive health-based RCLs. The concentrations of arsenic (a known naturally occurring heavy metal) in soil were greater than select health-based RCLs; however, all concentrations were less than the BTM suggesting the arsenic detections in soil are not likely associated with a hazardous substance discharge.

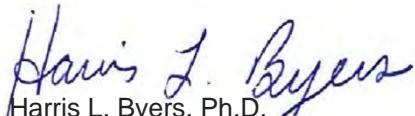
CONCLUSIONS

As detected constituent concentrations in soil Vinton considered representative of potential fill for the Riverpoint District property are less than health-based RCLs and/or applicable BTMs, soil from the Waldo project appears appropriate for use as fill at the Riverpoint District property. A soil/material management plan should be developed to further guide quality/placement/segregation of soil onsite.

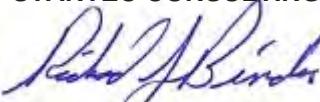
Please be aware that two portions of the Riverpoint District (referred to as Area B-1 and B-2) will be enrolled in the Voluntary Party Liability Exemption (VPLE) program. The VPLE committee may require additional sampling of imported fill to confirm the suitability for use in B-1 and B-2. Fill should not be placed on Area B-1 and B-2 without prior approval from the VPLE committee.

Regards,

STANTEC CONSULTING SERVICES INC.


Harris L. Byers, Ph.D.
Sr. Brownfields Project Manager
Harris.Byers@stantec.com
(414) 581-6476

STANTEC CONSULTING SERVICES INC.


Richard J. Binder, P.G.
QA/QC Manager
Rick.Binder@stantec.com

Attachment: Figure
Table
A – Photographic Documentation
B – Laboratory Report

May 5, 2020
Mr. Adam Tegen
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Reference: Sampling of Excavation Soil Along Waldo Boulevard, Manitowoc, Wisconsin

LIMITATIONS

This soil sampling was performed in accordance with generally accepted practices of the profession for performing similar studies at the same time and in the same geographical area. Stantec observed that degree of care and skill generally exercised by the profession under similar circumstances and conditions. No other warranty is expressed or implied.

Stantec observations, findings, and opinions must not be considered as scientific certainties, but only an opinion based on our professional judgment concerning the significance of the data gathered during the course of the investigation. Specifically, Stantec does not and cannot represent that the soil contains no hazardous or toxic materials or other latent condition beyond that observed by Stantec. Further, Stantec does not warrant that this submittal represents an exhaustive study of all possible environmental concerns at the project area.



FIGURE

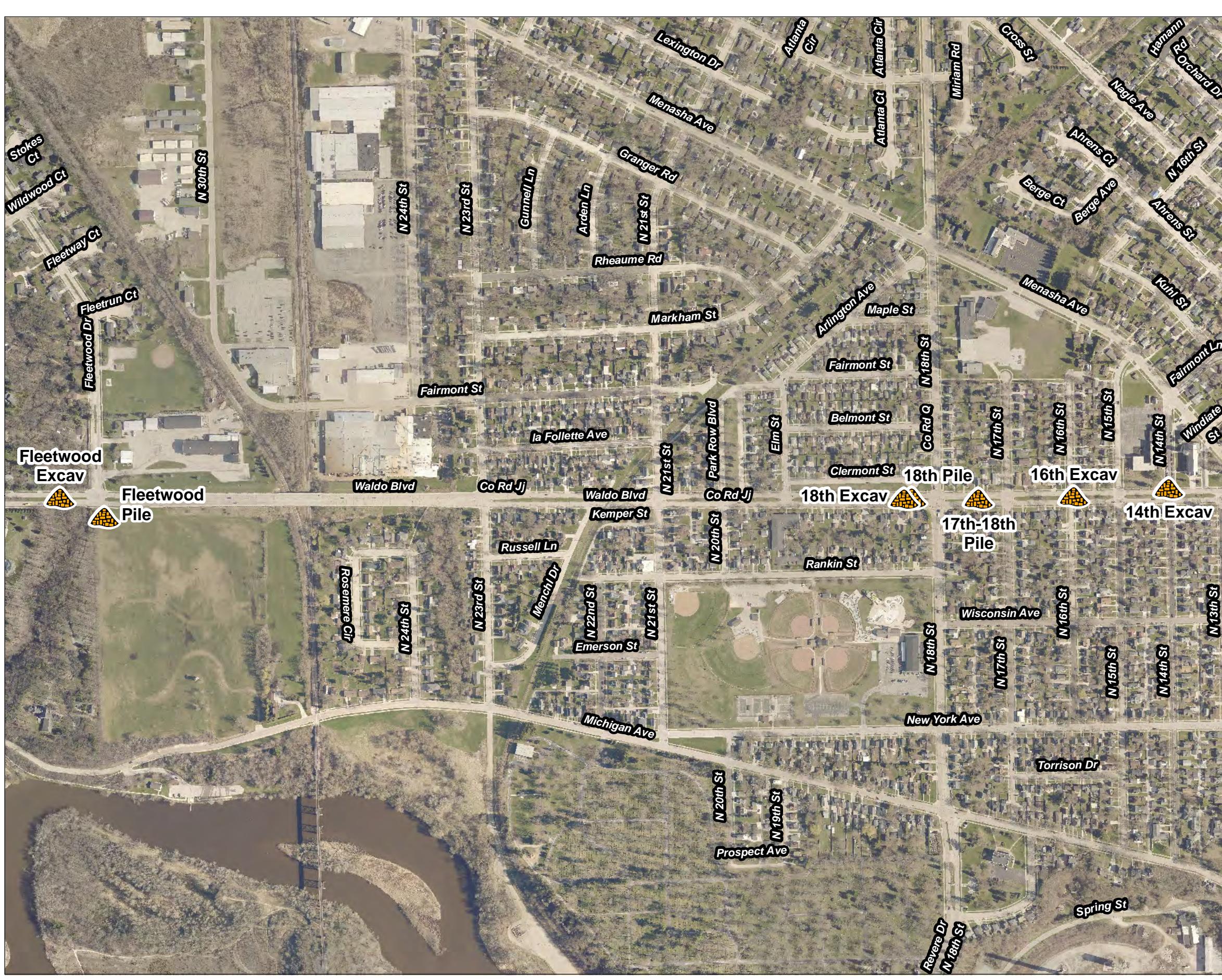


Figure No.
1

Title
**Soil Sample Locations
Along Waldo Blvd**

Client/Project

Waldo Blvd Sewer Project
City of Manitowoc

0 400 800
Feet



Legend

Sample Locations

Notes

- Coordinate System: NAD 1983 StatePlane Wisconsin South FIPS 4803 Feet
- 2018 Orthophotograph from the City of Manitowoc



TABLE

Table 1
Detected Constituents in Soil and Applicable RCLs
Waldo Boulevard Sampling
Manitowoc, Wisconsin

Constituent	Background Threshold Value ^(A)	RCL for Direct Contact at Non-Industrial Properties ^(B)	RCL for Direct Contact at Industrial Properties ^(C)	RCL for Soil to Groundwater ^(D)	Sample ID	18th Excav 2-10	18th Pile	17th-18th Pile 6-8	16th Excav 6-8	14th Excav 2-7	Fleetwood Excav 18-20	Fleetwood Pile 0-20
					Sample Date	04/21/2020	04/21/2020	04/21/2020	04/21/2020	04/21/2020	04/21/2020	04/21/2020
					Sample Depth	2 - 10 ft	Unknown	6 - 8 ft	6 - 8 ft	2 - 7 ft	18 - 20 ft	0 - 20 ft
					PID (IU)	0.4	0.3	0.3	0.2	0.3	0.3	0.2
					Lithology	Sand	Sand	Sand and Gravel	Sand and Gravel	Blue Clay and Sand	Clay (wet)	Clay, Sand, and Gravel
Detected Metals (mg/kg)												
Arsenic	8.3	8.3* [0.677]	8.3* [3]	8.3* [0.584]		1 ^{BD}	1.1 ^{BD}	1.5 ^{BD}	1.2 ^{BD}	2.3 ^{BD}	4.2 ^{BCD}	6 ^{BCD}
Barium	364	15,300	100,000	364* [164.8]		9.8	12	22	11	44	66	61
Cadmium	1.07	71.1	985	1.07* [0.752]		0.091 J	0.10 J	0.10 J	0.10 J	0.088 J	0.084 J	0.080 J
Chromium	43.5	n/v	n/v	360,000 _{if no Cr-VI}		6.1	6.2	11	5.6	18	21	25
Lead	51.6	400	800	51.5* [27]		1.8	2.8	5.8	2.8	11	9.2	18
Mercury	n/v	3.13	3.13	0.208		<0.0056	<0.0059	0.0066 J	<0.0055	0.0095 J	0.012 J	0.013 J
Silver	n/v	391	5,840	0.8491		0.21 J	0.19 J	0.15 J	0.18 J	0.25 J	0.40 J	0.44 J
Detected Polycyclic Aromatic Hydrocarbons (ug/kg)												
Chrysene	n/v	115,000	2,110,000	144		<9.7 F1 F2	<9.9	<10	<9.8	<11	<10	32 J
Fluoranthene	n/v	2,390,000	30,100,000	88,878		<6.6 F1 F2	<6.7	<7.0	<6.7	<7.6	<7.1	55
Methylnaphthalene, 1-	n/v	17,600	72,700	n/v		<8.7 F1 F2	<8.9	<9.3	<8.8	<10	<9.3	23 J
Methylnaphthalene, 2-	n/v	239,000	3,010,000	n/v		<6.6 F1 F2	<6.7	<7.0	<6.6	<7.6	<7.0	34 J
Phenanthrene	n/v	n/v	n/v	n/v		<5.0 F1 F2	<5.1	<5.3	<5.0	<5.7	<5.3	29 J
Pyrene	n/v	1,790,000	22,600,000	54,546		<7.1 F1 F2	<7.2	<7.5	<7.1	<8.2	<7.6	60
Detected Volatile Organic Compounds (ug/kg)												
Sixty (60) constituents analyzed	n/v	Various				< DL	< DL	NA	< DL	< DL	< DL	NA

Notes:

RCL = Residual contaminant limit per NR 720 WAC (December 2018 Update). Individual health based RCLs are distinguished by a superscripted letter.

Background Threshold Value per Ch. NR 720 WAC (December 2018 Update).

PID = Measurement with a photoionization detector in instrument units (IU) based on a 100 ppm isobutylene calibration standard.

XX* [XXX] Standard in bold is the background threshold value being used for the purpose of evaluation under Ch. NR700 WAC. The established health-based RCL is noted in brackets.

X^{BCD} = Concentration "X" exceeds the health-based RCL indicated by superscripted letter; however the concentration is less than the Background Threshold Value

ug/kg = microgram per kilogram

mg/kg = milligram per kilogram

n/v = no standard/guideline value

< DL = the concentrations of constituents were all less than the laboratory detection limit.

NA = Not analyzed

J = Estimated concentration is greater than the laboratory detection limit, but less than the limit of quantitation

F1 = Matrix spike and/or matrix spike duplicate recovery exceeds control limits

F2 = Matrix spike/matrix spike duplicate relative percent difference exceeds control limits

<x = Analyte was not detected at a concentration greater than the laboratory reporting limit of "x"



ATTACHMENT A

Photographic Documentation

Client: City of Manitowoc	Project: 193805824
Site Name: Waldo Boulevard Sampling	Site Location: Manitowoc, Wisconsin
Photograph ID: 1	
Photo Location: 18th Street & Waldo Boulevard	
Direction: Looking southeast	
Survey Date: 4/21/2020	
Comments: View of the 18th Street excavation and soil stockpile	
Photograph ID: 2	
Photo Location: 18th Street & Waldo Boulevard	
Direction: Looking south	
Survey Date: 4/21/2020	
Comments: 18th Street soil stockpile	

Client:	City of Manitowoc	Project:	193805824
Site Name:	Waldo Boulevard Sampling	Site Location:	Manitowoc, Wisconsin
Photograph ID: 3			
Photo Location: 18th Street & Waldo Boulevard			
Direction:			
Survey Date: 4/21/2020			
Comments: Sampled material from the 18th Street excavation			
Photograph ID: 4			
Photo Location: 18th Street & Waldo Boulevard			
Direction: Looking east			
Survey Date: 4/21/2020			
Comments: 18th Street soil stockpile			

Client:	City of Manitowoc	Project:	193805824
Site Name:	Waldo Boulevard Sampling	Site Location:	Manitowoc, Wisconsin
Photograph ID: 5			
Photo Location: Between 17th/18th Street & Waldo Boulevard			
Direction: Looking west			
Survey Date: 4/21/2020			
Comments: Sampled material from the stockpile between 17th Street and 18th Street			
Photograph ID: 6			
Photo Location: 16th Street & Waldo Boulevard			
Direction:			
Survey Date: 4/21/2020			
Comments: Sampled material from the 16th Street excavation			

Client:	City of Manitowoc	Project:	193805824
Site Name:	Waldo Boulevard Sampling	Site Location:	Manitowoc, Wisconsin
Photograph ID: 7			
Photo Location: 16th Street & Waldo Boulevard			
Direction: Looking northeast			
Survey Date: 4/21/2020			
Comments: View of the 16th Street excavation			
Photograph ID: 8			
Photo Location: 14th Street & Waldo Boulevard			
Direction: Looking northwest			
Survey Date: 4/21/2020			
Comments: Sampled material from the 14th Street excavation (behind soil stockpile in foreground)			

Client:	City of Manitowoc	Project:	193805824
Site Name:	Waldo Boulevard Sampling	Site Location:	Manitowoc, Wisconsin
Photograph ID: 9			
Photo Location: 14th Street & Waldo Boulevard			
Direction: Looking northwest			
Survey Date: 4/21/2020			
Comments: View of the 14th Street excavation			
Photograph ID: 10			
Photo Location: Fleetwood Drive & Waldo Boulevard			
Direction: Looking southwest			
Survey Date: 4/21/2020			
Comments: View of the Fleetwood Drive excavation			

Client:	City of Manitowoc	Project:	193805824
Site Name:	Waldo Boulevard Sampling	Site Location:	Manitowoc, Wisconsin
Photograph ID: 11			
Photo Location: Fleetwood Drive & Waldo Boulevard			
Direction: Looking southeast			
Survey Date: 4/21/2020			
Comments: View from Fleetwood Drive excavation floor; sample was collected from the bottom two feet of the sidewall			
Photograph ID: 12			
Photo Location: Fleetwood Drive & Waldo Boulevard			
Direction:			
Survey Date: 4/21/2020			
Comments: Sampled material from the Fleetwood Drive excavation			

Client: Site Name:	City of Manitowoc Waldo Boulevard Sampling	Project: Site Location:	193805824 Manitowoc, Wisconsin	
Photograph ID: 13				
Photo Location: Fleetwood Drive & Waldo Boulevard				
Direction:				
Survey Date: 4/21/2020				
Comments: Sampled material from large soil stockpile south of the Waldo Boulevard & Fleetwood Drive intersection				
Photograph ID: 14				
Photo Location: Fleetwood Drive & Waldo Boulevard				
Direction: Looking south				
Survey Date: 4/21/2020				
Comments: Large soil stockpile sampled south of the Waldo Boulevard & Fleetwood Drive intersection				

Client:	City of Manitowoc	Project:	193805824
Site Name:	Waldo Boulevard Sampling	Site Location:	Manitowoc, Wisconsin
Photograph ID: 15			
Photo Location: Fleetwood Drive & Waldo Boulevard			
Direction: Looking south			
Survey Date: 4/21/2020			
Comments: Large soil stockpile sampled south of the Waldo Boulevard & Fleetwood Drive intersection			



ATTACHMENT B

Laboratory Report



Environment Testing
America



ANALYTICAL REPORT

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

Laboratory Job ID: 500-180981-1

Client Project/Site: Waldo Blvd Sampling - 193805824

For:

Stantec Consulting Corp.
12075 Corporate Pkwy, Suite 200
Mequon, Wisconsin 53092

Attn: Harris Byers

Authorized for release by:

5/5/2020 10:46:08 AM

Sandie Fredrick, Project Manager II
(920)261-1660
sandie.fredrick@testamericainc.com

LINKS

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results through

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The
Expert

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www.eurofinsus.com/Env

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.

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Case Narrative

Client: Stantec Consulting Corp.
Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Job ID: 500-180981-1

Laboratory: Eurofins TestAmerica, Chicago

Narrative

Job Narrative 500-180981-1

Comments

No additional comments.

Receipt

The samples were received on 4/22/2020 10:10 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.3° C.

GC/MS VOA

Method 8260B: The laboratory control sample (LCS) for batches 539941, 540451, 540009 and recovered outside control limits for Bromomethane. This analyte was biased high in the LCSs and was not detected in the associated samples; therefore, the data have been reported. 18th Excav 2-10 (500-180981-1), 16th Excav 6-8 (500-180981-4), 14th Excav 2-7 (500-180981-5) and Fleetwood Excav 18-20 (500-180981-6)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method 8270D: The matrix spike duplicate (MSD) spike and surrogate recoveries and precision for preparation batch 500-540441 and analytical batch 500-540575 were outside control limits. Sample prep error was suspected because the associated laboratory control sample(LCS) and matrix spike (MS) spike and surrogate recoveries was within acceptance limits. No corrective action was required.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Stantec Consulting Corp.
Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Client Sample ID: 18th Excav 2-10

Lab Sample ID: 500-180981-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.0		0.94	0.32	mg/Kg	1	⊗	6010C	Total/NA
Barium	9.8		0.94	0.11	mg/Kg	1	⊗	6010C	Total/NA
Cadmium	0.091	J	0.19	0.034	mg/Kg	1	⊗	6010C	Total/NA
Chromium	6.1		0.94	0.47	mg/Kg	1	⊗	6010C	Total/NA
Lead	1.8		0.47	0.22	mg/Kg	1	⊗	6010C	Total/NA
Silver	0.21	J	0.47	0.12	mg/Kg	1	⊗	6010C	Total/NA

Client Sample ID: 18th Pile

Lab Sample ID: 500-180981-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.1		1.0	0.34	mg/Kg	1	⊗	6010C	Total/NA
Barium	12		1.0	0.11	mg/Kg	1	⊗	6010C	Total/NA
Cadmium	0.10	J	0.20	0.036	mg/Kg	1	⊗	6010C	Total/NA
Chromium	6.2		1.0	0.50	mg/Kg	1	⊗	6010C	Total/NA
Lead	2.8		0.50	0.23	mg/Kg	1	⊗	6010C	Total/NA
Silver	0.19	J	0.50	0.13	mg/Kg	1	⊗	6010C	Total/NA

Client Sample ID: 17th-18th Pile 6-8

Lab Sample ID: 500-180981-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.5		1.1	0.37	mg/Kg	1	⊗	6010C	Total/NA
Barium	22		1.1	0.12	mg/Kg	1	⊗	6010C	Total/NA
Cadmium	0.10	J	0.21	0.039	mg/Kg	1	⊗	6010C	Total/NA
Chromium	11		1.1	0.53	mg/Kg	1	⊗	6010C	Total/NA
Lead	5.8		0.54	0.25	mg/Kg	1	⊗	6010C	Total/NA
Silver	0.15	J	0.54	0.14	mg/Kg	1	⊗	6010C	Total/NA
Mercury	0.0066	J	0.018	0.0060	mg/Kg	1	⊗	7471B	Total/NA

Client Sample ID: 16th Excav 6-8

Lab Sample ID: 500-180981-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	1.2		0.97	0.33	mg/Kg	1	⊗	6010C	Total/NA
Barium	11		0.97	0.11	mg/Kg	1	⊗	6010C	Total/NA
Cadmium	0.10	J	0.19	0.035	mg/Kg	1	⊗	6010C	Total/NA
Chromium	5.6		0.97	0.48	mg/Kg	1	⊗	6010C	Total/NA
Lead	2.8		0.48	0.22	mg/Kg	1	⊗	6010C	Total/NA
Silver	0.18	J	0.48	0.12	mg/Kg	1	⊗	6010C	Total/NA

Client Sample ID: 14th Excav 2-7

Lab Sample ID: 500-180981-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	2.3		1.1	0.38	mg/Kg	1	⊗	6010C	Total/NA
Barium	44		1.1	0.13	mg/Kg	1	⊗	6010C	Total/NA
Cadmium	0.088	J	0.22	0.040	mg/Kg	1	⊗	6010C	Total/NA
Chromium	18		1.1	0.55	mg/Kg	1	⊗	6010C	Total/NA
Lead	11		0.55	0.25	mg/Kg	1	⊗	6010C	Total/NA
Silver	0.25	J	0.55	0.14	mg/Kg	1	⊗	6010C	Total/NA
Mercury	0.0095	J	0.018	0.0061	mg/Kg	1	⊗	7471B	Total/NA

Client Sample ID: Fleetwood Excav 18-20

Lab Sample ID: 500-180981-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	4.2		1.0	0.36	mg/Kg	1	⊗	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Detection Summary

Client: Stantec Consulting Corp.

Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Client Sample ID: Fleetwood Excav 18-20 (Continued)

Lab Sample ID: 500-180981-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	66		1.0	0.12	mg/Kg	1	⊗	6010C	Total/NA
Cadmium	0.084	J	0.21	0.038	mg/Kg	1	⊗	6010C	Total/NA
Chromium	21		1.0	0.52	mg/Kg	1	⊗	6010C	Total/NA
Lead	9.2		0.52	0.24	mg/Kg	1	⊗	6010C	Total/NA
Silver	0.40	J	0.52	0.13	mg/Kg	1	⊗	6010C	Total/NA
Mercury	0.012	J	0.018	0.0061	mg/Kg	1	⊗	7471B	Total/NA

Client Sample ID: Fleetwood Pile 0-20

Lab Sample ID: 500-180981-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	23	J	74	9.0	ug/Kg	1	⊗	8270D	Total/NA
2-Methylnaphthalene	34	J	74	6.8	ug/Kg	1	⊗	8270D	Total/NA
Chrysene	32	J	37	10	ug/Kg	1	⊗	8270D	Total/NA
Fluoranthene	55		37	6.8	ug/Kg	1	⊗	8270D	Total/NA
Phenanthrene	29	J	37	5.1	ug/Kg	1	⊗	8270D	Total/NA
Pyrene	60		37	7.3	ug/Kg	1	⊗	8270D	Total/NA
Arsenic	6.0		1.0	0.36	mg/Kg	1	⊗	6010C	Total/NA
Barium	61		1.0	0.12	mg/Kg	1	⊗	6010C	Total/NA
Cadmium	0.080	J	0.21	0.038	mg/Kg	1	⊗	6010C	Total/NA
Chromium	25		1.0	0.52	mg/Kg	1	⊗	6010C	Total/NA
Lead	18		0.52	0.24	mg/Kg	1	⊗	6010C	Total/NA
Silver	0.44	J	0.52	0.14	mg/Kg	1	⊗	6010C	Total/NA
Mercury	0.013	J	0.018	0.0060	mg/Kg	1	⊗	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Chicago

Method Summary

Client: Stantec Consulting Corp.
Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL CHI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL CHI
6010C	Metals (ICP)	SW846	TAL CHI
7471B	Mercury (CVAA)	SW846	TAL CHI
Moisture	Percent Moisture	EPA	TAL CHI
3050B	Preparation, Metals	SW846	TAL CHI
3541	Automated Soxhlet Extraction	SW846	TAL CHI
5035	Closed System Purge and Trap	SW846	TAL CHI
7471B	Preparation, Mercury	SW846	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 = Eurofins TestAmerica, Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Stantec Consulting Corp.
Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
500-180981-1	18th Excav 2-10	Solid	04/21/20 10:15	04/22/20 10:10	
500-180981-2	18th Pile	Solid	04/21/20 10:18	04/22/20 10:10	
500-180981-3	17th-18th Pile 6-8	Solid	04/21/20 10:22	04/22/20 10:10	
500-180981-4	16th Excav 6-8	Solid	04/21/20 10:30	04/22/20 10:10	
500-180981-5	14th Excav 2-7	Solid	04/21/20 10:35	04/22/20 10:10	
500-180981-6	Fleetwood Excav 18-20	Solid	04/21/20 10:40	04/22/20 10:10	
500-180981-7	Fleetwood Pile 0-20	Solid	04/21/20 10:45	04/22/20 10:10	

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Client Sample ID: 18th Excav 2-10

Date Collected: 04/21/20 10:15

Date Received: 04/22/20 10:10

Lab Sample ID: 500-180981-1

Matrix: Solid

Percent Solids: 92.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<25		53	25	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
1,1,1-Trichloroethane	<20		53	20	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
1,1,2,2-Tetrachloroethane	<21		53	21	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
1,1,2-Trichloroethane	<19		53	19	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
1,1-Dichloroethane	<22		53	22	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
1,1-Dichloroethene	<21		53	21	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
1,1-Dichloropropene	<16		53	16	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
1,2,3-Trichlorobenzene	<24		53	24	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
1,2,3-Trichloropropane	<22		110	22	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
1,2,4-Trichlorobenzene	<18		53	18	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
1,2,4-Trimethylbenzene	<19		53	19	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
1,2-Dibromo-3-Chloropropane	<110		270	110	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
1,2-Dibromoethane	<21		53	21	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
1,2-Dichlorobenzene	<18		53	18	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
1,2-Dichloroethane	<21		53	21	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
1,2-Dichloropropene	<23		53	23	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
1,3,5-Trimethylbenzene	<20		53	20	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
1,3-Dichlorobenzene	<21		53	21	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
1,3-Dichloropropane	<19		53	19	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
1,4-Dichlorobenzene	<19		53	19	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
2,2-Dichloropropane	<24		53	24	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
2-Chlorotoluene	<17		53	17	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
4-Chlorotoluene	<19		53	19	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
Benzene	<7.8		13	7.8	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
Bromobenzene	<19		53	19	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
Bromochloromethane	<23		53	23	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
Bromodichloromethane	<20		53	20	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
Bromoform	<26		53	26	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
Bromomethane	<42 *		160	42	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
Carbon tetrachloride	<20		53	20	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
Chlorobenzene	<21		53	21	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
Chloroethane	<27		53	27	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
Chloroform	<20		110	20	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
Chloromethane	<17		53	17	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
cis-1,2-Dichloroethene	<22		53	22	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
cis-1,3-Dichloropropene	<22		53	22	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
Dibromochloromethane	<26		53	26	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
Dibromomethane	<14		53	14	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
Dichlorodifluoromethane	<36		160	36	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
Ethylbenzene	<9.8		13	9.8	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
Hexachlorobutadiene	<24		53	24	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
Isopropyl ether	<15		53	15	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
Isopropylbenzene	<20		53	20	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
Methyl tert-butyl ether	<21		53	21	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
Methylene Chloride	<87		270	87	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
Naphthalene	<18		53	18	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
n-Butylbenzene	<21		53	21	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
N-Propylbenzene	<22		53	22	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
p-Isopropyltoluene	<19		53	19	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Client Sample ID: 18th Excav 2-10

Date Collected: 04/21/20 10:15
Date Received: 04/22/20 10:10

Lab Sample ID: 500-180981-1

Matrix: Solid

Percent Solids: 92.9

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<21		53	21	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
Styrene	<21		53	21	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
tert-Butylbenzene	<21		53	21	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
Tetrachloroethene	<20		53	20	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
Toluene	<7.8		13	7.8	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
trans-1,2-Dichloroethene	<19		53	19	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
trans-1,3-Dichloropropene	<19		53	19	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
Trichloroethene	<8.7		27	8.7	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
Trichlorofluoromethane	<23		53	23	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
Vinyl chloride	<14		53	14	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50
Xylenes, Total	<12		27	12	ug/Kg	✉	04/21/20 10:15	04/30/20 15:54	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		75 - 126	04/21/20 10:15	04/30/20 15:54	50
4-Bromofluorobenzene (Surr)	87		72 - 124	04/21/20 10:15	04/30/20 15:54	50
Dibromofluoromethane	100		75 - 120	04/21/20 10:15	04/30/20 15:54	50
Toluene-d8 (Surr)	105		75 - 120	04/21/20 10:15	04/30/20 15:54	50

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<8.7	F1 F2	72	8.7	ug/Kg	✉	04/30/20 07:30	04/30/20 20:52	1
2-Methylnaphthalene	<6.6	F1 F2	72	6.6	ug/Kg	✉	04/30/20 07:30	04/30/20 20:52	1
Acenaphthene	<6.4	F1 F2	35	6.4	ug/Kg	✉	04/30/20 07:30	04/30/20 20:52	1
Acenaphthylene	<4.7	F1 F2	35	4.7	ug/Kg	✉	04/30/20 07:30	04/30/20 20:52	1
Anthracene	<6.0	F1 F2	35	6.0	ug/Kg	✉	04/30/20 07:30	04/30/20 20:52	1
Benzo[a]anthracene	<4.8	F1 F2	35	4.8	ug/Kg	✉	04/30/20 07:30	04/30/20 20:52	1
Benzo[a]pyrene	<6.9	F1 F2	35	6.9	ug/Kg	✉	04/30/20 07:30	04/30/20 20:52	1
Benzo[b]fluoranthene	<7.7	F1 F2	35	7.7	ug/Kg	✉	04/30/20 07:30	04/30/20 20:52	1
Benzo[g,h,i]perylene	<11	F1 F2	35	11	ug/Kg	✉	04/30/20 07:30	04/30/20 20:52	1
Benzo[k]fluoranthene	<11	F1 F2	35	11	ug/Kg	✉	04/30/20 07:30	04/30/20 20:52	1
Chrysene	<9.7	F1 F2	35	9.7	ug/Kg	✉	04/30/20 07:30	04/30/20 20:52	1
Dibenz(a,h)anthracene	<6.9	F1 F2	35	6.9	ug/Kg	✉	04/30/20 07:30	04/30/20 20:52	1
Fluoranthene	<6.6	F1 F2	35	6.6	ug/Kg	✉	04/30/20 07:30	04/30/20 20:52	1
Fluorene	<5.0	F1 F2	35	5.0	ug/Kg	✉	04/30/20 07:30	04/30/20 20:52	1
Indeno[1,2,3-cd]pyrene	<9.2	F1 F2	35	9.2	ug/Kg	✉	04/30/20 07:30	04/30/20 20:52	1
Naphthalene	<5.5	F1 F2	35	5.5	ug/Kg	✉	04/30/20 07:30	04/30/20 20:52	1
Phenanthrene	<5.0	F1 F2	35	5.0	ug/Kg	✉	04/30/20 07:30	04/30/20 20:52	1
Pyrene	<7.1	F1 F2	35	7.1	ug/Kg	✉	04/30/20 07:30	04/30/20 20:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	83		43 - 145	04/30/20 07:30	04/30/20 20:52	1
Nitrobenzene-d5 (Surr)	84		37 - 147	04/30/20 07:30	04/30/20 20:52	1
Terphenyl-d14 (Surr)	98		42 - 157	04/30/20 07:30	04/30/20 20:52	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.0		0.94	0.32	mg/Kg	✉	04/22/20 17:04	04/23/20 10:06	1
Barium	9.8		0.94	0.11	mg/Kg	✉	04/22/20 17:04	04/23/20 10:06	1
Cadmium	0.091	J	0.19	0.034	mg/Kg	✉	04/22/20 17:04	04/23/20 10:06	1
Chromium	6.1		0.94	0.47	mg/Kg	✉	04/22/20 17:04	04/23/20 10:06	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Client Sample ID: 18th Excav 2-10

Date Collected: 04/21/20 10:15
Date Received: 04/22/20 10:10

Lab Sample ID: 500-180981-1

Matrix: Solid

Percent Solids: 92.9

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1.8		0.47	0.22	mg/Kg	⌚	04/22/20 17:04	04/23/20 10:06	1
Selenium	<0.55		0.94	0.55	mg/Kg	⌚	04/22/20 17:04	04/23/20 10:06	1
Silver	0.21 J		0.47	0.12	mg/Kg	⌚	04/22/20 17:04	04/23/20 10:06	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0056		0.017	0.0056	mg/Kg	⌚	04/29/20 13:25	04/30/20 08:21	1

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Client Sample ID: 18th Pile

Date Collected: 04/21/20 10:18
Date Received: 04/22/20 10:10

Lab Sample ID: 500-180981-2

Matrix: Solid

Percent Solids: 91.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<8.9		73	8.9	ug/Kg	⊗	04/30/20 07:30	04/30/20 21:20	1
2-Methylnaphthalene	<6.7		73	6.7	ug/Kg	⊗	04/30/20 07:30	04/30/20 21:20	1
Acenaphthene	<6.5		36	6.5	ug/Kg	⊗	04/30/20 07:30	04/30/20 21:20	1
Acenaphthylene	<4.8		36	4.8	ug/Kg	⊗	04/30/20 07:30	04/30/20 21:20	1
Anthracene	<6.1		36	6.1	ug/Kg	⊗	04/30/20 07:30	04/30/20 21:20	1
Benzo[a]anthracene	<4.9		36	4.9	ug/Kg	⊗	04/30/20 07:30	04/30/20 21:20	1
Benzo[a]pyrene	<7.0		36	7.0	ug/Kg	⊗	04/30/20 07:30	04/30/20 21:20	1
Benzo[b]fluoranthene	<7.8		36	7.8	ug/Kg	⊗	04/30/20 07:30	04/30/20 21:20	1
Benzo[g,h,i]perylene	<12		36	12	ug/Kg	⊗	04/30/20 07:30	04/30/20 21:20	1
Benzo[k]fluoranthene	<11		36	11	ug/Kg	⊗	04/30/20 07:30	04/30/20 21:20	1
Chrysene	<9.9		36	9.9	ug/Kg	⊗	04/30/20 07:30	04/30/20 21:20	1
Dibenz(a,h)anthracene	<7.0		36	7.0	ug/Kg	⊗	04/30/20 07:30	04/30/20 21:20	1
Fluoranthene	<6.7		36	6.7	ug/Kg	⊗	04/30/20 07:30	04/30/20 21:20	1
Fluorene	<5.1		36	5.1	ug/Kg	⊗	04/30/20 07:30	04/30/20 21:20	1
Indeno[1,2,3-cd]pyrene	<9.4		36	9.4	ug/Kg	⊗	04/30/20 07:30	04/30/20 21:20	1
Naphthalene	<5.6		36	5.6	ug/Kg	⊗	04/30/20 07:30	04/30/20 21:20	1
Phenanthrene	<5.1		36	5.1	ug/Kg	⊗	04/30/20 07:30	04/30/20 21:20	1
Pyrene	<7.2		36	7.2	ug/Kg	⊗	04/30/20 07:30	04/30/20 21:20	1
Surrogate		%Recovery	Qualifier	Limits		Prepared		Analyzed	Dil Fac
2-Fluorobiphenyl	87			43 - 145		04/30/20 07:30		04/30/20 21:20	1
Nitrobenzene-d5 (Surr)	87			37 - 147		04/30/20 07:30		04/30/20 21:20	1
Terphenyl-d14 (Surr)	107			42 - 157		04/30/20 07:30		04/30/20 21:20	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.1		1.0	0.34	mg/Kg	⊗	04/22/20 17:04	04/23/20 10:10	1
Barium	12		1.0	0.11	mg/Kg	⊗	04/22/20 17:04	04/23/20 10:10	1
Cadmium	0.10 J		0.20	0.036	mg/Kg	⊗	04/22/20 17:04	04/23/20 10:10	1
Chromium	6.2		1.0	0.50	mg/Kg	⊗	04/22/20 17:04	04/23/20 10:10	1
Lead	2.8		0.50	0.23	mg/Kg	⊗	04/22/20 17:04	04/23/20 10:10	1
Selenium	<0.59		1.0	0.59	mg/Kg	⊗	04/22/20 17:04	04/23/20 10:10	1
Silver	0.19 J		0.50	0.13	mg/Kg	⊗	04/22/20 17:04	04/23/20 10:10	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0059		0.018	0.0059	mg/Kg	⊗	04/29/20 13:25	04/30/20 08:24	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Client Sample ID: 17th-18th Pile 6-8

Lab Sample ID: 500-180981-3

Date Collected: 04/21/20 10:22
Date Received: 04/22/20 10:10

Matrix: Solid

Percent Solids: 87.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<9.3		76	9.3	ug/Kg	✉	04/30/20 07:30	04/30/20 21:48	1
2-Methylnaphthalene	<7.0		76	7.0	ug/Kg	✉	04/30/20 07:30	04/30/20 21:48	1
Acenaphthene	<6.8		38	6.8	ug/Kg	✉	04/30/20 07:30	04/30/20 21:48	1
Acenaphthylene	<5.0		38	5.0	ug/Kg	✉	04/30/20 07:30	04/30/20 21:48	1
Anthracene	<6.3		38	6.3	ug/Kg	✉	04/30/20 07:30	04/30/20 21:48	1
Benzo[a]anthracene	<5.1		38	5.1	ug/Kg	✉	04/30/20 07:30	04/30/20 21:48	1
Benzo[a]pyrene	<7.3		38	7.3	ug/Kg	✉	04/30/20 07:30	04/30/20 21:48	1
Benzo[b]fluoranthene	<8.2		38	8.2	ug/Kg	✉	04/30/20 07:30	04/30/20 21:48	1
Benzo[g,h,i]perylene	<12		38	12	ug/Kg	✉	04/30/20 07:30	04/30/20 21:48	1
Benzo[k]fluoranthene	<11		38	11	ug/Kg	✉	04/30/20 07:30	04/30/20 21:48	1
Chrysene	<10		38	10	ug/Kg	✉	04/30/20 07:30	04/30/20 21:48	1
Dibenz(a,h)anthracene	<7.3		38	7.3	ug/Kg	✉	04/30/20 07:30	04/30/20 21:48	1
Fluoranthene	<7.0		38	7.0	ug/Kg	✉	04/30/20 07:30	04/30/20 21:48	1
Fluorene	<5.3		38	5.3	ug/Kg	✉	04/30/20 07:30	04/30/20 21:48	1
Indeno[1,2,3-cd]pyrene	<9.8		38	9.8	ug/Kg	✉	04/30/20 07:30	04/30/20 21:48	1
Naphthalene	<5.8		38	5.8	ug/Kg	✉	04/30/20 07:30	04/30/20 21:48	1
Phenanthrene	<5.3		38	5.3	ug/Kg	✉	04/30/20 07:30	04/30/20 21:48	1
Pyrene	<7.5		38	7.5	ug/Kg	✉	04/30/20 07:30	04/30/20 21:48	1
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	97			43 - 145			04/30/20 07:30	04/30/20 21:48	1
Nitrobenzene-d5 (Surr)	95			37 - 147			04/30/20 07:30	04/30/20 21:48	1
Terphenyl-d14 (Surr)	117			42 - 157			04/30/20 07:30	04/30/20 21:48	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.5		1.1	0.37	mg/Kg	✉	04/22/20 17:04	04/23/20 10:14	1
Barium	22		1.1	0.12	mg/Kg	✉	04/22/20 17:04	04/23/20 10:14	1
Cadmium	0.10 J		0.21	0.039	mg/Kg	✉	04/22/20 17:04	04/23/20 10:14	1
Chromium	11		1.1	0.53	mg/Kg	✉	04/22/20 17:04	04/23/20 10:14	1
Lead	5.8		0.54	0.25	mg/Kg	✉	04/22/20 17:04	04/23/20 10:14	1
Selenium	<0.63		1.1	0.63	mg/Kg	✉	04/22/20 17:04	04/23/20 10:14	1
Silver	0.15 J		0.54	0.14	mg/Kg	✉	04/22/20 17:04	04/23/20 10:14	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0066	J	0.018	0.0060	mg/Kg	✉	04/29/20 13:25	04/30/20 08:26	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Client Sample ID: 16th Excav 6-8

Date Collected: 04/21/20 10:30

Date Received: 04/22/20 10:10

Lab Sample ID: 500-180981-4

Matrix: Solid

Percent Solids: 92.0

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<27		58	27	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
1,1,1-Trichloroethane	<22		58	22	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
1,1,2,2-Tetrachloroethane	<23		58	23	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
1,1,2-Trichloroethane	<20		58	20	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
1,1-Dichloroethane	<24		58	24	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
1,1-Dichloroethene	<23		58	23	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
1,1-Dichloropropene	<17		58	17	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
1,2,3-Trichlorobenzene	<27		58	27	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
1,2,3-Trichloropropane	<24		120	24	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
1,2,4-Trichlorobenzene	<20		58	20	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
1,2,4-Trimethylbenzene	<21		58	21	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
1,2-Dibromo-3-Chloropropane	<120		290	120	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
1,2-Dibromoethane	<22		58	22	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
1,2-Dichlorobenzene	<19		58	19	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
1,2-Dichloroethane	<23		58	23	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
1,2-Dichloropropane	<25		58	25	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
1,3,5-Trimethylbenzene	<22		58	22	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
1,3-Dichlorobenzene	<23		58	23	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
1,3-Dichloropropane	<21		58	21	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
1,4-Dichlorobenzene	<21		58	21	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
2,2-Dichloropropane	<26		58	26	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
2-Chlorotoluene	<18		58	18	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
4-Chlorotoluene	<20		58	20	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
Benzene	<8.5		15	8.5	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
Bromobenzene	<21		58	21	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
Bromochloromethane	<25		58	25	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
Bromodichloromethane	<22		58	22	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
Bromoform	<28		58	28	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
Bromomethane	<46 *		170	46	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
Carbon tetrachloride	<22		58	22	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
Chlorobenzene	<22		58	22	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
Chloroethane	<29		58	29	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
Chloroform	<21		120	21	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
Chloromethane	<19		58	19	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
cis-1,2-Dichloroethene	<24		58	24	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
cis-1,3-Dichloropropene	<24		58	24	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
Dibromochloromethane	<28		58	28	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
Dibromomethane	<16		58	16	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
Dichlorodifluoromethane	<39		170	39	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
Ethylbenzene	<11		15	11	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
Hexachlorobutadiene	<26		58	26	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
Isopropyl ether	<16		58	16	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
Isopropylbenzene	<22		58	22	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
Methyl tert-butyl ether	<23		58	23	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
Methylene Chloride	<95		290	95	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
Naphthalene	<19		58	19	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
n-Butylbenzene	<23		58	23	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
N-Propylbenzene	<24		58	24	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50
p-Isopropyltoluene	<21		58	21	ug/Kg	✉	04/21/20 10:30	04/30/20 16:17	50

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Client Sample ID: 16th Excav 6-8

Date Collected: 04/21/20 10:30

Date Received: 04/22/20 10:10

Lab Sample ID: 500-180981-4

Matrix: Solid

Percent Solids: 92.0

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<23		58	23	ug/Kg	⊗	04/21/20 10:30	04/30/20 16:17	50
Styrene	<22		58	22	ug/Kg	⊗	04/21/20 10:30	04/30/20 16:17	50
tert-Butylbenzene	<23		58	23	ug/Kg	⊗	04/21/20 10:30	04/30/20 16:17	50
Tetrachloroethene	<21		58	21	ug/Kg	⊗	04/21/20 10:30	04/30/20 16:17	50
Toluene	<8.5		15	8.5	ug/Kg	⊗	04/21/20 10:30	04/30/20 16:17	50
trans-1,2-Dichloroethene	<20		58	20	ug/Kg	⊗	04/21/20 10:30	04/30/20 16:17	50
trans-1,3-Dichloropropene	<21		58	21	ug/Kg	⊗	04/21/20 10:30	04/30/20 16:17	50
Trichloroethene	<9.5		29	9.5	ug/Kg	⊗	04/21/20 10:30	04/30/20 16:17	50
Trichlorofluoromethane	<25		58	25	ug/Kg	⊗	04/21/20 10:30	04/30/20 16:17	50
Vinyl chloride	<15		58	15	ug/Kg	⊗	04/21/20 10:30	04/30/20 16:17	50
Xylenes, Total	<13		29	13	ug/Kg	⊗	04/21/20 10:30	04/30/20 16:17	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		75 - 126	04/21/20 10:30	04/30/20 16:17	50
4-Bromofluorobenzene (Surr)	88		72 - 124	04/21/20 10:30	04/30/20 16:17	50
Dibromofluoromethane	103		75 - 120	04/21/20 10:30	04/30/20 16:17	50
Toluene-d8 (Surr)	102		75 - 120	04/21/20 10:30	04/30/20 16:17	50

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<8.8		72	8.8	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:15	1
2-Methylnaphthalene	<6.6		72	6.6	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:15	1
Acenaphthene	<6.5		36	6.5	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:15	1
Acenaphthylene	<4.7		36	4.7	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:15	1
Anthracene	<6.0		36	6.0	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:15	1
Benzo[a]anthracene	<4.8		36	4.8	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:15	1
Benzo[a]pyrene	<7.0		36	7.0	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:15	1
Benzo[b]fluoranthene	<7.8		36	7.8	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:15	1
Benzo[g,h,i]perylene	<12		36	12	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:15	1
Benzo[k]fluoranthene	<11		36	11	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:15	1
Chrysene	<9.8		36	9.8	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:15	1
Dibenz(a,h)anthracene	<6.9		36	6.9	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:15	1
Fluoranthene	<6.7		36	6.7	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:15	1
Fluorene	<5.1		36	5.1	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:15	1
Indeno[1,2,3-cd]pyrene	<9.3		36	9.3	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:15	1
Naphthalene	<5.5		36	5.5	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:15	1
Phenanthrene	<5.0		36	5.0	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:15	1
Pyrene	<7.1		36	7.1	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	102		43 - 145	04/30/20 07:30	04/30/20 22:15	1
Nitrobenzene-d5 (Surr)	97		37 - 147	04/30/20 07:30	04/30/20 22:15	1
Terphenyl-d14 (Surr)	124		42 - 157	04/30/20 07:30	04/30/20 22:15	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	1.2		0.97	0.33	mg/Kg	⊗	04/22/20 17:04	04/23/20 10:25	1
Barium	11		0.97	0.11	mg/Kg	⊗	04/22/20 17:04	04/23/20 10:25	1
Cadmium	0.10	J	0.19	0.035	mg/Kg	⊗	04/22/20 17:04	04/23/20 10:25	1
Chromium	5.6		0.97	0.48	mg/Kg	⊗	04/22/20 17:04	04/23/20 10:25	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Client Sample ID: 16th Excav 6-8

Date Collected: 04/21/20 10:30
Date Received: 04/22/20 10:10

Lab Sample ID: 500-180981-4

Matrix: Solid

Percent Solids: 92.0

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	2.8		0.48	0.22	mg/Kg	⌚	04/22/20 17:04	04/23/20 10:25	1
Selenium	<0.57		0.97	0.57	mg/Kg	⌚	04/22/20 17:04	04/23/20 10:25	1
Silver	0.18 J		0.48	0.12	mg/Kg	⌚	04/22/20 17:04	04/23/20 10:25	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0055		0.017	0.0055	mg/Kg	⌚	04/29/20 13:25	04/30/20 08:28	1

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Client Sample ID: 14th Excav 2-7

Date Collected: 04/21/20 10:35

Date Received: 04/22/20 10:10

Lab Sample ID: 500-180981-5

Matrix: Solid

Percent Solids: 80.5

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<34		74	34	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
1,1,1-Trichloroethane	<28		74	28	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
1,1,2,2-Tetrachloroethane	<29		74	29	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
1,1,2-Trichloroethane	<26		74	26	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
1,1-Dichloroethane	<30		74	30	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
1,1-Dichloroethene	<29		74	29	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
1,1-Dichloropropene	<22		74	22	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
1,2,3-Trichlorobenzene	<34		74	34	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
1,2,3-Trichloropropane	<30			150	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
1,2,4-Trichlorobenzene	<25		74	25	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
1,2,4-Trimethylbenzene	<26		74	26	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
1,2-Dibromo-3-Chloropropane	<150			370	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
1,2-Dibromoethane	<28		74	28	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
1,2-Dichlorobenzene	<25		74	25	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
1,2-Dichloroethane	<29		74	29	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
1,2-Dichloropropane	<31		74	31	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
1,3,5-Trimethylbenzene	<28		74	28	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
1,3-Dichlorobenzene	<29		74	29	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
1,3-Dichloropropane	<27		74	27	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
1,4-Dichlorobenzene	<27		74	27	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
2,2-Dichloropropane	<33		74	33	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
2-Chlorotoluene	<23		74	23	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
4-Chlorotoluene	<26		74	26	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
Benzene	<11		18	11	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
Bromobenzene	<26		74	26	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
Bromochloromethane	<31		74	31	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
Bromodichloromethane	<27		74	27	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
Bromoform	<36		74	36	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
Bromomethane	<59 *			220	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
Carbon tetrachloride	<28		74	28	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
Chlorobenzene	<28		74	28	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
Chloroethane	<37		74	37	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
Chloroform	<27			150	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
Chloromethane	<24		74	24	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
cis-1,2-Dichloroethene	<30		74	30	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
cis-1,3-Dichloropropene	<31		74	31	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
Dibromochloromethane	<36		74	36	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
Dibromomethane	<20		74	20	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
Dichlorodifluoromethane	<50			220	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
Ethylbenzene	<13		18	13	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
Hexachlorobutadiene	<33		74	33	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
Isopropyl ether	<20		74	20	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
Isopropylbenzene	<28		74	28	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
Methyl tert-butyl ether	<29		74	29	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
Methylene Chloride	<120			370	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
Naphthalene	<25		74	25	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
n-Butylbenzene	<29		74	29	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
N-Propylbenzene	<30		74	30	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	
p-Isopropyltoluene	<27		74	27	ug/Kg	✉ 04/21/20 10:35	04/30/20 16:42	50	

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Client Sample ID: 14th Excav 2-7

Date Collected: 04/21/20 10:35
Date Received: 04/22/20 10:10

Lab Sample ID: 500-180981-5

Matrix: Solid

Percent Solids: 80.5

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<29		74	29	ug/Kg	⊗	04/21/20 10:35	04/30/20 16:42	50
Styrene	<28		74	28	ug/Kg	⊗	04/21/20 10:35	04/30/20 16:42	50
tert-Butylbenzene	<29		74	29	ug/Kg	⊗	04/21/20 10:35	04/30/20 16:42	50
Tetrachloroethene	<27		74	27	ug/Kg	⊗	04/21/20 10:35	04/30/20 16:42	50
Toluene	<11		18	11	ug/Kg	⊗	04/21/20 10:35	04/30/20 16:42	50
trans-1,2-Dichloroethene	<26		74	26	ug/Kg	⊗	04/21/20 10:35	04/30/20 16:42	50
trans-1,3-Dichloropropene	<27		74	27	ug/Kg	⊗	04/21/20 10:35	04/30/20 16:42	50
Trichloroethene	<12		37	12	ug/Kg	⊗	04/21/20 10:35	04/30/20 16:42	50
Trichlorofluoromethane	<31		74	31	ug/Kg	⊗	04/21/20 10:35	04/30/20 16:42	50
Vinyl chloride	<19		74	19	ug/Kg	⊗	04/21/20 10:35	04/30/20 16:42	50
Xylenes, Total	<16		37	16	ug/Kg	⊗	04/21/20 10:35	04/30/20 16:42	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		75 - 126	04/21/20 10:35	04/30/20 16:42	50
4-Bromofluorobenzene (Surr)	87		72 - 124	04/21/20 10:35	04/30/20 16:42	50
Dibromofluoromethane	101		75 - 120	04/21/20 10:35	04/30/20 16:42	50
Toluene-d8 (Surr)	104		75 - 120	04/21/20 10:35	04/30/20 16:42	50

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<10		83	10	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:43	1
2-Methylnaphthalene	<7.6		83	7.6	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:43	1
Acenaphthene	<7.4		41	7.4	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:43	1
Acenaphthylene	<5.4		41	5.4	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:43	1
Anthracene	<6.9		41	6.9	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:43	1
Benzo[a]anthracene	<5.5		41	5.5	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:43	1
Benzo[a]pyrene	<8.0		41	8.0	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:43	1
Benzo[b]fluoranthene	<8.9		41	8.9	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:43	1
Benzo[g,h,i]perylene	<13		41	13	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:43	1
Benzo[k]fluoranthene	<12		41	12	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:43	1
Chrysene	<11		41	11	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:43	1
Dibenz(a,h)anthracene	<8.0		41	8.0	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:43	1
Fluoranthene	<7.6		41	7.6	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:43	1
Fluorene	<5.8		41	5.8	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:43	1
Indeno[1,2,3-cd]pyrene	<11		41	11	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:43	1
Naphthalene	<6.3		41	6.3	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:43	1
Phenanthrene	<5.7		41	5.7	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:43	1
Pyrene	<8.2		41	8.2	ug/Kg	⊗	04/30/20 07:30	04/30/20 22:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	93		43 - 145	04/30/20 07:30	04/30/20 22:43	1
Nitrobenzene-d5 (Surr)	94		37 - 147	04/30/20 07:30	04/30/20 22:43	1
Terphenyl-d14 (Surr)	111		42 - 157	04/30/20 07:30	04/30/20 22:43	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.3		1.1	0.38	mg/Kg	⊗	04/22/20 17:04	04/23/20 10:29	1
Barium	44		1.1	0.13	mg/Kg	⊗	04/22/20 17:04	04/23/20 10:29	1
Cadmium	0.088	J	0.22	0.040	mg/Kg	⊗	04/22/20 17:04	04/23/20 10:29	1
Chromium	18		1.1	0.55	mg/Kg	⊗	04/22/20 17:04	04/23/20 10:29	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Client Sample ID: 14th Excav 2-7

Date Collected: 04/21/20 10:35
Date Received: 04/22/20 10:10

Lab Sample ID: 500-180981-5

Matrix: Solid

Percent Solids: 80.5

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	11		0.55	0.25	mg/Kg	⌚	04/22/20 17:04	04/23/20 10:29	1
Selenium	<0.65		1.1	0.65	mg/Kg	⌚	04/22/20 17:04	04/23/20 10:29	1
Silver	0.25	J	0.55	0.14	mg/Kg	⌚	04/22/20 17:04	04/23/20 10:29	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0095	J	0.018	0.0061	mg/Kg	⌚	04/29/20 13:25	04/30/20 08:30	1

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Client Sample ID: Fleetwood Excav 18-20

Date Collected: 04/21/20 10:40

Date Received: 04/22/20 10:10

Lab Sample ID: 500-180981-6

Matrix: Solid

Percent Solids: 84.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<31		68	31	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
1,1,1-Trichloroethane	<26		68	26	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
1,1,2,2-Tetrachloroethane	<27		68	27	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
1,1,2-Trichloroethane	<24		68	24	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
1,1-Dichloroethane	<28		68	28	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
1,1-Dichloroethene	<27		68	27	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
1,1-Dichloropropene	<20		68	20	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
1,2,3-Trichlorobenzene	<31		68	31	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
1,2,3-Trichloropropane	<28		140	28	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
1,2,4-Trichlorobenzene	<23		68	23	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
1,2,4-Trimethylbenzene	<24		68	24	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
1,2-Dibromo-3-Chloropropane	<140		340	140	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
1,2-Dibromoethane	<26		68	26	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
1,2-Dichlorobenzene	<23		68	23	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
1,2-Dichloroethane	<27		68	27	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
1,2-Dichloropropene	<29		68	29	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
1,3,5-Trimethylbenzene	<26		68	26	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
1,3-Dichlorobenzene	<27		68	27	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
1,3-Dichloropropane	<25		68	25	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
1,4-Dichlorobenzene	<25		68	25	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
2,2-Dichloropropane	<30		68	30	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
2-Chlorotoluene	<21		68	21	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
4-Chlorotoluene	<24		68	24	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
Benzene	<9.9		17	9.9	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
Bromobenzene	<24		68	24	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
Bromochloromethane	<29		68	29	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
Bromodichloromethane	<25		68	25	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
Bromoform	<33		68	33	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
Bromomethane	<54 *		200	54	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
Carbon tetrachloride	<26		68	26	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
Chlorobenzene	<26		68	26	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
Chloroethane	<34		68	34	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
Chloroform	<25		140	25	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
Chloromethane	<22		68	22	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
cis-1,2-Dichloroethene	<28		68	28	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
cis-1,3-Dichloropropene	<28		68	28	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
Dibromochloromethane	<33		68	33	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
Dibromomethane	<18		68	18	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
Dichlorodifluoromethane	<46		200	46	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
Ethylbenzene	<12		17	12	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
Hexachlorobutadiene	<30		68	30	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
Isopropyl ether	<19		68	19	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
Isopropylbenzene	<26		68	26	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
Methyl tert-butyl ether	<27		68	27	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
Methylene Chloride	<110		340	110	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
Naphthalene	<23		68	23	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
n-Butylbenzene	<26		68	26	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
N-Propylbenzene	<28		68	28	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50
p-Isopropyltoluene	<25		68	25	ug/Kg	✉	04/21/20 10:40	04/30/20 17:05	50

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Client Sample ID: Fleetwood Excav 18-20

Lab Sample ID: 500-180981-6

Date Collected: 04/21/20 10:40
Date Received: 04/22/20 10:10

Matrix: Solid

Percent Solids: 84.4

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<27		68	27	ug/Kg	⊗	04/21/20 10:40	04/30/20 17:05	50
Styrene	<26		68	26	ug/Kg	⊗	04/21/20 10:40	04/30/20 17:05	50
tert-Butylbenzene	<27		68	27	ug/Kg	⊗	04/21/20 10:40	04/30/20 17:05	50
Tetrachloroethene	<25		68	25	ug/Kg	⊗	04/21/20 10:40	04/30/20 17:05	50
Toluene	<10		17	10	ug/Kg	⊗	04/21/20 10:40	04/30/20 17:05	50
trans-1,2-Dichloroethene	<24		68	24	ug/Kg	⊗	04/21/20 10:40	04/30/20 17:05	50
trans-1,3-Dichloropropene	<25		68	25	ug/Kg	⊗	04/21/20 10:40	04/30/20 17:05	50
Trichloroethene	<11		34	11	ug/Kg	⊗	04/21/20 10:40	04/30/20 17:05	50
Trichlorofluoromethane	<29		68	29	ug/Kg	⊗	04/21/20 10:40	04/30/20 17:05	50
Vinyl chloride	<18		68	18	ug/Kg	⊗	04/21/20 10:40	04/30/20 17:05	50
Xylenes, Total	<15		34	15	ug/Kg	⊗	04/21/20 10:40	04/30/20 17:05	50

Surrogate

	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		75 - 126	04/21/20 10:40	04/30/20 17:05	50
4-Bromofluorobenzene (Surr)	90		72 - 124	04/21/20 10:40	04/30/20 17:05	50
Dibromofluoromethane	103		75 - 120	04/21/20 10:40	04/30/20 17:05	50
Toluene-d8 (Surr)	104		75 - 120	04/21/20 10:40	04/30/20 17:05	50

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<9.3		77	9.3	ug/Kg	⊗	04/30/20 07:30	04/30/20 23:11	1
2-Methylnaphthalene	<7.0		77	7.0	ug/Kg	⊗	04/30/20 07:30	04/30/20 23:11	1
Acenaphthene	<6.8		38	6.8	ug/Kg	⊗	04/30/20 07:30	04/30/20 23:11	1
Acenaphthylene	<5.0		38	5.0	ug/Kg	⊗	04/30/20 07:30	04/30/20 23:11	1
Anthracene	<6.4		38	6.4	ug/Kg	⊗	04/30/20 07:30	04/30/20 23:11	1
Benzo[a]anthracene	<5.1		38	5.1	ug/Kg	⊗	04/30/20 07:30	04/30/20 23:11	1
Benzo[a]pyrene	<7.4		38	7.4	ug/Kg	⊗	04/30/20 07:30	04/30/20 23:11	1
Benzo[b]fluoranthene	<8.2		38	8.2	ug/Kg	⊗	04/30/20 07:30	04/30/20 23:11	1
Benzo[g,h,i]perylene	<12		38	12	ug/Kg	⊗	04/30/20 07:30	04/30/20 23:11	1
Benzo[k]fluoranthene	<11		38	11	ug/Kg	⊗	04/30/20 07:30	04/30/20 23:11	1
Chrysene	<10		38	10	ug/Kg	⊗	04/30/20 07:30	04/30/20 23:11	1
Dibenz(a,h)anthracene	<7.3		38	7.3	ug/Kg	⊗	04/30/20 07:30	04/30/20 23:11	1
Fluoranthene	<7.1		38	7.1	ug/Kg	⊗	04/30/20 07:30	04/30/20 23:11	1
Fluorene	<5.3		38	5.3	ug/Kg	⊗	04/30/20 07:30	04/30/20 23:11	1
Indeno[1,2,3-cd]pyrene	<9.9		38	9.9	ug/Kg	⊗	04/30/20 07:30	04/30/20 23:11	1
Naphthalene	<5.9		38	5.9	ug/Kg	⊗	04/30/20 07:30	04/30/20 23:11	1
Phenanthrene	<5.3		38	5.3	ug/Kg	⊗	04/30/20 07:30	04/30/20 23:11	1
Pyrene	<7.6		38	7.6	ug/Kg	⊗	04/30/20 07:30	04/30/20 23:11	1

Surrogate

	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	98		43 - 145	04/30/20 07:30	04/30/20 23:11	1
Nitrobenzene-d5 (Surr)	97		37 - 147	04/30/20 07:30	04/30/20 23:11	1
Terphenyl-d14 (Surr)	117		42 - 157	04/30/20 07:30	04/30/20 23:11	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.2		1.0	0.36	mg/Kg	⊗	04/22/20 17:04	04/23/20 10:33	1
Barium	66		1.0	0.12	mg/Kg	⊗	04/22/20 17:04	04/23/20 10:33	1
Cadmium	0.084	J	0.21	0.038	mg/Kg	⊗	04/22/20 17:04	04/23/20 10:33	1
Chromium	21		1.0	0.52	mg/Kg	⊗	04/22/20 17:04	04/23/20 10:33	1

Eurofins TestAmerica, Chicago

Client Sample Results

Client: Stantec Consulting Corp.

Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Client Sample ID: Fleetwood Excav 18-20

Lab Sample ID: 500-180981-6

Date Collected: 04/21/20 10:40

Matrix: Solid

Date Received: 04/22/20 10:10

Percent Solids: 84.4

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	9.2		0.52	0.24	mg/Kg	⌚	04/22/20 17:04	04/23/20 10:33	1
Selenium	<0.61		1.0	0.61	mg/Kg	⌚	04/22/20 17:04	04/23/20 10:33	1
Silver	0.40 J		0.52	0.13	mg/Kg	⌚	04/22/20 17:04	04/23/20 10:33	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.012 J		0.018	0.0061	mg/Kg	⌚	04/29/20 13:25	04/30/20 08:32	1

Client Sample Results

Client: Stantec Consulting Corp.
Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Client Sample ID: Fleetwood Pile 0-20

Date Collected: 04/21/20 10:45
Date Received: 04/22/20 10:10

Lab Sample ID: 500-180981-7

Matrix: Solid

Percent Solids: 86.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	23	J	74	9.0	ug/Kg	✉	04/30/20 07:30	04/30/20 23:39	1
2-Methylnaphthalene	34	J	74	6.8	ug/Kg	✉	04/30/20 07:30	04/30/20 23:39	1
Acenaphthene	<6.6		37	6.6	ug/Kg	✉	04/30/20 07:30	04/30/20 23:39	1
Acenaphthylene	<4.9		37	4.9	ug/Kg	✉	04/30/20 07:30	04/30/20 23:39	1
Anthracene	<6.2		37	6.2	ug/Kg	✉	04/30/20 07:30	04/30/20 23:39	1
Benzo[a]anthracene	<5.0		37	5.0	ug/Kg	✉	04/30/20 07:30	04/30/20 23:39	1
Benzo[a]pyrene	<7.1		37	7.1	ug/Kg	✉	04/30/20 07:30	04/30/20 23:39	1
Benzo[b]fluoranthene	<7.9		37	7.9	ug/Kg	✉	04/30/20 07:30	04/30/20 23:39	1
Benzo[g,h,i]perylene	<12		37	12	ug/Kg	✉	04/30/20 07:30	04/30/20 23:39	1
Benzo[k]fluoranthene	<11		37	11	ug/Kg	✉	04/30/20 07:30	04/30/20 23:39	1
Chrysene	32	J	37	10	ug/Kg	✉	04/30/20 07:30	04/30/20 23:39	1
Dibenz(a,h)anthracene	<7.1		37	7.1	ug/Kg	✉	04/30/20 07:30	04/30/20 23:39	1
Fluoranthene	55		37	6.8	ug/Kg	✉	04/30/20 07:30	04/30/20 23:39	1
Fluorene	<5.2		37	5.2	ug/Kg	✉	04/30/20 07:30	04/30/20 23:39	1
Indeno[1,2,3-cd]pyrene	<9.5		37	9.5	ug/Kg	✉	04/30/20 07:30	04/30/20 23:39	1
Naphthalene	<5.7		37	5.7	ug/Kg	✉	04/30/20 07:30	04/30/20 23:39	1
Phenanthrene	29	J	37	5.1	ug/Kg	✉	04/30/20 07:30	04/30/20 23:39	1
Pyrene	60		37	7.3	ug/Kg	✉	04/30/20 07:30	04/30/20 23:39	1
Surrogate		%Recovery	Qualifier	Limits		Prepared		Analyzed	Dil Fac
2-Fluorobiphenyl	81			43 - 145		04/30/20 07:30		04/30/20 23:39	1
Nitrobenzene-d5 (Surr)	75			37 - 147		04/30/20 07:30		04/30/20 23:39	1
Terphenyl-d14 (Surr)	105			42 - 157		04/30/20 07:30		04/30/20 23:39	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.0		1.0	0.36	mg/Kg	✉	04/22/20 17:04	04/23/20 10:38	1
Barium	61		1.0	0.12	mg/Kg	✉	04/22/20 17:04	04/23/20 10:38	1
Cadmium	0.080	J	0.21	0.038	mg/Kg	✉	04/22/20 17:04	04/23/20 10:38	1
Chromium	25		1.0	0.52	mg/Kg	✉	04/22/20 17:04	04/23/20 10:38	1
Lead	18		0.52	0.24	mg/Kg	✉	04/22/20 17:04	04/23/20 10:38	1
Selenium	<0.62		1.0	0.62	mg/Kg	✉	04/22/20 17:04	04/23/20 10:38	1
Silver	0.44	J	0.52	0.14	mg/Kg	✉	04/22/20 17:04	04/23/20 10:38	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.013	J	0.018	0.0060	mg/Kg	✉	04/29/20 13:25	04/30/20 08:34	1

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Definitions/Glossary

Client: Stantec Consulting Corp.
Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate recovery exceeds control limits

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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: Stantec Consulting Corp.

Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

GC/MS VOA

Prep Batch: 539941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-180981-1	18th Excav 2-10	Total/NA	Solid	5035	
500-180981-4	16th Excav 6-8	Total/NA	Solid	5035	
500-180981-5	14th Excav 2-7	Total/NA	Solid	5035	
500-180981-6	Fleetwood Excav 18-20	Total/NA	Solid	5035	
LB3 500-539941/20-A	Method Blank	Total/NA	Solid	5035	
LCS 500-539941/21-A	Lab Control Sample	Total/NA	Solid	5035	

Analysis Batch: 540009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB3 500-539941/20-A	Method Blank	Total/NA	Solid	8260B	539941
MB 500-540009/6	Method Blank	Total/NA	Solid	8260B	
LCS 500-539941/21-A	Lab Control Sample	Total/NA	Solid	8260B	539941
LCS 500-540009/4	Lab Control Sample	Total/NA	Solid	8260B	

Analysis Batch: 540451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-180981-1	18th Excav 2-10	Total/NA	Solid	8260B	539941
500-180981-4	16th Excav 6-8	Total/NA	Solid	8260B	539941
500-180981-5	14th Excav 2-7	Total/NA	Solid	8260B	539941
500-180981-6	Fleetwood Excav 18-20	Total/NA	Solid	8260B	539941
MB 500-540451/6	Method Blank	Total/NA	Solid	8260B	
LCS 500-540451/4	Lab Control Sample	Total/NA	Solid	8260B	

GC/MS Semi VOA

Prep Batch: 540441

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-180981-1	18th Excav 2-10	Total/NA	Solid	3541	
500-180981-2	18th Pile	Total/NA	Solid	3541	
500-180981-3	17th-18th Pile 6-8	Total/NA	Solid	3541	
500-180981-4	16th Excav 6-8	Total/NA	Solid	3541	
500-180981-5	14th Excav 2-7	Total/NA	Solid	3541	
500-180981-6	Fleetwood Excav 18-20	Total/NA	Solid	3541	
500-180981-7	Fleetwood Pile 0-20	Total/NA	Solid	3541	
MB 500-540441/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-540441/2-A	Lab Control Sample	Total/NA	Solid	3541	
500-180981-1 MS	18th Excav 2-10	Total/NA	Solid	3541	
500-180981-1 MSD	18th Excav 2-10	Total/NA	Solid	3541	

Analysis Batch: 540575

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-180981-1	18th Excav 2-10	Total/NA	Solid	8270D	540441
500-180981-2	18th Pile	Total/NA	Solid	8270D	540441
500-180981-3	17th-18th Pile 6-8	Total/NA	Solid	8270D	540441
500-180981-4	16th Excav 6-8	Total/NA	Solid	8270D	540441
500-180981-5	14th Excav 2-7	Total/NA	Solid	8270D	540441
500-180981-6	Fleetwood Excav 18-20	Total/NA	Solid	8270D	540441
500-180981-7	Fleetwood Pile 0-20	Total/NA	Solid	8270D	540441
MB 500-540441/1-A	Method Blank	Total/NA	Solid	8270D	540441
LCS 500-540441/2-A	Lab Control Sample	Total/NA	Solid	8270D	540441
500-180981-1 MS	18th Excav 2-10	Total/NA	Solid	8270D	540441

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QC Association Summary

Client: Stantec Consulting Corp.
Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

GC/MS Semi VOA (Continued)

Analysis Batch: 540575 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-180981-1 MSD	18th Excav 2-10	Total/NA	Solid	8270D	540441

Metals

Prep Batch: 539349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-180981-1	18th Excav 2-10	Total/NA	Solid	3050B	539349
500-180981-2	18th Pile	Total/NA	Solid	3050B	539349
500-180981-3	17th-18th Pile 6-8	Total/NA	Solid	3050B	539349
500-180981-4	16th Excav 6-8	Total/NA	Solid	3050B	539349
500-180981-5	14th Excav 2-7	Total/NA	Solid	3050B	539349
500-180981-6	Fleetwood Excav 18-20	Total/NA	Solid	3050B	539349
500-180981-7	Fleetwood Pile 0-20	Total/NA	Solid	3050B	539349
MB 500-539349/1-A	Method Blank	Total/NA	Solid	3050B	539349
LCS 500-539349/2-A	Lab Control Sample	Total/NA	Solid	3050B	539349

Analysis Batch: 539510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-180981-1	18th Excav 2-10	Total/NA	Solid	6010C	539349
500-180981-2	18th Pile	Total/NA	Solid	6010C	539349
500-180981-3	17th-18th Pile 6-8	Total/NA	Solid	6010C	539349
500-180981-4	16th Excav 6-8	Total/NA	Solid	6010C	539349
500-180981-5	14th Excav 2-7	Total/NA	Solid	6010C	539349
500-180981-6	Fleetwood Excav 18-20	Total/NA	Solid	6010C	539349
500-180981-7	Fleetwood Pile 0-20	Total/NA	Solid	6010C	539349
MB 500-539349/1-A	Method Blank	Total/NA	Solid	6010C	539349
LCS 500-539349/2-A	Lab Control Sample	Total/NA	Solid	6010C	539349

Prep Batch: 540301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-180981-1	18th Excav 2-10	Total/NA	Solid	7471B	540301
500-180981-2	18th Pile	Total/NA	Solid	7471B	540301
500-180981-3	17th-18th Pile 6-8	Total/NA	Solid	7471B	540301
500-180981-4	16th Excav 6-8	Total/NA	Solid	7471B	540301
500-180981-5	14th Excav 2-7	Total/NA	Solid	7471B	540301
500-180981-6	Fleetwood Excav 18-20	Total/NA	Solid	7471B	540301
500-180981-7	Fleetwood Pile 0-20	Total/NA	Solid	7471B	540301
MB 500-540301/12-A	Method Blank	Total/NA	Solid	7471B	540301
LCS 500-540301/13-A	Lab Control Sample	Total/NA	Solid	7471B	540301

Analysis Batch: 540516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-180981-1	18th Excav 2-10	Total/NA	Solid	7471B	540301
500-180981-2	18th Pile	Total/NA	Solid	7471B	540301
500-180981-3	17th-18th Pile 6-8	Total/NA	Solid	7471B	540301
500-180981-4	16th Excav 6-8	Total/NA	Solid	7471B	540301
500-180981-5	14th Excav 2-7	Total/NA	Solid	7471B	540301
500-180981-6	Fleetwood Excav 18-20	Total/NA	Solid	7471B	540301
500-180981-7	Fleetwood Pile 0-20	Total/NA	Solid	7471B	540301
MB 500-540301/12-A	Method Blank	Total/NA	Solid	7471B	540301
LCS 500-540301/13-A	Lab Control Sample	Total/NA	Solid	7471B	540301

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QC Association Summary

Client: Stantec Consulting Corp.

Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

General Chemistry

Analysis Batch: 539325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-180981-1	18th Excav 2-10	Total/NA	Solid	Moisture	
500-180981-2	18th Pile	Total/NA	Solid	Moisture	
500-180981-3	17th-18th Pile 6-8	Total/NA	Solid	Moisture	
500-180981-4	16th Excav 6-8	Total/NA	Solid	Moisture	
500-180981-5	14th Excav 2-7	Total/NA	Solid	Moisture	
500-180981-6	Fleetwood Excav 18-20	Total/NA	Solid	Moisture	
500-180981-7	Fleetwood Pile 0-20	Total/NA	Solid	Moisture	
500-180981-1 DU	18th Excav 2-10	Total/NA	Solid	Moisture	

Surrogate Summary

Client: Stantec Consulting Corp.
Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (75-126)	BFB (72-124)	DBFM (75-120)	TOL (75-120)
500-180981-1	18th Excav 2-10	101	87	100	105
500-180981-4	16th Excav 6-8	103	88	103	102
500-180981-5	14th Excav 2-7	102	87	101	104
500-180981-6	Fleetwood Excav 18-20	100	90	103	104
LB3 500-539941/20-A	Method Blank	95	89	99	106
LCS 500-539941/21-A	Lab Control Sample	103	88	107	101
LCS 500-540009/4	Lab Control Sample	95	89	101	106
LCS 500-540451/4	Lab Control Sample	94	91	101	105
MB 500-540009/6	Method Blank	99	88	103	103
MB 500-540451/6	Method Blank	104	88	105	100

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (43-145)	NBZ (37-147)	TPHL (42-157)
500-180981-1	18th Excav 2-10	83	84	98
500-180981-1 MS	18th Excav 2-10	113	99	107
500-180981-1 MSD	18th Excav 2-10	22 X	19 X	24 X
500-180981-2	18th Pile	87	87	107
500-180981-3	17th-18th Pile 6-8	97	95	117
500-180981-4	16th Excav 6-8	102	97	124
500-180981-5	14th Excav 2-7	93	94	111
500-180981-6	Fleetwood Excav 18-20	98	97	117
500-180981-7	Fleetwood Pile 0-20	81	75	105
LCS 500-540441/2-A	Lab Control Sample	111	106	107
MB 500-540441/1-A	Method Blank	111	99	117

Surrogate Legend

FBP = 2-Fluorobiphenyl

NBZ = Nitrobenzene-d5 (Surr)

TPHL = Terphenyl-d14 (Surr)

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Stantec Consulting Corp.

Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: LB3 500-539941/20-A

Matrix: Solid

Analysis Batch: 540009

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 539941

Analyte	LB3 Result	LB3 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<23		50	23	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
1,1,1-Trichloroethane	<19		50	19	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
1,1,2,2-Tetrachloroethane	<20		50	20	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
1,1,2-Trichloroethane	<18		50	18	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
1,1-Dichloroethane	<21		50	21	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
1,1-Dichloroethene	<20		50	20	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
1,1-Dichloropropene	<15		50	15	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
1,2,3-Trichlorobenzene	<23		50	23	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
1,2,3-Trichloropropane	<21		100	21	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
1,2,4-Trichlorobenzene	<17		50	17	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
1,2,4-Trimethylbenzene	<18		50	18	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
1,2-Dibromo-3-Chloropropane	<100		250	100	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
1,2-Dibromoethane	<19		50	19	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
1,2-Dichlorobenzene	<17		50	17	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
1,2-Dichloroethane	<20		50	20	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
1,2-Dichloropropane	<21		50	21	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
1,3,5-Trimethylbenzene	<19		50	19	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
1,3-Dichlorobenzene	<20		50	20	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
1,3-Dichloropropane	<18		50	18	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
1,4-Dichlorobenzene	<18		50	18	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
2,2-Dichloropropane	<22		50	22	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
2-Chlorotoluene	<16		50	16	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
4-Chlorotoluene	<18		50	18	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
Benzene	<7.3		13	7.3	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
Bromobenzene	<18		50	18	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
Bromochloromethane	<21		50	21	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
Bromodichloromethane	<19		50	19	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
Bromoform	<24		50	24	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
Bromomethane	<40		150	40	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
Carbon tetrachloride	<19		50	19	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
Chlorobenzene	<19		50	19	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
Chloroethane	<25		50	25	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
Chloroform	<19		100	19	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
Chloromethane	<16		50	16	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
cis-1,2-Dichloroethene	<20		50	20	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
cis-1,3-Dichloropropene	<21		50	21	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
Dibromochloromethane	<24		50	24	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
Dibromomethane	<14		50	14	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
Dichlorodifluoromethane	<34		150	34	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
Ethylbenzene	<9.2		13	9.2	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
Hexachlorobutadiene	<22		50	22	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
Isopropyl ether	<14		50	14	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
Isopropylbenzene	<19		50	19	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
Methyl tert-butyl ether	<20		50	20	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
Methylene Chloride	<82		250	82	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
Naphthalene	18.9	J	50	17	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
n-Butylbenzene	<19		50	19	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
N-Propylbenzene	<21		50	21	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	

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QC Sample Results

Client: Stantec Consulting Corp.

Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LB3 500-539941/20-A

Matrix: Solid

Analysis Batch: 540009

Analyte	LB3		RL	MDL	Unit	D	Prepared		Dil Fac
	Result	Qualifier					Prepared	Analyzed	
p-Isopropyltoluene	<18		50	18	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
sec-Butylbenzene	<20		50	20	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
Styrene	<19		50	19	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
tert-Butylbenzene	<20		50	20	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
Tetrachloroethene	<19		50	19	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
Toluene	<7.4		13	7.4	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
trans-1,2-Dichloroethene	<18		50	18	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
trans-1,3-Dichloropropene	<18		50	18	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
Trichloroethene	<8.2		25	8.2	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
Trichlorofluoromethane	<21		50	21	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
Vinyl chloride	<13		50	13	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	
Xylenes, Total	<11		25	11	ug/Kg	04/27/20 18:30	04/28/20 10:59	50	

Surrogate	LB3		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	95		75 - 126	04/27/20 18:30	04/28/20 10:59	50
4-Bromofluorobenzene (Surr)	89		72 - 124	04/27/20 18:30	04/28/20 10:59	50
Dibromofluoromethane	99		75 - 120	04/27/20 18:30	04/28/20 10:59	50
Toluene-d8 (Surr)	106		75 - 120	04/27/20 18:30	04/28/20 10:59	50

Lab Sample ID: LCS 500-539941/21-A

Matrix: Solid

Analysis Batch: 540009

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits	%Rec.
		Result	Qualifier					
1,1,1,2-Tetrachloroethane	2500	2830		ug/Kg	113	70 - 125		
1,1,1-Trichloroethane	2500	2580		ug/Kg	103	70 - 125		
1,1,2,2-Tetrachloroethane	2500	2680		ug/Kg	107	62 - 140		
1,1,2-Trichloroethane	2500	2800		ug/Kg	112	71 - 130		
1,1-Dichloroethane	2500	2630		ug/Kg	105	70 - 125		
1,1-Dichloroethene	2500	2690		ug/Kg	107	67 - 122		
1,1-Dichloropropene	2500	2550		ug/Kg	102	70 - 121		
1,2,3-Trichlorobenzene	2500	2590		ug/Kg	104	51 - 145		
1,2,3-Trichloropropane	2500	2600		ug/Kg	104	50 - 133		
1,2,4-Trichlorobenzene	2500	2500		ug/Kg	100	57 - 137		
1,2,4-Trimethylbenzene	2500	2490		ug/Kg	100	70 - 123		
1,2-Dibromo-3-Chloropropane	2500	2290		ug/Kg	92	56 - 123		
1,2-Dibromoethane	2500	2830		ug/Kg	113	70 - 125		
1,2-Dichlorobenzene	2500	2710		ug/Kg	108	70 - 125		
1,2-Dichloroethane	2500	2790		ug/Kg	112	68 - 127		
1,2-Dichloropropane	2500	2560		ug/Kg	102	67 - 130		
1,3,5-Trimethylbenzene	2500	2490		ug/Kg	100	70 - 123		
1,3-Dichlorobenzene	2500	2620		ug/Kg	105	70 - 125		
1,3-Dichloropropane	2500	2760		ug/Kg	110	62 - 136		
1,4-Dichlorobenzene	2500	2610		ug/Kg	104	70 - 120		
2,2-Dichloropropane	2500	2450		ug/Kg	98	58 - 139		
2-Chlorotoluene	2500	2510		ug/Kg	100	70 - 125		
4-Chlorotoluene	2500	2510		ug/Kg	100	68 - 124		
Benzene	2500	2890		ug/Kg	116	70 - 120		

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 539941

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-539941/21-A

Matrix: Solid

Analysis Batch: 540009

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 539941

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Bromobenzene	2500	2640		ug/Kg		105	70 - 122
Bromochloromethane	2500	2950		ug/Kg		118	65 - 122
Bromodichloromethane	2500	2770		ug/Kg		111	69 - 120
Bromoform	2500	2800		ug/Kg		112	56 - 132
Bromomethane	2500	4490	*	ug/Kg		180	40 - 152
Carbon tetrachloride	2500	2440		ug/Kg		98	59 - 133
Chlorobenzene	2500	2780		ug/Kg		111	70 - 120
Chloroethane	2500	3340		ug/Kg		134	48 - 136
Chloroform	2500	2760		ug/Kg		111	70 - 120
Chloromethane	2500	1770		ug/Kg		71	56 - 152
cis-1,2-Dichloroethene	2500	2920		ug/Kg		117	70 - 125
cis-1,3-Dichloropropene	2500	2710		ug/Kg		108	64 - 127
Dibromochloromethane	2500	2660		ug/Kg		107	68 - 125
Dibromomethane	2500	2950		ug/Kg		118	70 - 120
Dichlorodifluoromethane	2500	1480		ug/Kg		59	40 - 159
Ethylbenzene	2500	2740		ug/Kg		109	70 - 123
Hexachlorobutadiene	2500	2140		ug/Kg		86	51 - 150
Isopropylbenzene	2500	2430		ug/Kg		97	70 - 126
Methyl tert-butyl ether	2500	2940		ug/Kg		117	55 - 123
Methylene Chloride	2500	3030		ug/Kg		121	69 - 125
Naphthalene	2500	2600		ug/Kg		104	53 - 144
n-Butylbenzene	2500	2390		ug/Kg		96	68 - 125
N-Propylbenzene	2500	2440		ug/Kg		97	69 - 127
p-Isopropyltoluene	2500	2350		ug/Kg		94	70 - 125
sec-Butylbenzene	2500	2410		ug/Kg		96	70 - 123
Styrene	2500	2720		ug/Kg		109	70 - 120
tert-Butylbenzene	2500	2400		ug/Kg		96	70 - 121
Tetrachloroethene	2500	2650		ug/Kg		106	70 - 128
Toluene	2500	2760		ug/Kg		110	70 - 125
trans-1,2-Dichloroethene	2500	2850		ug/Kg		114	70 - 125
trans-1,3-Dichloropropene	2500	2630		ug/Kg		105	62 - 128
Trichloroethene	2500	2730		ug/Kg		109	70 - 125
Trichlorofluoromethane	2500	2410		ug/Kg		96	55 - 128
Vinyl chloride	2500	2020		ug/Kg		81	64 - 126
Xylenes, Total	5000	5360		ug/Kg		107	70 - 125

Surrogate	LCS Result	LCS Qualifier	Limits
	%Recovery		
1,2-Dichloroethane-d4 (Surr)	103		75 - 126
4-Bromofluorobenzene (Surr)	88		72 - 124
Dibromofluoromethane	107		75 - 120
Toluene-d8 (Surr)	101		75 - 120

Lab Sample ID: MB 500-540009/6

Matrix: Solid

Analysis Batch: 540009

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/Kg			04/28/20 10:35	1

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Stantec Consulting Corp.

Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-540009/6

Matrix: Solid

Analysis Batch: 540009

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/Kg			04/28/20 10:35	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/Kg			04/28/20 10:35	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/Kg			04/28/20 10:35	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/Kg			04/28/20 10:35	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/Kg			04/28/20 10:35	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/Kg			04/28/20 10:35	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/Kg			04/28/20 10:35	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/Kg			04/28/20 10:35	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/Kg			04/28/20 10:35	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/Kg			04/28/20 10:35	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/Kg			04/28/20 10:35	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/Kg			04/28/20 10:35	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/Kg			04/28/20 10:35	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/Kg			04/28/20 10:35	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/Kg			04/28/20 10:35	1
1,3,5-Trimethylbenzene	<0.38		1.0	0.38	ug/Kg			04/28/20 10:35	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/Kg			04/28/20 10:35	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/Kg			04/28/20 10:35	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/Kg			04/28/20 10:35	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/Kg			04/28/20 10:35	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/Kg			04/28/20 10:35	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/Kg			04/28/20 10:35	1
Benzene	<0.15		0.25	0.15	ug/Kg			04/28/20 10:35	1
Bromobenzene	<0.36		1.0	0.36	ug/Kg			04/28/20 10:35	1
Bromochloromethane	<0.43		1.0	0.43	ug/Kg			04/28/20 10:35	1
Bromodichloromethane	<0.37		1.0	0.37	ug/Kg			04/28/20 10:35	1
Bromoform	<0.48		1.0	0.48	ug/Kg			04/28/20 10:35	1
Bromomethane	<0.80		3.0	0.80	ug/Kg			04/28/20 10:35	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/Kg			04/28/20 10:35	1
Chlorobenzene	<0.39		1.0	0.39	ug/Kg			04/28/20 10:35	1
Chloroethane	<0.50		1.0	0.50	ug/Kg			04/28/20 10:35	1
Chloroform	<0.37		2.0	0.37	ug/Kg			04/28/20 10:35	1
Chloromethane	<0.32		1.0	0.32	ug/Kg			04/28/20 10:35	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/Kg			04/28/20 10:35	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/Kg			04/28/20 10:35	1
Dibromochloromethane	<0.49		1.0	0.49	ug/Kg			04/28/20 10:35	1
Dibromomethane	<0.27		1.0	0.27	ug/Kg			04/28/20 10:35	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/Kg			04/28/20 10:35	1
Ethylbenzene	<0.18		0.25	0.18	ug/Kg			04/28/20 10:35	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/Kg			04/28/20 10:35	1
Isopropyl ether	<0.28		1.0	0.28	ug/Kg			04/28/20 10:35	1
Isopropylbenzene	<0.38		1.0	0.38	ug/Kg			04/28/20 10:35	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/Kg			04/28/20 10:35	1
Methylene Chloride	<1.6		5.0	1.6	ug/Kg			04/28/20 10:35	1
Naphthalene	0.460	J	1.0	0.33	ug/Kg			04/28/20 10:35	1
n-Butylbenzene	<0.39		1.0	0.39	ug/Kg			04/28/20 10:35	1
N-Propylbenzene	<0.41		1.0	0.41	ug/Kg			04/28/20 10:35	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/Kg			04/28/20 10:35	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/Kg			04/28/20 10:35	1

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Stantec Consulting Corp.

Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-540009/6

Matrix: Solid

Analysis Batch: 540009

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Styrene	<0.39		1.0	0.39	ug/Kg			04/28/20 10:35	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/Kg			04/28/20 10:35	1
Tetrachloroethene	<0.37		1.0	0.37	ug/Kg			04/28/20 10:35	1
Toluene	<0.15		0.25	0.15	ug/Kg			04/28/20 10:35	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/Kg			04/28/20 10:35	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/Kg			04/28/20 10:35	1
Trichloroethene	<0.16		0.50	0.16	ug/Kg			04/28/20 10:35	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/Kg			04/28/20 10:35	1
Vinyl chloride	<0.26		1.0	0.26	ug/Kg			04/28/20 10:35	1
Xylenes, Total	<0.22		0.50	0.22	ug/Kg			04/28/20 10:35	1
Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac			
	%Recovery	Qualifier							
1,2-Dichloroethane-d4 (Surr)	99		75 - 126					04/28/20 10:35	1
4-Bromofluorobenzene (Surr)	88		72 - 124					04/28/20 10:35	1
Dibromofluoromethane	103		75 - 120					04/28/20 10:35	1
Toluene-d8 (Surr)	103		75 - 120					04/28/20 10:35	1

Lab Sample ID: LCS 500-540009/4

Matrix: Solid

Analysis Batch: 540009

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

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
	Added	Result	Qualifier					
1,1,1,2-Tetrachloroethane	50.0	50.8		ug/Kg		102	70 - 125	
1,1,1-Trichloroethane	50.0	51.6		ug/Kg		103	70 - 125	
1,1,2,2-Tetrachloroethane	50.0	48.1		ug/Kg		96	62 - 140	
1,1,2-Trichloroethane	50.0	50.0		ug/Kg		100	71 - 130	
1,1-Dichloroethane	50.0	47.1		ug/Kg		94	70 - 125	
1,1-Dichloroethene	50.0	54.6		ug/Kg		109	67 - 122	
1,1-Dichloropropene	50.0	50.4		ug/Kg		101	70 - 121	
1,2,3-Trichlorobenzene	50.0	49.2		ug/Kg		98	51 - 145	
1,2,3-Trichloropropane	50.0	45.3		ug/Kg		91	50 - 133	
1,2,4-Trichlorobenzene	50.0	49.2		ug/Kg		98	57 - 137	
1,2,4-Trimethylbenzene	50.0	48.4		ug/Kg		97	70 - 123	
1,2-Dibromo-3-Chloropropane	50.0	42.8		ug/Kg		86	56 - 123	
1,2-Dibromoethane	50.0	51.2		ug/Kg		102	70 - 125	
1,2-Dichlorobenzene	50.0	50.4		ug/Kg		101	70 - 125	
1,2-Dichloroethane	50.0	46.7		ug/Kg		93	68 - 127	
1,2-Dichloropropane	50.0	44.5		ug/Kg		89	67 - 130	
1,3,5-Trimethylbenzene	50.0	49.6		ug/Kg		99	70 - 123	
1,3-Dichlorobenzene	50.0	49.5		ug/Kg		99	70 - 125	
1,3-Dichloropropane	50.0	49.5		ug/Kg		99	62 - 136	
1,4-Dichlorobenzene	50.0	48.9		ug/Kg		98	70 - 120	
2,2-Dichloropropane	50.0	49.0		ug/Kg		98	58 - 139	
2-Chlorotoluene	50.0	49.1		ug/Kg		98	70 - 125	
4-Chlorotoluene	50.0	48.3		ug/Kg		97	68 - 124	
Benzene	50.0	51.2		ug/Kg		102	70 - 120	
Bromobenzene	50.0	47.7		ug/Kg		95	70 - 122	
Bromochloromethane	50.0	48.6		ug/Kg		97	65 - 122	

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-540009/4

Matrix: Solid

Analysis Batch: 540009

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromodichloromethane	50.0	47.4		ug/Kg	95	69 - 120	
Bromoform	50.0	52.9		ug/Kg	106	56 - 132	
Bromomethane	50.0	76.7	*	ug/Kg	153	40 - 152	
Carbon tetrachloride	50.0	51.5		ug/Kg	103	59 - 133	
Chlorobenzene	50.0	51.6		ug/Kg	103	70 - 120	
Chloroethane	50.0	57.1		ug/Kg	114	48 - 136	
Chloroform	50.0	48.3		ug/Kg	97	70 - 120	
Chloromethane	50.0	31.4		ug/Kg	63	56 - 152	
cis-1,2-Dichloroethene	50.0	52.1		ug/Kg	104	70 - 125	
cis-1,3-Dichloropropene	50.0	49.2		ug/Kg	98	64 - 127	
Dibromochloromethane	50.0	50.1		ug/Kg	100	68 - 125	
Dibromomethane	50.0	50.4		ug/Kg	101	70 - 120	
Dichlorodifluoromethane	50.0	34.5		ug/Kg	69	40 - 159	
Ethylbenzene	50.0	53.0		ug/Kg	106	70 - 123	
Hexachlorobutadiene	50.0	48.0		ug/Kg	96	51 - 150	
Isopropylbenzene	50.0	50.4		ug/Kg	101	70 - 126	
Methyl tert-butyl ether	50.0	48.9		ug/Kg	98	55 - 123	
Methylene Chloride	50.0	52.1		ug/Kg	104	69 - 125	
Naphthalene	50.0	47.2		ug/Kg	94	53 - 144	
n-Butylbenzene	50.0	52.7		ug/Kg	105	68 - 125	
N-Propylbenzene	50.0	50.5		ug/Kg	101	69 - 127	
p-Isopropyltoluene	50.0	48.9		ug/Kg	98	70 - 125	
sec-Butylbenzene	50.0	51.1		ug/Kg	102	70 - 123	
Styrene	50.0	50.5		ug/Kg	101	70 - 120	
tert-Butylbenzene	50.0	48.0		ug/Kg	96	70 - 121	
Tetrachloroethene	50.0	56.2		ug/Kg	112	70 - 128	
Toluene	50.0	52.6		ug/Kg	105	70 - 125	
trans-1,2-Dichloroethene	50.0	53.8		ug/Kg	108	70 - 125	
trans-1,3-Dichloropropene	50.0	48.3		ug/Kg	97	62 - 128	
Trichloroethene	50.0	49.9		ug/Kg	100	70 - 125	
Trichlorofluoromethane	50.0	51.9		ug/Kg	104	55 - 128	
Vinyl chloride	50.0	43.2		ug/Kg	86	64 - 126	
Xylenes, Total	100	103		ug/Kg	103	70 - 125	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		75 - 126
4-Bromofluorobenzene (Surr)	89		72 - 124
Dibromofluoromethane	101		75 - 120
Toluene-d8 (Surr)	106		75 - 120

Lab Sample ID: MB 500-540451/6

Matrix: Solid

Analysis Batch: 540451

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/Kg			04/30/20 11:29	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/Kg			04/30/20 11:29	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/Kg			04/30/20 11:29	1

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Stantec Consulting Corp.

Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-540451/6

Matrix: Solid

Analysis Batch: 540451

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/Kg			04/30/20 11:29	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/Kg			04/30/20 11:29	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/Kg			04/30/20 11:29	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/Kg			04/30/20 11:29	1
1,2,3-Trichlorobenzene	0.494	J	1.0	0.46	ug/Kg			04/30/20 11:29	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/Kg			04/30/20 11:29	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/Kg			04/30/20 11:29	1
1,2,4-Trimethylbenzene	<0.36		1.0	0.36	ug/Kg			04/30/20 11:29	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/Kg			04/30/20 11:29	1
1,2-Dibromoethane	<0.39		1.0	0.39	ug/Kg			04/30/20 11:29	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/Kg			04/30/20 11:29	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/Kg			04/30/20 11:29	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/Kg			04/30/20 11:29	1
1,3,5-Trimethylbenzene	<0.38		1.0	0.38	ug/Kg			04/30/20 11:29	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/Kg			04/30/20 11:29	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/Kg			04/30/20 11:29	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/Kg			04/30/20 11:29	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/Kg			04/30/20 11:29	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/Kg			04/30/20 11:29	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/Kg			04/30/20 11:29	1
Benzene	<0.15		0.25	0.15	ug/Kg			04/30/20 11:29	1
Bromobenzene	<0.36		1.0	0.36	ug/Kg			04/30/20 11:29	1
Bromochloromethane	<0.43		1.0	0.43	ug/Kg			04/30/20 11:29	1
Bromodichloromethane	<0.37		1.0	0.37	ug/Kg			04/30/20 11:29	1
Bromoform	<0.48		1.0	0.48	ug/Kg			04/30/20 11:29	1
Bromomethane	<0.80		3.0	0.80	ug/Kg			04/30/20 11:29	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/Kg			04/30/20 11:29	1
Chlorobenzene	<0.39		1.0	0.39	ug/Kg			04/30/20 11:29	1
Chloroethane	<0.50		1.0	0.50	ug/Kg			04/30/20 11:29	1
Chloroform	<0.37		2.0	0.37	ug/Kg			04/30/20 11:29	1
Chloromethane	<0.32		1.0	0.32	ug/Kg			04/30/20 11:29	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/Kg			04/30/20 11:29	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/Kg			04/30/20 11:29	1
Dibromochloromethane	<0.49		1.0	0.49	ug/Kg			04/30/20 11:29	1
Dibromomethane	<0.27		1.0	0.27	ug/Kg			04/30/20 11:29	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/Kg			04/30/20 11:29	1
Ethylbenzene	<0.18		0.25	0.18	ug/Kg			04/30/20 11:29	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/Kg			04/30/20 11:29	1
Isopropyl ether	<0.28		1.0	0.28	ug/Kg			04/30/20 11:29	1
Isopropylbenzene	<0.38		1.0	0.38	ug/Kg			04/30/20 11:29	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/Kg			04/30/20 11:29	1
Methylene Chloride	<1.6		5.0	1.6	ug/Kg			04/30/20 11:29	1
Naphthalene	0.538	J	1.0	0.33	ug/Kg			04/30/20 11:29	1
n-Butylbenzene	<0.39		1.0	0.39	ug/Kg			04/30/20 11:29	1
N-Propylbenzene	<0.41		1.0	0.41	ug/Kg			04/30/20 11:29	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/Kg			04/30/20 11:29	1
sec-Butylbenzene	<0.40		1.0	0.40	ug/Kg			04/30/20 11:29	1
Styrene	<0.39		1.0	0.39	ug/Kg			04/30/20 11:29	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/Kg			04/30/20 11:29	1

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Stantec Consulting Corp.

Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-540451/6

Matrix: Solid

Analysis Batch: 540451

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

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Tetrachloroethene	<0.37		1.0	0.37	ug/Kg			04/30/20 11:29	1
Toluene	0.170	J	0.25	0.15	ug/Kg			04/30/20 11:29	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/Kg			04/30/20 11:29	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/Kg			04/30/20 11:29	1
Trichloroethene	<0.16		0.50	0.16	ug/Kg			04/30/20 11:29	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/Kg			04/30/20 11:29	1
Vinyl chloride	<0.26		1.0	0.26	ug/Kg			04/30/20 11:29	1
Xylenes, Total	<0.22		0.50	0.22	ug/Kg			04/30/20 11:29	1

MB MB

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	104		75 - 126		04/30/20 11:29	1
4-Bromofluorobenzene (Surr)	88		72 - 124		04/30/20 11:29	1
Dibromofluoromethane	105		75 - 120		04/30/20 11:29	1
Toluene-d8 (Surr)	100		75 - 120		04/30/20 11:29	1

Lab Sample ID: LCS 500-540451/4

Matrix: Solid

Analysis Batch: 540451

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

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits
	Added	Result	Qualifier				
1,1,1,2-Tetrachloroethane	50.0	52.0		ug/Kg		104	70 - 125
1,1,1-Trichloroethane	50.0	52.1		ug/Kg		104	70 - 125
1,1,2,2-Tetrachloroethane	50.0	45.4		ug/Kg		91	62 - 140
1,1,2-Trichloroethane	50.0	49.6		ug/Kg		99	71 - 130
1,1-Dichloroethane	50.0	47.8		ug/Kg		96	70 - 125
1,1-Dichloroethene	50.0	54.9		ug/Kg		110	67 - 122
1,1-Dichloropropene	50.0	50.7		ug/Kg		101	70 - 121
1,2,3-Trichlorobenzene	50.0	50.3		ug/Kg		101	51 - 145
1,2,3-Trichloropropane	50.0	44.4		ug/Kg		89	50 - 133
1,2,4-Trichlorobenzene	50.0	49.6		ug/Kg		99	57 - 137
1,2,4-Trimethylbenzene	50.0	48.8		ug/Kg		98	70 - 123
1,2-Dibromo-3-Chloropropane	50.0	40.8		ug/Kg		82	56 - 123
1,2-Dibromoethane	50.0	49.5		ug/Kg		99	70 - 125
1,2-Dichlorobenzene	50.0	50.4		ug/Kg		101	70 - 125
1,2-Dichloroethane	50.0	46.6		ug/Kg		93	68 - 127
1,2-Dichloropropane	50.0	45.8		ug/Kg		92	67 - 130
1,3,5-Trimethylbenzene	50.0	49.4		ug/Kg		99	70 - 123
1,3-Dichlorobenzene	50.0	49.4		ug/Kg		99	70 - 125
1,3-Dichloropropane	50.0	48.8		ug/Kg		98	62 - 136
1,4-Dichlorobenzene	50.0	49.0		ug/Kg		98	70 - 120
2,2-Dichloropropane	50.0	50.6		ug/Kg		101	58 - 139
2-Chlorotoluene	50.0	48.4		ug/Kg		97	70 - 125
4-Chlorotoluene	50.0	48.1		ug/Kg		96	68 - 124
Benzene	50.0	51.8		ug/Kg		104	70 - 120
Bromobenzene	50.0	47.3		ug/Kg		95	70 - 122
Bromochloromethane	50.0	48.3		ug/Kg		97	65 - 122
Bromodichloromethane	50.0	47.9		ug/Kg		96	69 - 120
Bromoform	50.0	50.6		ug/Kg		101	56 - 132

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-540451/4

Matrix: Solid

Analysis Batch: 540451

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Bromomethane	50.0	88.2	*	ug/Kg		176	40 - 152
Carbon tetrachloride	50.0	52.5		ug/Kg		105	59 - 133
Chlorobenzene	50.0	52.0		ug/Kg		104	70 - 120
Chloroethane	50.0	61.4		ug/Kg		123	48 - 136
Chloroform	50.0	49.8		ug/Kg		100	70 - 120
Chloromethane	50.0	31.5		ug/Kg		63	56 - 152
cis-1,2-Dichloroethene	50.0	52.8		ug/Kg		106	70 - 125
cis-1,3-Dichloropropene	50.0	50.2		ug/Kg		100	64 - 127
Dibromochloromethane	50.0	48.3		ug/Kg		97	68 - 125
Dibromomethane	50.0	49.8		ug/Kg		100	70 - 120
Dichlorodifluoromethane	50.0	37.6		ug/Kg		75	40 - 159
Ethylbenzene	50.0	54.1		ug/Kg		108	70 - 123
Hexachlorobutadiene	50.0	49.0		ug/Kg		98	51 - 150
Isopropylbenzene	50.0	49.8		ug/Kg		100	70 - 126
Methyl tert-butyl ether	50.0	49.7		ug/Kg		99	55 - 123
Methylene Chloride	50.0	52.3		ug/Kg		105	69 - 125
Naphthalene	50.0	47.1		ug/Kg		94	53 - 144
n-Butylbenzene	50.0	53.7		ug/Kg		107	68 - 125
N-Propylbenzene	50.0	50.7		ug/Kg		101	69 - 127
p-Isopropyltoluene	50.0	49.4		ug/Kg		99	70 - 125
sec-Butylbenzene	50.0	51.4		ug/Kg		103	70 - 123
Styrene	50.0	51.1		ug/Kg		102	70 - 120
tert-Butylbenzene	50.0	48.2		ug/Kg		96	70 - 121
Tetrachloroethene	50.0	55.1		ug/Kg		110	70 - 128
Toluene	50.0	53.0		ug/Kg		106	70 - 125
trans-1,2-Dichloroethene	50.0	54.5		ug/Kg		109	70 - 125
trans-1,3-Dichloropropene	50.0	47.5		ug/Kg		95	62 - 128
Trichloroethene	50.0	51.5		ug/Kg		103	70 - 125
Trichlorofluoromethane	50.0	52.4		ug/Kg		105	55 - 128
Vinyl chloride	50.0	43.1		ug/Kg		86	64 - 126
Xylenes, Total	100	105		ug/Kg		105	70 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	94		75 - 126
4-Bromofluorobenzene (Surr)	91		72 - 124
Dibromofluoromethane	101		75 - 120
Toluene-d8 (Surr)	105		75 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-540441/1-A

Matrix: Solid

Analysis Batch: 540575

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 540441

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<8.1		67	8.1	ug/Kg		04/30/20 07:30	04/30/20 20:24	1
2-Methylnaphthalene	<6.1		67	6.1	ug/Kg		04/30/20 07:30	04/30/20 20:24	1
Acenaphthene	<6.0		33	6.0	ug/Kg		04/30/20 07:30	04/30/20 20:24	1
Acenaphthylene	<4.4		33	4.4	ug/Kg		04/30/20 07:30	04/30/20 20:24	1

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Stantec Consulting Corp.

Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-540441/1-A

Matrix: Solid

Analysis Batch: 540575

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 540441

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier					Prepared	Analyzed	Dil Fac
Anthracene	<5.6		33	5.6	ug/Kg	04/30/20 07:30	04/30/20 20:24		1
Benzo[a]anthracene	<4.5		33	4.5	ug/Kg	04/30/20 07:30	04/30/20 20:24		1
Benzo[a]pyrene	<6.4		33	6.4	ug/Kg	04/30/20 07:30	04/30/20 20:24		1
Benzo[b]fluoranthene	<7.2		33	7.2	ug/Kg	04/30/20 07:30	04/30/20 20:24		1
Benzo[g,h,i]perylene	<11		33	11	ug/Kg	04/30/20 07:30	04/30/20 20:24		1
Benzo[k]fluoranthene	<9.8		33	9.8	ug/Kg	04/30/20 07:30	04/30/20 20:24		1
Chrysene	<9.1		33	9.1	ug/Kg	04/30/20 07:30	04/30/20 20:24		1
Dibenz(a,h)anthracene	<6.4		33	6.4	ug/Kg	04/30/20 07:30	04/30/20 20:24		1
Fluoranthene	<6.2		33	6.2	ug/Kg	04/30/20 07:30	04/30/20 20:24		1
Fluorene	<4.7		33	4.7	ug/Kg	04/30/20 07:30	04/30/20 20:24		1
Indeno[1,2,3-cd]pyrene	<8.6		33	8.6	ug/Kg	04/30/20 07:30	04/30/20 20:24		1
Naphthalene	<5.1		33	5.1	ug/Kg	04/30/20 07:30	04/30/20 20:24		1
Phenanthrene	<4.6		33	4.6	ug/Kg	04/30/20 07:30	04/30/20 20:24		1
Pyrene	<6.6		33	6.6	ug/Kg	04/30/20 07:30	04/30/20 20:24		1
Surrogate	MB	MB	Limits	%Recovery	Qualifier	Prepared	Analyzed	Dil Fac	
	Result	Qualifier							
2-Fluorobiphenyl	111		43 - 145			04/30/20 07:30	04/30/20 20:24		1
Nitrobenzene-d5 (Surr)	99		37 - 147			04/30/20 07:30	04/30/20 20:24		1
Terphenyl-d14 (Surr)	117		42 - 157			04/30/20 07:30	04/30/20 20:24		1

Lab Sample ID: LCS 500-540441/2-A

Matrix: Solid

Analysis Batch: 540575

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 540441

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits	%Rec.	
	Added	Result	Qualifier						
1-Methylnaphthalene	1330	1480		ug/Kg	111	68 - 111			
2-Methylnaphthalene	1330	1420		ug/Kg	106	69 - 112			
Acenaphthene	1330	1420		ug/Kg	106	65 - 124			
Acenaphthylene	1330	1400		ug/Kg	105	68 - 120			
Anthracene	1330	1410		ug/Kg	106	70 - 114			
Benzo[a]anthracene	1330	1400		ug/Kg	105	67 - 122			
Benzo[a]pyrene	1330	1480		ug/Kg	111	65 - 133			
Benzo[b]fluoranthene	1330	1460		ug/Kg	109	69 - 129			
Benzo[g,h,i]perylene	1330	1460		ug/Kg	110	72 - 131			
Benzo[k]fluoranthene	1330	1410		ug/Kg	106	68 - 127			
Chrysene	1330	1440		ug/Kg	108	63 - 120			
Dibenz(a,h)anthracene	1330	1440		ug/Kg	108	64 - 131			
Fluoranthene	1330	1410		ug/Kg	106	62 - 120			
Fluorene	1330	1370		ug/Kg	102	62 - 120			
Indeno[1,2,3-cd]pyrene	1330	1410		ug/Kg	106	68 - 130			
Naphthalene	1330	1410		ug/Kg	106	63 - 110			
Phenanthrene	1330	1330		ug/Kg	100	62 - 120			
Pyrene	1330	1380		ug/Kg	104	61 - 128			
Surrogate	LCS	LCS	Limits	%Recovery	Qualifier	Prepared	Analyzed	Dil Fac	
	Added	Result							
2-Fluorobiphenyl	111		43 - 145						
Nitrobenzene-d5 (Surr)	106		37 - 147						
Terphenyl-d14 (Surr)	107		42 - 157						

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Stantec Consulting Corp.

Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: 500-180981-1 MS

Matrix: Solid

Analysis Batch: 540575

Client Sample ID: 18th Excav 2-10

Prep Type: Total/NA

Prep Batch: 540441

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec.	Limits
1-Methylnaphthalene	<8.7	F1 F2	1410	1420		ug/Kg	⊗	100	68 - 111	
2-Methylnaphthalene	<6.6	F1 F2	1410	1460		ug/Kg	⊗	103	69 - 112	
Acenaphthene	<6.4	F1 F2	1410	1510		ug/Kg	⊗	107	65 - 124	
Acenaphthylene	<4.7	F1 F2	1410	1450		ug/Kg	⊗	103	68 - 120	
Anthracene	<6.0	F1 F2	1410	1460		ug/Kg	⊗	103	70 - 114	
Benzo[a]anthracene	<4.8	F1 F2	1410	1420		ug/Kg	⊗	101	67 - 122	
Benzo[a]pyrene	<6.9	F1 F2	1410	1560		ug/Kg	⊗	110	65 - 133	
Benzo[b]fluoranthene	<7.7	F1 F2	1410	1530		ug/Kg	⊗	108	69 - 129	
Benzo[g,h,i]perylene	<11	F1 F2	1410	1320		ug/Kg	⊗	94	72 - 131	
Benzo[k]fluoranthene	<11	F1 F2	1410	1520		ug/Kg	⊗	108	68 - 127	
Chrysene	<9.7	F1 F2	1410	1410		ug/Kg	⊗	100	63 - 120	
Dibenz(a,h)anthracene	<6.9	F1 F2	1410	1370		ug/Kg	⊗	97	64 - 131	
Fluoranthene	<6.6	F1 F2	1410	1500		ug/Kg	⊗	106	62 - 120	
Fluorene	<5.0	F1 F2	1410	1550		ug/Kg	⊗	109	62 - 120	
Indeno[1,2,3-cd]pyrene	<9.2	F1 F2	1410	1360		ug/Kg	⊗	96	68 - 130	
Naphthalene	<5.5	F1 F2	1410	1390		ug/Kg	⊗	98	63 - 110	
Phenanthrene	<5.0	F1 F2	1410	1430		ug/Kg	⊗	102	62 - 120	
Pyrene	<7.1	F1 F2	1410	1530		ug/Kg	⊗	108	61 - 128	
Surrogate		MS %Recovery	MS Qualifier	Limits						
2-Fluorobiphenyl	113			43 - 145						
Nitrobenzene-d5 (Surr)	99			37 - 147						
Terphenyl-d14 (Surr)	107			42 - 157						

Lab Sample ID: 500-180981-1 MSD

Matrix: Solid

Analysis Batch: 540575

Client Sample ID: 18th Excav 2-10

Prep Type: Total/NA

Prep Batch: 540441

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec.	RPD	RPD Limit
1-Methylnaphthalene	<8.7	F1 F2	1410	297	F1 F2	ug/Kg	⊗	21	68 - 111	131	30
2-Methylnaphthalene	<6.6	F1 F2	1410	303	F1 F2	ug/Kg	⊗	21	69 - 112	131	30
Acenaphthene	<6.4	F1 F2	1410	311	F1 F2	ug/Kg	⊗	22	65 - 124	132	30
Acenaphthylene	<4.7	F1 F2	1410	293	F1 F2	ug/Kg	⊗	21	68 - 120	133	30
Anthracene	<6.0	F1 F2	1410	315	F1 F2	ug/Kg	⊗	22	70 - 114	129	30
Benzo[a]anthracene	<4.8	F1 F2	1410	350	F1 F2	ug/Kg	⊗	25	67 - 122	121	30
Benzo[a]pyrene	<6.9	F1 F2	1410	358	F1 F2	ug/Kg	⊗	25	65 - 133	125	30
Benzo[b]fluoranthene	<7.7	F1 F2	1410	357	F1 F2	ug/Kg	⊗	25	69 - 129	124	30
Benzo[g,h,i]perylene	<11	F1 F2	1410	302	F1 F2	ug/Kg	⊗	21	72 - 131	126	30
Benzo[k]fluoranthene	<11	F1 F2	1410	351	F1 F2	ug/Kg	⊗	25	68 - 127	125	30
Chrysene	<9.7	F1 F2	1410	348	F1 F2	ug/Kg	⊗	25	63 - 120	121	30
Dibenz(a,h)anthracene	<6.9	F1 F2	1410	306	F1 F2	ug/Kg	⊗	22	64 - 131	127	30
Fluoranthene	<6.6	F1 F2	1410	341	F1 F2	ug/Kg	⊗	24	62 - 120	126	30
Fluorene	<5.0	F1 F2	1410	312	F1 F2	ug/Kg	⊗	22	62 - 120	133	30
Indeno[1,2,3-cd]pyrene	<9.2	F1 F2	1410	317	F1 F2	ug/Kg	⊗	22	68 - 130	124	30
Naphthalene	<5.5	F1 F2	1410	296	F1 F2	ug/Kg	⊗	21	63 - 110	130	30
Phenanthrene	<5.0	F1 F2	1410	305	F1 F2	ug/Kg	⊗	22	62 - 120	130	30
Pyrene	<7.1	F1 F2	1410	367	F1 F2	ug/Kg	⊗	26	61 - 128	123	30

Eurofins TestAmerica, Chicago

QC Sample Results

Client: Stantec Consulting Corp.
Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 500-180981-1 MSD

Matrix: Solid

Analysis Batch: 540575

Client Sample ID: 18th Excav 2-10

Prep Type: Total/NA

Prep Batch: 540441

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl	22	X	43 - 145
Nitrobenzene-d5 (Surr)	19	X	37 - 147
Terphenyl-d14 (Surr)	24	X	42 - 157

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 500-539349/1-A

Matrix: Solid

Analysis Batch: 539510

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 539349

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	<0.34		1.0	0.34	mg/Kg	04/22/20 17:04	04/23/20 09:25		1
Barium	<0.11		1.0	0.11	mg/Kg	04/22/20 17:04	04/23/20 09:25		1
Cadmium	<0.036		0.20	0.036	mg/Kg	04/22/20 17:04	04/23/20 09:25		1
Chromium	<0.50		1.0	0.50	mg/Kg	04/22/20 17:04	04/23/20 09:25		1
Lead	<0.23		0.50	0.23	mg/Kg	04/22/20 17:04	04/23/20 09:25		1
Selenium	<0.59		1.0	0.59	mg/Kg	04/22/20 17:04	04/23/20 09:25		1
Silver	<0.13		0.50	0.13	mg/Kg	04/22/20 17:04	04/23/20 09:25		1

Lab Sample ID: LCS 500-539349/2-A

Matrix: Solid

Analysis Batch: 539510

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 539349

Analyte	Spikes	LCS	LCS	Unit	D	%Rec	Limits	%Rec.
	Added	Result	Qualifier					
Arsenic	10.0	8.81		mg/Kg	88	80 - 120		
Barium	200	182		mg/Kg	91	80 - 120		
Cadmium	5.00	4.38		mg/Kg	88	80 - 120		
Chromium	20.0	18.2		mg/Kg	91	80 - 120		
Lead	10.0	8.91		mg/Kg	89	80 - 120		
Selenium	10.0	8.55		mg/Kg	86	80 - 120		
Silver	5.00	4.47		mg/Kg	89	80 - 120		

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 500-540301/12-A

Matrix: Solid

Analysis Batch: 540516

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 540301

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.0056		0.017	0.0056	mg/Kg	04/29/20 13:25	04/30/20 08:17		1

Lab Sample ID: LCS 500-540301/13-A

Matrix: Solid

Analysis Batch: 540516

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 540301

Analyte	Spikes	LCS	LCS	Unit	D	%Rec	Limits	%Rec.
	Added	Result	Qualifier					
Mercury	0.167	0.165		mg/Kg	99	80 - 120		

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Client Sample ID: 18th Excav 2-10
Date Collected: 04/21/20 10:15
Date Received: 04/22/20 10:10

Lab Sample ID: 500-180981-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	539325	04/22/20 13:42	LWN	TAL CHI

Client Sample ID: 18th Excav 2-10
Date Collected: 04/21/20 10:15
Date Received: 04/22/20 10:10

Lab Sample ID: 500-180981-1
Matrix: Solid
Percent Solids: 92.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			539941	04/21/20 10:15	WRE	TAL CHI
Total/NA	Analysis	8260B		50	540451	04/30/20 15:54	JDD	TAL CHI
Total/NA	Prep	3541			540441	04/30/20 07:30	BSO	TAL CHI
Total/NA	Analysis	8270D		1	540575	04/30/20 20:52	NRJ	TAL CHI
Total/NA	Prep	3050B			539349	04/22/20 17:04	BDE	TAL CHI
Total/NA	Analysis	6010C		1	539510	04/23/20 10:06	JEF	TAL CHI
Total/NA	Prep	7471B			540301	04/29/20 13:25	MJG	TAL CHI
Total/NA	Analysis	7471B		1	540516	04/30/20 08:21	MJG	TAL CHI

Client Sample ID: 18th Pile
Date Collected: 04/21/20 10:18
Date Received: 04/22/20 10:10

Lab Sample ID: 500-180981-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	539325	04/22/20 13:42	LWN	TAL CHI

Client Sample ID: 18th Pile
Date Collected: 04/21/20 10:18
Date Received: 04/22/20 10:10

Lab Sample ID: 500-180981-2
Matrix: Solid
Percent Solids: 91.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			540441	04/30/20 07:30	BSO	TAL CHI
Total/NA	Analysis	8270D		1	540575	04/30/20 21:20	NRJ	TAL CHI
Total/NA	Prep	3050B			539349	04/22/20 17:04	BDE	TAL CHI
Total/NA	Analysis	6010C		1	539510	04/23/20 10:10	JEF	TAL CHI
Total/NA	Prep	7471B			540301	04/29/20 13:25	MJG	TAL CHI
Total/NA	Analysis	7471B		1	540516	04/30/20 08:24	MJG	TAL CHI

Client Sample ID: 17th-18th Pile 6-8
Date Collected: 04/21/20 10:22
Date Received: 04/22/20 10:10

Lab Sample ID: 500-180981-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	539325	04/22/20 13:42	LWN	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Client Sample ID: 17th-18th Pile 6-8
Date Collected: 04/21/20 10:22
Date Received: 04/22/20 10:10

Lab Sample ID: 500-180981-3
Matrix: Solid
Percent Solids: 87.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			540441	04/30/20 07:30	BSO	TAL CHI
Total/NA	Analysis	8270D		1	540575	04/30/20 21:48	NRJ	TAL CHI
Total/NA	Prep	3050B			539349	04/22/20 17:04	BDE	TAL CHI
Total/NA	Analysis	6010C		1	539510	04/23/20 10:14	JEF	TAL CHI
Total/NA	Prep	7471B			540301	04/29/20 13:25	MJG	TAL CHI
Total/NA	Analysis	7471B		1	540516	04/30/20 08:26	MJG	TAL CHI

Client Sample ID: 16th Excav 6-8
Date Collected: 04/21/20 10:30
Date Received: 04/22/20 10:10

Lab Sample ID: 500-180981-4
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	539325	04/22/20 13:42	LWN	TAL CHI

Client Sample ID: 16th Excav 6-8
Date Collected: 04/21/20 10:30
Date Received: 04/22/20 10:10

Lab Sample ID: 500-180981-4
Matrix: Solid
Percent Solids: 92.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			539941	04/21/20 10:30	WRE	TAL CHI
Total/NA	Analysis	8260B		50	540451	04/30/20 16:17	JDD	TAL CHI
Total/NA	Prep	3541			540441	04/30/20 07:30	BSO	TAL CHI
Total/NA	Analysis	8270D		1	540575	04/30/20 22:15	NRJ	TAL CHI
Total/NA	Prep	3050B			539349	04/22/20 17:04	BDE	TAL CHI
Total/NA	Analysis	6010C		1	539510	04/23/20 10:25	JEF	TAL CHI
Total/NA	Prep	7471B			540301	04/29/20 13:25	MJG	TAL CHI
Total/NA	Analysis	7471B		1	540516	04/30/20 08:28	MJG	TAL CHI

Client Sample ID: 14th Excav 2-7
Date Collected: 04/21/20 10:35
Date Received: 04/22/20 10:10

Lab Sample ID: 500-180981-5
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	539325	04/22/20 13:42	LWN	TAL CHI

Client Sample ID: 14th Excav 2-7
Date Collected: 04/21/20 10:35
Date Received: 04/22/20 10:10

Lab Sample ID: 500-180981-5
Matrix: Solid
Percent Solids: 80.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			539941	04/21/20 10:35	WRE	TAL CHI
Total/NA	Analysis	8260B		50	540451	04/30/20 16:42	JDD	TAL CHI
Total/NA	Prep	3541			540441	04/30/20 07:30	BSO	TAL CHI
Total/NA	Analysis	8270D		1	540575	04/30/20 22:43	NRJ	TAL CHI
Total/NA	Prep	3050B			539349	04/22/20 17:04	BDE	TAL CHI
Total/NA	Analysis	6010C		1	539510	04/23/20 10:29	JEF	TAL CHI

Eurofins TestAmerica, Chicago

Lab Chronicle

Client: Stantec Consulting Corp.
Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Client Sample ID: 14th Excav 2-7

Date Collected: 04/21/20 10:35

Date Received: 04/22/20 10:10

Lab Sample ID: 500-180981-5

Matrix: Solid

Percent Solids: 80.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471B			540301	04/29/20 13:25	MJG	TAL CHI
Total/NA	Analysis	7471B		1	540516	04/30/20 08:30	MJG	TAL CHI

Client Sample ID: Fleetwood Excav 18-20

Date Collected: 04/21/20 10:40

Date Received: 04/22/20 10:10

Lab Sample ID: 500-180981-6

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	539325	04/22/20 13:42	LWN	TAL CHI

Client Sample ID: Fleetwood Excav 18-20

Date Collected: 04/21/20 10:40

Date Received: 04/22/20 10:10

Lab Sample ID: 500-180981-6

Matrix: Solid

Percent Solids: 84.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			539941	04/21/20 10:40	WRE	TAL CHI
Total/NA	Analysis	8260B		50	540451	04/30/20 17:05	JDD	TAL CHI
Total/NA	Prep	3541			540441	04/30/20 07:30	BSO	TAL CHI
Total/NA	Analysis	8270D		1	540575	04/30/20 23:11	NRJ	TAL CHI
Total/NA	Prep	3050B			539349	04/22/20 17:04	BDE	TAL CHI
Total/NA	Analysis	6010C		1	539510	04/23/20 10:33	JEF	TAL CHI
Total/NA	Prep	7471B			540301	04/29/20 13:25	MJG	TAL CHI
Total/NA	Analysis	7471B		1	540516	04/30/20 08:32	MJG	TAL CHI

Client Sample ID: Fleetwood Pile 0-20

Date Collected: 04/21/20 10:45

Date Received: 04/22/20 10:10

Lab Sample ID: 500-180981-7

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	539325	04/22/20 13:42	LWN	TAL CHI

Client Sample ID: Fleetwood Pile 0-20

Date Collected: 04/21/20 10:45

Date Received: 04/22/20 10:10

Lab Sample ID: 500-180981-7

Matrix: Solid

Percent Solids: 86.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3541			540441	04/30/20 07:30	BSO	TAL CHI
Total/NA	Analysis	8270D		1	540575	04/30/20 23:39	NRJ	TAL CHI
Total/NA	Prep	3050B			539349	04/22/20 17:04	BDE	TAL CHI
Total/NA	Analysis	6010C		1	539510	04/23/20 10:38	JEF	TAL CHI
Total/NA	Prep	7471B			540301	04/29/20 13:25	MJG	TAL CHI
Total/NA	Analysis	7471B		1	540516	04/30/20 08:34	MJG	TAL CHI

Laboratory References:

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

Eurofins TestAmerica, Chicago

Accreditation/Certification Summary

Client: Stantec Consulting Corp.

Project/Site: Waldo Blvd Sampling - 193805824

Job ID: 500-180981-1

Laboratory: Eurofins TestAmerica, Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	999580010	08-31-20

1

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Eurofins TestAmerica, Chicago

TestAmerica

THE LEADER IN ENVIRONMENTAL

2417 Bond Street, University Park, IL 60466
Phone: 708.534.5200 Fax: 708.534.5201



500-180981 COC

(optional)
 Report To: HARRIS BUERS
 Contact: STANTEC
 Company: STANTEC
 Address: 12075 CORONADE PKWY
 Address: F200 MELTON, WI 53092
 Phone: (414) 581-6476
 Fax: -
 E-Mail: HARRIS.BUERS@STANTEC.COM

(optional)
 Bill To: (SAME)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 PO#/Reference# 193805824

Chain of Custody Record

Lab Job #: 500-180981

Chain of Custody Number: _____

Page 1 of 1

Temperature °C of Cooler: 43

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

Comments

Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	VOC	P4/H	PCPA	MOSLS	PCPA MOSLS										
			Date	Time																	
1		18TH EXCN Z-18	4/21/20	1015	5	X	X	X													
2		18TH PILE		1018				X	X												
3		17TH-18TH PILE 6-8		1022				X	X												
4		16TH EXCAV 6-8		1030			X	X	X												
5		14TH EXCAV Z-7		1035			X	X	X												
6		FLEETWOOD EXCN 8-20		1040			X	X	X												
7		FLEETWOOD PILE 0-20		1045			X	X													

Turnaround Time Required (Business Days)

1 Day 2 Days 5 Days 7 Days 10 Days 15 Days Other
 Requested Due Date

Sample Disposal

Return to Client

Disposal by Lab

Archive for _____ Months

(A fee may be assessed if samples are retained longer than 1 month)

Relinquished By 	Company STANTEC	Date 4/21/2020	Time 1500	Received By 	Company	Date	Time	Lab Courier
Relinquished By 	Company	Date	Time	Received By 	Company	Date	Time	Shipped
Relinquished By 	Company	Date	Time	Received By 	Company	Date	Time	Hand Delivered

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

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ORIGIN ID:RRLA (262) 202-5955
HARRIS BYERS
STANTEC CONSULTING
12075 CORPORATE PARKWAY
MEQUON, WI 53092
UNITED STATES US

SHIP DATE: 11MAR19
ACTWTG: 15.00 LB MAN
CAD: 525155/CAFE3211

TO

TESTAMERICA CHICAGO
2417 BOND STREET



UNIVERSITY PARK IL 60484-3101

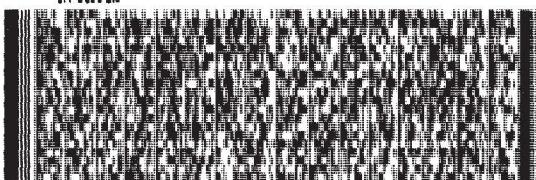
(708) 534-6200
INFO:
PO#:

REF:

DEPT:

500-180981 Way!

RMA: ####

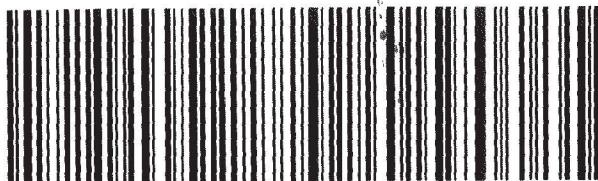


FedEx
TRK# 7125 4939 6274
0221

WED - 22 APR 10:30A
PRIORITY OVERNIGHT

79 JOTA

60484
JL-US ORD



48pt,

Login Sample Receipt Checklist

Client: Stantec Consulting Corp.

Job Number: 500-180981-1

Login Number: 180981

List Source: Eurofins TestAmerica, Chicago

List Number: 1

Creator: Scott, Sherri L

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	4.3
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 (excluding tests with immediate HTs)	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	