



GEOPHYSICAL INVESTIGATION REPORT

SITE LOCATION:

**200 Hamilton Avenue
White Plains, New York**

PREPARED FOR:

**AKRF, Inc.
34 South Broadway, Suite 401
White Plains, New York 10601**

PREPARED BY:

Martin Young
Delta Geophysics Inc.
738 Front Street
Catasauqua, PA18032

August 8, 2017

1.0 INTRODUCTION

On August 8, 2017 Delta Geophysics personnel performed a limited geophysical investigation at the 200 Hamilton Avenue property in White Plains, New York. The survey site is an active commercial property. Subsurface conditions were unknown at the time of survey; surface conditions consisted of concrete, bituminous pavement and vegetation over soils.

2.0 SCOPE OF WORK

The objective was to investigate the subsurface for anomalies consistent with underground utilities and/or any other anomalous features in the client specified proposed boring locations. All findings would be marked and conveyed to on-site personnel.

3.0 METHODOLOGY

Selection of survey equipment is dependent site conditions and project objectives. For this project the technician utilized the following equipment to survey the area of concern:

- Geophysical Survey Systems Inc. SIR-3000 cart-mounted Ground Penetrating Radar (GPR) unit with a 400 Mhz antenna.
- Radiodetection RD7000 precision utility locator.
- Fisher M-Scope TW-6 pipe and cable locator.

Ground penetrating radar (commonly called GPR) is a geophysical method that has been developed over the past thirty years for shallow, high-resolution, subsurface investigations of the earth. GPR uses high frequency pulsed electromagnetic waves (generally 10 MHz to 1,000 MHz) to acquire subsurface information. Energy is propagated downward into the ground and is reflected back to the surface from boundaries at which there are electrical property contrasts. GPR is a method that is commonly used for environmental, engineering, archeological, and other shallow investigations.

The GSSI SIR-3000 GPR can accept a wide variety of antennas which provide various depths of penetration and levels of resolution. The 400 MHz antenna can achieve depths of penetration up to about 20 feet, but this depth may be greatly reduced due to site-specific conditions. Signal penetration decreases with increased soil conductivity. Conductive materials attenuate or absorb the GPR signal. As depth increases the return signal becomes weaker. Penetration is the greatest in unsaturated sands and fine gravels. Clayey, highly saline or saturated soils, areas covered by steel reinforced concrete, foundry slag, or other highly conductive materials significantly reduces GPR depth of penetration.

The 400MHz antenna was configured to transmit to a depth of approximately 10 feet below the subsurface, but actual signal penetration was limited to approximately 1-3 feet below ground surface (bgs). The limiting factor was signal attenuation from near surface soils.

The RD7000 precision utility locator uses radio emission to trace the location of metal bearing utilities. This radio emission can be active or passive. Active tracing requires the attachment of a radio transmitter to the utility, passive tracing uses radio emissions that are present on the utility. Underground electrical utilities typically emit radio signals that this device can detect.

The TW-6 is designed to find pipes, cables and other metallic objects such as underground storage tanks. One surveyor can carry both the transmitter and receiver together, making it ideally suited for exploration type searches of ferrous metal masses. Metal detectors of this type operate by generating a magnetic field at the transmitter which causes metallic objects in the subsurface to generate a secondary magnetic field. The induced secondary field is detected by the receiver, which generates an audible tone equal to the strength of the secondary field.

4.0 SURVEY FINDINGS

All accessible areas within the client's areas of concern were examined during this survey. Each location was examined with the RD7000 for potential subsurface utilities, and then surveyed with the GPR and TW-6 for other potential anomalies.

Within the parking lot, multiple boring locations were examined and all nearby utilities marked on ground surface.

Within the sidewalk along Hamilton Avenue, two proposed boring locations were examined. One location contained several potential subsurface utilities.

Two boring location along Barker Avenue were examined. Both location were adjacent to potential subsurface utilities.

One potential location was situated on the ground floor within the building. This location could not be cleared due to the construction of the floor.

All potential utility conflicts were discussed with the client representative on-site, and alternate locations were examined where needed.

5.0 SURVEY LIMITATIONS

GPR depth of penetration was limited to approximately 2-3 feet bgs. The limiting factor was due to conductive soils. The TW-6 was not able to be utilized in some areas due to the presence of reinforced concrete. Floor construction within the building prevented signal penetration at the interior location.

6.0 WARRANTIES AND DISCLAIMER

As with any geophysical method, it must be stressed that caution be used during any excavation or intrusive testing in proximity to any anomalies indicated in this report. In addition, the absence of detected signatures does not preclude the possibility that targets may exist. To the extent the client desires more definitive conclusions than are warranted by the currently available facts; it is specifically Delta's intent that the conclusions stated herein will be intended as guidance.


This report is based upon the application of scientific principles and professional judgment to certain facts with resultant subjective interpretations. Professional judgments expressed herein are based on the facts currently available within the limit or scope of work, budget and schedule. Delta represents that the services were performed in a manner consistent with currently accepted professional practices employed by geophysical/geological consultants under similar


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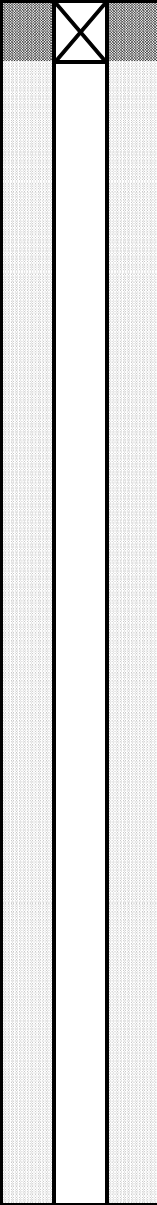

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APPENDIX C
FIELD LOGS


SOIL BORING LOG		Hamilton Green		Soil Boring ID:		SB-1		
		AKRF Project Number: 170029		Sheet 1 of 1				
 440 Park Avenue South, 7 th Floor New York, NY 10016		Drilling Method:	Geoprobe	Drilling				
		Sampling Method:	5' Macrocore	Start Time: 8:55		Finish Time: 9:15		
		Driller:	Craig	Date: 8/8/2017				
		Weather:	75°F,					
		Logged By:	E. Matamoros					
Depth (feet)	Recovery (Inches)	Surface Condition: 3" Top Solid. Grass		Odor	Moisture	PID (ppm)	NAPL	Soil Samples Collected for Laboratory Analysis
1	21	Top 3": Dark Brown SAND, some Silt		ND	Moist	ND	ND	SB-1 (2-4)
2		Next 18": Gray Brown SILT and SAND, trace Brick, Gravel (Fill)		ND	Moist	ND	ND	
3								
4								
5								
6	34	Gray-Brown SILT and SAND, trace Brick, Gravel (Fill)		ND	Moist	ND	ND	SB-1 (9-11)
7								
8								
9								
10								
11	36	Top 16": Brown SAND		ND	Moist	ND	ND	
12		Next 18": Brown SAND, some fine Gravel, Silt.		ND	Wet	ND	ND	
13								
14								
15								
16	35	Brown SAND, some Silt		ND	Wet	ND	ND	
17								
18								
19								
20								
Notes: Soil sample analyzed for VOCs 8260, BN-SVOCs 8270, TAL metals, and PCBs. Groundwater encountered at approximately 13 feet below grade during soil boring installation. End of soil boring at 18 feet below grade.								
PID = photoionization detector ppm = parts per million NAPL = non-aqueous phase liquid ND = not detected								
Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.								


SOIL BORING LOG		Hamilton Green AKRF Project Number: 170029		Soil Boring ID: Sheet 1 of 1		SB-2		
 440 Park Avenue South, 7 th Floor New York, NY 10016		Drilling Method:	Geoprobe	Drilling				
		Sampling Method:	5' Macrocore	Start Time: 8:15		Finish Time: 8:30		
		Driller:	Craig	Date: 8/8/2017				
		Weather:	70°F,					
		Logged By:	E. Matamoros					
Depth (feet)	Recovery (Inches)	Surface Condition: 3" Top Solid. Grass		Odor	Moisture	PID (ppm)	NAPL	Soil Samples Collected for Laboratory Analysis
1	37	Brown SAND and SILT, trace Brick, Asphalt, Gravel (Fill)		ND	ND	ND	ND	1-3 @ 8:30
2								
3								
4								
5								
6	35	Top 9": Concrete (FILL)		ND	ND	ND	ND	
7		Bottom 26": Gray SILT, some Sand		ND	ND	ND	ND	
8								
9								
10								
11	31	Olive Green SILT, some Sand		ND	Moist	ND	ND	
12								
13								
14								
15								
16	29	Brown SILT		ND	Moist	ND	ND	16-18 @ 8:35
17								
18								
19								
20								
Notes: Soil sample analyzed for VOCs 8260, BN-SVOCs 8270, TAL metals, and PCBs. Groundwater encountered at approximately 18 feet below grade during soil boring installation. End of soil boring at 20 feet below grade. PID = photoionization detector ppm = parts per million NAPL = non-aqueous phase liquid ND = not detected Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.								


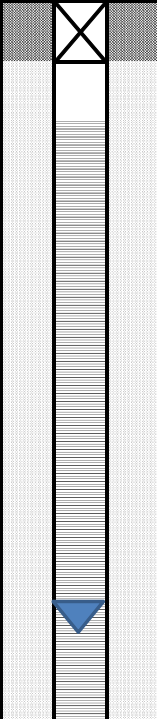

SOIL BORING LOG		Hamilton Green AKRF Project Number: 170029		Soil Boring ID: Sheet 1 of 1		SB-3		
 440 Park Avenue South, 7 th Floor New York, NY 10016		Drilling Method: Geoprobe		Drilling				
		Sampling Method: 5' Macrocore		Start Time: 13:40		Finish Time: 14:00		
		Driller: Craig		Date: 8/9/2017				
		Weather: 75°F,						
		Logged By: E. Matamoros						
Depth (feet)	Recovery (Inches)	Surface Condition: Grass		Odor	Moisture	PID (ppm)	NAPL	Soil Samples Collected for Laboratory Analysis
1	31	Top 4": Brown SAND, some Organics (roots, grass)		ND	ND	ND	ND	SB-3 (1-3)
2		Next 27": Brown SAND, some Silt						
3								
4								
5								
6	52	Brown SAND, some Silt, little Gravel		ND	ND	ND	ND	
7								
8								
9								
10								
11	41	Brown SAND, some Silt, little Gravel		ND	ND	ND	ND	
12								
13								
14								
15								
16	34	Brown SAND, some Silt, little Gravel		ND	ND	ND	ND	SB-3 (17-19)
17								
18								
19								
20								
Notes: Soil sample analyzed for VOCs 8260, BN-SVOCs 8270, TAL metals, and PCBs. Groundwater was not encountered. End of soil boring at 19 feet below grade.								
PID = photoionization detector ppm = parts per million NAPL = non-aqueous phase liquid ND = not detected								
Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.								


SOIL BORING AND WELL INSTALLATION LOG		Hamilton Green AKRF Project Number: 170029		Groundwater Monitoring Well ID: Sheet 1 of 2		TW-1		Soil Boring ID:		SB-4		
 440 Park Avenue South, 7 th Floor New York, NY 10016		Drilling Method: Geoprobe		Drilling								
		Sampling Method: 5' Macrocore		Start Time: 12:30				Finish Time: 13:30				
		Driller: Craig		Date: 8/9/2017								
		Weather: 75°F,										
Logged by: E. Matamoros												
Depth (feet)	Well Construction	Surface Condition: Asphalt		Recovery (inches)	Soil Boring Log	Odor	Moisture	PID (ppm)	NAPL	Soil Samples Collected for Laboratory Analysis		
1		1" diameter PVC well casing: 0' to 20' below grade		24	Top 6": Asphalt	ND	ND	ND	ND			
2					Bottom 18": Brown SAND, Some Wood, Silt, little Asphalt (FILL)							
3												
4												
5												
6					13	Brown SAND and SILT, little Wood, Gravel (FILL)	ND	ND	ND	ND		
7												
8												
9												
10												
11					13	Brown SAND, some Gravel, Silt	ND	ND	0.7	ND		
12												
13												
14												
15												
16					23	Gray SAND, some Silt, little Gravel	ND	ND	5.4	ND		
17												
18												
19												
20												
Notes:  Groundwater Depth Indicator				Soil samples analyzed for VOCs, BN-SVOCs, TAL Metals, and PCBs								
Groundwater measured at 23 feet below grade.				Groundwater encountered at approximately 23 feet below grade during soil boring installation.								
Groundwater monitoring well installed to 30 feet below grade.				End of soil boring at 25 feet below grade.								
PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected												
Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.												


SOIL BORING AND WELL INSTALLATION LOG		Hamilton Green AKRF Project Number: 170029		Groundwater Monitoring Well ID: Sheet 2 of 2	TW-1	Soil Boring ID:	SB-4		
 440 Park Avenue South, 7 th Floor New York, NY 10016		Drilling Method:	Geoprobe	Drilling					
		Sampling Method:	5' Macrocore	Start Time: 12:30				Finish Time: 13:30	
		Driller:	Craig	Date: 8/9/2017					
		Weather:	75°F						
		Logged by:	E. Matamoros						
Depth (feet)	Well Construction		Recovery (Inches)	Soil Boring Log	Odor	Moisture	PID (ppm)	NAPL	Soil Samples Collected for Laboratory Analysis
21		0.020-inch slotted PVC well screen: 20' to 30' below grade	27	Gray SILT, little Sand, Clay	Petroleum-like	Dry	743	ND	
22						Dry	188		
23						Wet @ 23	634		
24									
25						Wet	10.5		
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									
Notes:			Soil samples analyzed for VOCs, BN-SVOCs, TAL Metals, and PCBs Groundwater measured at 23 feet below grade Groundwater encountered at approximately 23 feet below grade during soil boring installation. Groundwater monitoring well installed to 30 feet below grade. End of soil boring at 25 feet below grade.						
PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected									
Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.									

SOIL BORING LOG		Hamilton Green AKRF Project Number: 170029		Soil Boring ID: Sheet 1 of 1		SB-5		
 440 Park Avenue South, 7 th Floor New York, NY 10016		Drilling Method:	Geoprobe	Drilling				
		Sampling Method:	5' Macrocore	Start Time: 10:40		Finish Time: 11:00		
		Driller:	Craig					
		Weather:	70°F,					
		Logged By:	E. Matamoros	Date: 8/8/2017				
Depth (feet)	Recovery (Inches)	Surface Condition: Grass		Odor	Moisture	PID (ppm)	NAPL	Soil Samples Collected for Laboratory Analysis
1	28	Brown Sand, little Silt, Gravel, Brick, Concrete, Asphalt (FILL)		ND	Moist	ND	ND	2-4 @11:10
2								
3								
4								
5								
6	31	Top 15": SAND		ND	ND	ND	ND	
7		Bottom 15": Brown SAND, little Silt		ND	ND	ND	ND	
8								
9								
10								
11	36	Top 8": Gray SAND, little Silt		Pet Like	ND	311.0	ND	10-12 @11:15
12		Next 2": Brown SAND, some Silt		Pet Like	ND	214.9	ND	
13		Last 26": Gray SAND, some Silt		Pet Like	Wet	88.9	ND	
14		Pet Like	Wet	36.2	ND			
15		Pet Like	Wet	8.6	ND			
16	37	Gray SAND, some Silt		ND	Wet	ND	ND	
17								
18								
19								
20								
Notes: Soil sample analyzed for VOCs 8260, BN-SVOCs 8270, TAL metals, and PCBs. Groundwater encountered at approximately 13 feet below grade during soil boring installation. End of soil boring at 20 feet below grade.								
PID = photoionization detector ppm = parts per million NAPL = non-aqueous phase liquid ND = not detected								
Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.								

SOIL BORING LOG		Hamilton Green AKRF Project Number: 170029		Soil Boring ID: Sheet 1 of 1		SB-6		
 440 Park Avenue South, 7 th Floor New York, NY 10016		Drilling Method:	Geoprobe	Drilling				
		Sampling Method:	5' Macrocore	Start Time: 10:15		Finish Time: 10:30		
		Driller:	Craig	Date: 8/8/2017				
		Weather:	75°F,					
		Logged By:	E. Matamoros					
Depth (feet)	Recovery (Inches)	Surface Condition: Grass		Odor	Moisture	PID (ppm)	NAPL	Soil Samples Collected for Laboratory Analysis
1	36	Top 2": Brown SAND, little Organics		ND	ND	ND	ND	2-4 @ 11:40
2		Next 34": Brown SAND, little Gravel, Silt, trace Asphalt, Concrete (Fill)		ND	ND	ND	ND	
3								
4								
5								
6	35	Brown SILT, some Sand		ND	Moist	ND	ND	9-11 @ 11:45
7								
8								
9								
10								
11	34	Brown SILT, little Sand		ND	Moist Wet	ND	ND	
12								
13								
14								
15								
16								
17								
18								
19								
20								
Notes: Soil sample analyzed for VOCs 8260, BN-SVOCs 8270, TAL metals, and PCBs. Groundwater encountered at approximately 11 feet below grade during soil boring installation. End of soil boring at 13 feet below grade due to refusal.								
PID = photoionization detector ppm = parts per million NAPL = non-aqueous phase liquid ND = not detected								
Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.								

SOIL BORING AND WELL INSTALLATION LOG		Hamilton Green AKRF Project Number: 170029		Groundwater Monitoring Well ID: Sheet 1 of 1		TW-2		Soil Boring ID:		SB-7			
 440 Park Avenue South, 7 th Floor New York, NY 10016		Drilling Method:	Hand	Drilling									
		Sampling Method:	Auger	Start Time: 7:30				Finish Time: 10:30					
		Driller:	Craig	Date: 8/9/2017									
		Weather:	Indoor										
		Logged by:	E. Matamoros										
Depth (feet)	Well Construction	Surface Condition: Tile		Recovery (inches)	Soil Boring Log	Odor	Moisture	PID (ppm)	NAPL	Soil Samples Collected for Laboratory Analysis			
1		1" diameter PVC well casing: 0' to 2' below grade 0.020-inch slotted PVC well screen: 2' to 12' below grade		N/A	Brown SAND, some Silt, little Brick, Gravel (FILL)	ND	ND	ND	ND	(2-4)			
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
Notes:  Groundwater Depth Indicator				Soil samples analyzed for VOCs, BN-SVOCs, TAL Metals, and PCBs									
Groundwater measured at 10.33 feet below grade				Groundwater encountered at approximately 10 feet below grade during soil boring installation.									
Groundwater monitoring well installed to 12 feet below grade.				End of soil boring at 12 feet below grade.									
PID = photoionization detector NAPL = non-aqueous phase liquid ppm = parts per million ND = not detected													
Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.													

SOIL BORING LOG		Hamilton Green		Soil Boring ID:		SB-8		
		AKRF Project Number: 170029		Sheet 1 of 1				
 440 Park Avenue South, 7 th Floor New York, NY 10016		Drilling Method:	Geoprobe	Drilling				
		Sampling Method:	5' Macrocore	Start Time: 10:00		Finish Time: 10:15		
		Driller:	Craig	Date: 8/8/2017				
		Weather:	70°F,					
		Logged By:	E. Matamoros					
Depth (feet)	Recovery (Inches)	Surface Condition: Grass		Odor	Moisture	PID (ppm)	NAPL	Soil Samples Collected for Laboratory Analysis
1	17	Top 6": Brown SAND some Silt, little Organics (roots, grass)		ND	ND	ND	ND	SB-8 (2-4)
2		Bottom 11": GRAVEL (FILL)		ND	ND	ND	ND	
3								
4								
5								
6	17	Top 7": GRAVEL, some Sand, little Silt, trace Brick (FILL)		ND	ND	ND	ND	SB-8 (9-11)
7		Bottom 10": Dark Brown SAND, some Silt		ND	ND	ND	ND	
8								
9					Moist			
10								
11	39	Top 16": Gray-Brown SILT and SAND		ND	Wet	ND	ND	
12		Bottom 23": Brown SAND						
13								
14								
15								
16								
17								
18								
19								
20								
Notes: Soil sample analyzed for VOCs 8260, BN-SVOCs 8270, TAL metals, and PCBs. Groundwater encountered at approximately 11 feet below grade during soil boring installation. End of soil boring at 15 feet below grade.								
PID = photoionization detector ppm = parts per million NAPL = non-aqueous phase liquid ND = not detected								
Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.								

SOIL BORING LOG		Hamilton Green		Soil Boring ID:		SB-9		
		AKRF Project Number: 170029		Sheet 1 of 1				
 440 Park Avenue South, 7 th Floor New York, NY 10016		Drilling Method:	Geoprobe	Drilling				
		Sampling Method:	5' Macrocore	Start Time: 9:15		Finish Time: 9:30		
		Driller:	Craig	Date: 8/8/2017				
		Weather:	70°F,					
		Logged By:	E. Matamoros					
Depth (feet)	Recovery (Inches)	Surface Condition: Grass		Odor	Moisture	PID (ppm)	NAPL	Soil Samples Collected for Laboratory Analysis
1	20	Top 2": Top Soil		ND	ND	ND	ND	SB-9 (1-3)
2		Next 3": CONCRETE (FILL)		ND	ND	ND	ND	
3		Bottom 15": Brown SAND, little Silt, Concrete, Gravel (Fill).		ND	ND	ND	ND	
4								
5								
6	23	Top 2": Red BRICK (FILL).		ND	Moist	ND	ND	SB-9 (8-10)
7		Bottom 21": Brown SAND, little Silt, Gravel, Brick (Fill)		ND	Moist	ND	ND	
8								
9								
10					Wet			
11	32	Brown SILT and SAND		ND	Wet	ND	ND	
12								
13								
14								
15								
16								
17								
18								
19								
20								
Notes: Soil sample analyzed for VOCs 8260, BN-SVOCs 8270, TAL metals, and PCBs. Groundwater encountered at approximately 10 feet below grade during soil boring installation. End of soil boring at 15 feet below grade.								
PID = photoionization detector ppm = parts per million NAPL = non-aqueous phase liquid ND = not detected								
Soil classifications and descriptions presented are based on the Modified Burmister Classification System. Descriptions were developed for environmental purposes only.								



Soil Vapor Sample Log

AKRF Project No:	170029	Point Installed By:	Craig
Project Location:	White Plains, NY	Installation Method:	Geoprobe
Client:	Street-Works	Sampled By:	E. Matamoros
Date:	8/8/2017	Weather:	70 F

Sample Setup

Vapor Point Depth:	60	Inches	Total Time of Purge:	10 Minutes
Tubing Volume:		In ³	Purge Volume:	2L
Purging Pump:	GilAir Plus		Purged Vapor PID:	92.6 ppm
Pump Flow Rate*:	0.2	L/min	Helium Concentration:	0.0 %

Sample Identification

Soil Vapor Point ID:	SV-1	SUMMA® Canister ID:	4166
Flow Controller ID:	5575	Soil Vapor Sample ID:	SV-1

Sample Collection

Time		Vacuum (in/Hg)	Background PID	Notes
Time Started:	12:25	-30	ND	
Time Halfway:	13:30	-14	ND	
Time Stopped:	14:26	-6	ND	

Notes:

*Purge flow rate not to exceed 0.2 L/min.

ND = non-detect

ppm = parts per million

L/min = Liters per minute

Soil vapor sample SV-1 collected in a 6-L SUMMA® canister using a 2-hour flow controller.



Soil Vapor Sample Log

AKRF Project No:	170029	Point Installed By:	Craig
Project Location:	White Plains, NY	Installation Method:	Geoprobe
Client:	Street-Works	Sampled By:	E. Matamoros
Date:	8/8/2017	Weather:	70 F

Sample Setup

Vapor Point Depth:	60	Inches	Total Time of Purge:	10 Minutes
Tubing Volume:		In ³	Purge Volume:	2L
Purging Pump:	GilAir Plus		Purged Vapor PID:	121.4 ppm
Pump Flow Rate*:	0.2	L/min	Helium Concentration:	0.0 %

Sample Identification

Soil Vapor Point ID:	SV-2	SUMMA® Canister ID:	2843
Flow Controller ID:	3125	Soil Vapor Sample ID:	SV-2

Sample Collection

Time		Vacuum (in/Hg)	Background PID	Notes
Time Started:	13:00	-29	ND	
Time Halfway:	14:00	-16	ND	
Time Stopped:	15:00	-6	ND	

Notes:

*Purge flow rate not to exceed 0.2 L/min.

ND = non-detect

ppm = parts per million

L/min = Liters per minute

Soil vapor sample SV-2 collected in a 6-L SUMMA® canister using a 2-hour flow controller.



Soil Vapor Sample Log

AKRF Project No:	170029	Point Installed By:	Craig
Project Location:	White Plains, NY	Installation Method:	Geoprobe
Client:	Street-Works	Sampled By:	E. Matamoros
Date:	8/9/2017	Weather:	70 F

Sample Setup

Vapor Point Depth:	60	Inches	Total Time of Purge:	10 Minutes
Tubing Volume:		In ³	Purge Volume:	2L
Purging Pump:	GilAir Plus		Purged Vapor PID:	8.4 ppm
Pump Flow Rate*:	0.2	L/min	Helium Concentration:	0.0 %

Sample Identification

Soil Vapor Point ID:	SV-3	SUMMA® Canister ID:	4363
Flow Controller ID:	5188	Soil Vapor Sample ID:	SV-3

Sample Collection

Time		Vacuum (in/Hg)	Background PID	Notes
Time Started:	10:25	-27	ND	
Time Halfway:	11:30	-13	ND	
Time Stopped:	12:20	-6	ND	

Notes:

*Purge flow rate not to exceed 0.2 L/min.

ND = non-detect

ppm = parts per million

L/min = Liters per minute

Soil vapor sample SV-3 collected in a 6-L SUMMA® canister using a 2-hour flow controller.



Soil Vapor Sample Log

AKRF Project No:	170029	Point Installed By:	Craig
Project Location:	White Plains, NY	Installation Method:	Geoprobe
Client:	Street-Works	Sampled By:	E. Matamoros
Date:	8/9/2017	Weather:	70 F

Sample Setup

Vapor Point Depth:	60	Inches	Total Time of Purge:	10 Minutes
Tubing Volume:		In ³	Purge Volume:	2L
Purging Pump:	GilAir Plus		Purged Vapor PID:	4.2 ppm
Pump Flow Rate*:	0.2	L/min	Helium Concentration:	0.0 %

Sample Identification

Soil Vapor Point ID:	SV-4	SUMMA® Canister ID:	2644
Flow Controller ID:	2528	Soil Vapor Sample ID:	SV-4

Sample Collection

Time		Vacuum (in/Hg)	Background PID	Notes
Time Started:	11:20	-29	ND	
Time Halfway:			ND	
Time Stopped:	13:15	-5	ND	

Notes:

*Purge flow rate not to exceed 0.2 L/min.

ND = non-detect

ppm = parts per million

L/min = Liters per minute

Soil vapor sample SV-4 collected in a 6-L SUMMA® canister using a 2-hour flow controller.



Soil Vapor Sample Log

AKRF Project No:	170029	Point Installed By:	Craig
Project Location:	White Plains, NY	Installation Method:	Geoprobe
Client:	Street-Works	Sampled By:	E. Matamoros
Date:	8/9/2017	Weather:	70 F

Sample Setup

Vapor Point Depth:	60	Inches	Total Time of Purge:	10 Minutes
Tubing Volume:		In ³	Purge Volume:	2L
Purging Pump:	GilAir Plus		Purged Vapor PID:	6.8 ppm
Pump Flow Rate*:	0.2	L/min	Helium Concentration:	0.0 %

Sample Identification

Soil Vapor Point ID:	SV-5	SUMMA® Canister ID:	5609
Flow Controller ID:	4187	Soil Vapor Sample ID:	SV-5

Sample Collection

Time		Vacuum (in/Hg)	Background PID	Notes
Time Started:	10:34	-30	ND	
Time Halfway:	11:33	-19	ND	
Time Stopped:	12:30	-8	ND	

Notes:

*Purge flow rate not to exceed 0.2 L/min.

ND = non-detect

ppm = parts per million

L/min = Liters per minute

Soil vapor sample SV-5 collected in a 6-L SUMMA® canister using a 2-hour flow controller.



Ambient Air Sample Log

AKRF Project No:	170029	Client:	StreetWorks
Project Location:	White Plains, NY	Sampled By:	E. Matamoros
Date:	8/9/2017	Weather:	70 F

Sample Setup

Sample Identification

On-Site Location:	AA-1	SUMMA® Canister ID:	4829
Flow Controller ID:	5195	Ambient Air Sample ID:	AA-1

Sample Collection

Time		Vacuum (in/Hg)	Background PID	Potential VOC Sources/Notes
Time Started:	11:40	-28	ND	
Time:			ND	
Time Halfway:			ND	
Time:			ND	
Time Stopped:	13:30	-5.00	ND	

Notes:

ND = non-detect ppm = parts per million L/min = Liters per minute
 Ambient air sample AA-1 collected in a 6-L SUMMA® canister using a 2-hour flow controller.

APPENDIX D
LABORATORY ANALYTICAL REPORTS

ANALYTICAL REPORT

Job Number: 460-138836-1

Job Description: Hamilton Green; #170029

For:
AKRF Inc
34 South Broadway
Suite 314
White Plains, NY 10601
Attention: Ms. Elizabeth Matamoros



Approved for release.
Allison L. Bennett
Project Manager I
8/23/2017 3:25 PM

Designee for
Melissa Haas, Project Manager I
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08/23/2017

The test results in this report meet all NELAP requirements unless specified within the case narrative. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Edison Project Manager.

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TestAmerica Laboratories, Inc.

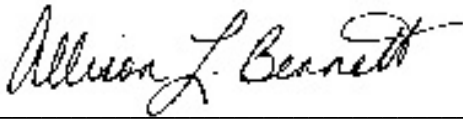
TestAmerica Edison 777 New Durham Road, Edison, NJ 08817
Tel (732) 549-3900 Fax (732) 549-3679 www.testamericainc.com



Job Number: 460-138836-1

Job Description: Hamilton Green; #170029

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Approved for release.
Allison L. Bennett
Project Manager I
8/23/2017 3:25 PM

Designee for
Melissa Haas

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CASE NARRATIVE

Client: AKRF Inc

Project: Hamilton Green; #170029

Report Number: 460-138836-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 8/9/2017 11:25 AM, 8/10/2017 11:15 AM and 8/11/2017 10:35 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 1.2° C, 1.3° C and 1.7° C.

Receipt Exceptions

The container label for the following sample(s) did not match the information listed on the Chain-of-Custody (COC): For sample -11, the Chain of Custody ID states SB-9 (1-3), sample IDs on associated containers state SB-9 (2-4).

The following sample was activated for VOC analysis by the client on 8/18/17: GW-4 (460-139067-4).

The following sample was canceled for SVOC analysis by the client on 8/22/17: GW-4 (460-139067-4).

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples SB-1 (2-4) (460-138836-1), SB-3 (1-3) (460-138908-1), SB-1 (9-11) (460-138836-2), SB-3 (17-19) (460-138908-2), SB-2 (1-3) (460-138836-3), SB-4 (1-3) (460-138908-3), SB-2 (16-18) (460-138836-4), SB-4 (21-23) (460-138908-4), SB-5 (2-4) (460-138836-5), SB-7 (1-3) (460-138908-5), SB-5 (10-12) (460-138836-6), SB-7 (8-10) (460-138908-6), SB-6 (2-4) (460-138836-7), SB-6 (9-11) (460-138836-8), SB-8 (2-4) (460-138836-9), SB-8 (9-11) (460-138836-10), SB-9 (1-3) (460-138836-11) and SB-9 (8-10) (460-138836-12) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260C. The samples were prepared on 08/09/2017 and 08/10/2017 and analyzed on 08/16/2017 and 08/17/2017.

The continuing calibration verification (CCV) analyzed in batch 456825 was outside the method criteria for the following analyte: Bromoform. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 456664 was outside the method criteria for the following analyte: Bromoform. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 456539 was outside the method criteria for the following analyte: Bromoform. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 460-456502 was outside the method criteria for the following analyte(s): Chloromethane (biased low) and Acrolein (biased high). A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any

detection for the affected analyte(s) is considered estimated.

The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for analytical batch 460-456502 recovered outside control limits for the following analyte: Acrolein. This analyte was biased high in the LCS/LCSD and was not detected in the associated samples; therefore, the data have been reported.

Refer to the QC report for details.

The following sample was diluted to bring the concentration of target analytes within the calibration range: SB-4 (21-23) (460-138908-4). Elevated reporting limits (RLs) are provided.

No difficulties were encountered during the volatiles analysis.

All quality control parameters were within the acceptance limits.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples TW-1 (460-139067-1), TW-2 (460-139067-2), GW-3 (460-139067-3), GW-4 (460-139067-4), GT-1 (460-139067-5), GT-2 (460-139067-6), GT-3 (460-139067-7), GT-4 (460-139067-8) and TRIP BLANK (460-139067-9) were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Methods 8260C. The samples were analyzed on 08/15/2017 and 08/21/2017.

The continuing calibration verification (CCV) associated with batch 457628 recovered above the upper control limit for Trichlorofluoromethane and Freon TF. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Refer to the QC report for details.

The following sample was diluted to bring the concentration of target analytes within the calibration range: GT-2 (460-139067-6). Elevated reporting limits (RLs) are provided.

The following sample was diluted to bring the concentration of target analytes within the calibration range: TW-1 (460-139067-1). Elevated reporting limits (RLs) are provided.

No other difficulties were encountered during the volatiles analysis.

All quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples SB-1 (2-4) (460-138836-1), SB-3 (1-3) (460-138908-1), SB-1 (9-11) (460-138836-2), SB-3 (17-19) (460-138908-2), SB-2 (1-3) (460-138836-3), SB-4 (1-3) (460-138908-3), SB-2 (16-18) (460-138836-4), SB-4 (21-23) (460-138908-4), SB-5 (2-4) (460-138836-5), SB-7 (1-3) (460-138908-5), SB-5 (10-12) (460-138836-6), SB-7 (8-10) (460-138908-6), SB-6 (2-4) (460-138836-7), SB-6 (9-11) (460-138836-8), SB-8 (2-4) (460-138836-9), SB-8 (9-11) (460-138836-10), SB-9 (1-3) (460-138836-11) and SB-9 (8-10) (460-138836-12) were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 08/11/2017 and analyzed on 08/11/2017, 08/12/2017, 08/14/2017, 08/15/2017 and 08/16/2017.

The continuing calibration verification (CCV) analyzed in batch 460-456195 was outside the method criteria for the following analyte(s): 3-Nitroaniline and 4-Nitroaniline. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 460-456219 was outside the method criteria for the following analyte(s): 2,2'-oxybis[1-chloropropane]. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The continuing calibration verification (CCV) analyzed in batch 460-456035 was outside the method criteria for the following analyte(s): 3-Nitroaniline and 4-Nitroaniline. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Surrogates recoveries for the following laboratory control sample (LCS) associated with batch 460-455775 were outside the upper control limits. All spike recoveries were within limits. Sample has been qualified and reported.

Nitrobenzene-d5 (Surr) failed the surrogate recovery criteria high for 460-138570-A-24-B MS.

Nitrobenzene-d5 (Surr) failed the surrogate recovery criteria high for 460-138570-A-24-C MSD.

Several analytes failed the recovery criteria low for the MS of sample 460-138308-3 in batch 460-456219. Several analytes failed the recovery criteria high.

For the MSD of sample 460-138308-3 in batch 460-456219, Several analytes failed the recovery criteria low. Several analytes failed the recovery criteria high. Also, 3-Nitroaniline and Naphthalene exceeded the RPD limit.

Several analytes failed the recovery criteria low for the MS of sample 460-138570-24 in batch 460-456035. Several analytes failed the recovery criteria high.

Several analytes failed the recovery criteria low for the MSD of sample 460-138570-24 in batch 460-456035. 2,6-Dinitrotoluene, Isophorone, N-Nitrosodi-n-propylamine and N-Nitrosodiphenylamine failed the recovery criteria high.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC/MS)

Samples TW-1 (460-139067-1), TW-2 (460-139067-2), GW-3 (460-139067-3), GT-1 (460-139067-5), GT-2 (460-139067-6), GT-3 (460-139067-7) and GT-4 (460-139067-8) were analyzed for semivolatile organic compounds (GC/MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 08/13/2017 and analyzed on 08/14/2017.

The continuing calibration verification (CCV) analyzed in batch 460-456044 was outside the method criteria for the following analyte(s): N-Nitrosodi-n-propylamine and Hexachlorocyclopentadiene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Hexachloroethane was detected in method blank MB 460-455934/1-A at a level that was above the method detection limit but below the reporting limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for five analytes to recover outside criteria for this method when a full list spike is utilized. The LCS associated with batch 460-455934 had one analyte (Hexachlorocyclopentadiene) outside control limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified. LCS 460-455934/2-A.

A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for five analytes to recover outside criteria for this method when a full list spike is utilized. The LCSD associated with batch 460-455934 had two analytes (4-Chloroaniline and Hexachlorocyclopentadiene) outside control limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified. LCSD 460-455934/3-A.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS

Samples SB-1 (2-4) (460-138836-1), SB-3 (1-3) (460-138908-1), SB-1 (9-11) (460-138836-2), SB-3 (17-19) (460-138908-2), SB-2 (1-3) (460-138836-3), SB-4 (1-3) (460-138908-3), SB-2 (16-18) (460-138836-4), SB-4 (21-23) (460-138908-4), SB-5 (2-4) (460-138836-5), SB-7 (1-3) (460-138908-5), SB-5 (10-12) (460-138836-6), SB-7 (8-10) (460-138908-6), SB-6 (2-4) (460-138836-7), SB-6 (9-11) (460-138836-8), SB-8 (2-4) (460-138836-9), SB-8 (9-11) (460-138836-10), SB-9 (1-3) (460-138836-11) and SB-9 (8-10) (460-138836-12) were analyzed for polychlorinated biphenyls in accordance with EPA SW-846 Method 8082A. The samples were prepared on 08/09/2017 and 08/11/2017 and analyzed on 08/10/2017, 08/11/2017, 08/13/2017, 08/14/2017 and 08/16/2017.

Aroclor 1016 exceeded the RPD limit for the MSD of sample 460-138719-1 in batch 460-455410.

Refer to the QC report for details.

No other difficulties were encountered during the PCBs analysis.

All other quality control parameters were within the acceptance limits.

METALS

Samples SB-1 (2-4) (460-138836-1), SB-3 (1-3) (460-138908-1), SB-1 (9-11) (460-138836-2), SB-3 (17-19) (460-138908-2), SB-2 (1-3) (460-138836-3), SB-4 (1-3) (460-138908-3), SB-2 (16-18) (460-138836-4), SB-4 (21-23) (460-138908-4), SB-5 (2-4) (460-138836-5), SB-7 (1-3) (460-138908-5), SB-5 (10-12) (460-138836-6), SB-7 (8-10) (460-138908-6), SB-6 (2-4) (460-138836-7), SB-6 (9-11) (460-138836-8), SB-8 (2-4) (460-138836-9), SB-8 (9-11) (460-138836-10), SB-9 (1-3) (460-138836-11) and SB-9 (8-10) (460-138836-12)

were analyzed for Metals in accordance with EPA SW-846 Methods 6010C. The samples were prepared on 08/10/2017 and 08/12/2017 and analyzed on 08/10/2017, 08/13/2017, 08/14/2017 and 08/17/2017.

The following sample was diluted because the initial analysis produced a significant negative result for antimony - the absolute value exceeded the reporting limit (RL): SB-3 (17-19) (460-138908-2). Reporting limits (RLs) are elevated as a result.

Antimony failed the recovery criteria low for the MS of sample 460-138795-9 in batch 460-455426. Aluminum and Iron failed the recovery criteria high.

Antimony, Iron and Potassium failed the recovery criteria low for the MS of sample 460-138837-2 in batch 460-455426. Aluminum failed the recovery criteria high.

Aluminum and Iron failed the recovery criteria high for the MS of sample 460-138986-6 in batch 460-456155.

Lead exceeded the RPD limit for the duplicate of sample 460-138795-9.

Arsenic exceeded the RPD limit for the duplicate of sample 460-138986-6.

The presence of the '4' qualifier in the data indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

Samples SB-1 (2-4) (460-138836-1)[4X], SB-3 (1-3) (460-138836-1)[4X], SB-3 (17-19) (460-138836-2)[20X], SB-1 (9-11) (460-138836-2)[4X], SB-3 (17-19) (460-138836-2)[4X], SB-2 (1-3) (460-138836-3)[4X], SB-4 (1-3) (460-138836-3)[4X], SB-2 (16-18) (460-138836-4)[4X], SB-4 (21-23) (460-138836-4)[4X], SB-5 (2-4) (460-138836-5)[4X], SB-7 (1-3) (460-138836-5)[4X], SB-5 (10-12) (460-138836-6)[4X], SB-7 (8-10) (460-138836-6)[4X], SB-6 (2-4) (460-138836-7)[4X], SB-6 (9-11) (460-138836-8)[4X], SB-8 (2-4) (460-138836-9)[4X], SB-8 (9-11) (460-138836-10)[4X], SB-9 (1-3) (460-138836-11)[4X] and SB-9 (8-10) (460-138836-12)[4X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the Metals analysis.

All other quality control parameters were within the acceptance limits.

MERCURY

Samples SB-1 (2-4) (460-138836-1), SB-3 (1-3) (460-138908-1), SB-1 (9-11) (460-138836-2), SB-3 (17-19) (460-138908-2), SB-2 (1-3) (460-138836-3), SB-4 (1-3) (460-138908-3), SB-2 (16-18) (460-138836-4), SB-4 (21-23) (460-138908-4), SB-5 (2-4) (460-138836-5), SB-7 (1-3) (460-138908-5), SB-5 (10-12) (460-138836-6), SB-7 (8-10) (460-138908-6), SB-6 (2-4) (460-138836-7), SB-6 (9-11) (460-138836-8), SB-8 (2-4) (460-138836-9), SB-8 (9-11) (460-138836-10), SB-9 (1-3) (460-138836-11) and SB-9 (8-10) (460-138836-12) were analyzed for mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared and analyzed on 08/11/2017 and 08/14/2017.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE

Samples SB-1 (2-4) (460-138836-1), SB-3 (1-3) (460-138908-1), SB-1 (9-11) (460-138836-2), SB-3 (17-19) (460-138908-2), SB-2 (1-3) (460-138836-3), SB-4 (1-3) (460-138908-3), SB-2 (16-18) (460-138836-4), SB-4 (21-23) (460-138908-4), SB-5 (2-4) (460-138836-5), SB-7 (1-3) (460-138908-5), SB-5 (10-12) (460-138836-6), SB-7 (8-10) (460-138908-6), SB-6 (2-4) (460-138836-7), SB-6 (9-11) (460-138836-8), SB-8 (2-4) (460-138836-9), SB-8 (9-11) (460-138836-10), SB-9 (1-3) (460-138836-11) and SB-9 (8-10) (460-138836-12) were analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 08/14/2017 and 08/16/2017.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-138836-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-138836-1	SB-1 (2-4)					
2-Methylnaphthalene		0.019	J	0.39	mg/Kg	8270D
Acenaphthylene		0.092	J	0.39	mg/Kg	8270D
Anthracene		0.047	J	0.39	mg/Kg	8270D
Benzo[a]anthracene		0.44		0.039	mg/Kg	8270D
Benzo[a]pyrene		0.64		0.039	mg/Kg	8270D
Benzo[b]fluoranthene		0.85		0.039	mg/Kg	8270D
Benzo[g,h,i]perylene		0.54		0.39	mg/Kg	8270D
Benzo[k]fluoranthene		0.34		0.039	mg/Kg	8270D
Bis(2-chloroethoxy)methane		0.012	J	0.39	mg/Kg	8270D
Carbazole		0.027	J	0.39	mg/Kg	8270D
Chrysene		0.63		0.39	mg/Kg	8270D
Dibenz(a,h)anthracene		0.13		0.039	mg/Kg	8270D
Dibenzofuran		0.016	J	0.39	mg/Kg	8270D
Fluoranthene		0.60		0.39	mg/Kg	8270D
Fluorene		0.019	J	0.39	mg/Kg	8270D
Indeno[1,2,3-cd]pyrene		0.49		0.039	mg/Kg	8270D
Naphthalene		0.051	J	0.39	mg/Kg	8270D
Phenanthrene		0.27	J	0.39	mg/Kg	8270D
Pyrene		0.71		0.39	mg/Kg	8270D
Aluminum		11600		44.8	mg/Kg	6010C
Arsenic		2.0	J	3.4	mg/Kg	6010C
Barium		78.4		44.8	mg/Kg	6010C
Beryllium		0.053	J	0.45	mg/Kg	6010C
Calcium		4270		1120	mg/Kg	6010C
Cobalt		7.6	J	11.2	mg/Kg	6010C
Chromium		24.9		2.2	mg/Kg	6010C
Copper		38.0		5.6	mg/Kg	6010C
Iron		19700		33.6	mg/Kg	6010C
Potassium		2080		1120	mg/Kg	6010C
Magnesium		5340		1120	mg/Kg	6010C
Manganese		440		3.4	mg/Kg	6010C
Sodium		383	J	1120	mg/Kg	6010C
Nickel		16.4		9.0	mg/Kg	6010C
Lead		40.7		2.2	mg/Kg	6010C
Vanadium		35.3		11.2	mg/Kg	6010C
Zinc		568		6.7	mg/Kg	6010C
Mercury		0.095		0.018	mg/Kg	7471B
Percent Moisture		14.9		1.0	%	Moisture
Percent Solids		85.1		1.0	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-138836-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-138836-2	SB-1 (9-11)					
Isophorone		0.011	J	0.15	mg/Kg	8270D
Aluminum		9260		41.2	mg/Kg	6010C
Barium		121		41.2	mg/Kg	6010C
Calcium		2210		1030	mg/Kg	6010C
Cobalt		8.9	J	10.3	mg/Kg	6010C
Chromium		27.0		2.1	mg/Kg	6010C
Copper		23.9		5.1	mg/Kg	6010C
Iron		20000		30.9	mg/Kg	6010C
Potassium		3090		1030	mg/Kg	6010C
Magnesium		4610		1030	mg/Kg	6010C
Manganese		314		3.1	mg/Kg	6010C
Sodium		346	J	1030	mg/Kg	6010C
Nickel		17.1		8.2	mg/Kg	6010C
Lead		3.0		2.1	mg/Kg	6010C
Vanadium		33.9		10.3	mg/Kg	6010C
Zinc		47.9		6.2	mg/Kg	6010C
Percent Moisture		9.2		1.0	%	Moisture
Percent Solids		90.8		1.0	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-138836-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-138836-3	SB-2 (1-3)					
2-Butanone (MEK)		0.0026	J	0.0044	mg/Kg	8260C
Acetone		0.014		0.0044	mg/Kg	8260C
Methylene Chloride		0.00073	J	0.00087	mg/Kg	8260C
2-Methylnaphthalene		0.0092	J	0.35	mg/Kg	8270D
Acenaphthene		0.024	J	0.35	mg/Kg	8270D
Anthracene		0.053	J	0.35	mg/Kg	8270D
Benzo[a]anthracene		0.15		0.035	mg/Kg	8270D
Benzo[a]pyrene		0.13		0.035	mg/Kg	8270D
Benzo[b]fluoranthene		0.18		0.035	mg/Kg	8270D
Benzo[g,h,i]perylene		0.096	J	0.35	mg/Kg	8270D
Benzo[k]fluoranthene		0.080		0.035	mg/Kg	8270D
Carbazole		0.029	J	0.35	mg/Kg	8270D
Chrysene		0.17	J	0.35	mg/Kg	8270D
Dibenz(a,h)anthracene		0.018	J	0.035	mg/Kg	8270D
Dibenzofuran		0.017	J	0.35	mg/Kg	8270D
Fluoranthene		0.31	J	0.35	mg/Kg	8270D
Fluorene		0.028	J	0.35	mg/Kg	8270D
Indeno[1,2,3-cd]pyrene		0.093		0.035	mg/Kg	8270D
Naphthalene		0.020	J	0.35	mg/Kg	8270D
Phenanthrene		0.24	J	0.35	mg/Kg	8270D
Pyrene		0.30	J	0.35	mg/Kg	8270D
Aluminum		12900		42.9	mg/Kg	6010C
Arsenic		2.2	J	3.2	mg/Kg	6010C
Barium		119		42.9	mg/Kg	6010C
Calcium		1770		1070	mg/Kg	6010C
Cobalt		9.1	J	10.7	mg/Kg	6010C
Chromium		29.1		2.1	mg/Kg	6010C
Copper		24.3		5.4	mg/Kg	6010C
Iron		26000		32.2	mg/Kg	6010C
Potassium		2600		1070	mg/Kg	6010C
Magnesium		4320		1070	mg/Kg	6010C
Manganese		405		3.2	mg/Kg	6010C
Sodium		574	J	1070	mg/Kg	6010C
Nickel		19.3		8.6	mg/Kg	6010C
Lead		18.9		2.1	mg/Kg	6010C
Vanadium		40.3		10.7	mg/Kg	6010C
Zinc		60.1		6.4	mg/Kg	6010C
Mercury		0.021		0.017	mg/Kg	7471B
Percent Moisture		6.8		1.0	%	Moisture
Percent Solids		93.2		1.0	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-138836-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-138836-4	SB-2 (16-18)					
2-Butanone (MEK)		0.0024	J	0.0047	mg/Kg	8260C
Acetone		0.011		0.0047	mg/Kg	8260C
Fluoranthene		0.049	J	0.37	mg/Kg	8270D
Phenanthrene		0.029	J	0.37	mg/Kg	8270D
Pyrene		0.039	J	0.37	mg/Kg	8270D
Aluminum		7660		41.5	mg/Kg	6010C
Arsenic		1.2	J	3.1	mg/Kg	6010C
Barium		94.4		41.5	mg/Kg	6010C
Calcium		2130		1040	mg/Kg	6010C
Cobalt		9.3	J	10.4	mg/Kg	6010C
Chromium		21.4		2.1	mg/Kg	6010C
Copper		12.4		5.2	mg/Kg	6010C
Iron		14500		31.2	mg/Kg	6010C
Potassium		2120		1040	mg/Kg	6010C
Magnesium		4360		1040	mg/Kg	6010C
Manganese		173		3.1	mg/Kg	6010C
Sodium		127	J	1040	mg/Kg	6010C
Nickel		16.1		8.3	mg/Kg	6010C
Lead		3.8		2.1	mg/Kg	6010C
Vanadium		29.3		10.4	mg/Kg	6010C
Zinc		42.7		6.2	mg/Kg	6010C
Percent Moisture		10.8		1.0	%	Moisture
Percent Solids		89.2		1.0	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-138836-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-138836-5	SB-5 (2-4)					
1,2-Dichloroethane		0.0011		0.0011	mg/Kg	8260C
Acetone		0.0046	J	0.0054	mg/Kg	8260C
Benzene		0.0057		0.0011	mg/Kg	8260C
Ethylbenzene		0.00080	J	0.0011	mg/Kg	8260C
m-Xylene & p-Xylene		0.0041		0.0011	mg/Kg	8260C
o-Xylene		0.00095	J	0.0011	mg/Kg	8260C
Toluene		0.013		0.0011	mg/Kg	8260C
2-Methylnaphthalene		0.081	J	0.35	mg/Kg	8270D
Acenaphthene		0.041	J	0.35	mg/Kg	8270D
Acenaphthylene		0.031	J	0.35	mg/Kg	8270D
Anthracene		0.13	J	0.35	mg/Kg	8270D
Benzo[a]anthracene		0.50		0.035	mg/Kg	8270D
Benzo[a]pyrene		0.52		0.035	mg/Kg	8270D
Benzo[b]fluoranthene		0.85		0.035	mg/Kg	8270D
Benzo[g,h,i]perylene		0.28	J	0.35	mg/Kg	8270D
Benzo[k]fluoranthene		0.26		0.035	mg/Kg	8270D
Bis(2-ethylhexyl) phthalate		0.026	J	0.35	mg/Kg	8270D
Butyl benzyl phthalate		0.021	J	0.35	mg/Kg	8270D
Carbazole		0.086	J	0.35	mg/Kg	8270D
Chrysene		0.52		0.35	mg/Kg	8270D
Dibenz(a,h)anthracene		0.10		0.035	mg/Kg	8270D
Dibenzofuran		0.030	J	0.35	mg/Kg	8270D
Fluoranthene		0.94		0.35	mg/Kg	8270D
Fluorene		0.053	J	0.35	mg/Kg	8270D
Indeno[1,2,3-cd]pyrene		0.43		0.035	mg/Kg	8270D
Naphthalene		0.10	J	0.35	mg/Kg	8270D
Phenanthrene		0.56		0.35	mg/Kg	8270D
Pyrene		0.76		0.35	mg/Kg	8270D
Aluminum		11900		40.5	mg/Kg	6010C
Arsenic		4.3		3.0	mg/Kg	6010C
Barium		122		40.5	mg/Kg	6010C
Beryllium		0.11	J	0.40	mg/Kg	6010C
Calcium		34600		1010	mg/Kg	6010C
Cadmium		0.68	J	0.81	mg/Kg	6010C
Cobalt		7.1	J	10.1	mg/Kg	6010C
Chromium		21.8		2.0	mg/Kg	6010C
Copper		32.7		5.1	mg/Kg	6010C
Iron		19600		30.3	mg/Kg	6010C
Potassium		1790		1010	mg/Kg	6010C
Magnesium		11200		1010	mg/Kg	6010C
Manganese		307		3.0	mg/Kg	6010C
Sodium		171	J	1010	mg/Kg	6010C
Nickel		17.9		8.1	mg/Kg	6010C
Lead		295		2.0	mg/Kg	6010C
Antimony		0.58	J	4.0	mg/Kg	6010C
Vanadium		34.2		10.1	mg/Kg	6010C

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-138836-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
Zinc		247		6.1	mg/Kg	6010C
Mercury		0.099		0.018	mg/Kg	7471B
Percent Moisture		6.7		1.0	%	Moisture
Percent Solids		93.3		1.0	%	Moisture
460-138836-6	SB-5 (10-12)					
2-Butanone (MEK)		0.0070		0.0058	mg/Kg	8260C
Acetone		0.037		0.0058	mg/Kg	8260C
Carbon disulfide		0.00070	J	0.0012	mg/Kg	8260C
Ethylbenzene		0.011		0.0012	mg/Kg	8260C
Isopropylbenzene		0.0036		0.0012	mg/Kg	8260C
Methylcyclohexane		0.00090	J	0.0012	mg/Kg	8260C
Methylene Chloride		0.0018		0.0012	mg/Kg	8260C
m-Xylene & p-Xylene		0.0041		0.0012	mg/Kg	8260C
Butyl benzyl phthalate		0.12	J	0.39	mg/Kg	8270D
Aluminum		11000		46.2	mg/Kg	6010C
Arsenic		1.1	J	3.5	mg/Kg	6010C
Barium		83.0		46.2	mg/Kg	6010C
Beryllium		0.13	J	0.46	mg/Kg	6010C
Calcium		1700		1160	mg/Kg	6010C
Cobalt		8.5	J	11.6	mg/Kg	6010C
Chromium		20.6		2.3	mg/Kg	6010C
Copper		21.8		5.8	mg/Kg	6010C
Iron		20300		34.7	mg/Kg	6010C
Potassium		2430		1160	mg/Kg	6010C
Magnesium		4240		1160	mg/Kg	6010C
Manganese		288		3.5	mg/Kg	6010C
Sodium		235	J	1160	mg/Kg	6010C
Nickel		16.3		9.2	mg/Kg	6010C
Lead		5.2		2.3	mg/Kg	6010C
Vanadium		34.9		11.6	mg/Kg	6010C
Zinc		41.7		6.9	mg/Kg	6010C
Percent Moisture		16.0		1.0	%	Moisture
Percent Solids		84.0		1.0	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-138836-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-138836-7	SB-6 (2-4)					
2-Methylnaphthalene		0.023	J	0.36	mg/Kg	8270D
Acenaphthene		0.013	J	0.36	mg/Kg	8270D
Acenaphthylene		0.060	J	0.36	mg/Kg	8270D
Anthracene		0.063	J	0.36	mg/Kg	8270D
Benzo[a]anthracene		0.43		0.036	mg/Kg	8270D
Benzo[a]pyrene		0.50		0.036	mg/Kg	8270D
Benzo[b]fluoranthene		0.74		0.036	mg/Kg	8270D
Benzo[g,h,i]perylene		0.35	J	0.36	mg/Kg	8270D
Benzo[k]fluoranthene		0.29		0.036	mg/Kg	8270D
Butyl benzyl phthalate		0.023	J	0.36	mg/Kg	8270D
Carbazole		0.033	J	0.36	mg/Kg	8270D
Chrysene		0.50		0.36	mg/Kg	8270D
Dibenz(a,h)anthracene		0.11		0.036	mg/Kg	8270D
Dibenzofuran		0.012	J	0.36	mg/Kg	8270D
Fluoranthene		0.81		0.36	mg/Kg	8270D
Fluorene		0.019	J	0.36	mg/Kg	8270D
Indeno[1,2,3-cd]pyrene		0.54		0.036	mg/Kg	8270D
Naphthalene		0.032	J	0.36	mg/Kg	8270D
Phenanthrene		0.36		0.36	mg/Kg	8270D
Pyrene		0.73		0.36	mg/Kg	8270D
Aluminum		16300		41.1	mg/Kg	6010C
Arsenic		2.4	J	3.1	mg/Kg	6010C
Barium		101		41.1	mg/Kg	6010C
Beryllium		0.11	J	0.41	mg/Kg	6010C
Calcium		2190		1030	mg/Kg	6010C
Cobalt		9.6	J	10.3	mg/Kg	6010C
Chromium		33.8		2.1	mg/Kg	6010C
Copper		23.5		5.1	mg/Kg	6010C
Iron		21900		30.8	mg/Kg	6010C
Potassium		1490		1030	mg/Kg	6010C
Magnesium		6090		1030	mg/Kg	6010C
Manganese		374		3.1	mg/Kg	6010C
Sodium		393	J	1030	mg/Kg	6010C
Nickel		22.2		8.2	mg/Kg	6010C
Lead		77.9		2.1	mg/Kg	6010C
Vanadium		40.2		10.3	mg/Kg	6010C
Zinc		67.0		6.2	mg/Kg	6010C
Mercury		0.021		0.018	mg/Kg	7471B
Percent Moisture		9.0		1.0	%	Moisture
Percent Solids		91.0		1.0	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-138836-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-138836-8	SB-6 (9-11)					
Aluminum		19900		45.7	mg/Kg	6010C
Barium		168		45.7	mg/Kg	6010C
Calcium		1420		1140	mg/Kg	6010C
Cobalt		13.8		11.4	mg/Kg	6010C
Chromium		36.8		2.3	mg/Kg	6010C
Copper		30.0		5.7	mg/Kg	6010C
Iron		35500		34.3	mg/Kg	6010C
Potassium		7410		1140	mg/Kg	6010C
Magnesium		9190		1140	mg/Kg	6010C
Manganese		595		3.4	mg/Kg	6010C
Sodium		495	J	1140	mg/Kg	6010C
Nickel		28.9		9.1	mg/Kg	6010C
Lead		5.3		2.3	mg/Kg	6010C
Vanadium		57.7		11.4	mg/Kg	6010C
Zinc		82.5		6.9	mg/Kg	6010C
Percent Moisture		17.4		1.0	%	Moisture
Percent Solids		82.6		1.0	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-138836-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-138836-9	SB-8 (2-4)					
Acenaphthylene		0.026	J	0.35	mg/Kg	8270D
Benzo[a]anthracene		0.13		0.035	mg/Kg	8270D
Benzo[a]pyrene		0.19		0.035	mg/Kg	8270D
Benzo[b]fluoranthene		0.20		0.035	mg/Kg	8270D
Benzo[g,h,i]perylene		0.21	J	0.35	mg/Kg	8270D
Benzo[k]fluoranthene		0.065		0.035	mg/Kg	8270D
Chrysene		0.15	J	0.35	mg/Kg	8270D
Fluoranthene		0.18	J	0.35	mg/Kg	8270D
Indeno[1,2,3-cd]pyrene		0.18		0.035	mg/Kg	8270D
Phenanthrene		0.087	J	0.35	mg/Kg	8270D
Pyrene		0.20	J	0.35	mg/Kg	8270D
Aluminum		18000		40.2	mg/Kg	6010C
Arsenic		3.2		3.0	mg/Kg	6010C
Barium		128		40.2	mg/Kg	6010C
Beryllium		0.20	J	0.40	mg/Kg	6010C
Calcium		3850		1000	mg/Kg	6010C
Cobalt		12.5		10.0	mg/Kg	6010C
Chromium		31.4		2.0	mg/Kg	6010C
Copper		25.9		5.0	mg/Kg	6010C
Iron		26600		30.1	mg/Kg	6010C
Potassium		2790		1000	mg/Kg	6010C
Magnesium		10100		1000	mg/Kg	6010C
Manganese		489		3.0	mg/Kg	6010C
Nickel		19.6		8.0	mg/Kg	6010C
Lead		32.5		2.0	mg/Kg	6010C
Vanadium		42.7		10.0	mg/Kg	6010C
Zinc		76.6		6.0	mg/Kg	6010C
Mercury		0.065		0.017	mg/Kg	7471B
Percent Moisture		5.2		1.0	%	Moisture
Percent Solids		94.8		1.0	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-138836-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-138836-10	SB-8 (9-11)					
2-Butanone (MEK)		0.0023	J	0.0042	mg/Kg	8260C
Acetone		0.017		0.0042	mg/Kg	8260C
Benzo[a]anthracene		0.040		0.040	mg/Kg	8270D
Benzo[a]pyrene		0.036	J	0.040	mg/Kg	8270D
Benzo[b]fluoranthene		0.048		0.040	mg/Kg	8270D
Benzo[g,h,i]perylene		0.024	J	0.40	mg/Kg	8270D
Benzo[k]fluoranthene		0.021	J	0.040	mg/Kg	8270D
Chrysene		0.032	J	0.40	mg/Kg	8270D
Fluoranthene		0.076	J	0.40	mg/Kg	8270D
Naphthalene		0.027	J	0.40	mg/Kg	8270D
Phenanthrene		0.032	J	0.40	mg/Kg	8270D
Pyrene		0.076	J	0.40	mg/Kg	8270D
Aluminum		13200		48.4	mg/Kg	6010C
Barium		122		48.4	mg/Kg	6010C
Calcium		2260		1210	mg/Kg	6010C
Cobalt		11.7	J	12.1	mg/Kg	6010C
Chromium		27.6		2.4	mg/Kg	6010C
Copper		25.5		6.1	mg/Kg	6010C
Iron		26700		36.3	mg/Kg	6010C
Potassium		5050		1210	mg/Kg	6010C
Magnesium		6370		1210	mg/Kg	6010C
Manganese		294		3.6	mg/Kg	6010C
Sodium		101	J	1210	mg/Kg	6010C
Nickel		25.2		9.7	mg/Kg	6010C
Lead		5.9		2.4	mg/Kg	6010C
Vanadium		40.0		12.1	mg/Kg	6010C
Zinc		61.7		7.3	mg/Kg	6010C
Percent Moisture		17.4		1.0	%	Moisture
Percent Solids		82.6		1.0	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-138836-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-138836-11	SB-9 (1-3)					
2-Methylnaphthalene		0.082	J	0.35	mg/Kg	8270D
Acenaphthylene		0.029	J	0.35	mg/Kg	8270D
Benzo[a]anthracene		0.15		0.035	mg/Kg	8270D
Benzo[a]pyrene		0.17		0.035	mg/Kg	8270D
Benzo[b]fluoranthene		0.24		0.035	mg/Kg	8270D
Benzo[g,h,i]perylene		0.13	J	0.35	mg/Kg	8270D
Benzo[k]fluoranthene		0.093		0.035	mg/Kg	8270D
Bis(2-chloroethyl)ether		3.5		0.035	mg/Kg	8270D
Carbazole		0.014	J	0.35	mg/Kg	8270D
Chrysene		0.16	J	0.35	mg/Kg	8270D
Dibenz(a,h)anthracene		0.052		0.035	mg/Kg	8270D
Fluoranthene		0.25	J	0.35	mg/Kg	8270D
Fluorene		0.0091	J	0.35	mg/Kg	8270D
Indeno[1,2,3-cd]pyrene		0.21		0.035	mg/Kg	8270D
Naphthalene		0.034	J	0.35	mg/Kg	8270D
Phenanthrene		0.11	J	0.35	mg/Kg	8270D
Pyrene		0.26	J	0.35	mg/Kg	8270D
Aluminum		12300		40.7	mg/Kg	6010C
Arsenic		2.3	J	3.1	mg/Kg	6010C
Barium		136		40.7	mg/Kg	6010C
Beryllium		0.061	J	0.41	mg/Kg	6010C
Calcium		8530		1020	mg/Kg	6010C
Cobalt		8.5	J	10.2	mg/Kg	6010C
Chromium		25.4		2.0	mg/Kg	6010C
Copper		29.8		5.1	mg/Kg	6010C
Iron		21600		30.5	mg/Kg	6010C
Potassium		2350		1020	mg/Kg	6010C
Magnesium		6210		1020	mg/Kg	6010C
Manganese		361		3.1	mg/Kg	6010C
Sodium		223	J	1020	mg/Kg	6010C
Nickel		18.6		8.1	mg/Kg	6010C
Lead		92.1		2.0	mg/Kg	6010C
Vanadium		42.6		10.2	mg/Kg	6010C
Zinc		103		6.1	mg/Kg	6010C
Mercury		0.098		0.018	mg/Kg	7471B
Percent Moisture		5.5		1.0	%	Moisture
Percent Solids		94.5		1.0	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-138836-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-138836-12	SB-9 (8-10)					
Aluminum		10200		41.7	mg/Kg	6010C
Barium		139		41.7	mg/Kg	6010C
Calcium		2350		1040	mg/Kg	6010C
Cobalt		8.7	J	10.4	mg/Kg	6010C
Chromium		21.8		2.1	mg/Kg	6010C
Copper		16.7		5.2	mg/Kg	6010C
Iron		14700		31.3	mg/Kg	6010C
Potassium		3280		1040	mg/Kg	6010C
Magnesium		4520		1040	mg/Kg	6010C
Manganese		277		3.1	mg/Kg	6010C
Sodium		193	J	1040	mg/Kg	6010C
Nickel		18.7		8.3	mg/Kg	6010C
Lead		5.0		2.1	mg/Kg	6010C
Vanadium		24.2		10.4	mg/Kg	6010C
Zinc		45.8		6.3	mg/Kg	6010C
Percent Moisture		12.1		1.0	%	Moisture
Percent Solids		87.9		1.0	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-138836-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-138908-1	SB-3 (1-3)					
Cyclohexane		0.00075	J	0.0010	mg/Kg	8260C
Methylcyclohexane		0.0027		0.0010	mg/Kg	8260C
2-Methylnaphthalene		0.014	J	0.34	mg/Kg	8270D
Acenaphthene		0.037	J	0.34	mg/Kg	8270D
Acenaphthylene		0.0096	J	0.34	mg/Kg	8270D
Anthracene		0.070	J	0.34	mg/Kg	8270D
Benzo[a]anthracene		0.31		0.034	mg/Kg	8270D
Benzo[a]pyrene		0.32		0.034	mg/Kg	8270D
Benzo[b]fluoranthene		0.43		0.034	mg/Kg	8270D
Benzo[g,h,i]perylene		0.23	J	0.34	mg/Kg	8270D
Benzo[k]fluoranthene		0.16		0.034	mg/Kg	8270D
Carbazole		0.045	J	0.34	mg/Kg	8270D
Chrysene		0.35		0.34	mg/Kg	8270D
Dibenz(a,h)anthracene		0.085		0.034	mg/Kg	8270D
Dibenzofuran		0.024	J	0.34	mg/Kg	8270D
Fluoranthene		0.69		0.34	mg/Kg	8270D
Fluorene		0.061	J	0.34	mg/Kg	8270D
Indeno[1,2,3-cd]pyrene		0.36		0.034	mg/Kg	8270D
Naphthalene		0.014	J	0.34	mg/Kg	8270D
Phenanthrene		0.61		0.34	mg/Kg	8270D
Pyrene		0.77		0.34	mg/Kg	8270D
Aluminum		12300		34.3	mg/Kg	6010C
Arsenic		2.5	J	2.6	mg/Kg	6010C
Barium		102		34.3	mg/Kg	6010C
Beryllium		0.47		0.34	mg/Kg	6010C
Calcium		3640		858	mg/Kg	6010C
Cobalt		7.2	J	8.6	mg/Kg	6010C
Chromium		23.4		1.7	mg/Kg	6010C
Copper		20.7		4.3	mg/Kg	6010C
Iron		18900		25.7	mg/Kg	6010C
Potassium		2110		858	mg/Kg	6010C
Magnesium		5450		858	mg/Kg	6010C
Manganese		296		2.6	mg/Kg	6010C
Sodium		146	J	858	mg/Kg	6010C
Nickel		15.1		6.9	mg/Kg	6010C
Lead		52.5		1.7	mg/Kg	6010C
Vanadium		32.8		8.6	mg/Kg	6010C
Zinc		68.3		5.1	mg/Kg	6010C
Mercury		0.032		0.018	mg/Kg	7471B
Percent Moisture		4.4		1.0	%	Moisture
Percent Solids		95.6		1.0	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-138836-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-138908-2	SB-3 (17-19)					
Cyclohexane		0.00032	J	0.00077	mg/Kg	8260C
Methylcyclohexane		0.00098		0.00077	mg/Kg	8260C
Aluminum		9940		33.0	mg/Kg	6010C
Arsenic		0.65	J	2.5	mg/Kg	6010C
Barium		60.6		33.0	mg/Kg	6010C
Beryllium		0.58		0.33	mg/Kg	6010C
Calcium		3630		825	mg/Kg	6010C
Cobalt		6.9	J	8.3	mg/Kg	6010C
Chromium		29.7		1.7	mg/Kg	6010C
Copper		10.8		4.1	mg/Kg	6010C
Iron		18900		24.8	mg/Kg	6010C
Potassium		5460		825	mg/Kg	6010C
Magnesium		4440		825	mg/Kg	6010C
Manganese		163		2.5	mg/Kg	6010C
Sodium		271	J	825	mg/Kg	6010C
Nickel		10.2		6.6	mg/Kg	6010C
Lead		1.5	J	1.7	mg/Kg	6010C
Vanadium		38.6		8.3	mg/Kg	6010C
Zinc		30.8		5.0	mg/Kg	6010C
Percent Moisture		2.3		1.0	%	Moisture
Percent Solids		97.7		1.0	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-138836-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-138908-3	SB-4 (1-3)					
Benzene		0.0018		0.00086	mg/Kg	8260C
Cyclohexane		0.0010		0.00086	mg/Kg	8260C
Methylcyclohexane		0.0032		0.00086	mg/Kg	8260C
2-Methylnaphthalene		0.010	J	0.37	mg/Kg	8270D
Benzo[a]anthracene		0.12		0.037	mg/Kg	8270D
Benzo[a]pyrene		0.13		0.037	mg/Kg	8270D
Benzo[b]fluoranthene		0.17		0.037	mg/Kg	8270D
Benzo[g,h,i]perylene		0.10	J	0.37	mg/Kg	8270D
Benzo[k]fluoranthene		0.073		0.037	mg/Kg	8270D
Carbazole		0.021	J	0.37	mg/Kg	8270D
Chrysene		0.13	J	0.37	mg/Kg	8270D
Dibenz(a,h)anthracene		0.059		0.037	mg/Kg	8270D
Fluoranthene		0.22	J	0.37	mg/Kg	8270D
Indeno[1,2,3-cd]pyrene		0.18		0.037	mg/Kg	8270D
Phenanthrene		0.12	J	0.37	mg/Kg	8270D
Pyrene		0.21	J	0.37	mg/Kg	8270D
Aluminum		11800		34.4	mg/Kg	6010C
Arsenic		2.4	J	2.6	mg/Kg	6010C
Barium		109		34.4	mg/Kg	6010C
Beryllium		0.44		0.34	mg/Kg	6010C
Calcium		6350		860	mg/Kg	6010C
Cobalt		8.8		8.6	mg/Kg	6010C
Chromium		29.1		1.7	mg/Kg	6010C
Copper		36.2		4.3	mg/Kg	6010C
Iron		26700		25.8	mg/Kg	6010C
Potassium		2470		860	mg/Kg	6010C
Magnesium		5650		860	mg/Kg	6010C
Manganese		573		2.6	mg/Kg	6010C
Sodium		1580		860	mg/Kg	6010C
Nickel		19.4		6.9	mg/Kg	6010C
Lead		43.3		1.7	mg/Kg	6010C
Vanadium		37.6		8.6	mg/Kg	6010C
Zinc		71.0		5.2	mg/Kg	6010C
Mercury		0.030		0.018	mg/Kg	7471B
Percent Moisture		10.6		1.0	%	Moisture
Percent Solids		89.4		1.0	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-138836-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-138908-4	SB-4 (21-23)					
Cyclohexane		0.36		0.043	mg/Kg	8260C
Ethylbenzene		0.22		0.043	mg/Kg	8260C
Isopropylbenzene		0.082		0.043	mg/Kg	8260C
Methylcyclohexane		1.8		0.043	mg/Kg	8260C
m-Xylene & p-Xylene		0.060		0.043	mg/Kg	8260C
2-Methylnaphthalene		2.1		0.38	mg/Kg	8270D
Fluorene		0.0091	J	0.38	mg/Kg	8270D
Naphthalene		2.5		0.38	mg/Kg	8270D
Phenanthrene		0.012	J	0.38	mg/Kg	8270D
Aluminum		8080		35.4	mg/Kg	6010C
Arsenic		1.2	J	2.7	mg/Kg	6010C
Barium		93.4		35.4	mg/Kg	6010C
Beryllium		0.28	J	0.35	mg/Kg	6010C
Calcium		1230		886	mg/Kg	6010C
Cobalt		7.2	J	8.9	mg/Kg	6010C
Chromium		15.6		1.8	mg/Kg	6010C
Copper		9.9		4.4	mg/Kg	6010C
Iron		15100		26.6	mg/Kg	6010C
Potassium		1890		886	mg/Kg	6010C
Magnesium		3250		886	mg/Kg	6010C
Manganese		195		2.7	mg/Kg	6010C
Sodium		456	J	886	mg/Kg	6010C
Nickel		12.5		7.1	mg/Kg	6010C
Lead		6.1		1.8	mg/Kg	6010C
Vanadium		21.0		8.9	mg/Kg	6010C
Zinc		33.7		5.3	mg/Kg	6010C
Percent Moisture		12.5		1.0	%	Moisture
Percent Solids		87.5		1.0	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-138836-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-138908-5	SB-7 (1-3)					
Acetone		0.0070		0.0048	mg/Kg	8260C
Benzene		0.0023		0.00096	mg/Kg	8260C
Cyclohexane		0.0011		0.00096	mg/Kg	8260C
Methylcyclohexane		0.0043		0.00096	mg/Kg	8260C
m-Xylene & p-Xylene		0.00019	J	0.00096	mg/Kg	8260C
Tetrachloroethene		0.00056	J	0.00096	mg/Kg	8260C
Toluene		0.00061	J	0.00096	mg/Kg	8260C
2-Methylnaphthalene		0.013	J	0.36	mg/Kg	8270D
Acenaphthylene		0.065	J	0.36	mg/Kg	8270D
Benzo[a]anthracene		0.15		0.036	mg/Kg	8270D
Benzo[a]pyrene		0.25		0.036	mg/Kg	8270D
Benzo[b]fluoranthene		0.40		0.036	mg/Kg	8270D
Benzo[g,h,i]perylene		0.17	J	0.36	mg/Kg	8270D
Benzo[k]fluoranthene		0.10		0.036	mg/Kg	8270D
Carbazole		0.018	J	0.36	mg/Kg	8270D
Chrysene		0.19	J	0.36	mg/Kg	8270D
Dibenz(a,h)anthracene		0.063		0.036	mg/Kg	8270D
Fluoranthene		0.22	J	0.36	mg/Kg	8270D
Indeno[1,2,3-cd]pyrene		0.25		0.036	mg/Kg	8270D
Naphthalene		0.028	J	0.36	mg/Kg	8270D
Phenanthrene		0.088	J	0.36	mg/Kg	8270D
Pyrene		0.19	J	0.36	mg/Kg	8270D
Aluminum		8880		33.9	mg/Kg	6010C
Arsenic		2.4	J	2.5	mg/Kg	6010C
Barium		68.5		33.9	mg/Kg	6010C
Beryllium		0.35		0.34	mg/Kg	6010C
Calcium		10200		847	mg/Kg	6010C
Cobalt		5.5	J	8.5	mg/Kg	6010C
Chromium		19.1		1.7	mg/Kg	6010C
Copper		18.9		4.2	mg/Kg	6010C
Iron		14900		25.4	mg/Kg	6010C
Potassium		1420		847	mg/Kg	6010C
Magnesium		4890		847	mg/Kg	6010C
Manganese		302		2.5	mg/Kg	6010C
Sodium		175	J	847	mg/Kg	6010C
Nickel		13.1		6.8	mg/Kg	6010C
Lead		67.3		1.7	mg/Kg	6010C
Vanadium		24.3		8.5	mg/Kg	6010C
Zinc		53.3		5.1	mg/Kg	6010C
Mercury		0.48		0.018	mg/Kg	7471B
Percent Moisture		9.2		1.0	%	Moisture
Percent Solids		90.8		1.0	%	Moisture

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-138836-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-138908-6	SB-7 (8-10)					
Acetone		0.0040		0.0039	mg/Kg	8260C
Cyclohexane		0.0041		0.00078	mg/Kg	8260C
Methylcyclohexane		0.018		0.00078	mg/Kg	8260C
Methylene Chloride		0.00054	J	0.00078	mg/Kg	8260C
Aluminum		5800		34.0	mg/Kg	6010C
Barium		40.2		34.0	mg/Kg	6010C
Beryllium		0.25	J	0.34	mg/Kg	6010C
Calcium		1270		851	mg/Kg	6010C
Cobalt		4.5	J	8.5	mg/Kg	6010C
Chromium		12.5		1.7	mg/Kg	6010C
Copper		8.8		4.3	mg/Kg	6010C
Iron		14000		25.5	mg/Kg	6010C
Potassium		1120		851	mg/Kg	6010C
Magnesium		2450		851	mg/Kg	6010C
Manganese		269		2.6	mg/Kg	6010C
Sodium		82.7	J	851	mg/Kg	6010C
Nickel		9.7		6.8	mg/Kg	6010C
Lead		2.8		1.7	mg/Kg	6010C
Vanadium		15.8		8.5	mg/Kg	6010C
Zinc		27.2		5.1	mg/Kg	6010C
Percent Moisture		11.7		1.0	%	Moisture
Percent Solids		88.3		1.0	%	Moisture
460-139067-1	TW-1					
Benzene		14		5.0	ug/L	8260C
Cyclohexane		300		5.0	ug/L	8260C
Ethylbenzene		150		5.0	ug/L	8260C
Isopropylbenzene		35		5.0	ug/L	8260C
Methyl tert-butyl ether		260		5.0	ug/L	8260C
Methylcyclohexane		440		5.0	ug/L	8260C
m-Xylene & p-Xylene		46		5.0	ug/L	8260C
o-Xylene		4.4	J	5.0	ug/L	8260C
Toluene		6.1		5.0	ug/L	8260C
2-Methylnaphthalene		10		10	ug/L	8270D
Naphthalene		47		10	ug/L	8270D
460-139067-2	TW-2					
Chloroform		0.57	J	1.0	ug/L	8260C
Methyl tert-butyl ether		23		1.0	ug/L	8260C
Trichloroethene		0.38	J	1.0	ug/L	8260C
Di-n-butyl phthalate		0.98	J	10	ug/L	8270D

EXECUTIVE SUMMARY - Detections

Client: AKRF Inc

Job Number: 460-138836-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-139067-3	GW-3					
2-Butanone (MEK)		3.8	J	5.0	ug/L	8260C
Acetone		11		5.0	ug/L	8260C
Benzene		0.69	J	1.0	ug/L	8260C
Cyclohexane		16		1.0	ug/L	8260C
Ethylbenzene		5.2		1.0	ug/L	8260C
Isopropylbenzene		1.4		1.0	ug/L	8260C
Methyl tert-butyl ether		0.82	J	1.0	ug/L	8260C
Methylcyclohexane		5.1		1.0	ug/L	8260C
m-Xylene & p-Xylene		3.8		1.0	ug/L	8260C
o-Xylene		2.8		1.0	ug/L	8260C
Toluene		1.3		1.0	ug/L	8260C
460-139067-5	GT-1					
Carbon disulfide		0.60	J	1.0	ug/L	8260C
460-139067-6	GT-2					
Methyl tert-butyl ether		2000		10	ug/L	8260C
460-139067-7	GT-3					
Di-n-butyl phthalate		1.1	J	10	ug/L	8270D
460-139067-9TB	TRIP BLANK					
Acetone		38		5.0	ug/L	8260C
Methylene Chloride		0.73	J	1.0	ug/L	8260C

METHOD SUMMARY

Client: AKRF Inc

Job Number: 460-138836-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Volatile Organic Compounds by GC/MS	TAL EDI	SW846 8260C	
Closed System Purge and Trap	TAL EDI		SW846 5035
Semivolatile Organic Compounds (GC/MS)	TAL EDI	SW846 8270D	
Microwave Extraction	TAL EDI		SW846 3546
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL EDI	SW846 8082A	
Microwave Extraction	TAL EDI		SW846 3546
Metals (ICP)	TAL EDI	SW846 6010C	
Preparation, Metals	TAL EDI		SW846 3050B
Mercury (CVAA)	TAL EDI	SW846 7471B	
Preparation, Mercury	TAL EDI		SW846 7471B
Percent Moisture	TAL EDI	EPA Moisture	
Matrix: Water			
Volatile Organic Compounds by GC/MS	TAL EDI	SW846 8260C	
Purge and Trap	TAL EDI		SW846 5030C
Semivolatile Organic Compounds (GC/MS)	TAL EDI	SW846 8270D	
Liquid-Liquid Extraction (Separatory Funnel)	TAL EDI		SW846 3510C

Lab References:

TAL EDI = TestAmerica Edison

Method References:

EPA = US Environmental Protection Agency

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

METHOD / ANALYST SUMMARY

Client: AKRF Inc

Job Number: 460-138836-1

Method	Analyst	Analyst ID
SW846 8260C	Boykin, Kenneth	KLB
SW846 8260C	Collado, Ximena X	XXC
SW846 8260C	Martinez, Eddie	EMM
SW846 8260C	Sarmiento, Daniel	DAS
SW846 8260C	Tupayachi, Audberto	AAT
SW846 8270D	Acierno, Mark	MVA
SW846 8270D	Khlungprakhon, Sukanya	SK
SW846 8270D	Manlangit, Ferdie	FAM
SW846 8270D	Xu, Yvonne Y	YYX
SW846 8082A	Mulani, Heta X	HXM
SW846 8082A	Patel, Jignesh	JHP
SW846 6010C	Chang, Churn Der	CDC
SW846 6010C	Huang, Yixin	YZH
SW846 7471B	Staib, Thomas	TJS
EPA Moisture	Callahan, Rory W	RWC
EPA Moisture	DiGuardia, Joseph L	JLD

SAMPLE SUMMARY

Client: AKRF Inc

Job Number: 460-138836-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-138836-1	SB-1 (2-4)	Solid	08/08/2017 0920	08/09/2017 1125
460-138836-2	SB-1 (9-11)	Solid	08/08/2017 0915	08/09/2017 1125
460-138836-3	SB-2 (1-3)	Solid	08/08/2017 0830	08/09/2017 1125
460-138836-4	SB-2 (16-18)	Solid	08/08/2017 0835	08/09/2017 1125
460-138836-5	SB-5 (2-4)	Solid	08/08/2017 1110	08/09/2017 1125
460-138836-6	SB-5 (10-12)	Solid	08/08/2017 1115	08/09/2017 1125
460-138836-7	SB-6 (2-4)	Solid	08/08/2017 1140	08/09/2017 1125
460-138836-8	SB-6 (9-11)	Solid	08/08/2017 1145	08/09/2017 1125
460-138836-9	SB-8 (2-4)	Solid	08/08/2017 1035	08/09/2017 1125
460-138836-10	SB-8 (9-11)	Solid	08/08/2017 1040	08/09/2017 1125
460-138836-11	SB-9 (1-3)	Solid	08/08/2017 0940	08/09/2017 1125
460-138836-12	SB-9 (8-10)	Solid	08/08/2017 0945	08/09/2017 1125
460-138908-1	SB-3 (1-3)	Solid	08/09/2017 1440	08/10/2017 1115
460-138908-2	SB-3 (17-19)	Solid	08/09/2017 1435	08/10/2017 1115
460-138908-3	SB-4 (1-3)	Solid	08/09/2017 1330	08/10/2017 1115
460-138908-4	SB-4 (21-23)	Solid	08/09/2017 1325	08/10/2017 1115
460-138908-5	SB-7 (1-3)	Solid	08/09/2017 0930	08/10/2017 1115
460-138908-6	SB-7 (8-10)	Solid	08/09/2017 1030	08/10/2017 1115
460-139067-1	TW-1	Water	08/09/2017 1350	08/11/2017 1035
460-139067-2	TW-2	Water	08/09/2017 1130	08/11/2017 1035
460-139067-3	GW-3	Water	08/10/2017 1130	08/11/2017 1035
460-139067-4	GW-4	Water	08/10/2017 1120	08/11/2017 1035
460-139067-5	GT-1	Water	08/10/2017 1110	08/11/2017 1035
460-139067-6	GT-2	Water	08/10/2017 1210	08/11/2017 1035
460-139067-7	GT-3	Water	08/10/2017 1155	08/11/2017 1035
460-139067-8	GT-4	Water	08/10/2017 1145	08/11/2017 1035
460-139067-9TB	TRIP BLANK	Water	08/10/2017 1210	08/11/2017 1035

SAMPLE RESULTS

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-1 (2-4)

Lab Sample ID: 460-138836-1

Date Sampled: 08/08/2017 0920

Client Matrix: Solid

% Moisture: 14.9

Date Received: 08/09/2017 1125

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456825

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455130

Lab File ID: K72179.D

Dilution: 1.0

Initial Weight/Volume: 7.562 g

Analysis Date: 08/17/2017 0044

Final Weight/Volume: 5 mL

Prep Date: 08/09/2017 1444

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		0.00078	U	0.00018	0.00078
1,1,2,2-Tetrachloroethane		0.00078	U	0.00017	0.00078
1,1,2-Trichloro-1,2,2-trifluoroethane		0.00078	U	0.00023	0.00078
1,1,2-Trichloroethane		0.00078	U	0.00014	0.00078
1,1-Dichloroethane		0.00078	U	0.00016	0.00078
1,1-Dichloroethene		0.00078	U	0.00017	0.00078
1,2,3-Trichlorobenzene		0.00078	U	0.00014	0.00078
1,2,4-Trichlorobenzene		0.00078	U	0.000071	0.00078
1,2-Dibromo-3-Chloropropane		0.00078	U	0.00036	0.00078
1,2-Dichlorobenzene		0.00078	U	0.00011	0.00078
1,2-Dichloroethane		0.00078	U	0.00023	0.00078
1,2-Dichloropropane		0.00078	U	0.00033	0.00078
1,3-Dichlorobenzene		0.00078	U	0.00012	0.00078
1,4-Dichlorobenzene		0.00078	U	0.000078	0.00078
1,4-Dioxane		0.016	U	0.0071	0.016
2-Butanone (MEK)		0.0039	U	0.00086	0.0039
2-Hexanone		0.0039	U	0.00061	0.0039
4-Methyl-2-pentanone (MIBK)		0.0039	U	0.00052	0.0039
Acetone		0.0039	U	0.0029	0.0039
Acetonitrile		0.0078	U	0.0048	0.0078
Acrolein		0.078	U	0.022	0.078
Benzene		0.00078	U	0.00020	0.00078
Bromoform		0.00078	U	0.00033	0.00078
Bromomethane		0.00078	U	0.00037	0.00078
Carbon disulfide		0.00078	U	0.00021	0.00078
Carbon tetrachloride		0.00078	U	0.00014	0.00078
Chlorobenzene		0.00078	U	0.00014	0.00078
Chlorobromomethane		0.00078	U	0.00022	0.00078
Chlorodibromomethane		0.00078	U	0.00015	0.00078
Chloroethane		0.00078	U	0.00041	0.00078
Chloroform		0.00078	U	0.00025	0.00078
Chloromethane		0.00078	U	0.00034	0.00078
cis-1,2-Dichloroethene		0.00078	U	0.00012	0.00078
cis-1,3-Dichloropropene		0.00078	U	0.00021	0.00078
Cyclohexane		0.00078	U	0.00017	0.00078
Dichlorobromomethane		0.00078	U	0.00020	0.00078
Dichlorodifluoromethane		0.00078	U	0.00026	0.00078
Ethylbenzene		0.00078	U	0.00015	0.00078
Ethylene Dibromide		0.00078	U	0.00014	0.00078
Isopropylbenzene		0.00078	U	0.000098	0.00078
Methyl acetate		0.0039	U	0.0033	0.0039
Methyl tert-butyl ether		0.00078	U	0.000097	0.00078
Methylcyclohexane		0.00078	U	0.00012	0.00078
Methylene Chloride		0.00078	U	0.00013	0.00078
m-Xylene & p-Xylene		0.00078	U	0.00014	0.00078
o-Xylene		0.00078	U	0.000074	0.00078

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-1 (2-4)

Lab Sample ID: 460-138836-1

Date Sampled: 08/08/2017 0920

Client Matrix: Solid

% Moisture: 14.9

Date Received: 08/09/2017 1125

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456825

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455130

Lab File ID: K72179.D

Dilution: 1.0

Initial Weight/Volume: 7.562 g

Analysis Date: 08/17/2017 0044

Final Weight/Volume: 5 mL

Prep Date: 08/09/2017 1444

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Styrene		0.00078	U	0.000096	0.00078
TBA		0.0078	U	0.0026	0.0078
Tetrachloroethene		0.00078	U	0.00011	0.00078
Toluene		0.00078	U	0.00049	0.00078
trans-1,2-Dichloroethene		0.00078	U	0.00019	0.00078
trans-1,3-Dichloropropene		0.00078	U	0.00021	0.00078
Trichloroethene		0.00078	U	0.00011	0.00078
Trichlorofluoromethane		0.00078	U	0.00032	0.00078
Vinyl chloride		0.00078	U	0.00042	0.00078

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	101		78 - 135
4-Bromofluorobenzene	96		67 - 126
Dibromofluoromethane (Surr)	102		61 - 149
Toluene-d8 (Surr)	97		73 - 121

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-1 (9-11)

Lab Sample ID: 460-138836-2

Date Sampled: 08/08/2017 0915

Client Matrix: Solid

% Moisture: 9.2

Date Received: 08/09/2017 1125

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456664

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455130

Lab File ID: K72160.D

Dilution: 1.0

Initial Weight/Volume: 7.373 g

Analysis Date: 08/16/2017 1653

Final Weight/Volume: 5 mL

Prep Date: 08/09/2017 1444

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		0.00075	U	0.00017	0.00075
1,1,2,2-Tetrachloroethane		0.00075	U	0.00016	0.00075
1,1,2-Trichloro-1,2,2-trifluoroethane		0.00075	U	0.00022	0.00075
1,1,2-Trichloroethane		0.00075	U	0.00013	0.00075
1,1-Dichloroethane		0.00075	U	0.00015	0.00075
1,1-Dichloroethene		0.00075	U	0.00017	0.00075
1,2,3-Trichlorobenzene		0.00075	U	0.00014	0.00075
1,2,4-Trichlorobenzene		0.00075	U	0.000069	0.00075
1,2-Dibromo-3-Chloropropane		0.00075	U	0.00034	0.00075
1,2-Dichlorobenzene		0.00075	U	0.00011	0.00075
1,2-Dichloroethane		0.00075	U	0.00022	0.00075
1,2-Dichloropropane		0.00075	U	0.00032	0.00075
1,3-Dichlorobenzene		0.00075	U	0.00012	0.00075
1,4-Dichlorobenzene		0.00075	U	0.000075	0.00075
1,4-Dioxane		0.015	U	0.0069	0.015
2-Butanone (MEK)		0.0037	U	0.00083	0.0037
2-Hexanone		0.0037	U	0.00058	0.0037
4-Methyl-2-pentanone (MIBK)		0.0037	U	0.00050	0.0037
Acetone		0.0037	U	0.0028	0.0037
Acetonitrile		0.0075	U	0.0047	0.0075
Acrolein		0.075	U	0.021	0.075
Benzene		0.00075	U	0.00019	0.00075
Bromoform		0.00075	U	0.00032	0.00075
Bromomethane		0.00075	U	0.00035	0.00075
Carbon disulfide		0.00075	U	0.00020	0.00075
Carbon tetrachloride		0.00075	U	0.00014	0.00075
Chlorobenzene		0.00075	U	0.00013	0.00075
Chlorobromomethane		0.00075	U	0.00021	0.00075
Chlorodibromomethane		0.00075	U	0.00014	0.00075
Chloroethane		0.00075	U	0.00039	0.00075
Chloroform		0.00075	U	0.00024	0.00075
Chloromethane		0.00075	U	0.00033	0.00075
cis-1,2-Dichloroethene		0.00075	U	0.00011	0.00075
cis-1,3-Dichloropropene		0.00075	U	0.00020	0.00075
Cyclohexane		0.00075	U	0.00017	0.00075
Dichlorobromomethane		0.00075	U	0.00019	0.00075
Dichlorodifluoromethane		0.00075	U	0.00025	0.00075
Ethylbenzene		0.00075	U	0.00015	0.00075
Ethylene Dibromide		0.00075	U	0.00013	0.00075
Isopropylbenzene		0.00075	U	0.000094	0.00075
Methyl acetate		0.0037	U	0.0032	0.0037
Methyl tert-butyl ether		0.00075	U	0.000093	0.00075
Methylcyclohexane		0.00075	U	0.00012	0.00075
Methylene Chloride		0.00075	U	0.00012	0.00075
m-Xylene & p-Xylene		0.00075	U	0.00013	0.00075
o-Xylene		0.00075	U	0.000071	0.00075

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-1 (9-11)

Lab Sample ID: 460-138836-2

Date Sampled: 08/08/2017 0915

Client Matrix: Solid

% Moisture: 9.2

Date Received: 08/09/2017 1125

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456664

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455130

Lab File ID: K72160.D

Dilution: 1.0

Initial Weight/Volume: 7.373 g

Analysis Date: 08/16/2017 1653

Final Weight/Volume: 5 mL

Prep Date: 08/09/2017 1444

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Styrene		0.00075	U	0.000092	0.00075
TBA		0.0075	U	0.0025	0.0075
Tetrachloroethene		0.00075	U	0.00011	0.00075
Toluene		0.00075	U	0.00047	0.00075
trans-1,2-Dichloroethene		0.00075	U	0.00018	0.00075
trans-1,3-Dichloropropene		0.00075	U	0.00020	0.00075
Trichloroethene		0.00075	U	0.00011	0.00075
Trichlorofluoromethane		0.00075	U	0.00030	0.00075
Vinyl chloride		0.00075	U	0.00041	0.00075

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	108		78 - 135
4-Bromofluorobenzene	105		67 - 126
Dibromofluoromethane (Surr)	111		61 - 149
Toluene-d8 (Surr)	105		73 - 121

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-2 (1-3)

Lab Sample ID: 460-138836-3

Date Sampled: 08/08/2017 0830

Client Matrix: Solid

% Moisture: 6.8

Date Received: 08/09/2017 1125

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456664

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455130

Lab File ID: K72161.D

Dilution: 1.0

Initial Weight/Volume: 6.166 g

Analysis Date: 08/16/2017 1717

Final Weight/Volume: 5 mL

Prep Date: 08/09/2017 1444

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		0.00087	U	0.00020	0.00087
1,1,2,2-Tetrachloroethane		0.00087	U	0.00019	0.00087
1,1,2-Trichloro-1,2,2-trifluoroethane		0.00087	U	0.00026	0.00087
1,1,2-Trichloroethane		0.00087	U	0.00015	0.00087
1,1-Dichloroethane		0.00087	U	0.00018	0.00087
1,1-Dichloroethene		0.00087	U	0.00020	0.00087
1,2,3-Trichlorobenzene		0.00087	U	0.00016	0.00087
1,2,4-Trichlorobenzene		0.00087	U	0.000080	0.00087
1,2-Dibromo-3-Chloropropane		0.00087	U	0.00040	0.00087
1,2-Dichlorobenzene		0.00087	U	0.00013	0.00087
1,2-Dichloroethane		0.00087	U	0.00026	0.00087
1,2-Dichloropropane		0.00087	U	0.00037	0.00087
1,3-Dichlorobenzene		0.00087	U	0.00014	0.00087
1,4-Dichlorobenzene		0.00087	U	0.000087	0.00087
1,4-Dioxane		0.017	U	0.0080	0.017
2-Butanone (MEK)		0.0026	J	0.00097	0.0044
2-Hexanone		0.0044	U	0.00068	0.0044
4-Methyl-2-pentanone (MIBK)		0.0044	U	0.00058	0.0044
Acetone		0.014		0.0033	0.0044
Acetonitrile		0.0087	U	0.0054	0.0087
Acrolein		0.087	U	0.024	0.087
Benzene		0.00087	U	0.00022	0.00087
Bromoform		0.00087	U	0.00037	0.00087
Bromomethane		0.00087	U	0.00041	0.00087
Carbon disulfide		0.00087	U	0.00023	0.00087
Carbon tetrachloride		0.00087	U	0.00016	0.00087
Chlorobenzene		0.00087	U	0.00015	0.00087
Chlorobromomethane		0.00087	U	0.00024	0.00087
Chlorodibromomethane		0.00087	U	0.00017	0.00087
Chloroethane		0.00087	U	0.00045	0.00087
Chloroform		0.00087	U	0.00028	0.00087
Chloromethane		0.00087	U	0.00038	0.00087
cis-1,2-Dichloroethene		0.00087	U	0.00013	0.00087
cis-1,3-Dichloropropene		0.00087	U	0.00024	0.00087
Cyclohexane		0.00087	U	0.00019	0.00087
Dichlorobromomethane		0.00087	U	0.00022	0.00087
Dichlorodifluoromethane		0.00087	U	0.00029	0.00087
Ethylbenzene		0.00087	U	0.00017	0.00087
Ethylene Dibromide		0.00087	U	0.00016	0.00087
Isopropylbenzene		0.00087	U	0.00011	0.00087
Methyl acetate		0.0044	U	0.0037	0.0044
Methyl tert-butyl ether		0.00087	U	0.00011	0.00087
Methylcyclohexane		0.00087	U	0.00014	0.00087
Methylene Chloride		0.00073	J	0.00014	0.00087
m-Xylene & p-Xylene		0.00087	U	0.00015	0.00087
o-Xylene		0.00087	U	0.000083	0.00087

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-2 (1-3)

Lab Sample ID: 460-138836-3

Date Sampled: 08/08/2017 0830

Client Matrix: Solid

% Moisture: 6.8

Date Received: 08/09/2017 1125

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456664

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455130

Lab File ID: K72161.D

Dilution: 1.0

Initial Weight/Volume: 6.166 g

Analysis Date: 08/16/2017 1717

Final Weight/Volume: 5 mL

Prep Date: 08/09/2017 1444

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Styrene		0.00087	U	0.00011	0.00087
TBA		0.0087	U	0.0029	0.0087
Tetrachloroethene		0.00087	U	0.00012	0.00087
Toluene		0.00087	U	0.00054	0.00087
trans-1,2-Dichloroethene		0.00087	U	0.00021	0.00087
trans-1,3-Dichloropropene		0.00087	U	0.00023	0.00087
Trichloroethene		0.00087	U	0.00013	0.00087
Trichlorofluoromethane		0.00087	U	0.00035	0.00087
Vinyl chloride		0.00087	U	0.00048	0.00087

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107		78 - 135
4-Bromofluorobenzene	103		67 - 126
Dibromofluoromethane (Surr)	108		61 - 149
Toluene-d8 (Surr)	104		73 - 121

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-2 (16-18)

Lab Sample ID: 460-138836-4

Date Sampled: 08/08/2017 0835

Client Matrix: Solid

% Moisture: 10.8

Date Received: 08/09/2017 1125

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456664

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455130

Lab File ID: K72162.D

Dilution: 1.0

Initial Weight/Volume: 5.962 g

Analysis Date: 08/16/2017 1740

Final Weight/Volume: 5 mL

Prep Date: 08/09/2017 1445

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		0.00094	U	0.00022	0.00094
1,1,2,2-Tetrachloroethane		0.00094	U	0.00020	0.00094
1,1,2-Trichloro-1,2,2-trifluoroethane		0.00094	U	0.00028	0.00094
1,1,2-Trichloroethane		0.00094	U	0.00017	0.00094
1,1-Dichloroethane		0.00094	U	0.00019	0.00094
1,1-Dichloroethene		0.00094	U	0.00021	0.00094
1,2,3-Trichlorobenzene		0.00094	U	0.00017	0.00094
1,2,4-Trichlorobenzene		0.00094	U	0.000087	0.00094
1,2-Dibromo-3-Chloropropane		0.00094	U	0.00043	0.00094
1,2-Dichlorobenzene		0.00094	U	0.00014	0.00094
1,2-Dichloroethane		0.00094	U	0.00028	0.00094
1,2-Dichloropropane		0.00094	U	0.00040	0.00094
1,3-Dichlorobenzene		0.00094	U	0.00015	0.00094
1,4-Dichlorobenzene		0.00094	U	0.000094	0.00094
1,4-Dioxane		0.019	U	0.0086	0.019
2-Butanone (MEK)		0.0024	J	0.0010	0.0047
2-Hexanone		0.0047	U	0.00073	0.0047
4-Methyl-2-pentanone (MIBK)		0.0047	U	0.00062	0.0047
Acetone		0.011		0.0036	0.0047
Acetonitrile		0.0094	U	0.0059	0.0094
Acrolein		0.094	U	0.026	0.094
Benzene		0.00094	U	0.00024	0.00094
Bromoform		0.00094	U	0.00040	0.00094
Bromomethane		0.00094	U	0.00045	0.00094
Carbon disulfide		0.00094	U	0.00025	0.00094
Carbon tetrachloride		0.00094	U	0.00017	0.00094
Chlorobenzene		0.00094	U	0.00017	0.00094
Chlorobromomethane		0.00094	U	0.00026	0.00094
Chlorodibromomethane		0.00094	U	0.00018	0.00094
Chloroethane		0.00094	U	0.00049	0.00094
Chloroform		0.00094	U	0.00030	0.00094
Chloromethane		0.00094	U	0.00041	0.00094
cis-1,2-Dichloroethene		0.00094	U	0.00014	0.00094
cis-1,3-Dichloropropene		0.00094	U	0.00026	0.00094
Cyclohexane		0.00094	U	0.00021	0.00094
Dichlorobromomethane		0.00094	U	0.00024	0.00094
Dichlorodifluoromethane		0.00094	U	0.00032	0.00094
Ethylbenzene		0.00094	U	0.00019	0.00094
Ethylene Dibromide		0.00094	U	0.00017	0.00094
Isopropylbenzene		0.00094	U	0.00012	0.00094
Methyl acetate		0.0047	U	0.0040	0.0047
Methyl tert-butyl ether		0.00094	U	0.00012	0.00094
Methylcyclohexane		0.00094	U	0.00015	0.00094
Methylene Chloride		0.00094	U	0.00015	0.00094
m-Xylene & p-Xylene		0.00094	U	0.00016	0.00094
o-Xylene		0.00094	U	0.000089	0.00094

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-2 (16-18)

Lab Sample ID: 460-138836-4

Date Sampled: 08/08/2017 0835

Client Matrix: Solid

% Moisture: 10.8

Date Received: 08/09/2017 1125

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456664

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455130

Lab File ID: K72162.D

Dilution: 1.0

Initial Weight/Volume: 5.962 g

Analysis Date: 08/16/2017 1740

Final Weight/Volume: 5 mL

Prep Date: 08/09/2017 1445

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Styrene		0.00094	U	0.00012	0.00094
TBA		0.0094	U	0.0031	0.0094
Tetrachloroethene		0.00094	U	0.00013	0.00094
Toluene		0.00094	U	0.00059	0.00094
trans-1,2-Dichloroethene		0.00094	U	0.00023	0.00094
trans-1,3-Dichloropropene		0.00094	U	0.00025	0.00094
Trichloroethene		0.00094	U	0.00014	0.00094
Trichlorofluoromethane		0.00094	U	0.00038	0.00094
Vinyl chloride		0.00094	U	0.00051	0.00094

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	105		78 - 135
4-Bromofluorobenzene	101		67 - 126
Dibromofluoromethane (Surr)	107		61 - 149
Toluene-d8 (Surr)	103		73 - 121

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-5 (2-4)

Lab Sample ID: 460-138836-5

Date Sampled: 08/08/2017 1110

Client Matrix: Solid

% Moisture: 6.7

Date Received: 08/09/2017 1125

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456664

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455130

Lab File ID: K72163.D

Dilution: 1.0

Initial Weight/Volume: 4.971 g

Analysis Date: 08/16/2017 1804

Final Weight/Volume: 5 mL

Prep Date: 08/09/2017 1445

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		0.0011	U	0.00025	0.0011
1,1,2,2-Tetrachloroethane		0.0011	U	0.00023	0.0011
1,1,2-Trichloro-1,2,2-trifluoroethane		0.0011	U	0.00032	0.0011
1,1,2-Trichloroethane		0.0011	U	0.00019	0.0011
1,1-Dichloroethane		0.0011	U	0.00022	0.0011
1,1-Dichloroethene		0.0011	U	0.00024	0.0011
1,2,3-Trichlorobenzene		0.0011	U	0.00020	0.0011
1,2,4-Trichlorobenzene		0.0011	U	0.000099	0.0011
1,2-Dibromo-3-Chloropropane		0.0011	U	0.00050	0.0011
1,2-Dichlorobenzene		0.0011	U	0.00016	0.0011
1,2-Dichloroethane		0.0011		0.00032	0.0011
1,2-Dichloropropane		0.0011	U	0.00046	0.0011
1,3-Dichlorobenzene		0.0011	U	0.00017	0.0011
1,4-Dichlorobenzene		0.0011	U	0.00011	0.0011
1,4-Dioxane		0.022	U	0.0099	0.022
2-Butanone (MEK)		0.0054	U	0.0012	0.0054
2-Hexanone		0.0054	U	0.00084	0.0054
4-Methyl-2-pentanone (MIBK)		0.0054	U	0.00072	0.0054
Acetone		0.0046	J	0.0041	0.0054
Acetonitrile		0.011	U	0.0067	0.011
Acrolein		0.11	U	0.030	0.11
Benzene		0.0057		0.00028	0.0011
Bromoform		0.0011	U	0.00046	0.0011
Bromomethane		0.0011	U	0.00051	0.0011
Carbon disulfide		0.0011	U	0.00029	0.0011
Carbon tetrachloride		0.0011	U	0.00020	0.0011
Chlorobenzene		0.0011	U	0.00019	0.0011
Chlorobromomethane		0.0011	U	0.00030	0.0011
Chlorodibromomethane		0.0011	U	0.00021	0.0011
Chloroethane		0.0011	U	0.00056	0.0011
Chloroform		0.0011	U	0.00034	0.0011
Chloromethane		0.0011	U	0.00047	0.0011
cis-1,2-Dichloroethene		0.0011	U	0.00016	0.0011
cis-1,3-Dichloropropene		0.0011	U	0.00029	0.0011
Cyclohexane		0.0011	U	0.00024	0.0011
Dichlorobromomethane		0.0011	U	0.00028	0.0011
Dichlorodifluoromethane		0.0011	U	0.00036	0.0011
Ethylbenzene		0.00080	J	0.00021	0.0011
Ethylene Dibromide		0.0011	U	0.00019	0.0011
Isopropylbenzene		0.0011	U	0.00014	0.0011
Methyl acetate		0.0054	U	0.0046	0.0054
Methyl tert-butyl ether		0.0011	U	0.00013	0.0011
Methylcyclohexane		0.0011	U	0.00017	0.0011
Methylene Chloride		0.0011	U	0.00018	0.0011
m-Xylene & p-Xylene		0.0041		0.00019	0.0011
o-Xylene		0.00095	J	0.00010	0.0011

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-5 (2-4)

Lab Sample ID: 460-138836-5

Date Sampled: 08/08/2017 1110

Client Matrix: Solid

% Moisture: 6.7

Date Received: 08/09/2017 1125

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456664

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455130

Lab File ID: K72163.D

Dilution: 1.0

Initial Weight/Volume: 4.971 g

Analysis Date: 08/16/2017 1804

Final Weight/Volume: 5 mL

Prep Date: 08/09/2017 1445

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Styrene		0.0011	U	0.00013	0.0011
TBA		0.011	U	0.0036	0.011
Tetrachloroethene		0.0011	U	0.00015	0.0011
Toluene		0.013		0.00067	0.0011
trans-1,2-Dichloroethene		0.0011	U	0.00027	0.0011
trans-1,3-Dichloropropene		0.0011	U	0.00029	0.0011
Trichloroethene		0.0011	U	0.00016	0.0011
Trichlorofluoromethane		0.0011	U	0.00044	0.0011
Vinyl chloride		0.0011	U	0.00059	0.0011

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	105		78 - 135
4-Bromofluorobenzene	96		67 - 126
Dibromofluoromethane (Surr)	104		61 - 149
Toluene-d8 (Surr)	102		73 - 121

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-5 (10-12)

Lab Sample ID: 460-138836-6

Date Sampled: 08/08/2017 1115

Client Matrix: Solid

% Moisture: 16.0

Date Received: 08/09/2017 1125

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456664

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455130

Lab File ID: K72164.D

Dilution: 1.0

Initial Weight/Volume: 5.087 g

Analysis Date: 08/16/2017 1828

Final Weight/Volume: 5 mL

Prep Date: 08/09/2017 1446

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		0.0012	U	0.00027	0.0012
1,1,2,2-Tetrachloroethane		0.0012	U	0.00025	0.0012
1,1,2-Trichloro-1,2,2-trifluoroethane		0.0012	U	0.00035	0.0012
1,1,2-Trichloroethane		0.0012	U	0.00021	0.0012
1,1-Dichloroethane		0.0012	U	0.00024	0.0012
1,1-Dichloroethene		0.0012	U	0.00026	0.0012
1,2,3-Trichlorobenzene		0.0012	U	0.00021	0.0012
1,2,4-Trichlorobenzene		0.0012	U	0.00011	0.0012
1,2-Dibromo-3-Chloropropane		0.0012	U	0.00054	0.0012
1,2-Dichlorobenzene		0.0012	U	0.00017	0.0012
1,2-Dichloroethane		0.0012	U	0.00035	0.0012
1,2-Dichloropropane		0.0012	U	0.00049	0.0012
1,3-Dichlorobenzene		0.0012	U	0.00019	0.0012
1,4-Dichlorobenzene		0.0012	U	0.00012	0.0012
1,4-Dioxane		0.023	U	0.011	0.023
2-Butanone (MEK)		0.0070		0.0013	0.0058
2-Hexanone		0.0058	U	0.00091	0.0058
4-Methyl-2-pentanone (MIBK)		0.0058	U	0.00078	0.0058
Acetone		0.037		0.0044	0.0058
Acetonitrile		0.012	U	0.0073	0.012
Acrolein		0.12	U	0.033	0.12
Benzene		0.0012	U	0.00030	0.0012
Bromoform		0.0012	U	0.00050	0.0012
Bromomethane		0.0012	U	0.00055	0.0012
Carbon disulfide		0.00070	J	0.00031	0.0012
Carbon tetrachloride		0.0012	U	0.00021	0.0012
Chlorobenzene		0.0012	U	0.00021	0.0012
Chlorobromomethane		0.0012	U	0.00033	0.0012
Chlorodibromomethane		0.0012	U	0.00023	0.0012
Chloroethane		0.0012	U	0.00061	0.0012
Chloroform		0.0012	U	0.00037	0.0012
Chloromethane		0.0012	U	0.00051	0.0012
cis-1,2-Dichloroethene		0.0012	U	0.00018	0.0012
cis-1,3-Dichloropropene		0.0012	U	0.00032	0.0012
Cyclohexane		0.0012	U	0.00026	0.0012
Dichlorobromomethane		0.0012	U	0.00030	0.0012
Dichlorodifluoromethane		0.0012	U	0.00040	0.0012
Ethylbenzene		0.011		0.00023	0.0012
Ethylene Dibromide		0.0012	U	0.00021	0.0012
Isopropylbenzene		0.0036		0.00015	0.0012
Methyl acetate		0.0058	U	0.00050	0.0058
Methyl tert-butyl ether		0.0012	U	0.00015	0.0012
Methylcyclohexane		0.00090	J	0.00019	0.0012
Methylene Chloride		0.0018		0.00019	0.0012
m-Xylene & p-Xylene		0.0041		0.00020	0.0012
o-Xylene		0.0012	U	0.00011	0.0012

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-5 (10-12)

Lab Sample ID: 460-138836-6

Date Sampled: 08/08/2017 1115

Client Matrix: Solid

% Moisture: 16.0

Date Received: 08/09/2017 1125

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456664

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455130

Lab File ID: K72164.D

Dilution: 1.0

Initial Weight/Volume: 5.087 g

Analysis Date: 08/16/2017 1828

Final Weight/Volume: 5 mL

Prep Date: 08/09/2017 1446

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Styrene		0.0012	U	0.00014	0.0012
TBA		0.012	U	0.0039	0.012
Tetrachloroethene		0.0012	U	0.00017	0.0012
Toluene		0.0012	U	0.00073	0.0012
trans-1,2-Dichloroethene		0.0012	U	0.00029	0.0012
trans-1,3-Dichloropropene		0.0012	U	0.00031	0.0012
Trichloroethene		0.0012	U	0.00017	0.0012
Trichlorofluoromethane		0.0012	U	0.00047	0.0012
Vinyl chloride		0.0012	U	0.00064	0.0012

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	107		78 - 135
4-Bromofluorobenzene	101		67 - 126
Dibromofluoromethane (Surr)	109		61 - 149
Toluene-d8 (Surr)	105		73 - 121

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-6 (2-4)

Lab Sample ID: 460-138836-7

Date Sampled: 08/08/2017 1140

Client Matrix: Solid

% Moisture: 9.0

Date Received: 08/09/2017 1125

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456664

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455130

Lab File ID: K72165.D

Dilution: 1.0

Initial Weight/Volume: 5.6 g

Analysis Date: 08/16/2017 1851

Final Weight/Volume: 5 mL

Prep Date: 08/09/2017 1446

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		0.00098	U	0.00023	0.00098
1,1,2,2-Tetrachloroethane		0.00098	U	0.00021	0.00098
1,1,2-Trichloro-1,2,2-trifluoroethane		0.00098	U	0.00030	0.00098
1,1,2-Trichloroethane		0.00098	U	0.00017	0.00098
1,1-Dichloroethane		0.00098	U	0.00020	0.00098
1,1-Dichloroethene		0.00098	U	0.00022	0.00098
1,2,3-Trichlorobenzene		0.00098	U	0.00018	0.00098
1,2,4-Trichlorobenzene		0.00098	U	0.000090	0.00098
1,2-Dibromo-3-Chloropropane		0.00098	U	0.00045	0.00098
1,2-Dichlorobenzene		0.00098	U	0.00014	0.00098
1,2-Dichloroethane		0.00098	U	0.00029	0.00098
1,2-Dichloropropane		0.00098	U	0.00042	0.00098
1,3-Dichlorobenzene		0.00098	U	0.00016	0.00098
1,4-Dichlorobenzene		0.00098	U	0.000098	0.00098
1,4-Dioxane		0.020	U	0.0090	0.020
2-Butanone (MEK)		0.0049	U	0.0011	0.0049
2-Hexanone		0.0049	U	0.00077	0.0049
4-Methyl-2-pentanone (MIBK)		0.0049	U	0.00065	0.0049
Acetone		0.0049	U	0.0037	0.0049
Acetonitrile		0.0098	U	0.0061	0.0098
Acrolein		0.098	U	0.027	0.098
Benzene		0.00098	U	0.00025	0.00098
Bromoform		0.00098	U	0.00042	0.00098
Bromomethane		0.00098	U	0.00047	0.00098
Carbon disulfide		0.00098	U	0.00026	0.00098
Carbon tetrachloride		0.00098	U	0.00018	0.00098
Chlorobenzene		0.00098	U	0.00017	0.00098
Chlorobromomethane		0.00098	U	0.00028	0.00098
Chlorodibromomethane		0.00098	U	0.00019	0.00098
Chloroethane		0.00098	U	0.00051	0.00098
Chloroform		0.00098	U	0.00031	0.00098
Chloromethane		0.00098	U	0.00043	0.00098
cis-1,2-Dichloroethene		0.00098	U	0.00015	0.00098
cis-1,3-Dichloropropene		0.00098	U	0.00027	0.00098
Cyclohexane		0.00098	U	0.00022	0.00098
Dichlorobromomethane		0.00098	U	0.00025	0.00098
Dichlorodifluoromethane		0.00098	U	0.00033	0.00098
Ethylbenzene		0.00098	U	0.00020	0.00098
Ethylene Dibromide		0.00098	U	0.00018	0.00098
Isopropylbenzene		0.00098	U	0.00012	0.00098
Methyl acetate		0.0049	U	0.0042	0.0049
Methyl tert-butyl ether		0.00098	U	0.00012	0.00098
Methylcyclohexane		0.00098	U	0.00016	0.00098
Methylene Chloride		0.00098	U	0.00016	0.00098
m-Xylene & p-Xylene		0.00098	U	0.00017	0.00098
o-Xylene		0.00098	U	0.000093	0.00098

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-6 (2-4)

Lab Sample ID: 460-138836-7

Date Sampled: 08/08/2017 1140

Client Matrix: Solid

% Moisture: 9.0

Date Received: 08/09/2017 1125

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456664

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455130

Lab File ID: K72165.D

Dilution: 1.0

Initial Weight/Volume: 5.6 g

Analysis Date: 08/16/2017 1851

Final Weight/Volume: 5 mL

Prep Date: 08/09/2017 1446

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Styrene		0.00098	U	0.00012	0.00098
TBA		0.0098	U	0.0032	0.0098
Tetrachloroethene		0.00098	U	0.00014	0.00098
Toluene		0.00098	U	0.00061	0.00098
trans-1,2-Dichloroethene		0.00098	U	0.00024	0.00098
trans-1,3-Dichloropropene		0.00098	U	0.00026	0.00098
Trichloroethene		0.00098	U	0.00014	0.00098
Trichlorofluoromethane		0.00098	U	0.00040	0.00098
Vinyl chloride		0.00098	U	0.00054	0.00098

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	105		78 - 135
4-Bromofluorobenzene	102		67 - 126
Dibromofluoromethane (Surr)	106		61 - 149
Toluene-d8 (Surr)	103		73 - 121

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-6 (9-11)

Lab Sample ID: 460-138836-8

Date Sampled: 08/08/2017 1145

Client Matrix: Solid

% Moisture: 17.4

Date Received: 08/09/2017 1125

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456664

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455130

Lab File ID: K72166.D

Dilution: 1.0

Initial Weight/Volume: 5.965 g

Analysis Date: 08/16/2017 1915

Final Weight/Volume: 5 mL

Prep Date: 08/09/2017 1446

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		0.0010	U	0.00024	0.0010
1,1,2,2-Tetrachloroethane		0.0010	U	0.00022	0.0010
1,1,2-Trichloro-1,2,2-trifluoroethane		0.0010	U	0.00031	0.0010
1,1,2-Trichloroethane		0.0010	U	0.00018	0.0010
1,1-Dichloroethane		0.0010	U	0.00021	0.0010
1,1-Dichloroethene		0.0010	U	0.00023	0.0010
1,2,3-Trichlorobenzene		0.0010	U	0.00018	0.0010
1,2,4-Trichlorobenzene		0.0010	U	0.000093	0.0010
1,2-Dibromo-3-Chloropropane		0.0010	U	0.00047	0.0010
1,2-Dichlorobenzene		0.0010	U	0.00015	0.0010
1,2-Dichloroethane		0.0010	U	0.00030	0.0010
1,2-Dichloropropane		0.0010	U	0.00043	0.0010
1,3-Dichlorobenzene		0.0010	U	0.00016	0.0010
1,4-Dichlorobenzene		0.0010	U	0.00010	0.0010
1,4-Dioxane		0.020	U	0.0093	0.020
2-Butanone (MEK)		0.0051	U	0.0011	0.0051
2-Hexanone		0.0051	U	0.00079	0.0051
4-Methyl-2-pentanone (MIBK)		0.0051	U	0.00067	0.0051
Acetone		0.0051	U	0.0038	0.0051
Acetonitrile		0.010	U	0.0063	0.010
Acrolein		0.10	U	0.028	0.10
Benzene		0.0010	U	0.00026	0.0010
Bromoform		0.0010	U	0.00043	0.0010
Bromomethane		0.0010	U	0.00048	0.0010
Carbon disulfide		0.0010	U	0.00027	0.0010
Carbon tetrachloride		0.0010	U	0.00018	0.0010
Chlorobenzene		0.0010	U	0.00018	0.0010
Chlorobromomethane		0.0010	U	0.00029	0.0010
Chlorodibromomethane		0.0010	U	0.00020	0.0010
Chloroethane		0.0010	U	0.00053	0.0010
Chloroform		0.0010	U	0.00032	0.0010
Chloromethane		0.0010	U	0.00044	0.0010
cis-1,2-Dichloroethene		0.0010	U	0.00015	0.0010
cis-1,3-Dichloropropene		0.0010	U	0.00028	0.0010
Cyclohexane		0.0010	U	0.00022	0.0010
Dichlorobromomethane		0.0010	U	0.00026	0.0010
Dichlorodifluoromethane		0.0010	U	0.00034	0.0010
Ethylbenzene		0.0010	U	0.00020	0.0010
Ethylene Dibromide		0.0010	U	0.00018	0.0010
Isopropylbenzene		0.0010	U	0.00013	0.0010
Methyl acetate		0.0051	U	0.0044	0.0051
Methyl tert-butyl ether		0.0010	U	0.00013	0.0010
Methylcyclohexane		0.0010	U	0.00016	0.0010
Methylene Chloride		0.0010	U	0.00017	0.0010
m-Xylene & p-Xylene		0.0010	U	0.00018	0.0010
o-Xylene		0.0010	U	0.000096	0.0010

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-6 (9-11)

Lab Sample ID: 460-138836-8

Date Sampled: 08/08/2017 1145

Client Matrix: Solid

% Moisture: 17.4

Date Received: 08/09/2017 1125

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456664

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455130

Lab File ID: K72166.D

Dilution: 1.0

Initial Weight/Volume: 5.965 g

Analysis Date: 08/16/2017 1915

Final Weight/Volume: 5 mL

Prep Date: 08/09/2017 1446

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Styrene		0.0010	U	0.00012	0.0010
TBA		0.010	U	0.0033	0.010
Tetrachloroethene		0.0010	U	0.00015	0.0010
Toluene		0.0010	U	0.00063	0.0010
trans-1,2-Dichloroethene		0.0010	U	0.00025	0.0010
trans-1,3-Dichloropropene		0.0010	U	0.00027	0.0010
Trichloroethene		0.0010	U	0.00015	0.0010
Trichlorofluoromethane		0.0010	U	0.00041	0.0010
Vinyl chloride		0.0010	U	0.00055	0.0010

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		78 - 135
4-Bromofluorobenzene	99		67 - 126
Dibromofluoromethane (Surr)	104		61 - 149
Toluene-d8 (Surr)	101		73 - 121

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-8 (2-4)

Lab Sample ID: 460-138836-9

Date Sampled: 08/08/2017 1035

Client Matrix: Solid

% Moisture: 5.2

Date Received: 08/09/2017 1125

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456664

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455130

Lab File ID: K72167.D

Dilution: 1.0

Initial Weight/Volume: 4.041 g

Analysis Date: 08/16/2017 1939

Final Weight/Volume: 5 mL

Prep Date: 08/09/2017 1447

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		0.0013	U	0.00030	0.0013
1,1,2,2-Tetrachloroethane		0.0013	U	0.00028	0.0013
1,1,2-Trichloro-1,2,2-trifluoroethane		0.0013	U	0.00039	0.0013
1,1,2-Trichloroethane		0.0013	U	0.00023	0.0013
1,1-Dichloroethane		0.0013	U	0.00027	0.0013
1,1-Dichloroethene		0.0013	U	0.00029	0.0013
1,2,3-Trichlorobenzene		0.0013	U	0.00024	0.0013
1,2,4-Trichlorobenzene		0.0013	U	0.00012	0.0013
1,2-Dibromo-3-Chloropropane		0.0013	U	0.00060	0.0013
1,2-Dichlorobenzene		0.0013	U	0.00019	0.0013
1,2-Dichloroethane		0.0013	U	0.00039	0.0013
1,2-Dichloropropane		0.0013	U	0.00055	0.0013
1,3-Dichlorobenzene		0.0013	U	0.00021	0.0013
1,4-Dichlorobenzene		0.0013	U	0.00013	0.0013
1,4-Dioxane		0.026	U	0.012	0.026
2-Butanone (MEK)		0.0065	U	0.0014	0.0065
2-Hexanone		0.0065	U	0.0010	0.0065
4-Methyl-2-pentanone (MIBK)		0.0065	U	0.00087	0.0065
Acetone		0.0065	U	0.0049	0.0065
Acetonitrile		0.013	U	0.0081	0.013
Acrolein		0.13	U	0.037	0.13
Benzene		0.0013	U	0.00034	0.0013
Bromoform		0.0013	U	0.00055	0.0013
Bromomethane		0.0013	U	0.00062	0.0013
Carbon disulfide		0.0013	U	0.00035	0.0013
Carbon tetrachloride		0.0013	U	0.00024	0.0013
Chlorobenzene		0.0013	U	0.00023	0.0013
Chlorobromomethane		0.0013	U	0.00037	0.0013
Chlorodibromomethane		0.0013	U	0.00025	0.0013
Chloroethane		0.0013	U	0.00068	0.0013
Chloroform		0.0013	U	0.00042	0.0013
Chloromethane		0.0013	U	0.00057	0.0013
cis-1,2-Dichloroethene		0.0013	U	0.00020	0.0013
cis-1,3-Dichloropropene		0.0013	U	0.00036	0.0013
Cyclohexane		0.0013	U	0.00029	0.0013
Dichlorobromomethane		0.0013	U	0.00034	0.0013
Dichlorodifluoromethane		0.0013	U	0.00044	0.0013
Ethylbenzene		0.0013	U	0.00026	0.0013
Ethylene Dibromide		0.0013	U	0.00024	0.0013
Isopropylbenzene		0.0013	U	0.00016	0.0013
Methyl acetate		0.0065	U	0.0056	0.0065
Methyl tert-butyl ether		0.0013	U	0.00016	0.0013
Methylcyclohexane		0.0013	U	0.00021	0.0013
Methylene Chloride		0.0013	U	0.00021	0.0013
m-Xylene & p-Xylene		0.0013	U	0.00023	0.0013
o-Xylene		0.0013	U	0.00012	0.0013

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-8 (2-4)

Lab Sample ID: 460-138836-9

Date Sampled: 08/08/2017 1035

Client Matrix: Solid

% Moisture: 5.2

Date Received: 08/09/2017 1125

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456664

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455130

Lab File ID: K72167.D

Dilution: 1.0

Initial Weight/Volume: 4.041 g

Analysis Date: 08/16/2017 1939

Final Weight/Volume: 5 mL

Prep Date: 08/09/2017 1447

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Styrene		0.0013	U	0.00016	0.0013
TBA		0.013	U	0.0043	0.013
Tetrachloroethene		0.0013	U	0.00019	0.0013
Toluene		0.0013	U	0.00082	0.0013
trans-1,2-Dichloroethene		0.0013	U	0.00032	0.0013
trans-1,3-Dichloropropene		0.0013	U	0.00035	0.0013
Trichloroethene		0.0013	U	0.00019	0.0013
Trichlorofluoromethane		0.0013	U	0.00053	0.0013
Vinyl chloride		0.0013	U	0.00071	0.0013

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	106		78 - 135
4-Bromofluorobenzene	99		67 - 126
Dibromofluoromethane (Surr)	107		61 - 149
Toluene-d8 (Surr)	103		73 - 121

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-8 (9-11)

Lab Sample ID: 460-138836-10

Date Sampled: 08/08/2017 1040

Client Matrix: Solid

% Moisture: 17.4

Date Received: 08/09/2017 1125

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456664

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455130

Lab File ID: K72168.D

Dilution: 1.0

Initial Weight/Volume: 7.216 g

Analysis Date: 08/16/2017 2003

Final Weight/Volume: 5 mL

Prep Date: 08/09/2017 1447

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		0.00084	U	0.00020	0.00084
1,1,2,2-Tetrachloroethane		0.00084	U	0.00018	0.00084
1,1,2-Trichloro-1,2,2-trifluoroethane		0.00084	U	0.00025	0.00084
1,1,2-Trichloroethane		0.00084	U	0.00015	0.00084
1,1-Dichloroethane		0.00084	U	0.00017	0.00084
1,1-Dichloroethene		0.00084	U	0.00019	0.00084
1,2,3-Trichlorobenzene		0.00084	U	0.00015	0.00084
1,2,4-Trichlorobenzene		0.00084	U	0.000077	0.00084
1,2-Dibromo-3-Chloropropane		0.00084	U	0.00039	0.00084
1,2-Dichlorobenzene		0.00084	U	0.00012	0.00084
1,2-Dichloroethane		0.00084	U	0.00025	0.00084
1,2-Dichloropropane		0.00084	U	0.00035	0.00084
1,3-Dichlorobenzene		0.00084	U	0.00013	0.00084
1,4-Dichlorobenzene		0.00084	U	0.000084	0.00084
1,4-Dioxane		0.017	U	0.0077	0.017
2-Butanone (MEK)		0.0023	J	0.00093	0.0042
2-Hexanone		0.0042	U	0.00065	0.0042
4-Methyl-2-pentanone (MIBK)		0.0042	U	0.00056	0.0042
Acetone		0.017		0.0032	0.0042
Acetonitrile		0.0084	U	0.0052	0.0084
Acrolein		0.084	U	0.023	0.084
Benzene		0.00084	U	0.00022	0.00084
Bromoform		0.00084	U	0.00036	0.00084
Bromomethane		0.00084	U	0.00040	0.00084
Carbon disulfide		0.00084	U	0.00022	0.00084
Carbon tetrachloride		0.00084	U	0.00015	0.00084
Chlorobenzene		0.00084	U	0.00015	0.00084
Chlorobromomethane		0.00084	U	0.00024	0.00084
Chlorodibromomethane		0.00084	U	0.00016	0.00084
Chloroethane		0.00084	U	0.00044	0.00084
Chloroform		0.00084	U	0.00027	0.00084
Chloromethane		0.00084	U	0.00036	0.00084
cis-1,2-Dichloroethene		0.00084	U	0.00013	0.00084
cis-1,3-Dichloropropene		0.00084	U	0.00023	0.00084
Cyclohexane		0.00084	U	0.00019	0.00084
Dichlorobromomethane		0.00084	U	0.00022	0.00084
Dichlorodifluoromethane		0.00084	U	0.00028	0.00084
Ethylbenzene		0.00084	U	0.00017	0.00084
Ethylene Dibromide		0.00084	U	0.00015	0.00084
Isopropylbenzene		0.00084	U	0.00011	0.00084
Methyl acetate		0.0042	U	0.0036	0.0042
Methyl tert-butyl ether		0.00084	U	0.00010	0.00084
Methylcyclohexane		0.00084	U	0.00013	0.00084
Methylene Chloride		0.00084	U	0.00014	0.00084
m-Xylene & p-Xylene		0.00084	U	0.00015	0.00084
o-Xylene		0.00084	U	0.000080	0.00084

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-8 (9-11)

Lab Sample ID: 460-138836-10

Date Sampled: 08/08/2017 1040

Client Matrix: Solid

% Moisture: 17.4

Date Received: 08/09/2017 1125

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456664

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455130

Lab File ID: K72168.D

Dilution: 1.0

Initial Weight/Volume: 7.216 g

Analysis Date: 08/16/2017 2003

Final Weight/Volume: 5 mL

Prep Date: 08/09/2017 1447

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Styrene		0.00084	U	0.00010	0.00084
TBA		0.0084	U	0.0028	0.0084
Tetrachloroethene		0.00084	U	0.00012	0.00084
Toluene		0.00084	U	0.00052	0.00084
trans-1,2-Dichloroethene		0.00084	U	0.00021	0.00084
trans-1,3-Dichloropropene		0.00084	U	0.00022	0.00084
Trichloroethene		0.00084	U	0.00012	0.00084
Trichlorofluoromethane		0.00084	U	0.00034	0.00084
Vinyl chloride		0.00084	U	0.00046	0.00084

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104		78 - 135
4-Bromofluorobenzene	99		67 - 126
Dibromofluoromethane (Surr)	103		61 - 149
Toluene-d8 (Surr)	100		73 - 121

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-9 (1-3)

Lab Sample ID: 460-138836-11

Date Sampled: 08/08/2017 0940

Client Matrix: Solid

% Moisture: 5.5

Date Received: 08/09/2017 1125

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456664

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455130

Lab File ID: K72169.D

Dilution: 1.0

Initial Weight/Volume: 5.866 g

Analysis Date: 08/16/2017 2026

Final Weight/Volume: 5 mL

Prep Date: 08/09/2017 1448

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		0.00090	U	0.00021	0.00090
1,1,2,2-Tetrachloroethane		0.00090	U	0.00019	0.00090
1,1,2-Trichloro-1,2,2-trifluoroethane		0.00090	U	0.00027	0.00090
1,1,2-Trichloroethane		0.00090	U	0.00016	0.00090
1,1-Dichloroethane		0.00090	U	0.00019	0.00090
1,1-Dichloroethene		0.00090	U	0.00020	0.00090
1,2,3-Trichlorobenzene		0.00090	U	0.00016	0.00090
1,2,4-Trichlorobenzene		0.00090	U	0.000083	0.00090
1,2-Dibromo-3-Chloropropane		0.00090	U	0.00041	0.00090
1,2-Dichlorobenzene		0.00090	U	0.00013	0.00090
1,2-Dichloroethane		0.00090	U	0.00027	0.00090
1,2-Dichloropropane		0.00090	U	0.00038	0.00090
1,3-Dichlorobenzene		0.00090	U	0.00014	0.00090
1,4-Dichlorobenzene		0.00090	U	0.000090	0.00090
1,4-Dioxane		0.018	U	0.0083	0.018
2-Butanone (MEK)		0.0045	U	0.0010	0.0045
2-Hexanone		0.0045	U	0.00070	0.0045
4-Methyl-2-pentanone (MIBK)		0.0045	U	0.00060	0.0045
Acetone		0.0045	U	0.0034	0.0045
Acetonitrile		0.0090	U	0.0056	0.0090
Acrolein		0.090	U	0.025	0.090
Benzene		0.00090	U	0.00023	0.00090
Bromoform		0.00090	U	0.00038	0.00090
Bromomethane		0.00090	U	0.00043	0.00090
Carbon disulfide		0.00090	U	0.00024	0.00090
Carbon tetrachloride		0.00090	U	0.00016	0.00090
Chlorobenzene		0.00090	U	0.00016	0.00090
Chlorobromomethane		0.00090	U	0.00025	0.00090
Chlorodibromomethane		0.00090	U	0.00017	0.00090
Chloroethane		0.00090	U	0.00047	0.00090
Chloroform		0.00090	U	0.00029	0.00090
Chloromethane		0.00090	U	0.00039	0.00090
cis-1,2-Dichloroethene		0.00090	U	0.00014	0.00090
cis-1,3-Dichloropropene		0.00090	U	0.00025	0.00090
Cyclohexane		0.00090	U	0.00020	0.00090
Dichlorobromomethane		0.00090	U	0.00023	0.00090
Dichlorodifluoromethane		0.00090	U	0.00030	0.00090
Ethylbenzene		0.00090	U	0.00018	0.00090
Ethylene Dibromide		0.00090	U	0.00016	0.00090
Isopropylbenzene		0.00090	U	0.00011	0.00090
Methyl acetate		0.0045	U	0.0039	0.0045
Methyl tert-butyl ether		0.00090	U	0.00011	0.00090
Methylcyclohexane		0.00090	U	0.00014	0.00090
Methylene Chloride		0.00090	U	0.00015	0.00090
m-Xylene & p-Xylene		0.00090	U	0.00016	0.00090
o-Xylene		0.00090	U	0.000086	0.00090

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-9 (1-3)

Lab Sample ID: 460-138836-11

Date Sampled: 08/08/2017 0940

Client Matrix: Solid

% Moisture: 5.5

Date Received: 08/09/2017 1125

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456664

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455130

Lab File ID: K72169.D

Dilution: 1.0

Initial Weight/Volume: 5.866 g

Analysis Date: 08/16/2017 2026

Final Weight/Volume: 5 mL

Prep Date: 08/09/2017 1448

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Styrene		0.00090	U	0.00011	0.00090
TBA		0.0090	U	0.0030	0.0090
Tetrachloroethene		0.00090	U	0.00013	0.00090
Toluene		0.00090	U	0.00056	0.00090
trans-1,2-Dichloroethene		0.00090	U	0.00022	0.00090
trans-1,3-Dichloropropene		0.00090	U	0.00024	0.00090
Trichloroethene		0.00090	U	0.00013	0.00090
Trichlorofluoromethane		0.00090	U	0.00037	0.00090
Vinyl chloride		0.00090	U	0.00049	0.00090

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	106		78 - 135
4-Bromofluorobenzene	104		67 - 126
Dibromofluoromethane (Surr)	106		61 - 149
Toluene-d8 (Surr)	105		73 - 121

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-9 (8-10)

Lab Sample ID: 460-138836-12

Date Sampled: 08/08/2017 0945

Client Matrix: Solid

% Moisture: 12.1

Date Received: 08/09/2017 1125

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456825

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455130

Lab File ID: K72180.D

Dilution: 1.0

Initial Weight/Volume: 7.361 g

Analysis Date: 08/17/2017 0108

Final Weight/Volume: 5 mL

Prep Date: 08/09/2017 1448

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		0.00077	U	0.00018	0.00077
1,1,2,2-Tetrachloroethane		0.00077	U	0.00017	0.00077
1,1,2-Trichloro-1,2,2-trifluoroethane		0.00077	U	0.00023	0.00077
1,1,2-Trichloroethane		0.00077	U	0.00014	0.00077
1,1-Dichloroethane		0.00077	U	0.00016	0.00077
1,1-Dichloroethene		0.00077	U	0.00017	0.00077
1,2,3-Trichlorobenzene		0.00077	U	0.00014	0.00077
1,2,4-Trichlorobenzene		0.00077	U	0.000071	0.00077
1,2-Dibromo-3-Chloropropane		0.00077	U	0.00036	0.00077
1,2-Dichlorobenzene		0.00077	U	0.00011	0.00077
1,2-Dichloroethane		0.00077	U	0.00023	0.00077
1,2-Dichloropropane		0.00077	U	0.00033	0.00077
1,3-Dichlorobenzene		0.00077	U	0.00012	0.00077
1,4-Dichlorobenzene		0.00077	U	0.000077	0.00077
1,4-Dioxane		0.015	U	0.0071	0.015
2-Butanone (MEK)		0.0039	U	0.00086	0.0039
2-Hexanone		0.0039	U	0.00060	0.0039
4-Methyl-2-pentanone (MIBK)		0.0039	U	0.00051	0.0039
Acetone		0.0039	U	0.0029	0.0039
Acetonitrile		0.0077	U	0.0048	0.0077
Acrolein		0.077	U	0.022	0.077
Benzene		0.00077	U	0.00020	0.00077
Bromoform		0.00077	U	0.00033	0.00077
Bromomethane		0.00077	U	0.00037	0.00077
Carbon disulfide		0.00077	U	0.00021	0.00077
Carbon tetrachloride		0.00077	U	0.00014	0.00077
Chlorobenzene		0.00077	U	0.00014	0.00077
Chlorobromomethane		0.00077	U	0.00022	0.00077
Chlorodibromomethane		0.00077	U	0.00015	0.00077
Chloroethane		0.00077	U	0.00040	0.00077
Chloroform		0.00077	U	0.00025	0.00077
Chloromethane		0.00077	U	0.00034	0.00077
cis-1,2-Dichloroethene		0.00077	U	0.00012	0.00077
cis-1,3-Dichloropropene		0.00077	U	0.00021	0.00077
Cyclohexane		0.00077	U	0.00017	0.00077
Dichlorobromomethane		0.00077	U	0.00020	0.00077
Dichlorodifluoromethane		0.00077	U	0.00026	0.00077
Ethylbenzene		0.00077	U	0.00015	0.00077
Ethylene Dibromide		0.00077	U	0.00014	0.00077
Isopropylbenzene		0.00077	U	0.000097	0.00077
Methyl acetate		0.0039	U	0.0033	0.0039
Methyl tert-butyl ether		0.00077	U	0.000097	0.00077
Methylcyclohexane		0.00077	U	0.00012	0.00077
Methylene Chloride		0.00077	U	0.00013	0.00077
m-Xylene & p-Xylene		0.00077	U	0.00013	0.00077
o-Xylene		0.00077	U	0.000073	0.00077

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-9 (8-10)

Lab Sample ID: 460-138836-12

Date Sampled: 08/08/2017 0945

Client Matrix: Solid

% Moisture: 12.1

Date Received: 08/09/2017 1125

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456825

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455130

Lab File ID: K72180.D

Dilution: 1.0

Initial Weight/Volume: 7.361 g

Analysis Date: 08/17/2017 0108

Final Weight/Volume: 5 mL

Prep Date: 08/09/2017 1448

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Styrene		0.00077	U	0.000095	0.00077
TBA		0.0077	U	0.0026	0.0077
Tetrachloroethene		0.00077	U	0.00011	0.00077
Toluene		0.00077	U	0.00048	0.00077
trans-1,2-Dichloroethene		0.00077	U	0.00019	0.00077
trans-1,3-Dichloropropene		0.00077	U	0.00021	0.00077
Trichloroethene		0.00077	U	0.00011	0.00077
Trichlorofluoromethane		0.00077	U	0.00031	0.00077
Vinyl chloride		0.00077	U	0.00042	0.00077

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	105		78 - 135
4-Bromofluorobenzene	105		67 - 126
Dibromofluoromethane (Surr)	106		61 - 149
Toluene-d8 (Surr)	104		73 - 121

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-3 (1-3)

Lab Sample ID: 460-138908-1

Date Sampled: 08/09/2017 1440

Client Matrix: Solid

% Moisture: 4.4

Date Received: 08/10/2017 1115

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456539

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455485

Lab File ID: K72137.D

Dilution: 1.0

Initial Weight/Volume: 5.13 g

Analysis Date: 08/16/2017 0730

Final Weight/Volume: 5 mL

Prep Date: 08/10/2017 2056

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		0.0010	U	0.00024	0.0010
1,1,2,2-Tetrachloroethane		0.0010	U	0.00022	0.0010
1,1,2-Trichloro-1,2,2-trifluoroethane		0.0010	U	0.00031	0.0010
1,1,2-Trichloroethane		0.0010	U	0.00018	0.0010
1,1-Dichloroethane		0.0010	U	0.00021	0.0010
1,1-Dichloroethene		0.0010	U	0.00023	0.0010
1,2,3-Trichlorobenzene		0.0010	U	0.00018	0.0010
1,2,4-Trichlorobenzene		0.0010	U	0.000094	0.0010
1,2-Dibromo-3-Chloropropane		0.0010	U	0.00047	0.0010
1,2-Dichlorobenzene		0.0010	U	0.00015	0.0010
1,2-Dichloroethane		0.0010	U	0.00030	0.0010
1,2-Dichloropropane		0.0010	U	0.00043	0.0010
1,3-Dichlorobenzene		0.0010	U	0.00016	0.0010
1,4-Dichlorobenzene		0.0010	U	0.00010	0.0010
1,4-Dioxane		0.020	U	0.0094	0.020
2-Butanone (MEK)		0.0051	U	0.0011	0.0051
2-Hexanone		0.0051	U	0.00080	0.0051
4-Methyl-2-pentanone (MIBK)		0.0051	U	0.00068	0.0051
Acetone		0.0051	U	0.0039	0.0051
Acetonitrile		0.010	U	0.0064	0.010
Acrolein		0.10	U	0.029	0.10
Benzene		0.0010	U	0.00026	0.0010
Bromoform		0.0010	U	0.00043	0.0010
Bromomethane		0.0010	U	0.00048	0.0010
Carbon disulfide		0.0010	U	0.00027	0.0010
Carbon tetrachloride		0.0010	U	0.00018	0.0010
Chlorobenzene		0.0010	U	0.00018	0.0010
Chlorobromomethane		0.0010	U	0.00029	0.0010
Chlorodibromomethane		0.0010	U	0.00020	0.0010
Chloroethane		0.0010	U	0.00053	0.0010
Chloroform		0.0010	U	0.00033	0.0010
Chloromethane		0.0010	U	0.00044	0.0010
cis-1,2-Dichloroethene		0.0010	U	0.00015	0.0010
cis-1,3-Dichloropropene		0.0010	U	0.00028	0.0010
Cyclohexane		0.00075	J	0.00023	0.0010
Dichlorobromomethane		0.0010	U	0.00026	0.0010
Dichlorodifluoromethane		0.0010	U	0.00034	0.0010
Ethylbenzene		0.0010	U	0.00020	0.0010
Ethylene Dibromide		0.0010	U	0.00018	0.0010
Isopropylbenzene		0.0010	U	0.00013	0.0010
Methyl acetate		0.0051	U	0.0044	0.0051
Methyl tert-butyl ether		0.0010	U	0.00013	0.0010
Methylcyclohexane		0.0027		0.00016	0.0010
Methylene Chloride		0.0010	U	0.00017	0.0010
m-Xylene & p-Xylene		0.0010	U	0.00018	0.0010
o-Xylene		0.0010	U	0.000097	0.0010

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-3 (1-3)

Lab Sample ID: 460-138908-1

Date Sampled: 08/09/2017 1440

Client Matrix: Solid

% Moisture: 4.4

Date Received: 08/10/2017 1115

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456539

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455485

Lab File ID: K72137.D

Dilution: 1.0

Initial Weight/Volume: 5.13 g

Analysis Date: 08/16/2017 0730

Final Weight/Volume: 5 mL

Prep Date: 08/10/2017 2056

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Styrene		0.0010	U	0.00013	0.0010
TBA		0.010	U	0.0034	0.010
Tetrachloroethene		0.0010	U	0.00015	0.0010
Toluene		0.0010	U	0.00064	0.0010
trans-1,2-Dichloroethene		0.0010	U	0.00025	0.0010
trans-1,3-Dichloropropene		0.0010	U	0.00027	0.0010
Trichloroethene		0.0010	U	0.00015	0.0010
Trichlorofluoromethane		0.0010	U	0.00041	0.0010
Vinyl chloride		0.0010	U	0.00056	0.0010

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103		78 - 135
4-Bromofluorobenzene	100		67 - 126
Dibromofluoromethane (Surr)	105		61 - 149
Toluene-d8 (Surr)	101		73 - 121

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-3 (17-19)

Lab Sample ID: 460-138908-2

Date Sampled: 08/09/2017 1435

Client Matrix: Solid

% Moisture: 2.3

Date Received: 08/10/2017 1115

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456539

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455485

Lab File ID: K72138.D

Dilution: 1.0

Initial Weight/Volume: 6.655 g

Analysis Date: 08/16/2017 0754

Final Weight/Volume: 5 mL

Prep Date: 08/10/2017 2056

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		0.00077	U	0.00018	0.00077
1,1,2,2-Tetrachloroethane		0.00077	U	0.00016	0.00077
1,1,2-Trichloro-1,2,2-trifluoroethane		0.00077	U	0.00023	0.00077
1,1,2-Trichloroethane		0.00077	U	0.00014	0.00077
1,1-Dichloroethane		0.00077	U	0.00016	0.00077
1,1-Dichloroethene		0.00077	U	0.00017	0.00077
1,2,3-Trichlorobenzene		0.00077	U	0.00014	0.00077
1,2,4-Trichlorobenzene		0.00077	U	0.000071	0.00077
1,2-Dibromo-3-Chloropropane		0.00077	U	0.00035	0.00077
1,2-Dichlorobenzene		0.00077	U	0.00011	0.00077
1,2-Dichloroethane		0.00077	U	0.00023	0.00077
1,2-Dichloropropane		0.00077	U	0.00033	0.00077
1,3-Dichlorobenzene		0.00077	U	0.00012	0.00077
1,4-Dichlorobenzene		0.00077	U	0.000077	0.00077
1,4-Dioxane		0.015	U	0.0071	0.015
2-Butanone (MEK)		0.0038	U	0.00085	0.0038
2-Hexanone		0.0038	U	0.00060	0.0038
4-Methyl-2-pentanone (MIBK)		0.0038	U	0.00051	0.0038
Acetone		0.0038	U	0.0029	0.0038
Acetonitrile		0.0077	U	0.0048	0.0077
Acrolein		0.077	U	0.022	0.077
Benzene		0.00077	U	0.00020	0.00077
Bromoform		0.00077	U	0.00033	0.00077
Bromomethane		0.00077	U	0.00036	0.00077
Carbon disulfide		0.00077	U	0.00020	0.00077
Carbon tetrachloride		0.00077	U	0.00014	0.00077
Chlorobenzene		0.00077	U	0.00014	0.00077
Chlorobromomethane		0.00077	U	0.00022	0.00077
Chlorodibromomethane		0.00077	U	0.00015	0.00077
Chloroethane		0.00077	U	0.00040	0.00077
Chloroform		0.00077	U	0.00025	0.00077
Chloromethane		0.00077	U	0.00033	0.00077
cis-1,2-Dichloroethene		0.00077	U	0.00012	0.00077
cis-1,3-Dichloropropene		0.00077	U	0.00021	0.00077
Cyclohexane		0.00032	J	0.00017	0.00077
Dichlorobromomethane		0.00077	U	0.00020	0.00077
Dichlorodifluoromethane		0.00077	U	0.00026	0.00077
Ethylbenzene		0.00077	U	0.00015	0.00077
Ethylene Dibromide		0.00077	U	0.00014	0.00077
Isopropylbenzene		0.00077	U	0.000097	0.00077
Methyl acetate		0.0038	U	0.0033	0.0038
Methyl tert-butyl ether		0.00077	U	0.000096	0.00077
Methylcyclohexane		0.00098		0.00012	0.00077
Methylene Chloride		0.00077	U	0.00013	0.00077
m-Xylene & p-Xylene		0.00077	U	0.00013	0.00077
o-Xylene		0.00077	U	0.000073	0.00077

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-3 (17-19)

Lab Sample ID: 460-138908-2

Date Sampled: 08/09/2017 1435

Client Matrix: Solid

% Moisture: 2.3

Date Received: 08/10/2017 1115

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456539

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455485

Lab File ID: K72138.D

Dilution: 1.0

Initial Weight/Volume: 6.655 g

Analysis Date: 08/16/2017 0754

Final Weight/Volume: 5 mL

Prep Date: 08/10/2017 2056

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Styrene		0.00077	U	0.000095	0.00077
TBA		0.0077	U	0.0025	0.0077
Tetrachloroethene		0.00077	U	0.00011	0.00077
Toluene		0.00077	U	0.00048	0.00077
trans-1,2-Dichloroethene		0.00077	U	0.00019	0.00077
trans-1,3-Dichloropropene		0.00077	U	0.00020	0.00077
Trichloroethene		0.00077	U	0.00011	0.00077
Trichlorofluoromethane		0.00077	U	0.00031	0.00077
Vinyl chloride		0.00077	U	0.00042	0.00077

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	100		78 - 135
4-Bromofluorobenzene	98		67 - 126
Dibromofluoromethane (Surr)	101		61 - 149
Toluene-d8 (Surr)	98		73 - 121

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-4 (1-3)

Lab Sample ID: 460-138908-3

Date Sampled: 08/09/2017 1330

Client Matrix: Solid

% Moisture: 10.6

Date Received: 08/10/2017 1115

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456664

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455485

Lab File ID: K72150.D

Dilution: 1.0

Initial Weight/Volume: 6.499 g

Analysis Date: 08/16/2017 1256

Final Weight/Volume: 5 mL

Prep Date: 08/10/2017 2056

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		0.00086	U	0.00020	0.00086
1,1,2,2-Tetrachloroethane		0.00086	U	0.00018	0.00086
1,1,2-Trichloro-1,2,2-trifluoroethane		0.00086	U	0.00026	0.00086
1,1,2-Trichloroethane		0.00086	U	0.00015	0.00086
1,1-Dichloroethane		0.00086	U	0.00018	0.00086
1,1-Dichloroethene		0.00086	U	0.00019	0.00086
1,2,3-Trichlorobenzene		0.00086	U	0.00016	0.00086
1,2,4-Trichlorobenzene		0.00086	U	0.000079	0.00086
1,2-Dibromo-3-Chloropropane		0.00086	U	0.00040	0.00086
1,2-Dichlorobenzene		0.00086	U	0.00012	0.00086
1,2-Dichloroethane		0.00086	U	0.00025	0.00086
1,2-Dichloropropane		0.00086	U	0.00036	0.00086
1,3-Dichlorobenzene		0.00086	U	0.00014	0.00086
1,4-Dichlorobenzene		0.00086	U	0.000086	0.00086
1,4-Dioxane		0.017	U	0.0079	0.017
2-Butanone (MEK)		0.0043	U	0.00096	0.0043
2-Hexanone		0.0043	U	0.00067	0.0043
4-Methyl-2-pentanone (MIBK)		0.0043	U	0.00057	0.0043
Acetone		0.0043	U	0.0033	0.0043
Acetonitrile		0.0086	U	0.0054	0.0086
Acrolein		0.086	U	0.024	0.086
Benzene		0.0018		0.00022	0.00086
Bromoform		0.00086	U	0.00037	0.00086
Bromomethane		0.00086	U	0.00041	0.00086
Carbon disulfide		0.00086	U	0.00023	0.00086
Carbon tetrachloride		0.00086	U	0.00016	0.00086
Chlorobenzene		0.00086	U	0.00015	0.00086
Chlorobromomethane		0.00086	U	0.00024	0.00086
Chlorodibromomethane		0.00086	U	0.00017	0.00086
Chloroethane		0.00086	U	0.00045	0.00086
Chloroform		0.00086	U	0.00027	0.00086
Chloromethane		0.00086	U	0.00037	0.00086
cis-1,2-Dichloroethene		0.00086	U	0.00013	0.00086
cis-1,3-Dichloropropene		0.00086	U	0.00023	0.00086
Cyclohexane		0.0010		0.00019	0.00086
Dichlorobromomethane		0.00086	U	0.00022	0.00086
Dichlorodifluoromethane		0.00086	U	0.00029	0.00086
Ethylbenzene		0.00086	U	0.00017	0.00086
Ethylene Dibromide		0.00086	U	0.00015	0.00086
Isopropylbenzene		0.00086	U	0.00011	0.00086
Methyl acetate		0.0043	U	0.0037	0.0043
Methyl tert-butyl ether		0.00086	U	0.00011	0.00086
Methylcyclohexane		0.0032		0.00014	0.00086
Methylene Chloride		0.00086	U	0.00014	0.00086
m-Xylene & p-Xylene		0.00086	U	0.00015	0.00086
o-Xylene		0.00086	U	0.000082	0.00086

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-4 (1-3)

Lab Sample ID: 460-138908-3

Date Sampled: 08/09/2017 1330

Client Matrix: Solid

% Moisture: 10.6

Date Received: 08/10/2017 1115

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456664

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455485

Lab File ID: K72150.D

Dilution: 1.0

Initial Weight/Volume: 6.499 g

Analysis Date: 08/16/2017 1256

Final Weight/Volume: 5 mL

Prep Date: 08/10/2017 2056

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Styrene		0.00086	U	0.00011	0.00086
TBA		0.0086	U	0.0028	0.0086
Tetrachloroethene		0.00086	U	0.00012	0.00086
Toluene		0.00086	U	0.00054	0.00086
trans-1,2-Dichloroethene		0.00086	U	0.00021	0.00086
trans-1,3-Dichloropropene		0.00086	U	0.00023	0.00086
Trichloroethene		0.00086	U	0.00012	0.00086
Trichlorofluoromethane		0.00086	U	0.00035	0.00086
Vinyl chloride		0.00086	U	0.00047	0.00086

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	110		78 - 135
4-Bromofluorobenzene	102		67 - 126
Dibromofluoromethane (Surr)	110		61 - 149
Toluene-d8 (Surr)	106		73 - 121

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-4 (21-23)

Lab Sample ID: 460-138908-4

Date Sampled: 08/09/2017 1325

Client Matrix: Solid

% Moisture: 12.5

Date Received: 08/10/2017 1115

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456502

Instrument ID: CVOAMS6

Prep Method: 5035

Prep Batch: 460-455484

Lab File ID: F51951.D

Dilution: 50

Initial Weight/Volume: 6.632 g

Analysis Date: 08/16/2017 0005

Final Weight/Volume: 5 mL

Prep Date: 08/10/2017 2055

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		0.043	U	0.012	0.043
1,1,2,2-Tetrachloroethane		0.043	U	0.0082	0.043
1,1,2-Trichloro-1,2,2-trifluoroethane		0.043	U	0.015	0.043
1,1,2-Trichloroethane		0.043	U	0.0034	0.043
1,1-Dichloroethane		0.043	U	0.010	0.043
1,1-Dichloroethene		0.043	U	0.015	0.043
1,2,3-Trichlorobenzene		0.043	U	0.015	0.043
1,2,4-Trichlorobenzene		0.043	U	0.012	0.043
1,2-Dibromo-3-Chloropropane		0.043	U	0.0099	0.043
1,2-Dichlorobenzene		0.043	U	0.0095	0.043
1,2-Dichloroethane		0.043	U	0.011	0.043
1,2-Dichloropropane		0.043	U	0.0078	0.043
1,3-Dichlorobenzene		0.043	U	0.014	0.043
1,4-Dichlorobenzene		0.043	U	0.014	0.043
1,4-Dioxane		2.2	U	0.37	2.2
2-Butanone (MEK)		0.22	U	0.095	0.22
2-Hexanone		0.22	U	0.031	0.22
4-Methyl-2-pentanone (MIBK)		0.22	U	0.027	0.22
Acetone		0.22	U	0.046	0.22
Acetonitrile		0.43	U	0.056	0.43
Acrolein		0.22	U *	0.038	0.22
Benzene		0.043	U	0.0082	0.043
Bromoform		0.043	U	0.0078	0.043
Bromomethane		0.043	U	0.0078	0.043
Carbon disulfide		0.043	U	0.0095	0.043
Carbon tetrachloride		0.043	U	0.014	0.043
Chlorobenzene		0.043	U	0.010	0.043
Chlorobromomethane		0.043	U	0.013	0.043
Chlorodibromomethane		0.043	U	0.0095	0.043
Chloroethane		0.043	U	0.016	0.043
Chloroform		0.043	U	0.0095	0.043
Chloromethane		0.043	U	0.0095	0.043
cis-1,2-Dichloroethene		0.043	U	0.011	0.043
cis-1,3-Dichloropropene		0.043	U	0.0069	0.043
Cyclohexane		0.36		0.011	0.043
Dichlorobromomethane		0.043	U	0.0065	0.043
Dichlorodifluoromethane		0.043	U	0.0060	0.043
Ethylbenzene		0.22		0.013	0.043
Ethylene Dibromide		0.043	U	0.0082	0.043
Isopropylbenzene		0.082		0.014	0.043
Methyl acetate		0.22	U	0.025	0.22
Methyl tert-butyl ether		0.043	U	0.0056	0.043
Methylcyclohexane		1.8		0.0095	0.043
Methylene Chloride		0.043	U	0.0090	0.043
m-Xylene & p-Xylene		0.060		0.012	0.043
o-Xylene		0.043	U	0.014	0.043

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-4 (21-23)

Lab Sample ID: 460-138908-4

Date Sampled: 08/09/2017 1325

Client Matrix: Solid

% Moisture: 12.5

Date Received: 08/10/2017 1115

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456502

Instrument ID: CVOAMS6

Prep Method: 5035

Prep Batch: 460-455484

Lab File ID: F51951.D

Dilution: 50

Initial Weight/Volume: 6.632 g

Analysis Date: 08/16/2017 0005

Final Weight/Volume: 5 mL

Prep Date: 08/10/2017 2055

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Styrene		0.043	U	0.0073	0.043
TBA		0.43	U	0.052	0.43
Tetrachloroethene		0.043	U	0.016	0.043
Toluene		0.043	U	0.011	0.043
trans-1,2-Dichloroethene		0.043	U	0.0078	0.043
trans-1,3-Dichloropropene		0.043	U	0.0082	0.043
Trichloroethene		0.043	U	0.0095	0.043
Trichlorofluoromethane		0.043	U	0.0065	0.043
Vinyl chloride		0.043	U	0.0086	0.043

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	89		69 - 143
4-Bromofluorobenzene	115		61 - 137
Dibromofluoromethane (Surr)	100		61 - 135
Toluene-d8 (Surr)	97		67 - 127

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-7 (1-3)

Lab Sample ID: 460-138908-5

Date Sampled: 08/09/2017 0930

Client Matrix: Solid

% Moisture: 9.2

Date Received: 08/10/2017 1115

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456664

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455485

Lab File ID: K72151.D

Dilution: 1.0

Initial Weight/Volume: 5.723 g

Analysis Date: 08/16/2017 1320

Final Weight/Volume: 5 mL

Prep Date: 08/10/2017 2057

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		0.00096	U	0.00022	0.00096
1,1,2,2-Tetrachloroethane		0.00096	U	0.00021	0.00096
1,1,2-Trichloro-1,2,2-trifluoroethane		0.00096	U	0.00029	0.00096
1,1,2-Trichloroethane		0.00096	U	0.00017	0.00096
1,1-Dichloroethane		0.00096	U	0.00020	0.00096
1,1-Dichloroethene		0.00096	U	0.00022	0.00096
1,2,3-Trichlorobenzene		0.00096	U	0.00017	0.00096
1,2,4-Trichlorobenzene		0.00096	U	0.000089	0.00096
1,2-Dibromo-3-Chloropropane		0.00096	U	0.00044	0.00096
1,2-Dichlorobenzene		0.00096	U	0.00014	0.00096
1,2-Dichloroethane		0.00096	U	0.00028	0.00096
1,2-Dichloropropane		0.00096	U	0.00041	0.00096
1,3-Dichlorobenzene		0.00096	U	0.00015	0.00096
1,4-Dichlorobenzene		0.00096	U	0.000096	0.00096
1,4-Dioxane		0.019	U	0.0088	0.019
2-Butanone (MEK)		0.0048	U	0.0011	0.0048
2-Hexanone		0.0048	U	0.00075	0.0048
4-Methyl-2-pentanone (MIBK)		0.0048	U	0.00064	0.0048
Acetone		0.0070		0.0036	0.0048
Acetonitrile		0.0096	U	0.0060	0.0096
Acrolein		0.096	U	0.027	0.096
Benzene		0.0023		0.00025	0.00096
Bromoform		0.00096	U	0.00041	0.00096
Bromomethane		0.00096	U	0.00046	0.00096
Carbon disulfide		0.00096	U	0.00026	0.00096
Carbon tetrachloride		0.00096	U	0.00017	0.00096
Chlorobenzene		0.00096	U	0.00017	0.00096
Chlorobromomethane		0.00096	U	0.00027	0.00096
Chlorodibromomethane		0.00096	U	0.00019	0.00096
Chloroethane		0.00096	U	0.00050	0.00096
Chloroform		0.00096	U	0.00031	0.00096
Chloromethane		0.00096	U	0.00042	0.00096
cis-1,2-Dichloroethene		0.00096	U	0.00015	0.00096
cis-1,3-Dichloropropene		0.00096	U	0.00026	0.00096
Cyclohexane		0.0011		0.00021	0.00096
Dichlorobromomethane		0.00096	U	0.00025	0.00096
Dichlorodifluoromethane		0.00096	U	0.00033	0.00096
Ethylbenzene		0.00096	U	0.00019	0.00096
Ethylene Dibromide		0.00096	U	0.00017	0.00096
Isopropylbenzene		0.00096	U	0.00012	0.00096
Methyl acetate		0.0048	U	0.0041	0.0048
Methyl tert-butyl ether		0.00096	U	0.00012	0.00096
Methylcyclohexane		0.0043		0.00015	0.00096
Methylene Chloride		0.00096	U	0.00016	0.00096
m-Xylene & p-Xylene		0.00019	J	0.00017	0.00096
o-Xylene		0.00096	U	0.000091	0.00096

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-7 (1-3)

Lab Sample ID: 460-138908-5

Date Sampled: 08/09/2017 0930

Client Matrix: Solid

% Moisture: 9.2

Date Received: 08/10/2017 1115

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456664

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455485

Lab File ID: K72151.D

Dilution: 1.0

Initial Weight/Volume: 5.723 g

Analysis Date: 08/16/2017 1320

Final Weight/Volume: 5 mL

Prep Date: 08/10/2017 2057

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Styrene		0.00096	U	0.00012	0.00096
TBA		0.0096	U	0.0032	0.0096
Tetrachloroethene		0.00056	J	0.00014	0.00096
Toluene		0.00061	J	0.00060	0.00096
trans-1,2-Dichloroethene		0.00096	U	0.00024	0.00096
trans-1,3-Dichloropropene		0.00096	U	0.00026	0.00096
Trichloroethene		0.00096	U	0.00014	0.00096
Trichlorofluoromethane		0.00096	U	0.00039	0.00096
Vinyl chloride		0.00096	U	0.00053	0.00096

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	105		78 - 135
4-Bromofluorobenzene	99		67 - 126
Dibromofluoromethane (Surr)	105		61 - 149
Toluene-d8 (Surr)	103		73 - 121

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-7 (8-10)

Lab Sample ID: 460-138908-6

Date Sampled: 08/09/2017 1030

Client Matrix: Solid

% Moisture: 11.7

Date Received: 08/10/2017 1115

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456664

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455485

Lab File ID: K72152.D

Dilution: 1.0

Initial Weight/Volume: 7.261 g

Analysis Date: 08/16/2017 1344

Final Weight/Volume: 5 mL

Prep Date: 08/10/2017 2057

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		0.00078	U	0.00018	0.00078
1,1,2,2-Tetrachloroethane		0.00078	U	0.00017	0.00078
1,1,2-Trichloro-1,2,2-trifluoroethane		0.00078	U	0.00023	0.00078
1,1,2-Trichloroethane		0.00078	U	0.00014	0.00078
1,1-Dichloroethane		0.00078	U	0.00016	0.00078
1,1-Dichloroethene		0.00078	U	0.00018	0.00078
1,2,3-Trichlorobenzene		0.00078	U	0.00014	0.00078
1,2,4-Trichlorobenzene		0.00078	U	0.000072	0.00078
1,2-Dibromo-3-Chloropropane		0.00078	U	0.00036	0.00078
1,2-Dichlorobenzene		0.00078	U	0.00011	0.00078
1,2-Dichloroethane		0.00078	U	0.00023	0.00078
1,2-Dichloropropane		0.00078	U	0.00033	0.00078
1,3-Dichlorobenzene		0.00078	U	0.00012	0.00078
1,4-Dichlorobenzene		0.00078	U	0.000078	0.00078
1,4-Dioxane		0.016	U	0.0072	0.016
2-Butanone (MEK)		0.0039	U	0.00087	0.0039
2-Hexanone		0.0039	U	0.00061	0.0039
4-Methyl-2-pentanone (MIBK)		0.0039	U	0.00052	0.0039
Acetone		0.0040		0.0030	0.0039
Acetonitrile		0.0078	U	0.0049	0.0078
Acrolein		0.078	U	0.022	0.078
Benzene		0.00078	U	0.00020	0.00078
Bromoform		0.00078	U	0.00033	0.00078
Bromomethane		0.00078	U	0.00037	0.00078
Carbon disulfide		0.00078	U	0.00021	0.00078
Carbon tetrachloride		0.00078	U	0.00014	0.00078
Chlorobenzene		0.00078	U	0.00014	0.00078
Chlorobromomethane		0.00078	U	0.00022	0.00078
Chlorodibromomethane		0.00078	U	0.00015	0.00078
Chloroethane		0.00078	U	0.00041	0.00078
Chloroform		0.00078	U	0.00025	0.00078
Chloromethane		0.00078	U	0.00034	0.00078
cis-1,2-Dichloroethene		0.00078	U	0.00012	0.00078
cis-1,3-Dichloropropene		0.00078	U	0.00021	0.00078
Cyclohexane		0.0041		0.00017	0.00078
Dichlorobromomethane		0.00078	U	0.00020	0.00078
Dichlorodifluoromethane		0.00078	U	0.00026	0.00078
Ethylbenzene		0.00078	U	0.00016	0.00078
Ethylene Dibromide		0.00078	U	0.00014	0.00078
Isopropylbenzene		0.00078	U	0.000098	0.00078
Methyl acetate		0.0039	U	0.0034	0.0039
Methyl tert-butyl ether		0.00078	U	0.000097	0.00078
Methylcyclohexane		0.018		0.00012	0.00078
Methylene Chloride		0.00054	J	0.00013	0.00078
m-Xylene & p-Xylene		0.00078	U	0.00014	0.00078
o-Xylene		0.00078	U	0.000074	0.00078

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-7 (8-10)

Lab Sample ID: 460-138908-6

Date Sampled: 08/09/2017 1030

Client Matrix: Solid

% Moisture: 11.7

Date Received: 08/10/2017 1115

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456664

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-455485

Lab File ID: K72152.D

Dilution: 1.0

Initial Weight/Volume: 7.261 g

Analysis Date: 08/16/2017 1344

Final Weight/Volume: 5 mL

Prep Date: 08/10/2017 2057

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Styrene		0.00078	U	0.000096	0.00078
TBA		0.0078	U	0.0026	0.0078
Tetrachloroethene		0.00078	U	0.00011	0.00078
Toluene		0.00078	U	0.00049	0.00078
trans-1,2-Dichloroethene		0.00078	U	0.00019	0.00078
trans-1,3-Dichloropropene		0.00078	U	0.00021	0.00078
Trichloroethene		0.00078	U	0.00011	0.00078
Trichlorofluoromethane		0.00078	U	0.00032	0.00078
Vinyl chloride		0.00078	U	0.00043	0.00078

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103		78 - 135
4-Bromofluorobenzene	100		67 - 126
Dibromofluoromethane (Surr)	105		61 - 149
Toluene-d8 (Surr)	102		73 - 121

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: TW-1

Lab Sample ID: 460-139067-1

Client Matrix: Water

Date Sampled: 08/09/2017 1350

Date Received: 08/11/2017 1035

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456308

Instrument ID: CVOAMS6

Prep Method: 5030C

Prep Batch: N/A

Lab File ID: F51919.D

Dilution: 5.0

Initial Weight/Volume: 5 mL

Analysis Date: 08/15/2017 1112

Final Weight/Volume: 5 mL

Prep Date: 08/15/2017 1112

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	5.0	U	1.4	5.0
1,1,2,2-Tetrachloroethane	5.0	U	0.95	5.0
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	1.7	5.0
1,1,2-Trichloroethane	5.0	U	0.40	5.0
1,1-Dichloroethane	5.0	U	1.2	5.0
1,1-Dichloroethene	5.0	U	1.7	5.0
1,2,3-Trichlorobenzene	5.0	U	1.8	5.0
1,2,4-Trichlorobenzene	5.0	U	1.4	5.0
1,2-Dibromo-3-Chloropropane	5.0	U	1.2	5.0
1,2-Dichlorobenzene	5.0	U	1.1	5.0
1,2-Dichloroethane	5.0	U	1.3	5.0
1,2-Dichloropropane	5.0	U	0.90	5.0
1,3-Dichlorobenzene	5.0	U	1.7	5.0
1,4-Dichlorobenzene	5.0	U	1.7	5.0
1,4-Dioxane	250	U	44	250
2-Butanone (MEK)	25	U	11	25
2-Hexanone	25	U	3.6	25
4-Methyl-2-pentanone (MIBK)	25	U	3.2	25
Acetone	25	U	5.4	25
Benzene	14		0.45	5.0
Bromoform	5.0	U	0.90	5.0
Bromomethane	5.0	U	0.90	5.0
Carbon disulfide	5.0	U	1.1	5.0
Carbon tetrachloride	5.0	U	1.7	5.0
Chlorobenzene	5.0	U	1.2	5.0
Chlorobromomethane	5.0	U	1.5	5.0
Chlorodibromomethane	5.0	U	1.1	5.0
Chloroethane	5.0	U	1.9	5.0
Chloroform	5.0	U	1.1	5.0
Chloromethane	5.0	U	1.1	5.0
cis-1,2-Dichloroethene	5.0	U	1.3	5.0
cis-1,3-Dichloropropene	5.0	U	0.80	5.0
Cyclohexane	300		1.3	5.0
Dichlorobromomethane	5.0	U	0.75	5.0
Dichlorodifluoromethane	5.0	U	0.70	5.0
Ethylbenzene	150		1.5	5.0
Ethylene Dibromide	5.0	U	0.95	5.0
Isopropylbenzene	35		1.6	5.0
Methyl acetate	25	U	2.9	25
Methyl tert-butyl ether	260		0.65	5.0
Methylcyclohexane	440		1.1	5.0
Methylene Chloride	5.0	U	1.1	5.0
m-Xylene & p-Xylene	46		1.4	5.0
o-Xylene	4.4	J	1.6	5.0
Styrene	5.0	U	0.85	5.0
Tetrachloroethene	5.0	U	0.60	5.0

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: TW-1

Lab Sample ID: 460-139067-1

Client Matrix: Water

Date Sampled: 08/09/2017 1350

Date Received: 08/11/2017 1035

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-456308	Instrument ID:	CVOAMS6
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	F51919.D
Dilution:	5.0			Initial Weight/Volume:	5 mL
Analysis Date:	08/15/2017 1112			Final Weight/Volume:	5 mL
Prep Date:	08/15/2017 1112				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Toluene	6.1		1.3	5.0
trans-1,2-Dichloroethene	5.0	U	0.90	5.0
trans-1,3-Dichloropropene	5.0	U	0.95	5.0
Trichloroethene	5.0	U	1.1	5.0
Trichlorofluoromethane	5.0	U	0.75	5.0
Vinyl chloride	5.0	U	0.30	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93		74 - 132
4-Bromofluorobenzene	114		77 - 124
Dibromofluoromethane (Surr)	102		72 - 131
Toluene-d8 (Surr)	98		80 - 120

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: TW-2

Lab Sample ID: 460-139067-2

Date Sampled: 08/09/2017 1130

Client Matrix: Water

Date Received: 08/11/2017 1035

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456308

Instrument ID: CVOAMS6

Prep Method: 5030C

Prep Batch: N/A

Lab File ID: F51913.D

Dilution: 1.0

Initial Weight/Volume: 5 mL

Analysis Date: 08/15/2017 0854

Final Weight/Volume: 5 mL

Prep Date: 08/15/2017 0854

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.28	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.19	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.34	1.0
1,1,2-Trichloroethane	1.0	U	0.080	1.0
1,1-Dichloroethane	1.0	U	0.24	1.0
1,1-Dichloroethene	1.0	U	0.34	1.0
1,2,3-Trichlorobenzene	1.0	U	0.35	1.0
1,2,4-Trichlorobenzene	1.0	U	0.27	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.23	1.0
1,2-Dichlorobenzene	1.0	U	0.22	1.0
1,2-Dichloroethane	1.0	U	0.25	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.33	1.0
1,4-Dichlorobenzene	1.0	U	0.33	1.0
1,4-Dioxane	50	U	8.7	50
2-Butanone (MEK)	5.0	U	2.2	5.0
2-Hexanone	5.0	U	0.72	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.63	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.090	1.0
Bromoform	1.0	U	0.18	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.22	1.0
Carbon tetrachloride	1.0	U	0.33	1.0
Chlorobenzene	1.0	U	0.24	1.0
Chlorobromomethane	1.0	U	0.30	1.0
Chlorodibromomethane	1.0	U	0.22	1.0
Chloroethane	1.0	U	0.37	1.0
Chloroform	0.57	J	0.22	1.0
Chloromethane	1.0	U	0.22	1.0
cis-1,2-Dichloroethene	1.0	U	0.26	1.0
cis-1,3-Dichloropropene	1.0	U	0.16	1.0
Cyclohexane	1.0	U	0.26	1.0
Dichlorobromomethane	1.0	U	0.15	1.0
Dichlorodifluoromethane	1.0	U	0.14	1.0
Ethylbenzene	1.0	U	0.30	1.0
Ethylene Dibromide	1.0	U	0.19	1.0
Isopropylbenzene	1.0	U	0.32	1.0
Methyl acetate	5.0	U	0.58	5.0
Methyl tert-butyl ether	23		0.13	1.0
Methylcyclohexane	1.0	U	0.22	1.0
Methylene Chloride	1.0	U	0.21	1.0
m-Xylene & p-Xylene	1.0	U	0.28	1.0
o-Xylene	1.0	U	0.32	1.0
Styrene	1.0	U	0.17	1.0
Tetrachloroethene	1.0	U	0.12	1.0

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: TW-2

Lab Sample ID: 460-139067-2

Client Matrix: Water

Date Sampled: 08/09/2017 1130

Date Received: 08/11/2017 1035

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456308

Instrument ID: CVOAMS6

Prep Method: 5030C

Prep Batch: N/A

Lab File ID: F51913.D

Dilution: 1.0

Initial Weight/Volume: 5 mL

Analysis Date: 08/15/2017 0854

Final Weight/Volume: 5 mL

Prep Date: 08/15/2017 0854

Analyte	Result (ug/L)	Qualifier	MDL	RL
Toluene	1.0	U	0.25	1.0
trans-1,2-Dichloroethene	1.0	U	0.18	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	0.38	J	0.22	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.060	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	88		74 - 132
4-Bromofluorobenzene	114		77 - 124
Dibromofluoromethane (Surr)	103		72 - 131
Toluene-d8 (Surr)	97		80 - 120

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: GW-3

Lab Sample ID: 460-139067-3

Date Sampled: 08/10/2017 1130

Client Matrix: Water

Date Received: 08/11/2017 1035

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456308

Instrument ID: CVOAMS6

Prep Method: 5030C

Prep Batch: N/A

Lab File ID: F51914.D

Dilution: 1.0

Initial Weight/Volume: 5 mL

Analysis Date: 08/15/2017 0917

Final Weight/Volume: 5 mL

Prep Date: 08/15/2017 0917

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.28	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.19	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.34	1.0
1,1,2-Trichloroethane	1.0	U	0.080	1.0
1,1-Dichloroethane	1.0	U	0.24	1.0
1,1-Dichloroethene	1.0	U	0.34	1.0
1,2,3-Trichlorobenzene	1.0	U	0.35	1.0
1,2,4-Trichlorobenzene	1.0	U	0.27	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.23	1.0
1,2-Dichlorobenzene	1.0	U	0.22	1.0
1,2-Dichloroethane	1.0	U	0.25	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.33	1.0
1,4-Dichlorobenzene	1.0	U	0.33	1.0
1,4-Dioxane	50	U	8.7	50
2-Butanone (MEK)	3.8	J	2.2	5.0
2-Hexanone	5.0	U	0.72	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.63	5.0
Acetone	11		1.1	5.0
Benzene	0.69	J	0.090	1.0
Bromoform	1.0	U	0.18	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.22	1.0
Carbon tetrachloride	1.0	U	0.33	1.0
Chlorobenzene	1.0	U	0.24	1.0
Chlorobromomethane	1.0	U	0.30	1.0
Chlorodibromomethane	1.0	U	0.22	1.0
Chloroethane	1.0	U	0.37	1.0
Chloroform	1.0	U	0.22	1.0
Chloromethane	1.0	U	0.22	1.0
cis-1,2-Dichloroethene	1.0	U	0.26	1.0
cis-1,3-Dichloropropene	1.0	U	0.16	1.0
Cyclohexane	16		0.26	1.0
Dichlorobromomethane	1.0	U	0.15	1.0
Dichlorodifluoromethane	1.0	U	0.14	1.0
Ethylbenzene	5.2		0.30	1.0
Ethylene Dibromide	1.0	U	0.19	1.0
Isopropylbenzene	1.4		0.32	1.0
Methyl acetate	5.0	U	0.58	5.0
Methyl tert-butyl ether	0.82	J	0.13	1.0
Methylcyclohexane	5.1		0.22	1.0
Methylene Chloride	1.0	U	0.21	1.0
m-Xylene & p-Xylene	3.8		0.28	1.0
o-Xylene	2.8		0.32	1.0
Styrene	1.0	U	0.17	1.0
Tetrachloroethene	1.0	U	0.12	1.0

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: GW-3

Lab Sample ID: 460-139067-3

Client Matrix: Water

Date Sampled: 08/10/2017 1130

Date Received: 08/11/2017 1035

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-456308	Instrument ID:	CVOAMS6
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	F51914.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	08/15/2017 0917			Final Weight/Volume:	5 mL
Prep Date:	08/15/2017 0917				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Toluene	1.3		0.25	1.0
trans-1,2-Dichloroethene	1.0	U	0.18	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	1.0	U	0.22	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.060	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	90		74 - 132
4-Bromofluorobenzene	113		77 - 124
Dibromofluoromethane (Surr)	102		72 - 131
Toluene-d8 (Surr)	97		80 - 120

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: GW-4

Lab Sample ID: 460-139067-4

Date Sampled: 08/10/2017 1120

Client Matrix: Water

Date Received: 08/11/2017 1035

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-457628

Instrument ID: CVOAMS2

Prep Method: 5030C

Prep Batch: N/A

Lab File ID: B19739.D

Dilution: 1.0

Initial Weight/Volume: 5 mL

Analysis Date: 08/21/2017 1352

Final Weight/Volume: 5 mL

Prep Date: 08/21/2017 1352

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.28	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.19	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.34	1.0
1,1,2-Trichloroethane	1.0	U	0.080	1.0
1,1-Dichloroethane	1.0	U	0.24	1.0
1,1-Dichloroethene	1.0	U	0.34	1.0
1,2,3-Trichlorobenzene	1.0	U	0.35	1.0
1,2,4-Trichlorobenzene	1.0	U	0.27	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.23	1.0
1,2-Dichlorobenzene	1.0	U	0.22	1.0
1,2-Dichloroethane	1.0	U	0.25	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.33	1.0
1,4-Dichlorobenzene	1.0	U	0.33	1.0
1,4-Dioxane	50	U	8.7	50
2-Butanone (MEK)	5.0	U	2.2	5.0
2-Hexanone	5.0	U	0.72	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.63	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.090	1.0
Bromoform	1.0	U	0.18	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.22	1.0
Carbon tetrachloride	1.0	U	0.33	1.0
Chlorobenzene	1.0	U	0.24	1.0
Chlorobromomethane	1.0	U	0.30	1.0
Chlorodibromomethane	1.0	U	0.22	1.0
Chloroethane	1.0	U	0.37	1.0
Chloroform	1.0	U	0.22	1.0
Chloromethane	1.0	U	0.22	1.0
cis-1,2-Dichloroethene	1.0	U	0.26	1.0
cis-1,3-Dichloropropene	1.0	U	0.16	1.0
Cyclohexane	1.0	U	0.26	1.0
Dichlorobromomethane	1.0	U	0.15	1.0
Dichlorodifluoromethane	1.0	U	0.14	1.0
Ethylbenzene	1.0	U	0.30	1.0
Ethylene Dibromide	1.0	U	0.19	1.0
Isopropylbenzene	1.0	U	0.32	1.0
Methyl acetate	5.0	U	0.58	5.0
Methyl tert-butyl ether	1.0	U	0.13	1.0
Methylcyclohexane	1.0	U	0.22	1.0
Methylene Chloride	1.0	U	0.21	1.0
m-Xylene & p-Xylene	1.0	U	0.28	1.0
o-Xylene	1.0	U	0.32	1.0
Styrene	1.0	U	0.17	1.0
Tetrachloroethene	1.0	U	0.12	1.0

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: GW-4

Lab Sample ID: 460-139067-4

Date Sampled: 08/10/2017 1120

Client Matrix: Water

Date Received: 08/11/2017 1035

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-457628

Instrument ID: CVOAMS2

Prep Method: 5030C

Prep Batch: N/A

Lab File ID: B19739.D

Dilution: 1.0

Initial Weight/Volume: 5 mL

Analysis Date: 08/21/2017 1352

Final Weight/Volume: 5 mL

Prep Date: 08/21/2017 1352

Analyte	Result (ug/L)	Qualifier	MDL	RL
Toluene	1.0	U	0.25	1.0
trans-1,2-Dichloroethene	1.0	U	0.18	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	1.0	U	0.22	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.060	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	119		74 - 132
4-Bromofluorobenzene	91		77 - 124
Dibromofluoromethane (Surr)	124		72 - 131
Toluene-d8 (Surr)	109		80 - 120

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: GT-1

Lab Sample ID: 460-139067-5

Date Sampled: 08/10/2017 1110

Client Matrix: Water

Date Received: 08/11/2017 1035

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456308

Instrument ID: CVOAMS6

Prep Method: 5030C

Prep Batch: N/A

Lab File ID: F51915.D

Dilution: 1.0

Initial Weight/Volume: 5 mL

Analysis Date: 08/15/2017 0940

Final Weight/Volume: 5 mL

Prep Date: 08/15/2017 0940

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.28	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.19	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.34	1.0
1,1,2-Trichloroethane	1.0	U	0.080	1.0
1,1-Dichloroethane	1.0	U	0.24	1.0
1,1-Dichloroethene	1.0	U	0.34	1.0
1,2,3-Trichlorobenzene	1.0	U	0.35	1.0
1,2,4-Trichlorobenzene	1.0	U	0.27	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.23	1.0
1,2-Dichlorobenzene	1.0	U	0.22	1.0
1,2-Dichloroethane	1.0	U	0.25	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.33	1.0
1,4-Dichlorobenzene	1.0	U	0.33	1.0
1,4-Dioxane	50	U	8.7	50
2-Butanone (MEK)	5.0	U	2.2	5.0
2-Hexanone	5.0	U	0.72	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.63	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.090	1.0
Bromoform	1.0	U	0.18	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	0.60	J	0.22	1.0
Carbon tetrachloride	1.0	U	0.33	1.0
Chlorobenzene	1.0	U	0.24	1.0
Chlorobromomethane	1.0	U	0.30	1.0
Chlorodibromomethane	1.0	U	0.22	1.0
Chloroethane	1.0	U	0.37	1.0
Chloroform	1.0	U	0.22	1.0
Chloromethane	1.0	U	0.22	1.0
cis-1,2-Dichloroethene	1.0	U	0.26	1.0
cis-1,3-Dichloropropene	1.0	U	0.16	1.0
Cyclohexane	1.0	U	0.26	1.0
Dichlorobromomethane	1.0	U	0.15	1.0
Dichlorodifluoromethane	1.0	U	0.14	1.0
Ethylbenzene	1.0	U	0.30	1.0
Ethylene Dibromide	1.0	U	0.19	1.0
Isopropylbenzene	1.0	U	0.32	1.0
Methyl acetate	5.0	U	0.58	5.0
Methyl tert-butyl ether	1.0	U	0.13	1.0
Methylcyclohexane	1.0	U	0.22	1.0
Methylene Chloride	1.0	U	0.21	1.0
m-Xylene & p-Xylene	1.0	U	0.28	1.0
o-Xylene	1.0	U	0.32	1.0
Styrene	1.0	U	0.17	1.0
Tetrachloroethene	1.0	U	0.12	1.0

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: GT-1

Lab Sample ID: 460-139067-5

Client Matrix: Water

Date Sampled: 08/10/2017 1110

Date Received: 08/11/2017 1035

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-456308	Instrument ID:	CVOAMS6
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	F51915.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	08/15/2017 0940			Final Weight/Volume:	5 mL
Prep Date:	08/15/2017 0940				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Toluene	1.0	U	0.25	1.0
trans-1,2-Dichloroethene	1.0	U	0.18	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	1.0	U	0.22	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.060	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	89		74 - 132
4-Bromofluorobenzene	113		77 - 124
Dibromofluoromethane (Surr)	100		72 - 131
Toluene-d8 (Surr)	95		80 - 120

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: GT-2

Lab Sample ID: 460-139067-6

Date Sampled: 08/10/2017 1210

Client Matrix: Water

Date Received: 08/11/2017 1035

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456308

Instrument ID: CVOAMS6

Prep Method: 5030C

Prep Batch: N/A

Lab File ID: F51920.D

Dilution: 10

Initial Weight/Volume: 5 mL

Analysis Date: 08/15/2017 1135

Final Weight/Volume: 5 mL

Prep Date: 08/15/2017 1135

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	10	U	2.8	10
1,1,2,2-Tetrachloroethane	10	U	1.9	10
1,1,2-Trichloro-1,2,2-trifluoroethane	10	U	3.4	10
1,1,2-Trichloroethane	10	U	0.80	10
1,1-Dichloroethane	10	U	2.4	10
1,1-Dichloroethene	10	U	3.4	10
1,2,3-Trichlorobenzene	10	U	3.5	10
1,2,4-Trichlorobenzene	10	U	2.7	10
1,2-Dibromo-3-Chloropropane	10	U	2.3	10
1,2-Dichlorobenzene	10	U	2.2	10
1,2-Dichloroethane	10	U	2.5	10
1,2-Dichloropropane	10	U	1.8	10
1,3-Dichlorobenzene	10	U	3.3	10
1,4-Dichlorobenzene	10	U	3.3	10
1,4-Dioxane	500	U	87	500
2-Butanone (MEK)	50	U	22	50
2-Hexanone	50	U	7.2	50
4-Methyl-2-pentanone (MIBK)	50	U	6.3	50
Acetone	50	U	11	50
Benzene	10	U	0.90	10
Bromoform	10	U	1.8	10
Bromomethane	10	U	1.8	10
Carbon disulfide	10	U	2.2	10
Carbon tetrachloride	10	U	3.3	10
Chlorobenzene	10	U	2.4	10
Chlorobromomethane	10	U	3.0	10
Chlorodibromomethane	10	U	2.2	10
Chloroethane	10	U	3.7	10
Chloroform	10	U	2.2	10
Chloromethane	10	U	2.2	10
cis-1,2-Dichloroethene	10	U	2.6	10
cis-1,3-Dichloropropene	10	U	1.6	10
Cyclohexane	10	U	2.6	10
Dichlorobromomethane	10	U	1.5	10
Dichlorodifluoromethane	10	U	1.4	10
Ethylbenzene	10	U	3.0	10
Ethylene Dibromide	10	U	1.9	10
Isopropylbenzene	10	U	3.2	10
Methyl acetate	50	U	5.8	50
Methyl tert-butyl ether	2000		1.3	10
Methylcyclohexane	10	U	2.2	10
Methylene Chloride	10	U	2.1	10
m-Xylene & p-Xylene	10	U	2.8	10
o-Xylene	10	U	3.2	10
Styrene	10	U	1.7	10
Tetrachloroethene	10	U	1.2	10

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: GT-2

Lab Sample ID: 460-139067-6

Client Matrix: Water

Date Sampled: 08/10/2017 1210

Date Received: 08/11/2017 1035

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-456308	Instrument ID:	CVOAMS6
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	F51920.D
Dilution:	10			Initial Weight/Volume:	5 mL
Analysis Date:	08/15/2017 1135			Final Weight/Volume:	5 mL
Prep Date:	08/15/2017 1135				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Toluene	10	U	2.5	10
trans-1,2-Dichloroethene	10	U	1.8	10
trans-1,3-Dichloropropene	10	U	1.9	10
Trichloroethene	10	U	2.2	10
Trichlorofluoromethane	10	U	1.5	10
Vinyl chloride	10	U	0.60	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	90		74 - 132
4-Bromofluorobenzene	112		77 - 124
Dibromofluoromethane (Surr)	104		72 - 131
Toluene-d8 (Surr)	95		80 - 120

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: GT-3

Lab Sample ID: 460-139067-7

Date Sampled: 08/10/2017 1155

Client Matrix: Water

Date Received: 08/11/2017 1035

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456308

Instrument ID: CVOAMS6

Prep Method: 5030C

Prep Batch: N/A

Lab File ID: F51916.D

Dilution: 1.0

Initial Weight/Volume: 5 mL

Analysis Date: 08/15/2017 1003

Final Weight/Volume: 5 mL

Prep Date: 08/15/2017 1003

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.28	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.19	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.34	1.0
1,1,2-Trichloroethane	1.0	U	0.080	1.0
1,1-Dichloroethane	1.0	U	0.24	1.0
1,1-Dichloroethene	1.0	U	0.34	1.0
1,2,3-Trichlorobenzene	1.0	U	0.35	1.0
1,2,4-Trichlorobenzene	1.0	U	0.27	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.23	1.0
1,2-Dichlorobenzene	1.0	U	0.22	1.0
1,2-Dichloroethane	1.0	U	0.25	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.33	1.0
1,4-Dichlorobenzene	1.0	U	0.33	1.0
1,4-Dioxane	50	U	8.7	50
2-Butanone (MEK)	5.0	U	2.2	5.0
2-Hexanone	5.0	U	0.72	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.63	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.090	1.0
Bromoform	1.0	U	0.18	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.22	1.0
Carbon tetrachloride	1.0	U	0.33	1.0
Chlorobenzene	1.0	U	0.24	1.0
Chlorobromomethane	1.0	U	0.30	1.0
Chlorodibromomethane	1.0	U	0.22	1.0
Chloroethane	1.0	U	0.37	1.0
Chloroform	1.0	U	0.22	1.0
Chloromethane	1.0	U	0.22	1.0
cis-1,2-Dichloroethene	1.0	U	0.26	1.0
cis-1,3-Dichloropropene	1.0	U	0.16	1.0
Cyclohexane	1.0	U	0.26	1.0
Dichlorobromomethane	1.0	U	0.15	1.0
Dichlorodifluoromethane	1.0	U	0.14	1.0
Ethylbenzene	1.0	U	0.30	1.0
Ethylene Dibromide	1.0	U	0.19	1.0
Isopropylbenzene	1.0	U	0.32	1.0
Methyl acetate	5.0	U	0.58	5.0
Methyl tert-butyl ether	1.0	U	0.13	1.0
Methylcyclohexane	1.0	U	0.22	1.0
Methylene Chloride	1.0	U	0.21	1.0
m-Xylene & p-Xylene	1.0	U	0.28	1.0
o-Xylene	1.0	U	0.32	1.0
Styrene	1.0	U	0.17	1.0
Tetrachloroethene	1.0	U	0.12	1.0

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: GT-3

Lab Sample ID: 460-139067-7

Client Matrix: Water

Date Sampled: 08/10/2017 1155

Date Received: 08/11/2017 1035

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-456308	Instrument ID:	CVOAMS6
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	F51916.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	08/15/2017 1003			Final Weight/Volume:	5 mL
Prep Date:	08/15/2017 1003				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Toluene	1.0	U	0.25	1.0
trans-1,2-Dichloroethene	1.0	U	0.18	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	1.0	U	0.22	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.060	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	91		74 - 132
4-Bromofluorobenzene	111		77 - 124
Dibromofluoromethane (Surr)	102		72 - 131
Toluene-d8 (Surr)	94		80 - 120

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: GT-4

Lab Sample ID: 460-139067-8

Date Sampled: 08/10/2017 1145

Client Matrix: Water

Date Received: 08/11/2017 1035

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456308

Instrument ID: CVOAMS6

Prep Method: 5030C

Prep Batch: N/A

Lab File ID: F51917.D

Dilution: 1.0

Initial Weight/Volume: 5 mL

Analysis Date: 08/15/2017 1026

Final Weight/Volume: 5 mL

Prep Date: 08/15/2017 1026

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.28	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.19	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.34	1.0
1,1,2-Trichloroethane	1.0	U	0.080	1.0
1,1-Dichloroethane	1.0	U	0.24	1.0
1,1-Dichloroethene	1.0	U	0.34	1.0
1,2,3-Trichlorobenzene	1.0	U	0.35	1.0
1,2,4-Trichlorobenzene	1.0	U	0.27	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.23	1.0
1,2-Dichlorobenzene	1.0	U	0.22	1.0
1,2-Dichloroethane	1.0	U	0.25	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.33	1.0
1,4-Dichlorobenzene	1.0	U	0.33	1.0
1,4-Dioxane	50	U	8.7	50
2-Butanone (MEK)	5.0	U	2.2	5.0
2-Hexanone	5.0	U	0.72	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.63	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.090	1.0
Bromoform	1.0	U	0.18	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.22	1.0
Carbon tetrachloride	1.0	U	0.33	1.0
Chlorobenzene	1.0	U	0.24	1.0
Chlorobromomethane	1.0	U	0.30	1.0
Chlorodibromomethane	1.0	U	0.22	1.0
Chloroethane	1.0	U	0.37	1.0
Chloroform	1.0	U	0.22	1.0
Chloromethane	1.0	U	0.22	1.0
cis-1,2-Dichloroethene	1.0	U	0.26	1.0
cis-1,3-Dichloropropene	1.0	U	0.16	1.0
Cyclohexane	1.0	U	0.26	1.0
Dichlorobromomethane	1.0	U	0.15	1.0
Dichlorodifluoromethane	1.0	U	0.14	1.0
Ethylbenzene	1.0	U	0.30	1.0
Ethylene Dibromide	1.0	U	0.19	1.0
Isopropylbenzene	1.0	U	0.32	1.0
Methyl acetate	5.0	U	0.58	5.0
Methyl tert-butyl ether	1.0	U	0.13	1.0
Methylcyclohexane	1.0	U	0.22	1.0
Methylene Chloride	1.0	U	0.21	1.0
m-Xylene & p-Xylene	1.0	U	0.28	1.0
o-Xylene	1.0	U	0.32	1.0
Styrene	1.0	U	0.17	1.0
Tetrachloroethene	1.0	U	0.12	1.0

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: GT-4

Lab Sample ID: 460-139067-8

Client Matrix: Water

Date Sampled: 08/10/2017 1145

Date Received: 08/11/2017 1035

8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-456308

Instrument ID: CVOAMS6

Prep Method: 5030C

Prep Batch: N/A

Lab File ID: F51917.D

Dilution: 1.0

Initial Weight/Volume: 5 mL

Analysis Date: 08/15/2017 1026

Final Weight/Volume: 5 mL

Prep Date: 08/15/2017 1026

Analyte	Result (ug/L)	Qualifier	MDL	RL
Toluene	1.0	U	0.25	1.0
trans-1,2-Dichloroethene	1.0	U	0.18	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	1.0	U	0.22	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.060	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	90		74 - 132
4-Bromofluorobenzene	111		77 - 124
Dibromofluoromethane (Surr)	102		72 - 131
Toluene-d8 (Surr)	98		80 - 120

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 460-139067-9TB

Client Matrix: Water

Date Sampled: 08/10/2017 1210

Date Received: 08/11/2017 1035

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-456308	Instrument ID:	CVOAMS6
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	F51912.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	08/15/2017 0831			Final Weight/Volume:	5 mL
Prep Date:	08/15/2017 0831				

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.28	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.19	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.34	1.0
1,1,2-Trichloroethane	1.0	U	0.080	1.0
1,1-Dichloroethane	1.0	U	0.24	1.0
1,1-Dichloroethene	1.0	U	0.34	1.0
1,2,3-Trichlorobenzene	1.0	U	0.35	1.0
1,2,4-Trichlorobenzene	1.0	U	0.27	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.23	1.0
1,2-Dichlorobenzene	1.0	U	0.22	1.0
1,2-Dichloroethane	1.0	U	0.25	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.33	1.0
1,4-Dichlorobenzene	1.0	U	0.33	1.0
1,4-Dioxane	50	U	8.7	50
2-Butanone (MEK)	5.0	U	2.2	5.0
2-Hexanone	5.0	U	0.72	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.63	5.0
Acetone	38		1.1	5.0
Benzene	1.0	U	0.090	1.0
Bromoform	1.0	U	0.18	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.22	1.0
Carbon tetrachloride	1.0	U	0.33	1.0
Chlorobenzene	1.0	U	0.24	1.0
Chlorobromomethane	1.0	U	0.30	1.0
Chlorodibromomethane	1.0	U	0.22	1.0
Chloroethane	1.0	U	0.37	1.0
Chloroform	1.0	U	0.22	1.0
Chloromethane	1.0	U	0.22	1.0
cis-1,2-Dichloroethene	1.0	U	0.26	1.0
cis-1,3-Dichloropropene	1.0	U	0.16	1.0
Cyclohexane	1.0	U	0.26	1.0
Dichlorobromomethane	1.0	U	0.15	1.0
Dichlorodifluoromethane	1.0	U	0.14	1.0
Ethylbenzene	1.0	U	0.30	1.0
Ethylene Dibromide	1.0	U	0.19	1.0
Isopropylbenzene	1.0	U	0.32	1.0
Methyl acetate	5.0	U	0.58	5.0
Methyl tert-butyl ether	1.0	U	0.13	1.0
Methylcyclohexane	1.0	U	0.22	1.0
Methylene Chloride	0.73	J	0.21	1.0
m-Xylene & p-Xylene	1.0	U	0.28	1.0
o-Xylene	1.0	U	0.32	1.0
Styrene	1.0	U	0.17	1.0
Tetrachloroethene	1.0	U	0.12	1.0

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 460-139067-9TB

Client Matrix: Water

Date Sampled: 08/10/2017 1210

Date Received: 08/11/2017 1035

8260C Volatile Organic Compounds by GC/MS

Analysis Method:	8260C	Analysis Batch:	460-456308	Instrument ID:	CVOAMS6
Prep Method:	5030C	Prep Batch:	N/A	Lab File ID:	F51912.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	08/15/2017 0831			Final Weight/Volume:	5 mL
Prep Date:	08/15/2017 0831				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Toluene	1.0	U	0.25	1.0
trans-1,2-Dichloroethene	1.0	U	0.18	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	1.0	U	0.22	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.060	1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	86		74 - 132
4-Bromofluorobenzene	114		77 - 124
Dibromofluoromethane (Surr)	102		72 - 131
Toluene-d8 (Surr)	97		80 - 120

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-1 (2-4)

Lab Sample ID: 460-138836-1

Date Sampled: 08/08/2017 0920

Client Matrix: Solid

% Moisture: 14.9

Date Received: 08/09/2017 1125

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-455798

Instrument ID: CBNAMS5

Prep Method: 3546

Prep Batch: 460-455572

Lab File ID: X263297.D

Dilution: 1.0

Initial Weight/Volume: 15.0415 g

Analysis Date: 08/12/2017 0946

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 0723

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene		0.039	U	0.0086	0.039
1,2-Dichlorobenzene		0.39	U	0.013	0.39
1,3-Dichlorobenzene		0.39	U	0.030	0.39
1,4-Dichlorobenzene		0.39	U	0.030	0.39
2,2'-oxybis[1-chloropropane]		0.39	U	0.016	0.39
2,4-Dinitrotoluene		0.079	U	0.015	0.079
2,6-Dinitrotoluene		0.079	U	0.021	0.079
2-Chloronaphthalene		0.39	U	0.0088	0.39
2-Methylnaphthalene		0.019	J	0.0086	0.39
2-Nitroaniline		0.39	U	0.013	0.39
3,3'-Dichlorobenzidine		0.16	U	0.043	0.16
3-Nitroaniline		0.39	U	0.011	0.39
4-Bromophenyl phenyl ether		0.39	U	0.012	0.39
4-Chloroaniline		0.39	U	0.010	0.39
4-Chlorophenyl phenyl ether		0.39	U	0.012	0.39
4-Nitroaniline		0.39	U	0.015	0.39
Acenaphthene		0.39	U	0.0094	0.39
Acenaphthylene		0.092	J	0.010	0.39
Anthracene		0.047	J	0.037	0.39
Benzo[a]anthracene		0.44		0.032	0.039
Benzo[a]pyrene		0.64		0.012	0.039
Benzo[b]fluoranthene		0.85		0.015	0.039
Benzo[g,h,i]perylene		0.54		0.022	0.39
Benzo[k]fluoranthene		0.34		0.017	0.039
Bis(2-chloroethoxy)methane		0.012	J	0.012	0.39
Bis(2-chloroethyl)ether		0.039	U	0.0091	0.039
Bis(2-ethylhexyl) phthalate		0.39	U	0.015	0.39
Butyl benzyl phthalate		0.39	U	0.012	0.39
Carbazole		0.027	J	0.0096	0.39
Chrysene		0.63		0.011	0.39
Dibenz(a,h)anthracene		0.13		0.020	0.039
Dibenzofuran		0.016	J	0.012	0.39
Diethyl phthalate		0.39	U	0.011	0.39
Dimethyl phthalate		0.39	U	0.011	0.39
Di-n-butyl phthalate		0.39	U	0.012	0.39
Di-n-octyl phthalate		0.39	U	0.020	0.39
Fluoranthene		0.60		0.011	0.39
Fluorene		0.019	J	0.0084	0.39
Hexachlorobenzene		0.039	U	0.016	0.039
Hexachlorobutadiene		0.079	U	0.011	0.079
Hexachlorocyclopentadiene		0.39	U	0.024	0.39
Hexachloroethane		0.039	U	0.014	0.039
Indeno[1,2,3-cd]pyrene		0.49		0.026	0.039
Isophorone		0.16	U	0.0083	0.16
Naphthalene		0.051	J	0.0098	0.39
Nitrobenzene		0.039	U	0.012	0.039

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-1 (2-4)

Lab Sample ID: 460-138836-1

Date Sampled: 08/08/2017 0920

Client Matrix: Solid

% Moisture: 14.9

Date Received: 08/09/2017 1125

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-455798

Instrument ID: CBNAMS5

Prep Method: 3546

Prep Batch: 460-455572

Lab File ID: X263297.D

Dilution: 1.0

Initial Weight/Volume: 15.0415 g

Analysis Date: 08/12/2017 0946

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 0723

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
N-Nitrosodi-n-propylamine		0.039	U	0.013	0.039
N-Nitrosodiphenylamine		0.39	U	0.035	0.39
Phenanthrene		0.27	J	0.010	0.39
Pyrene		0.71		0.018	0.39

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	77		38 - 95
Nitrobenzene-d5 (Surr)	73		37 - 94
Terphenyl-d14 (Surr)	96		24 - 109

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-1 (9-11)

Lab Sample ID: 460-138836-2

Date Sampled: 08/08/2017 0915

Client Matrix: Solid

% Moisture: 9.2

Date Received: 08/09/2017 1125

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-455798

Instrument ID: CBNAMS5

Prep Method: 3546

Prep Batch: 460-455572

Lab File ID: X263298.D

Dilution: 1.0

Initial Weight/Volume: 15.0492 g

Analysis Date: 08/12/2017 1010

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 0723

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene		0.036	U	0.0080	0.036
1,2-Dichlorobenzene		0.36	U	0.012	0.36
1,3-Dichlorobenzene		0.36	U	0.028	0.36
1,4-Dichlorobenzene		0.36	U	0.028	0.36
2,2'-oxybis[1-chloropropane]		0.36	U	0.015	0.36
2,4-Dinitrotoluene		0.074	U	0.014	0.074
2,6-Dinitrotoluene		0.074	U	0.019	0.074
2-Chloronaphthalene		0.36	U	0.0082	0.36
2-Methylnaphthalene		0.36	U	0.0080	0.36
2-Nitroaniline		0.36	U	0.012	0.36
3,3'-Dichlorobenzidine		0.15	U	0.041	0.15
3-Nitroaniline		0.36	U	0.011	0.36
4-Bromophenyl phenyl ether		0.36	U	0.011	0.36
4-Chloroaniline		0.36	U	0.0093	0.36
4-Chlorophenyl phenyl ether		0.36	U	0.011	0.36
4-Nitroaniline		0.36	U	0.014	0.36
Acenaphthene		0.36	U	0.0088	0.36
Acenaphthylene		0.36	U	0.0093	0.36
Anthracene		0.36	U	0.034	0.36
Benzo[a]anthracene		0.036	U	0.030	0.036
Benzo[a]pyrene		0.036	U	0.011	0.036
Benzo[b]fluoranthene		0.036	U	0.014	0.036
Benzo[g,h,i]perylene		0.36	U	0.021	0.36
Benzo[k]fluoranthene		0.036	U	0.016	0.036
Bis(2-chloroethoxy)methane		0.36	U	0.011	0.36
Bis(2-chloroethyl)ether		0.036	U	0.0086	0.036
Bis(2-ethylhexyl) phthalate		0.36	U	0.014	0.36
Butyl benzyl phthalate		0.36	U	0.011	0.36
Carbazole		0.36	U	0.0090	0.36
Chrysene		0.36	U	0.0099	0.36
Dibenz(a,h)anthracene		0.036	U	0.019	0.036
Dibenzofuran		0.36	U	0.011	0.36
Diethyl phthalate		0.36	U	0.010	0.36
Dimethyl phthalate		0.36	U	0.011	0.36
Di-n-butyl phthalate		0.36	U	0.011	0.36
Di-n-octyl phthalate		0.36	U	0.018	0.36
Fluoranthene		0.36	U	0.011	0.36
Fluorene		0.36	U	0.0079	0.36
Hexachlorobenzene		0.036	U	0.015	0.036
Hexachlorobutadiene		0.074	U	0.010	0.074
Hexachlorocyclopentadiene		0.36	U	0.023	0.36
Hexachloroethane		0.036	U	0.013	0.036
Indeno[1,2,3-cd]pyrene		0.036	U	0.024	0.036
Isophorone		0.011	J	0.0078	0.15
Naphthalene		0.36	U	0.0092	0.36
Nitrobenzene		0.036	U	0.011	0.036

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-1 (9-11)

Lab Sample ID: 460-138836-2

Date Sampled: 08/08/2017 0915

Client Matrix: Solid

% Moisture: 9.2

Date Received: 08/09/2017 1125

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-455798

Instrument ID: CBNAMS5

Prep Method: 3546

Prep Batch: 460-455572

Lab File ID: X263298.D

Dilution: 1.0

Initial Weight/Volume: 15.0492 g

Analysis Date: 08/12/2017 1010

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 0723

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
N-Nitrosodi-n-propylamine		0.036	U	0.012	0.036
N-Nitrosodiphenylamine		0.36	U	0.033	0.36
Phenanthrene		0.36	U	0.0097	0.36
Pyrene		0.36	U	0.016	0.36
Surrogate		%Rec	Qualifier	Acceptance Limits	
2-Fluorobiphenyl		66		38 - 95	
Nitrobenzene-d5 (Surr)		65		37 - 94	
Terphenyl-d14 (Surr)		99		24 - 109	

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-2 (1-3)

Lab Sample ID: 460-138836-3

Date Sampled: 08/08/2017 0830

Client Matrix: Solid

% Moisture: 6.8

Date Received: 08/09/2017 1125

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-455798

Instrument ID: CBNAMS5

Prep Method: 3546

Prep Batch: 460-455572

Lab File ID: X263299.D

Dilution: 1.0

Initial Weight/Volume: 15.0326 g

Analysis Date: 08/12/2017 1033

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 0723

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene		0.035	U	0.0078	0.035
1,2-Dichlorobenzene		0.35	U	0.012	0.35
1,3-Dichlorobenzene		0.35	U	0.027	0.35
1,4-Dichlorobenzene		0.35	U	0.028	0.35
2,2'-oxybis[1-chloropropane]		0.35	U	0.015	0.35
2,4-Dinitrotoluene		0.072	U	0.014	0.072
2,6-Dinitrotoluene		0.072	U	0.019	0.072
2-Chloronaphthalene		0.35	U	0.0080	0.35
2-Methylnaphthalene		0.0092	J	0.0078	0.35
2-Nitroaniline		0.35	U	0.012	0.35
3,3'-Dichlorobenzidine		0.14	U	0.040	0.14
3-Nitroaniline		0.35	U	0.010	0.35
4-Bromophenyl phenyl ether		0.35	U	0.011	0.35
4-Chloroaniline		0.35	U	0.0091	0.35
4-Chlorophenyl phenyl ether		0.35	U	0.011	0.35
4-Nitroaniline		0.35	U	0.013	0.35
Acenaphthene		0.024	J	0.0086	0.35
Acenaphthylene		0.35	U	0.0091	0.35
Anthracene		0.053	J	0.034	0.35
Benzo[a]anthracene		0.15		0.030	0.035
Benzo[a]pyrene		0.13		0.011	0.035
Benzo[b]fluoranthene		0.18		0.014	0.035
Benzo[g,h,i]perylene		0.096	J	0.020	0.35
Benzo[k]fluoranthene		0.080		0.015	0.035
Bis(2-chloroethoxy)methane		0.35	U	0.011	0.35
Bis(2-chloroethyl)ether		0.035	U	0.0084	0.035
Bis(2-ethylhexyl) phthalate		0.35	U	0.014	0.35
Butyl benzyl phthalate		0.35	U	0.011	0.35
Carbazole		0.029	J	0.0088	0.35
Chrysene		0.17	J	0.0096	0.35
Dibenz(a,h)anthracene		0.018	J	0.018	0.035
Dibenzofuran		0.017	J	0.011	0.35
Diethyl phthalate		0.35	U	0.010	0.35
Dimethyl phthalate		0.35	U	0.010	0.35
Di-n-butyl phthalate		0.35	U	0.011	0.35
Di-n-octyl phthalate		0.35	U	0.018	0.35
Fluoranthene		0.31	J	0.010	0.35
Fluorene		0.028	J	0.0077	0.35
Hexachlorobenzene		0.035	U	0.014	0.035
Hexachlorobutadiene		0.072	U	0.010	0.072
Hexachlorocyclopentadiene		0.35	U	0.022	0.35
Hexachloroethane		0.035	U	0.013	0.035
Indeno[1,2,3-cd]pyrene		0.093		0.024	0.035
Isophorone		0.14	U	0.0076	0.14
Naphthalene		0.020	J	0.0090	0.35
Nitrobenzene		0.035	U	0.011	0.035

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-2 (1-3)

Lab Sample ID: 460-138836-3

Date Sampled: 08/08/2017 0830

Client Matrix: Solid

% Moisture: 6.8

Date Received: 08/09/2017 1125

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-455798

Instrument ID: CBNAMS5

Prep Method: 3546

Prep Batch: 460-455572

Lab File ID: X263299.D

Dilution: 1.0

Initial Weight/Volume: 15.0326 g

Analysis Date: 08/12/2017 1033

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 0723

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
N-Nitrosodi-n-propylamine		0.035	U	0.012	0.035
N-Nitrosodiphenylamine		0.35	U	0.032	0.35
Phenanthrene		0.24	J	0.0094	0.35
Pyrene		0.30	J	0.016	0.35
Surrogate		%Rec	Qualifier	Acceptance Limits	
2-Fluorobiphenyl		73		38 - 95	
Nitrobenzene-d5 (Surr)		67		37 - 94	
Terphenyl-d14 (Surr)		100		24 - 109	

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-2 (16-18)

Lab Sample ID: 460-138836-4

Date Sampled: 08/08/2017 0835

Client Matrix: Solid

% Moisture: 10.8

Date Received: 08/09/2017 1125

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-455727

Instrument ID: CBNAMS11

Prep Method: 3546

Prep Batch: 460-455573

Lab File ID: z47127.D

Dilution: 1.0

Initial Weight/Volume: 15.0302 g

Analysis Date: 08/11/2017 2003

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 0728

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene		0.037	U	0.0082	0.037
1,2-Dichlorobenzene		0.37	U	0.012	0.37
1,3-Dichlorobenzene		0.37	U	0.029	0.37
1,4-Dichlorobenzene		0.37	U	0.029	0.37
2,2'-oxybis[1-chloropropane]		0.37	U	0.015	0.37
2,4-Dinitrotoluene		0.075	U	0.015	0.075
2,6-Dinitrotoluene		0.075	U	0.020	0.075
2-Chloronaphthalene		0.37	U	0.0084	0.37
2-Methylnaphthalene		0.37	U	0.0082	0.37
2-Nitroaniline		0.37	U	0.012	0.37
3,3'-Dichlorobenzidine		0.15	U	0.041	0.15
3-Nitroaniline		0.37	U	0.011	0.37
4-Bromophenyl phenyl ether		0.37	U	0.012	0.37
4-Chloroaniline		0.37	U	0.0095	0.37
4-Chlorophenyl phenyl ether		0.37	U	0.011	0.37
4-Nitroaniline		0.37	U	0.014	0.37
Acenaphthene		0.37	U	0.0090	0.37
Acenaphthylene		0.37	U	0.0095	0.37
Anthracene		0.37	U	0.035	0.37
Benzo[a]anthracene		0.037	U	0.031	0.037
Benzo[a]pyrene		0.037	U	0.011	0.037
Benzo[b]fluoranthene		0.037	U	0.014	0.037
Benzo[g,h,i]perylene		0.37	U	0.021	0.37
Benzo[k]fluoranthene		0.037	U	0.016	0.037
Bis(2-chloroethoxy)methane		0.37	U	0.012	0.37
Bis(2-chloroethyl)ether		0.037	U	0.0087	0.037
Bis(2-ethylhexyl) phthalate		0.37	U	0.014	0.37
Butyl benzyl phthalate		0.37	U	0.011	0.37
Carbazole		0.37	U	0.0092	0.37
Chrysene		0.37	U	0.010	0.37
Dibenz(a,h)anthracene		0.037	U	0.019	0.037
Dibenzofuran		0.37	U	0.011	0.37
Diethyl phthalate		0.37	U	0.011	0.37
Dimethyl phthalate		0.37	U	0.011	0.37
Di-n-butyl phthalate		0.37	U	0.011	0.37
Di-n-octyl phthalate		0.37	U	0.019	0.37
Fluoranthene		0.049	J	0.011	0.37
Fluorene		0.37	U	0.0081	0.37
Hexachlorobenzene		0.037	U	0.015	0.037
Hexachlorobutadiene		0.075	U	0.010	0.075
Hexachlorocyclopentadiene		0.37	U	0.023	0.37
Hexachloroethane		0.037	U	0.014	0.037
Indeno[1,2,3-cd]pyrene		0.037	U	0.025	0.037
Isophorone		0.15	U	0.0079	0.15
Naphthalene		0.37	U	0.0094	0.37
Nitrobenzene		0.037	U	0.012	0.037

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-2 (16-18)

Lab Sample ID: 460-138836-4

Date Sampled: 08/08/2017 0835

Client Matrix: Solid

% Moisture: 10.8

Date Received: 08/09/2017 1125

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-455727

Instrument ID: CBNAMS11

Prep Method: 3546

Prep Batch: 460-455573

Lab File ID: z47127.D

Dilution: 1.0

Initial Weight/Volume: 15.0302 g

Analysis Date: 08/11/2017 2003

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 0728

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
N-Nitrosodi-n-propylamine		0.037	U	0.012	0.037
N-Nitrosodiphenylamine		0.37	U	0.034	0.37
Phenanthrene		0.029	J	0.0098	0.37
Pyrene		0.039	J	0.017	0.37
Surrogate		%Rec	Qualifier	Acceptance Limits	
2-Fluorobiphenyl		67		38 - 95	
Nitrobenzene-d5 (Surr)		69		37 - 94	
Terphenyl-d14 (Surr)		84		24 - 109	

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-5 (2-4)

Lab Sample ID: 460-138836-5

Date Sampled: 08/08/2017 1110

Client Matrix: Solid

% Moisture: 6.7

Date Received: 08/09/2017 1125

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-456615

Instrument ID: CBNAMS12

Prep Method: 3546

Prep Batch: 460-455573

Lab File ID: L19931.D

Dilution: 1.0

Initial Weight/Volume: 15.0445 g

Analysis Date: 08/16/2017 1243

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 0728

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene		0.035	U	0.0078	0.035
1,2-Dichlorobenzene		0.35	U	0.012	0.35
1,3-Dichlorobenzene		0.35	U	0.027	0.35
1,4-Dichlorobenzene		0.35	U	0.028	0.35
2,2'-oxybis[1-chloropropane]		0.35	U	0.015	0.35
2,4-Dinitrotoluene		0.072	U	0.014	0.072
2,6-Dinitrotoluene		0.072	U	0.019	0.072
2-Chloronaphthalene		0.35	U	0.0080	0.35
2-Methylnaphthalene		0.081	J	0.0078	0.35
2-Nitroaniline		0.35	U	0.012	0.35
3,3'-Dichlorobenzidine		0.14	U	0.039	0.14
3-Nitroaniline		0.35	U	0.010	0.35
4-Bromophenyl phenyl ether		0.35	U	0.011	0.35
4-Chloroaniline		0.35	U	0.0091	0.35
4-Chlorophenyl phenyl ether		0.35	U	0.011	0.35
4-Nitroaniline		0.35	U	0.013	0.35
Acenaphthene		0.041	J	0.0086	0.35
Acenaphthylene		0.031	J	0.0091	0.35
Anthracene		0.13	J	0.034	0.35
Benzo[a]anthracene		0.50		0.030	0.035
Benzo[a]pyrene		0.52		0.011	0.035
Benzo[b]fluoranthene		0.85		0.014	0.035
Benzo[g,h,i]perylene		0.28	J	0.020	0.35
Benzo[k]fluoranthene		0.26		0.015	0.035
Bis(2-chloroethoxy)methane		0.35	U	0.011	0.35
Bis(2-chloroethyl)ether		0.035	U	0.0083	0.035
Bis(2-ethylhexyl) phthalate		0.026	J	0.014	0.35
Butyl benzyl phthalate		0.021	J	0.011	0.35
Carbazole		0.086	J	0.0088	0.35
Chrysene		0.52		0.0096	0.35
Dibenz(a,h)anthracene		0.10		0.018	0.035
Dibenzofuran		0.030	J	0.011	0.35
Diethyl phthalate		0.35	U	0.010	0.35
Dimethyl phthalate		0.35	U	0.010	0.35
Di-n-butyl phthalate		0.35	U	0.011	0.35
Di-n-octyl phthalate		0.35	U	0.018	0.35
Fluoranthene		0.94		0.010	0.35
Fluorene		0.053	J	0.0077	0.35
Hexachlorobenzene		0.035	U	0.014	0.035
Hexachlorobutadiene		0.072	U	0.0099	0.072
Hexachlorocyclopentadiene		0.35	U	0.022	0.35
Hexachloroethane		0.035	U	0.013	0.035
Indeno[1,2,3-cd]pyrene		0.43		0.024	0.035
Isophorone		0.14	U	0.0076	0.14
Naphthalene		0.10	J	0.0090	0.35
Nitrobenzene		0.035	U	0.011	0.035

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-5 (2-4)

Lab Sample ID: 460-138836-5

Date Sampled: 08/08/2017 1110

Client Matrix: Solid

% Moisture: 6.7

Date Received: 08/09/2017 1125

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-456615

Instrument ID: CBNAMS12

Prep Method: 3546

Prep Batch: 460-455573

Lab File ID: L19931.D

Dilution: 1.0

Initial Weight/Volume: 15.0445 g

Analysis Date: 08/16/2017 1243

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 0728

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
N-Nitrosodi-n-propylamine		0.035	U	0.012	0.035
N-Nitrosodiphenylamine		0.35	U	0.032	0.35
Phenanthrene		0.56		0.0094	0.35
Pyrene		0.76		0.016	0.35
Surrogate		%Rec	Qualifier	Acceptance Limits	
2-Fluorobiphenyl		72		38 - 95	
Nitrobenzene-d5 (Surr)		67		37 - 94	
Terphenyl-d14 (Surr)		79		24 - 109	

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-5 (10-12)

Lab Sample ID: 460-138836-6

Date Sampled: 08/08/2017 1115

Client Matrix: Solid

% Moisture: 16.0

Date Received: 08/09/2017 1125

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-456615

Instrument ID: CBNAMS12

Prep Method: 3546

Prep Batch: 460-455573

Lab File ID: L19929.D

Dilution: 1.0

Initial Weight/Volume: 15.0267 g

Analysis Date: 08/16/2017 1159

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 0728

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene		0.039	U	0.0087	0.039
1,2-Dichlorobenzene		0.39	U	0.013	0.39
1,3-Dichlorobenzene		0.39	U	0.030	0.39
1,4-Dichlorobenzene		0.39	U	0.031	0.39
2,2'-oxybis[1-chloropropane]		0.39	U	0.016	0.39
2,4-Dinitrotoluene		0.080	U	0.016	0.080
2,6-Dinitrotoluene		0.080	U	0.021	0.080
2-Chloronaphthalene		0.39	U	0.0089	0.39
2-Methylnaphthalene		0.39	U	0.0087	0.39
2-Nitroaniline		0.39	U	0.013	0.39
3,3'-Dichlorobenzidine		0.16	U	0.044	0.16
3-Nitroaniline		0.39	U	0.012	0.39
4-Bromophenyl phenyl ether		0.39	U	0.012	0.39
4-Chloroaniline		0.39	U	0.010	0.39
4-Chlorophenyl phenyl ether		0.39	U	0.012	0.39
4-Nitroaniline		0.39	U	0.015	0.39
Acenaphthene		0.39	U	0.0095	0.39
Acenaphthylene		0.39	U	0.010	0.39
Anthracene		0.39	U	0.037	0.39
Benzo[a]anthracene		0.039	U	0.033	0.039
Benzo[a]pyrene		0.039	U	0.012	0.039
Benzo[b]fluoranthene		0.039	U	0.015	0.039
Benzo[g,h,i]perylene		0.39	U	0.023	0.39
Benzo[k]fluoranthene		0.039	U	0.017	0.039
Bis(2-chloroethoxy)methane		0.39	U	0.012	0.39
Bis(2-chloroethyl)ether		0.039	U	0.0093	0.039
Bis(2-ethylhexyl) phthalate		0.39	U	0.015	0.39
Butyl benzyl phthalate		0.12	J	0.012	0.39
Carbazole		0.39	U	0.0097	0.39
Chrysene		0.39	U	0.011	0.39
Dibenz(a,h)anthracene		0.039	U	0.020	0.039
Dibenzofuran		0.39	U	0.012	0.39
Diethyl phthalate		0.39	U	0.011	0.39
Dimethyl phthalate		0.39	U	0.011	0.39
Di-n-butyl phthalate		0.39	U	0.012	0.39
Di-n-octyl phthalate		0.39	U	0.020	0.39
Fluoranthene		0.39	U	0.012	0.39
Fluorene		0.39	U	0.0086	0.39
Hexachlorobenzene		0.039	U	0.016	0.039
Hexachlorobutadiene		0.080	U	0.011	0.080
Hexachlorocyclopentadiene		0.39	U	0.024	0.39
Hexachloroethane		0.039	U	0.014	0.039
Indeno[1,2,3-cd]pyrene		0.039	U	0.026	0.039
Isophorone		0.16	U	0.0084	0.16
Naphthalene		0.39	U	0.010	0.39
Nitrobenzene		0.039	U	0.012	0.039

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-5 (10-12)

Lab Sample ID: 460-138836-6

Date Sampled: 08/08/2017 1115

Client Matrix: Solid

% Moisture: 16.0

Date Received: 08/09/2017 1125

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-456615

Instrument ID: CBNAMS12

Prep Method: 3546

Prep Batch: 460-455573

Lab File ID: L19929.D

Dilution: 1.0

Initial Weight/Volume: 15.0267 g

Analysis Date: 08/16/2017 1159

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 0728

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
N-Nitrosodi-n-propylamine		0.039	U	0.013	0.039
N-Nitrosodiphenylamine		0.39	U	0.036	0.39
Phenanthrene		0.39	U	0.010	0.39
Pyrene		0.39	U	0.018	0.39
Surrogate		%Rec	Qualifier	Acceptance Limits	
2-Fluorobiphenyl		66		38 - 95	
Nitrobenzene-d5 (Surr)		71		37 - 94	
Terphenyl-d14 (Surr)		92		24 - 109	

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-6 (2-4)

Lab Sample ID: 460-138836-7

Date Sampled: 08/08/2017 1140

Client Matrix: Solid

% Moisture: 9.0

Date Received: 08/09/2017 1125

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-456615

Instrument ID: CBNAMS12

Prep Method: 3546

Prep Batch: 460-455573

Lab File ID: L19930.D

Dilution: 1.0

Initial Weight/Volume: 15.0418 g

Analysis Date: 08/16/2017 1221

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 0728

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene		0.036	U	0.0080	0.036
1,2-Dichlorobenzene		0.36	U	0.012	0.36
1,3-Dichlorobenzene		0.36	U	0.028	0.36
1,4-Dichlorobenzene		0.36	U	0.028	0.36
2,2'-oxybis[1-chloropropane]		0.36	U	0.015	0.36
2,4-Dinitrotoluene		0.073	U	0.014	0.073
2,6-Dinitrotoluene		0.073	U	0.019	0.073
2-Chloronaphthalene		0.36	U	0.0082	0.36
2-Methylnaphthalene		0.023	J	0.0080	0.36
2-Nitroaniline		0.36	U	0.012	0.36
3,3'-Dichlorobenzidine		0.15	U	0.040	0.15
3-Nitroaniline		0.36	U	0.011	0.36
4-Bromophenyl phenyl ether		0.36	U	0.011	0.36
4-Chloroaniline		0.36	U	0.0093	0.36
4-Chlorophenyl phenyl ether		0.36	U	0.011	0.36
4-Nitroaniline		0.36	U	0.014	0.36
Acenaphthene		0.013	J	0.0088	0.36
Acenaphthylene		0.060	J	0.0093	0.36
Anthracene		0.063	J	0.034	0.36
Benzo[a]anthracene		0.43		0.030	0.036
Benzo[a]pyrene		0.50		0.011	0.036
Benzo[b]fluoranthene		0.74		0.014	0.036
Benzo[g,h,i]perylene		0.35	J	0.021	0.36
Benzo[k]fluoranthene		0.29		0.016	0.036
Bis(2-chloroethoxy)methane		0.36	U	0.011	0.36
Bis(2-chloroethyl)ether		0.036	U	0.0086	0.036
Bis(2-ethylhexyl) phthalate		0.36	U	0.014	0.36
Butyl benzyl phthalate		0.023	J	0.011	0.36
Carbazole		0.033	J	0.0090	0.36
Chrysene		0.50		0.0099	0.36
Dibenz(a,h)anthracene		0.11		0.019	0.036
Dibenzofuran		0.012	J	0.011	0.36
Diethyl phthalate		0.36	U	0.010	0.36
Dimethyl phthalate		0.36	U	0.011	0.36
Di-n-butyl phthalate		0.36	U	0.011	0.36
Di-n-octyl phthalate		0.36	U	0.018	0.36
Fluoranthene		0.81		0.011	0.36
Fluorene		0.019	J	0.0079	0.36
Hexachlorobenzene		0.036	U	0.015	0.036
Hexachlorobutadiene		0.073	U	0.010	0.073
Hexachlorocyclopentadiene		0.36	U	0.023	0.36
Hexachloroethane		0.036	U	0.013	0.036
Indeno[1,2,3-cd]pyrene		0.54		0.024	0.036
Isophorone		0.15	U	0.0078	0.15
Naphthalene		0.032	J	0.0092	0.36
Nitrobenzene		0.036	U	0.011	0.036

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-6 (2-4)

Lab Sample ID: 460-138836-7

Date Sampled: 08/08/2017 1140

Client Matrix: Solid

% Moisture: 9.0

Date Received: 08/09/2017 1125

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-456615

Instrument ID: CBNAMS12

Prep Method: 3546

Prep Batch: 460-455573

Lab File ID: L19930.D

Dilution: 1.0

Initial Weight/Volume: 15.0418 g

Analysis Date: 08/16/2017 1221

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 0728

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
N-Nitrosodi-n-propylamine		0.036	U	0.012	0.036
N-Nitrosodiphenylamine		0.36	U	0.033	0.36
Phenanthrene		0.36		0.0096	0.36
Pyrene		0.73		0.016	0.36
Surrogate		%Rec	Qualifier	Acceptance Limits	
2-Fluorobiphenyl		64		38 - 95	
Nitrobenzene-d5 (Surr)		57		37 - 94	
Terphenyl-d14 (Surr)		78		24 - 109	

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-6 (9-11)

Lab Sample ID: 460-138836-8

Date Sampled: 08/08/2017 1145

Client Matrix: Solid

% Moisture: 17.4

Date Received: 08/09/2017 1125

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-456195

Instrument ID: CBNAMS12

Prep Method: 3546

Prep Batch: 460-455775

Lab File ID: L19824.D

Dilution: 1.0

Initial Weight/Volume: 15.0402 g

Analysis Date: 08/14/2017 1837

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 2150

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene		0.040	U	0.0088	0.040
1,2-Dichlorobenzene		0.40	U	0.013	0.40
1,3-Dichlorobenzene		0.40	U	0.031	0.40
1,4-Dichlorobenzene		0.40	U	0.031	0.40
2,2'-oxybis[1-chloropropane]		0.40	U	0.016	0.40
2,4-Dinitrotoluene		0.081	U	0.016	0.081
2,6-Dinitrotoluene		0.081	U	0.021	0.081
2-Chloronaphthalene		0.40	U	0.0091	0.40
2-Methylnaphthalene		0.40	U	0.0088	0.40
2-Nitroaniline		0.40	U	0.013	0.40
3,3'-Dichlorobenzidine		0.16	U	0.045	0.16
3-Nitroaniline		0.40	U	0.012	0.40
4-Bromophenyl phenyl ether		0.40	U	0.013	0.40
4-Chloroaniline		0.40	U	0.010	0.40
4-Chlorophenyl phenyl ether		0.40	U	0.012	0.40
4-Nitroaniline		0.40	U	0.015	0.40
Acenaphthene		0.40	U	0.0097	0.40
Acenaphthylene		0.40	U	0.010	0.40
Anthracene		0.40	U	0.038	0.40
Benzo[a]anthracene		0.040	U	0.033	0.040
Benzo[a]pyrene		0.040	U	0.012	0.040
Benzo[b]fluoranthene		0.040	U	0.016	0.040
Benzo[g,h,i]perylene		0.40	U	0.023	0.40
Benzo[k]fluoranthene		0.040	U	0.017	0.040
Bis(2-chloroethoxy)methane		0.40	U	0.012	0.40
Bis(2-chloroethyl)ether		0.040	U	0.0094	0.040
Bis(2-ethylhexyl) phthalate		0.40	U	0.016	0.40
Butyl benzyl phthalate		0.40	U	0.012	0.40
Carbazole		0.40	U	0.0099	0.40
Chrysene		0.40	U	0.011	0.40
Dibenz(a,h)anthracene		0.040	U	0.021	0.040
Dibenzofuran		0.40	U	0.012	0.40
Diethyl phthalate		0.40	U	0.011	0.40
Dimethyl phthalate		0.40	U	0.012	0.40
Di-n-butyl phthalate		0.40	U	0.012	0.40
Di-n-octyl phthalate		0.40	U	0.020	0.40
Fluoranthene		0.40	U	0.012	0.40
Fluorene		0.40	U	0.0087	0.40
Hexachlorobenzene		0.040	U	0.016	0.040
Hexachlorobutadiene		0.081	U	0.011	0.081
Hexachlorocyclopentadiene		0.40	U	0.025	0.40
Hexachloroethane		0.040	U	0.015	0.040
Indeno[1,2,3-cd]pyrene		0.040	U	0.027	0.040
Isophorone		0.16	U	0.0086	0.16
Naphthalene		0.40	U	0.010	0.40
Nitrobenzene		0.040	U	0.013	0.040

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-6 (9-11)

Lab Sample ID: 460-138836-8

Date Sampled: 08/08/2017 1145

Client Matrix: Solid

% Moisture: 17.4

Date Received: 08/09/2017 1125

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-456195

Instrument ID: CBNAMS12

Prep Method: 3546

Prep Batch: 460-455775

Lab File ID: L19824.D

Dilution: 1.0

Initial Weight/Volume: 15.0402 g

Analysis Date: 08/14/2017 1837

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 2150

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
N-Nitrosodi-n-propylamine		0.040	U	0.013	0.040
N-Nitrosodiphenylamine		0.40	U	0.036	0.40
Phenanthrene		0.40	U	0.011	0.40
Pyrene		0.40	U	0.018	0.40
Surrogate		%Rec	Qualifier	Acceptance Limits	
2-Fluorobiphenyl		50		38 - 95	
Nitrobenzene-d5 (Surr)		54		37 - 94	
Terphenyl-d14 (Surr)		60		24 - 109	

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-8 (2-4)

Lab Sample ID: 460-138836-9

Date Sampled: 08/08/2017 1035

Client Matrix: Solid

% Moisture: 5.2

Date Received: 08/09/2017 1125

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-456035

Instrument ID: CBNAMS12

Prep Method: 3546

Prep Batch: 460-455775

Lab File ID: L19808.D

Dilution: 1.0

Initial Weight/Volume: 15.0444 g

Analysis Date: 08/14/2017 1142

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 2150

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene		0.035	U	0.0077	0.035
1,2-Dichlorobenzene		0.35	U	0.012	0.35
1,3-Dichlorobenzene		0.35	U	0.027	0.35
1,4-Dichlorobenzene		0.35	U	0.027	0.35
2,2'-oxybis[1-chloropropane]		0.35	U	0.014	0.35
2,4-Dinitrotoluene		0.070	U	0.014	0.070
2,6-Dinitrotoluene		0.070	U	0.019	0.070
2-Chloronaphthalene		0.35	U	0.0079	0.35
2-Methylnaphthalene		0.35	U	0.0077	0.35
2-Nitroaniline		0.35	U	0.011	0.35
3,3'-Dichlorobenzidine		0.14	U	0.039	0.14
3-Nitroaniline		0.35	U	0.010	0.35
4-Bromophenyl phenyl ether		0.35	U	0.011	0.35
4-Chloroaniline		0.35	U	0.0089	0.35
4-Chlorophenyl phenyl ether		0.35	U	0.010	0.35
4-Nitroaniline		0.35	U	0.013	0.35
Acenaphthene		0.35	U	0.0084	0.35
Acenaphthylene		0.026	J	0.0089	0.35
Anthracene		0.35	U	0.033	0.35
Benzo[a]anthracene		0.13		0.029	0.035
Benzo[a]pyrene		0.19		0.011	0.035
Benzo[b]fluoranthene		0.20		0.014	0.035
Benzo[g,h,i]perylene		0.21	J	0.020	0.35
Benzo[k]fluoranthene		0.065		0.015	0.035
Bis(2-chloroethoxy)methane		0.35	U	0.011	0.35
Bis(2-chloroethyl)ether		0.035	U	0.0082	0.035
Bis(2-ethylhexyl) phthalate		0.35	U	0.014	0.35
Butyl benzyl phthalate		0.35	U	0.011	0.35
Carbazole		0.35	U	0.0086	0.35
Chrysene		0.15	J	0.0095	0.35
Dibenz(a,h)anthracene		0.035	U	0.018	0.035
Dibenzofuran		0.35	U	0.011	0.35
Diethyl phthalate		0.35	U	0.0099	0.35
Dimethyl phthalate		0.35	U	0.010	0.35
Di-n-butyl phthalate		0.35	U	0.010	0.35
Di-n-octyl phthalate		0.35	U	0.018	0.35
Fluoranthene		0.18	J	0.010	0.35
Fluorene		0.35	U	0.0076	0.35
Hexachlorobenzene		0.035	U	0.014	0.035
Hexachlorobutadiene		0.070	U	0.0098	0.070
Hexachlorocyclopentadiene		0.35	U	0.022	0.35
Hexachloroethane		0.035	U	0.013	0.035
Indeno[1,2,3-cd]pyrene		0.18		0.023	0.035
Isophorone		0.14	U	0.0075	0.14
Naphthalene		0.35	U	0.0088	0.35
Nitrobenzene		0.035	U	0.011	0.035

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-8 (2-4)

Lab Sample ID: 460-138836-9

Date Sampled: 08/08/2017 1035

Client Matrix: Solid

% Moisture: 5.2

Date Received: 08/09/2017 1125

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-456035

Instrument ID: CBNAMS12

Prep Method: 3546

Prep Batch: 460-455775

Lab File ID: L19808.D

Dilution: 1.0

Initial Weight/Volume: 15.0444 g

Analysis Date: 08/14/2017 1142

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 2150

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
N-Nitrosodi-n-propylamine		0.035	U	0.012	0.035
N-Nitrosodiphenylamine		0.35	U	0.032	0.35
Phenanthrene		0.087	J	0.0093	0.35
Pyrene		0.20	J	0.016	0.35
Surrogate		%Rec	Qualifier	Acceptance Limits	
2-Fluorobiphenyl		56		38 - 95	
Nitrobenzene-d5 (Surr)		60		37 - 94	
Terphenyl-d14 (Surr)		70		24 - 109	

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-8 (9-11)

Lab Sample ID: 460-138836-10

Date Sampled: 08/08/2017 1040

Client Matrix: Solid

% Moisture: 17.4

Date Received: 08/09/2017 1125

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-456035

Instrument ID: CBNAMS12

Prep Method: 3546

Prep Batch: 460-455775

Lab File ID: L19809.D

Dilution: 1.0

Initial Weight/Volume: 15.0415 g

Analysis Date: 08/14/2017 1203

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 2150

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene		0.040	U	0.0088	0.040
1,2-Dichlorobenzene		0.40	U	0.013	0.40
1,3-Dichlorobenzene		0.40	U	0.031	0.40
1,4-Dichlorobenzene		0.40	U	0.031	0.40
2,2'-oxybis[1-chloropropane]		0.40	U	0.016	0.40
2,4-Dinitrotoluene		0.081	U	0.016	0.081
2,6-Dinitrotoluene		0.081	U	0.021	0.081
2-Chloronaphthalene		0.40	U	0.0091	0.40
2-Methylnaphthalene		0.40	U	0.0088	0.40
2-Nitroaniline		0.40	U	0.013	0.40
3,3'-Dichlorobenzidine		0.16	U	0.045	0.16
3-Nitroaniline		0.40	U	0.012	0.40
4-Bromophenyl phenyl ether		0.40	U	0.013	0.40
4-Chloroaniline		0.40	U	0.010	0.40
4-Chlorophenyl phenyl ether		0.40	U	0.012	0.40
4-Nitroaniline		0.40	U	0.015	0.40
Acenaphthene		0.40	U	0.0097	0.40
Acenaphthylene		0.40	U	0.010	0.40
Anthracene		0.40	U	0.038	0.40
Benzo[a]anthracene		0.040		0.033	0.040
Benzo[a]pyrene		0.036	J	0.012	0.040
Benzo[b]fluoranthene		0.048		0.016	0.040
Benzo[g,h,i]perylene		0.024	J	0.023	0.40
Benzo[k]fluoranthene		0.021	J	0.017	0.040
Bis(2-chloroethoxy)methane		0.40	U	0.012	0.40
Bis(2-chloroethyl)ether		0.040	U	0.0094	0.040
Bis(2-ethylhexyl) phthalate		0.40	U	0.016	0.40
Butyl benzyl phthalate		0.40	U	0.012	0.40
Carbazole		0.40	U	0.0099	0.40
Chrysene		0.032	J	0.011	0.40
Dibenz(a,h)anthracene		0.040	U	0.021	0.040
Dibenzofuran		0.40	U	0.012	0.40
Diethyl phthalate		0.40	U	0.011	0.40
Dimethyl phthalate		0.40	U	0.012	0.40
Di-n-butyl phthalate		0.40	U	0.012	0.40
Di-n-octyl phthalate		0.40	U	0.020	0.40
Fluoranthene		0.076	J	0.012	0.40
Fluorene		0.40	U	0.0087	0.40
Hexachlorobenzene		0.040	U	0.016	0.040
Hexachlorobutadiene		0.081	U	0.011	0.081
Hexachlorocyclopentadiene		0.40	U	0.025	0.40
Hexachloroethane		0.040	U	0.015	0.040
Indeno[1,2,3-cd]pyrene		0.040	U	0.027	0.040
Isophorone		0.16	U	0.0086	0.16
Naphthalene		0.027	J	0.010	0.40
Nitrobenzene		0.040	U	0.013	0.040

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-8 (9-11)

Lab Sample ID: 460-138836-10

Date Sampled: 08/08/2017 1040

Client Matrix: Solid

% Moisture: 17.4

Date Received: 08/09/2017 1125

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-456035

Instrument ID: CBNAMS12

Prep Method: 3546

Prep Batch: 460-455775

Lab File ID: L19809.D

Dilution: 1.0

Initial Weight/Volume: 15.0415 g

Analysis Date: 08/14/2017 1203

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 2150

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
N-Nitrosodi-n-propylamine		0.040	U	0.013	0.040
N-Nitrosodiphenylamine		0.40	U	0.036	0.40
Phenanthrene		0.032	J	0.011	0.40
Pyrene		0.076	J	0.018	0.40
Surrogate		%Rec	Qualifier	Acceptance Limits	
2-Fluorobiphenyl		62		38 - 95	
Nitrobenzene-d5 (Surr)		68		37 - 94	
Terphenyl-d14 (Surr)		75		24 - 109	

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-9 (1-3)

Lab Sample ID: 460-138836-11

Date Sampled: 08/08/2017 0940

Client Matrix: Solid

% Moisture: 5.5

Date Received: 08/09/2017 1125

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-456035	Instrument ID:	CBNAMS12
Prep Method:	3546	Prep Batch:	460-455775	Lab File ID:	L19810.D
Dilution:	1.0			Initial Weight/Volume:	15.0392 g
Analysis Date:	08/14/2017 1225			Final Weight/Volume:	1 mL
Prep Date:	08/11/2017 2150			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene		0.035	U	0.0077	0.035
1,2-Dichlorobenzene		0.35	U	0.012	0.35
1,3-Dichlorobenzene		0.35	U	0.027	0.35
1,4-Dichlorobenzene		0.35	U	0.027	0.35
2,2'-oxybis[1-chloropropane]		0.35	U	0.014	0.35
2,4-Dinitrotoluene		0.071	U	0.014	0.071
2,6-Dinitrotoluene		0.071	U	0.019	0.071
2-Chloronaphthalene		0.35	U	0.0079	0.35
2-Methylnaphthalene		0.082	J	0.0077	0.35
2-Nitroaniline		0.35	U	0.011	0.35
3,3'-Dichlorobenzidine		0.14	U	0.039	0.14
3-Nitroaniline		0.35	U	0.010	0.35
4-Bromophenyl phenyl ether		0.35	U	0.011	0.35
4-Chloroaniline		0.35	U	0.0090	0.35
4-Chlorophenyl phenyl ether		0.35	U	0.010	0.35
4-Nitroaniline		0.35	U	0.013	0.35
Acenaphthene		0.35	U	0.0084	0.35
Acenaphthylene		0.029	J	0.0090	0.35
Anthracene		0.35	U	0.033	0.35
Benzo[a]anthracene		0.15		0.029	0.035
Benzo[a]pyrene		0.17		0.011	0.035
Benzo[b]fluoranthene		0.24		0.014	0.035
Benzo[g,h,i]perylene		0.13	J	0.020	0.35
Benzo[k]fluoranthene		0.093		0.015	0.035
Bis(2-chloroethoxy)methane		0.35	U	0.011	0.35
Bis(2-chloroethyl)ether		3.5		0.0082	0.035
Bis(2-ethylhexyl) phthalate		0.35	U	0.014	0.35
Butyl benzyl phthalate		0.35	U	0.011	0.35
Carbazole		0.014	J	0.0087	0.35
Chrysene		0.16	J	0.0095	0.35
Dibenz(a,h)anthracene		0.052		0.018	0.035
Dibenzofuran		0.35	U	0.011	0.35
Diethyl phthalate		0.35	U	0.0099	0.35
Dimethyl phthalate		0.35	U	0.010	0.35
Di-n-butyl phthalate		0.35	U	0.010	0.35
Di-n-octyl phthalate		0.35	U	0.018	0.35
Fluoranthene		0.25	J	0.010	0.35
Fluorene		0.0091	J	0.0076	0.35
Hexachlorobenzene		0.035	U	0.014	0.035
Hexachlorobutadiene		0.071	U	0.0098	0.071
Hexachlorocyclopentadiene		0.35	U	0.022	0.35
Hexachloroethane		0.035	U	0.013	0.035
Indeno[1,2,3-cd]pyrene		0.21		0.023	0.035
Isophorone		0.14	U	0.0075	0.14
Naphthalene		0.034	J	0.0089	0.35
Nitrobenzene		0.035	U	0.011	0.035

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-9 (1-3)

Lab Sample ID: 460-138836-11

Date Sampled: 08/08/2017 0940

Client Matrix: Solid

% Moisture: 5.5

Date Received: 08/09/2017 1125

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-456035

Instrument ID: CBNAMS12

Prep Method: 3546

Prep Batch: 460-455775

Lab File ID: L19810.D

Dilution: 1.0

Initial Weight/Volume: 15.0392 g

Analysis Date: 08/14/2017 1225

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 2150

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
N-Nitrosodi-n-propylamine		0.035	U	0.012	0.035
N-Nitrosodiphenylamine		0.35	U	0.032	0.35
Phenanthrene		0.11	J	0.0093	0.35
Pyrene		0.26	J	0.016	0.35
Surrogate		%Rec	Qualifier	Acceptance Limits	
2-Fluorobiphenyl		62		38 - 95	
Nitrobenzene-d5 (Surr)		64		37 - 94	
Terphenyl-d14 (Surr)		80		24 - 109	

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-9 (8-10)

Lab Sample ID: 460-138836-12

Date Sampled: 08/08/2017 0945

Client Matrix: Solid

% Moisture: 12.1

Date Received: 08/09/2017 1125

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-456035

Instrument ID: CBNAMS12

Prep Method: 3546

Prep Batch: 460-455775

Lab File ID: L19811.D

Dilution: 1.0

Initial Weight/Volume: 15.0373 g

Analysis Date: 08/14/2017 1247

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 2150

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene		0.037	U	0.0083	0.037
1,2-Dichlorobenzene		0.37	U	0.013	0.37
1,3-Dichlorobenzene		0.37	U	0.029	0.37
1,4-Dichlorobenzene		0.37	U	0.029	0.37
2,2'-oxybis[1-chloropropane]		0.37	U	0.015	0.37
2,4-Dinitrotoluene		0.076	U	0.015	0.076
2,6-Dinitrotoluene		0.076	U	0.020	0.076
2-Chloronaphthalene		0.37	U	0.0085	0.37
2-Methylnaphthalene		0.37	U	0.0083	0.37
2-Nitroaniline		0.37	U	0.012	0.37
3,3'-Dichlorobenzidine		0.15	U	0.042	0.15
3-Nitroaniline		0.37	U	0.011	0.37
4-Bromophenyl phenyl ether		0.37	U	0.012	0.37
4-Chloroaniline		0.37	U	0.0096	0.37
4-Chlorophenyl phenyl ether		0.37	U	0.011	0.37
4-Nitroaniline		0.37	U	0.014	0.37
Acenaphthene		0.37	U	0.0091	0.37
Acenaphthylene		0.37	U	0.0096	0.37
Anthracene		0.37	U	0.036	0.37
Benzo[a]anthracene		0.037	U	0.031	0.037
Benzo[a]pyrene		0.037	U	0.011	0.037
Benzo[b]fluoranthene		0.037	U	0.015	0.037
Benzo[g,h,i]perylene		0.37	U	0.022	0.37
Benzo[k]fluoranthene		0.037	U	0.016	0.037
Bis(2-chloroethoxy)methane		0.37	U	0.012	0.37
Bis(2-chloroethyl)ether		0.037	U	0.0089	0.037
Bis(2-ethylhexyl) phthalate		0.37	U	0.015	0.37
Butyl benzyl phthalate		0.37	U	0.012	0.37
Carbazole		0.37	U	0.0093	0.37
Chrysene		0.37	U	0.010	0.37
Dibenz(a,h)anthracene		0.037	U	0.020	0.037
Dibenzofuran		0.37	U	0.011	0.37
Diethyl phthalate		0.37	U	0.011	0.37
Dimethyl phthalate		0.37	U	0.011	0.37
Di-n-butyl phthalate		0.37	U	0.011	0.37
Di-n-octyl phthalate		0.37	U	0.019	0.37
Fluoranthene		0.37	U	0.011	0.37
Fluorene		0.37	U	0.0082	0.37
Hexachlorobenzene		0.037	U	0.015	0.037
Hexachlorobutadiene		0.076	U	0.011	0.076
Hexachlorocyclopentadiene		0.37	U	0.023	0.37
Hexachloroethane		0.037	U	0.014	0.037
Indeno[1,2,3-cd]pyrene		0.037	U	0.025	0.037
Isophorone		0.15	U	0.0081	0.15
Naphthalene		0.37	U	0.0095	0.37
Nitrobenzene		0.037	U	0.012	0.037

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-9 (8-10)

Lab Sample ID: 460-138836-12

Date Sampled: 08/08/2017 0945

Client Matrix: Solid

% Moisture: 12.1

Date Received: 08/09/2017 1125

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-456035

Instrument ID: CBNAMS12

Prep Method: 3546

Prep Batch: 460-455775

Lab File ID: L19811.D

Dilution: 1.0

Initial Weight/Volume: 15.0373 g

Analysis Date: 08/14/2017 1247

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 2150

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
N-Nitrosodi-n-propylamine		0.037	U	0.013	0.037
N-Nitrosodiphenylamine		0.37	U	0.034	0.37
Phenanthrene		0.37	U	0.010	0.37
Pyrene		0.37	U	0.017	0.37
Surrogate		%Rec	Qualifier	Acceptance Limits	
2-Fluorobiphenyl		67		38 - 95	
Nitrobenzene-d5 (Surr)		72		37 - 94	
Terphenyl-d14 (Surr)		89		24 - 109	

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-3 (1-3)

Lab Sample ID: 460-138908-1

Date Sampled: 08/09/2017 1440

Client Matrix: Solid

% Moisture: 4.4

Date Received: 08/10/2017 1115

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-456195

Instrument ID: CBNAMS12

Prep Method: 3546

Prep Batch: 460-455775

Lab File ID: L19841.D

Dilution: 1.0

Initial Weight/Volume: 15.0409 g

Analysis Date: 08/15/2017 0048

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 2150

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene		0.034	U	0.0076	0.034
1,2-Dichlorobenzene		0.34	U	0.012	0.34
1,3-Dichlorobenzene		0.34	U	0.027	0.34
1,4-Dichlorobenzene		0.34	U	0.027	0.34
2,2'-oxybis[1-chloropropane]		0.34	U	0.014	0.34
2,4-Dinitrotoluene		0.070	U	0.014	0.070
2,6-Dinitrotoluene		0.070	U	0.018	0.070
2-Chloronaphthalene		0.34	U	0.0078	0.34
2-Methylnaphthalene		0.014	J	0.0076	0.34
2-Nitroaniline		0.34	U	0.011	0.34
3,3'-Dichlorobenzidine		0.14	U	0.039	0.14
3-Nitroaniline		0.34	U	0.010	0.34
4-Bromophenyl phenyl ether		0.34	U	0.011	0.34
4-Chloroaniline		0.34	U	0.0089	0.34
4-Chlorophenyl phenyl ether		0.34	U	0.010	0.34
4-Nitroaniline		0.34	U	0.013	0.34
Acenaphthene		0.037	J	0.0083	0.34
Acenaphthylene		0.0096	J	0.0089	0.34
Anthracene		0.070	J	0.033	0.34
Benzo[a]anthracene		0.31		0.029	0.034
Benzo[a]pyrene		0.32		0.010	0.034
Benzo[b]fluoranthene		0.43		0.013	0.034
Benzo[g,h,i]perylene		0.23	J	0.020	0.34
Benzo[k]fluoranthene		0.16		0.015	0.034
Bis(2-chloroethoxy)methane		0.34	U	0.011	0.34
Bis(2-chloroethyl)ether		0.034	U	0.0081	0.034
Bis(2-ethylhexyl) phthalate		0.34	U	0.013	0.34
Butyl benzyl phthalate		0.34	U	0.011	0.34
Carbazole		0.045	J	0.0086	0.34
Chrysene		0.35		0.0094	0.34
Dibenz(a,h)anthracene		0.085		0.018	0.034
Dibenzofuran		0.024	J	0.010	0.34
Diethyl phthalate		0.34	U	0.0098	0.34
Dimethyl phthalate		0.34	U	0.010	0.34
Di-n-butyl phthalate		0.34	U	0.010	0.34
Di-n-octyl phthalate		0.34	U	0.018	0.34
Fluoranthene		0.69		0.010	0.34
Fluorene		0.061	J	0.0075	0.34
Hexachlorobenzene		0.034	U	0.014	0.034
Hexachlorobutadiene		0.070	U	0.0097	0.070
Hexachlorocyclopentadiene		0.34	U	0.021	0.34
Hexachloroethane		0.034	U	0.013	0.034
Indeno[1,2,3-cd]pyrene		0.36		0.023	0.034
Isophorone		0.14	U	0.0074	0.14
Naphthalene		0.014	J	0.0088	0.34
Nitrobenzene		0.034	U	0.011	0.034

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-3 (1-3)

Lab Sample ID: 460-138908-1

Date Sampled: 08/09/2017 1440

Client Matrix: Solid

% Moisture: 4.4

Date Received: 08/10/2017 1115

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-456195

Instrument ID: CBNAMS12

Prep Method: 3546

Prep Batch: 460-455775

Lab File ID: L19841.D

Dilution: 1.0

Initial Weight/Volume: 15.0409 g

Analysis Date: 08/15/2017 0048

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 2150

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
N-Nitrosodi-n-propylamine		0.034	U	0.012	0.034
N-Nitrosodiphenylamine		0.34	U	0.031	0.34
Phenanthrene		0.61		0.0092	0.34
Pyrene		0.77		0.016	0.34
Surrogate		%Rec	Qualifier	Acceptance Limits	
2-Fluorobiphenyl		63		38 - 95	
Nitrobenzene-d5 (Surr)		67		37 - 94	
Terphenyl-d14 (Surr)		80		24 - 109	

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-3 (17-19)

Lab Sample ID: 460-138908-2

Date Sampled: 08/09/2017 1435

Client Matrix: Solid

% Moisture: 2.3

Date Received: 08/10/2017 1115

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-456195

Instrument ID: CBNAMS12

Prep Method: 3546

Prep Batch: 460-455775

Lab File ID: L19825.D

Dilution: 1.0

Initial Weight/Volume: 15.0274 g

Analysis Date: 08/14/2017 1859

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 2150

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene		0.034	U	0.0075	0.034
1,2-Dichlorobenzene		0.34	U	0.011	0.34
1,3-Dichlorobenzene		0.34	U	0.026	0.34
1,4-Dichlorobenzene		0.34	U	0.026	0.34
2,2'-oxybis[1-chloropropane]		0.34	U	0.014	0.34
2,4-Dinitrotoluene		0.068	U	0.013	0.068
2,6-Dinitrotoluene		0.068	U	0.018	0.068
2-Chloronaphthalene		0.34	U	0.0077	0.34
2-Methylnaphthalene		0.34	U	0.0075	0.34
2-Nitroaniline		0.34	U	0.011	0.34
3,3'-Dichlorobenzidine		0.14	U	0.038	0.14
3-Nitroaniline		0.34	U	0.010	0.34
4-Bromophenyl phenyl ether		0.34	U	0.011	0.34
4-Chloroaniline		0.34	U	0.0087	0.34
4-Chlorophenyl phenyl ether		0.34	U	0.010	0.34
4-Nitroaniline		0.34	U	0.013	0.34
Acenaphthene		0.34	U	0.0082	0.34
Acenaphthylene		0.34	U	0.0087	0.34
Anthracene		0.34	U	0.032	0.34
Benzo[a]anthracene		0.034	U	0.028	0.034
Benzo[a]pyrene		0.034	U	0.010	0.034
Benzo[b]fluoranthene		0.034	U	0.013	0.034
Benzo[g,h,i]perylene		0.34	U	0.019	0.34
Benzo[k]fluoranthene		0.034	U	0.015	0.034
Bis(2-chloroethoxy)methane		0.34	U	0.011	0.34
Bis(2-chloroethyl)ether		0.034	U	0.0080	0.034
Bis(2-ethylhexyl) phthalate		0.34	U	0.013	0.34
Butyl benzyl phthalate		0.34	U	0.010	0.34
Carbazole		0.34	U	0.0084	0.34
Chrysene		0.34	U	0.0092	0.34
Dibenz(a,h)anthracene		0.034	U	0.018	0.034
Dibenzofuran		0.34	U	0.010	0.34
Diethyl phthalate		0.34	U	0.0096	0.34
Dimethyl phthalate		0.34	U	0.0098	0.34
Di-n-butyl phthalate		0.34	U	0.010	0.34
Di-n-octyl phthalate		0.34	U	0.017	0.34
Fluoranthene		0.34	U	0.010	0.34
Fluorene		0.34	U	0.0074	0.34
Hexachlorobenzene		0.034	U	0.014	0.034
Hexachlorobutadiene		0.068	U	0.0095	0.068
Hexachlorocyclopentadiene		0.34	U	0.021	0.34
Hexachloroethane		0.034	U	0.012	0.034
Indeno[1,2,3-cd]pyrene		0.034	U	0.022	0.034
Isophorone		0.14	U	0.0073	0.14
Naphthalene		0.34	U	0.0086	0.34
Nitrobenzene		0.034	U	0.011	0.034

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-3 (17-19)

Lab Sample ID: 460-138908-2

Date Sampled: 08/09/2017 1435

Client Matrix: Solid

% Moisture: 2.3

Date Received: 08/10/2017 1115

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-456195

Instrument ID: CBNAMS12

Prep Method: 3546

Prep Batch: 460-455775

Lab File ID: L19825.D

Dilution: 1.0

Initial Weight/Volume: 15.0274 g

Analysis Date: 08/14/2017 1859

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 2150

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
N-Nitrosodi-n-propylamine		0.034	U	0.011	0.034
N-Nitrosodiphenylamine		0.34	U	0.031	0.34
Phenanthrene		0.34	U	0.0090	0.34
Pyrene		0.34	U	0.015	0.34

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	61		38 - 95
Nitrobenzene-d5 (Surr)	62		37 - 94
Terphenyl-d14 (Surr)	83		24 - 109

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-4 (1-3)

Lab Sample ID: 460-138908-3

Date Sampled: 08/09/2017 1330

Client Matrix: Solid

% Moisture: 10.6

Date Received: 08/10/2017 1115

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-456195

Instrument ID: CBNAMS12

Prep Method: 3546

Prep Batch: 460-455775

Lab File ID: L19846.D

Dilution: 1.0

Initial Weight/Volume: 15.0328 g

Analysis Date: 08/15/2017 0237

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 2150

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene		0.037	U	0.0081	0.037
1,2-Dichlorobenzene		0.37	U	0.012	0.37
1,3-Dichlorobenzene		0.37	U	0.029	0.37
1,4-Dichlorobenzene		0.37	U	0.029	0.37
2,2'-oxybis[1-chloropropane]		0.37	U	0.015	0.37
2,4-Dinitrotoluene		0.075	U	0.015	0.075
2,6-Dinitrotoluene		0.075	U	0.020	0.075
2-Chloronaphthalene		0.37	U	0.0084	0.37
2-Methylnaphthalene		0.010	J	0.0081	0.37
2-Nitroaniline		0.37	U	0.012	0.37
3,3'-Dichlorobenzidine		0.15	U	0.041	0.15
3-Nitroaniline		0.37	U	0.011	0.37
4-Bromophenyl phenyl ether		0.37	U	0.012	0.37
4-Chloroaniline		0.37	U	0.0095	0.37
4-Chlorophenyl phenyl ether		0.37	U	0.011	0.37
4-Nitroaniline		0.37	U	0.014	0.37
Acenaphthene		0.37	U	0.0089	0.37
Acenaphthylene		0.37	U	0.0095	0.37
Anthracene		0.37	U	0.035	0.37
Benzo[a]anthracene		0.12		0.031	0.037
Benzo[a]pyrene		0.13		0.011	0.037
Benzo[b]fluoranthene		0.17		0.014	0.037
Benzo[g,h,i]perylene		0.10	J	0.021	0.37
Benzo[k]fluoranthene		0.073		0.016	0.037
Bis(2-chloroethoxy)methane		0.37	U	0.011	0.37
Bis(2-chloroethyl)ether		0.037	U	0.0087	0.037
Bis(2-ethylhexyl) phthalate		0.37	U	0.014	0.37
Butyl benzyl phthalate		0.37	U	0.011	0.37
Carbazole		0.021	J	0.0092	0.37
Chrysene		0.13	J	0.010	0.37
Dibenz(a,h)anthracene		0.059		0.019	0.037
Dibenzofuran		0.37	U	0.011	0.37
Diethyl phthalate		0.37	U	0.010	0.37
Dimethyl phthalate		0.37	U	0.011	0.37
Di-n-butyl phthalate		0.37	U	0.011	0.37
Di-n-octyl phthalate		0.37	U	0.019	0.37
Fluoranthene		0.22	J	0.011	0.37
Fluorene		0.37	U	0.0080	0.37
Hexachlorobenzene		0.037	U	0.015	0.037
Hexachlorobutadiene		0.075	U	0.010	0.075
Hexachlorocyclopentadiene		0.37	U	0.023	0.37
Hexachloroethane		0.037	U	0.014	0.037
Indeno[1,2,3-cd]pyrene		0.18		0.025	0.037
Isophorone		0.15	U	0.0079	0.15
Naphthalene		0.37	U	0.0094	0.37
Nitrobenzene		0.037	U	0.012	0.037

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-4 (1-3)

Lab Sample ID: 460-138908-3

Date Sampled: 08/09/2017 1330

Client Matrix: Solid

% Moisture: 10.6

Date Received: 08/10/2017 1115

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-456195

Instrument ID: CBNAMS12

Prep Method: 3546

Prep Batch: 460-455775

Lab File ID: L19846.D

Dilution: 1.0

Initial Weight/Volume: 15.0328 g

Analysis Date: 08/15/2017 0237

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 2150

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
N-Nitrosodi-n-propylamine		0.037	U	0.012	0.037
N-Nitrosodiphenylamine		0.37	U	0.033	0.37
Phenanthrene		0.12	J	0.0098	0.37
Pyrene		0.21	J	0.017	0.37

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	59		38 - 95
Nitrobenzene-d5 (Surr)	57		37 - 94
Terphenyl-d14 (Surr)	68		24 - 109

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-4 (21-23)

Lab Sample ID: 460-138908-4

Date Sampled: 08/09/2017 1325

Client Matrix: Solid

% Moisture: 12.5

Date Received: 08/10/2017 1115

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-456195

Instrument ID: CBNAMS12

Prep Method: 3546

Prep Batch: 460-455775

Lab File ID: L19826.D

Dilution: 1.0

Initial Weight/Volume: 15.0339 g

Analysis Date: 08/14/2017 1920

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 2150

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene		0.038	U	0.0083	0.038
1,2-Dichlorobenzene		0.38	U	0.013	0.38
1,3-Dichlorobenzene		0.38	U	0.029	0.38
1,4-Dichlorobenzene		0.38	U	0.030	0.38
2,2'-oxybis[1-chloropropane]		0.38	U	0.016	0.38
2,4-Dinitrotoluene		0.076	U	0.015	0.076
2,6-Dinitrotoluene		0.076	U	0.020	0.076
2-Chloronaphthalene		0.38	U	0.0086	0.38
2-Methylnaphthalene		2.1		0.0083	0.38
2-Nitroaniline		0.38	U	0.012	0.38
3,3'-Dichlorobenzidine		0.15	U	0.042	0.15
3-Nitroaniline		0.38	U	0.011	0.38
4-Bromophenyl phenyl ether		0.38	U	0.012	0.38
4-Chloroaniline		0.38	U	0.0097	0.38
4-Chlorophenyl phenyl ether		0.38	U	0.011	0.38
4-Nitroaniline		0.38	U	0.014	0.38
Acenaphthene		0.38	U	0.0091	0.38
Acenaphthylene		0.38	U	0.0097	0.38
Anthracene		0.38	U	0.036	0.38
Benzo[a]anthracene		0.038	U	0.031	0.038
Benzo[a]pyrene		0.038	U	0.011	0.038
Benzo[b]fluoranthene		0.038	U	0.015	0.038
Benzo[g,h,i]perylene		0.38	U	0.022	0.38
Benzo[k]fluoranthene		0.038	U	0.016	0.038
Bis(2-chloroethoxy)methane		0.38	U	0.012	0.38
Bis(2-chloroethyl)ether		0.038	U	0.0089	0.038
Bis(2-ethylhexyl) phthalate		0.38	U	0.015	0.38
Butyl benzyl phthalate		0.38	U	0.012	0.38
Carbazole		0.38	U	0.0093	0.38
Chrysene		0.38	U	0.010	0.38
Dibenz(a,h)anthracene		0.038	U	0.020	0.038
Dibenzofuran		0.38	U	0.011	0.38
Diethyl phthalate		0.38	U	0.011	0.38
Dimethyl phthalate		0.38	U	0.011	0.38
Di-n-butyl phthalate		0.38	U	0.011	0.38
Di-n-octyl phthalate		0.38	U	0.019	0.38
Fluoranthene		0.38	U	0.011	0.38
Fluorene		0.0091	J	0.0082	0.38
Hexachlorobenzene		0.038	U	0.015	0.038
Hexachlorobutadiene		0.076	U	0.011	0.076
Hexachlorocyclopentadiene		0.38	U	0.023	0.38
Hexachloroethane		0.038	U	0.014	0.038
Indeno[1,2,3-cd]pyrene		0.038	U	0.025	0.038
Isophorone		0.15	U	0.0081	0.15
Naphthalene		2.5		0.0096	0.38
Nitrobenzene		0.038	U	0.012	0.038

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-4 (21-23)

Lab Sample ID: 460-138908-4

Date Sampled: 08/09/2017 1325

Client Matrix: Solid

% Moisture: 12.5

Date Received: 08/10/2017 1115

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-456195

Instrument ID: CBNAMS12

Prep Method: 3546

Prep Batch: 460-455775

Lab File ID: L19826.D

Dilution: 1.0

Initial Weight/Volume: 15.0339 g

Analysis Date: 08/14/2017 1920

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 2150

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
N-Nitrosodi-n-propylamine		0.038	U	0.013	0.038
N-Nitrosodiphenylamine		0.38	U	0.034	0.38
Phenanthrene		0.012	J	0.010	0.38
Pyrene		0.38	U	0.017	0.38

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	71		38 - 95
Nitrobenzene-d5 (Surr)	87		37 - 94
Terphenyl-d14 (Surr)	96		24 - 109

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-7 (1-3)

Lab Sample ID: 460-138908-5

Date Sampled: 08/09/2017 0930

Client Matrix: Solid

% Moisture: 9.2

Date Received: 08/10/2017 1115

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-456195

Instrument ID: CBNAMS12

Prep Method: 3546

Prep Batch: 460-455775

Lab File ID: L19847.D

Dilution: 1.0

Initial Weight/Volume: 15.0284 g

Analysis Date: 08/15/2017 0259

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 2150

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene		0.036	U	0.0080	0.036
1,2-Dichlorobenzene		0.36	U	0.012	0.36
1,3-Dichlorobenzene		0.36	U	0.028	0.36
1,4-Dichlorobenzene		0.36	U	0.028	0.36
2,2'-oxybis[1-chloropropane]		0.36	U	0.015	0.36
2,4-Dinitrotoluene		0.074	U	0.014	0.074
2,6-Dinitrotoluene		0.074	U	0.019	0.074
2-Chloronaphthalene		0.36	U	0.0082	0.36
2-Methylnaphthalene		0.013	J	0.0080	0.36
2-Nitroaniline		0.36	U	0.012	0.36
3,3'-Dichlorobenzidine		0.15	U	0.041	0.15
3-Nitroaniline		0.36	U	0.011	0.36
4-Bromophenyl phenyl ether		0.36	U	0.011	0.36
4-Chloroaniline		0.36	U	0.0093	0.36
4-Chlorophenyl phenyl ether		0.36	U	0.011	0.36
4-Nitroaniline		0.36	U	0.014	0.36
Acenaphthene		0.36	U	0.0088	0.36
Acenaphthylene		0.065	J	0.0093	0.36
Anthracene		0.36	U	0.035	0.36
Benzo[a]anthracene		0.15		0.030	0.036
Benzo[a]pyrene		0.25		0.011	0.036
Benzo[b]fluoranthene		0.40		0.014	0.036
Benzo[g,h,i]perylene		0.17	J	0.021	0.36
Benzo[k]fluoranthene		0.10		0.016	0.036
Bis(2-chloroethoxy)methane		0.36	U	0.011	0.36
Bis(2-chloroethyl)ether		0.036	U	0.0086	0.036
Bis(2-ethylhexyl) phthalate		0.36	U	0.014	0.36
Butyl benzyl phthalate		0.36	U	0.011	0.36
Carbazole		0.018	J	0.0090	0.36
Chrysene		0.19	J	0.0099	0.36
Dibenz(a,h)anthracene		0.063		0.019	0.036
Dibenzofuran		0.36	U	0.011	0.36
Diethyl phthalate		0.36	U	0.010	0.36
Dimethyl phthalate		0.36	U	0.011	0.36
Di-n-butyl phthalate		0.36	U	0.011	0.36
Di-n-octyl phthalate		0.36	U	0.018	0.36
Fluoranthene		0.22	J	0.011	0.36
Fluorene		0.36	U	0.0079	0.36
Hexachlorobenzene		0.036	U	0.015	0.036
Hexachlorobutadiene		0.074	U	0.010	0.074
Hexachlorocyclopentadiene		0.36	U	0.023	0.36
Hexachloroethane		0.036	U	0.013	0.036
Indeno[1,2,3-cd]pyrene		0.25		0.024	0.036
Isophorone		0.15	U	0.0078	0.15
Naphthalene		0.028	J	0.0092	0.36
Nitrobenzene		0.036	U	0.011	0.036

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-7 (1-3)

Lab Sample ID: 460-138908-5

Date Sampled: 08/09/2017 0930

Client Matrix: Solid

% Moisture: 9.2

Date Received: 08/10/2017 1115

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-456195

Instrument ID: CBNAMS12

Prep Method: 3546

Prep Batch: 460-455775

Lab File ID: L19847.D

Dilution: 1.0

Initial Weight/Volume: 15.0284 g

Analysis Date: 08/15/2017 0259

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 2150

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
N-Nitrosodi-n-propylamine		0.036	U	0.012	0.036
N-Nitrosodiphenylamine		0.36	U	0.033	0.36
Phenanthrene		0.088	J	0.0097	0.36
Pyrene		0.19	J	0.016	0.36

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	69		38 - 95
Nitrobenzene-d5 (Surr)	72		37 - 94
Terphenyl-d14 (Surr)	65		24 - 109

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-7 (8-10)

Lab Sample ID: 460-138908-6

Date Sampled: 08/09/2017 1030

Client Matrix: Solid

% Moisture: 11.7

Date Received: 08/10/2017 1115

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-456195

Instrument ID: CBNAMS12

Prep Method: 3546

Prep Batch: 460-455775

Lab File ID: L19827.D

Dilution: 1.0

Initial Weight/Volume: 15.0490 g

Analysis Date: 08/14/2017 1942

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 2150

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene		0.037	U	0.0082	0.037
1,2-Dichlorobenzene		0.37	U	0.013	0.37
1,3-Dichlorobenzene		0.37	U	0.029	0.37
1,4-Dichlorobenzene		0.37	U	0.029	0.37
2,2'-oxybis[1-chloropropane]		0.37	U	0.015	0.37
2,4-Dinitrotoluene		0.076	U	0.015	0.076
2,6-Dinitrotoluene		0.076	U	0.020	0.076
2-Chloronaphthalene		0.37	U	0.0085	0.37
2-Methylnaphthalene		0.37	U	0.0082	0.37
2-Nitroaniline		0.37	U	0.012	0.37
3,3'-Dichlorobenzidine		0.15	U	0.042	0.15
3-Nitroaniline		0.37	U	0.011	0.37
4-Bromophenyl phenyl ether		0.37	U	0.012	0.37
4-Chloroaniline		0.37	U	0.0096	0.37
4-Chlorophenyl phenyl ether		0.37	U	0.011	0.37
4-Nitroaniline		0.37	U	0.014	0.37
Acenaphthene		0.37	U	0.0090	0.37
Acenaphthylene		0.37	U	0.0096	0.37
Anthracene		0.37	U	0.035	0.37
Benzo[a]anthracene		0.037	U	0.031	0.037
Benzo[a]pyrene		0.037	U	0.011	0.037
Benzo[b]fluoranthene		0.037	U	0.015	0.037
Benzo[g,h,i]perylene		0.37	U	0.021	0.37
Benzo[k]fluoranthene		0.037	U	0.016	0.037
Bis(2-chloroethoxy)methane		0.37	U	0.012	0.37
Bis(2-chloroethyl)ether		0.037	U	0.0088	0.037
Bis(2-ethylhexyl) phthalate		0.37	U	0.015	0.37
Butyl benzyl phthalate		0.37	U	0.012	0.37
Carbazole		0.37	U	0.0093	0.37
Chrysene		0.37	U	0.010	0.37
Dibenz(a,h)anthracene		0.037	U	0.019	0.037
Dibenzofuran		0.37	U	0.011	0.37
Diethyl phthalate		0.37	U	0.011	0.37
Dimethyl phthalate		0.37	U	0.011	0.37
Di-n-butyl phthalate		0.37	U	0.011	0.37
Di-n-octyl phthalate		0.37	U	0.019	0.37
Fluoranthene		0.37	U	0.011	0.37
Fluorene		0.37	U	0.0081	0.37
Hexachlorobenzene		0.037	U	0.015	0.037
Hexachlorobutadiene		0.076	U	0.010	0.076
Hexachlorocyclopentadiene		0.37	U	0.023	0.37
Hexachloroethane		0.037	U	0.014	0.037
Indeno[1,2,3-cd]pyrene		0.037	U	0.025	0.037
Isophorone		0.15	U	0.0080	0.15
Naphthalene		0.37	U	0.0095	0.37
Nitrobenzene		0.037	U	0.012	0.037

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-7 (8-10)

Lab Sample ID: 460-138908-6

Date Sampled: 08/09/2017 1030

Client Matrix: Solid

% Moisture: 11.7

Date Received: 08/10/2017 1115

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-456195

Instrument ID: CBNAMS12

Prep Method: 3546

Prep Batch: 460-455775

Lab File ID: L19827.D

Dilution: 1.0

Initial Weight/Volume: 15.0490 g

Analysis Date: 08/14/2017 1942

Final Weight/Volume: 1 mL

Prep Date: 08/11/2017 2150

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
N-Nitrosodi-n-propylamine		0.037	U	0.013	0.037
N-Nitrosodiphenylamine		0.37	U	0.034	0.37
Phenanthrene		0.37	U	0.0099	0.37
Pyrene		0.37	U	0.017	0.37
Surrogate		%Rec	Qualifier	Acceptance Limits	
2-Fluorobiphenyl		70		38 - 95	
Nitrobenzene-d5 (Surr)		77		37 - 94	
Terphenyl-d14 (Surr)		99		24 - 109	

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: TW-1

Lab Sample ID: 460-139067-1

Client Matrix: Water

Date Sampled: 08/09/2017 1350

Date Received: 08/11/2017 1035

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-456044	Instrument ID:	CBNAMS6
Prep Method:	3510C	Prep Batch:	460-455934	Lab File ID:	M5162.D
Dilution:	1.0			Initial Weight/Volume:	250 mL
Analysis Date:	08/14/2017 0706			Final Weight/Volume:	2 mL
Prep Date:	08/13/2017 0615			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	1.0	U	0.61	1.0
1,2-Dichlorobenzene	10	U	0.83	10
1,3-Dichlorobenzene	10	U	1.1	10
1,4-Dichlorobenzene	10	U	0.66	10
2,2'-oxybis[1-chloropropane]	10	U	0.93	10
2,4-Dinitrotoluene	2.0	U	1.0	2.0
2,6-Dinitrotoluene	2.0	U	0.88	2.0
2-Chloronaphthalene	10	U	0.61	10
2-Methylnaphthalene	10		0.88	10
2-Nitroaniline	10	U	0.65	10
3,3'-Dichlorobenzidine	10	U	1.0	10
3-Nitroaniline	10	U	0.82	10
4-Bromophenyl phenyl ether	10	U	1.0	10
4-Chloroaniline	10	U *	0.73	10
4-Chlorophenyl phenyl ether	10	U	0.96	10
4-Nitroaniline	10	U	0.48	10
Acenaphthene	10	U	0.88	10
Acenaphthylene	10	U	0.65	10
Anthracene	10	U	0.57	10
Benzo[a]anthracene	1.0	U	0.55	1.0
Benzo[a]pyrene	1.0	U	0.16	1.0
Benzo[b]fluoranthene	1.0	U	0.44	1.0
Benzo[g,h,i]perylene	10	U	0.75	10
Benzo[k]fluoranthene	1.0	U	0.18	1.0
Bis(2-chloroethoxy)methane	10	U	0.69	10
Bis(2-chloroethyl)ether	1.0	U	0.12	1.0
Bis(2-ethylhexyl) phthalate	2.0	U	0.72	2.0
Butyl benzyl phthalate	10	U	0.60	10
Carbazole	10	U	0.85	10
Chrysene	2.0	U	0.67	2.0
Dibenz(a,h)anthracene	1.0	U	0.090	1.0
Dibenzofuran	10	U	0.85	10
Diethyl phthalate	10	U	1.0	10
Dimethyl phthalate	10	U	0.98	10
Di-n-butyl phthalate	10	U	0.82	10
Di-n-octyl phthalate	10	U	0.69	10
Fluoranthene	10	U	0.72	10
Fluorene	10	U	0.80	10
Hexachlorobenzene	1.0	U	0.47	1.0
Hexachlorobutadiene	1.0	U	0.76	1.0
Hexachlorocyclopentadiene	10	U *	0.61	10
Hexachloroethane	1.0	U	0.090	1.0
Indeno[1,2,3-cd]pyrene	1.0	U	0.21	1.0
Isophorone	10	U	0.67	10
Naphthalene	47		0.80	10
Nitrobenzene	1.0	U	0.49	1.0

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: TW-1

Lab Sample ID: 460-139067-1

Client Matrix: Water

Date Sampled: 08/09/2017 1350

Date Received: 08/11/2017 1035

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-456044	Instrument ID:	CBNAMS6
Prep Method:	3510C	Prep Batch:	460-455934	Lab File ID:	M5162.D
Dilution:	1.0			Initial Weight/Volume:	250 mL
Analysis Date:	08/14/2017 0706			Final Weight/Volume:	2 mL
Prep Date:	08/13/2017 0615			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
N-Nitrosodi-n-propylamine	1.0	U	0.83	1.0
N-Nitrosodiphenylamine	10	U	0.74	10
Phenanthrene	10	U	0.65	10
Pyrene	10	U	0.83	10

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	85		45 - 107
Nitrobenzene-d5 (Surr)	84		51 - 108
Terphenyl-d14 (Surr)	52		40 - 148

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: TW-2

Lab Sample ID: 460-139067-2

Client Matrix: Water

Date Sampled: 08/09/2017 1130

Date Received: 08/11/2017 1035

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-456044	Instrument ID:	CBNAMS6
Prep Method:	3510C	Prep Batch:	460-455934	Lab File ID:	M5163.D
Dilution:	1.0			Initial Weight/Volume:	240 mL
Analysis Date:	08/14/2017 0728			Final Weight/Volume:	2 mL
Prep Date:	08/13/2017 0615			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	1.0	U	0.64	1.0
1,2-Dichlorobenzene	10	U	0.86	10
1,3-Dichlorobenzene	10	U	1.2	10
1,4-Dichlorobenzene	10	U	0.69	10
2,2'-oxybis[1-chloropropane]	10	U	0.97	10
2,4-Dinitrotoluene	2.1	U	1.1	2.1
2,6-Dinitrotoluene	2.1	U	0.92	2.1
2-Chloronaphthalene	10	U	0.64	10
2-Methylnaphthalene	10	U	0.92	10
2-Nitroaniline	10	U	0.68	10
3,3'-Dichlorobenzidine	10	U	1.1	10
3-Nitroaniline	10	U	0.85	10
4-Bromophenyl phenyl ether	10	U	1.1	10
4-Chloroaniline	10	U *	0.76	10
4-Chlorophenyl phenyl ether	10	U	1.0	10
4-Nitroaniline	10	U	0.50	10
Acenaphthene	10	U	0.92	10
Acenaphthylene	10	U	0.68	10
Anthracene	10	U	0.59	10
Benzo[a]anthracene	1.0	U	0.57	1.0
Benzo[a]pyrene	1.0	U	0.17	1.0
Benzo[b]fluoranthene	1.0	U	0.46	1.0
Benzo[g,h,i]perylene	10	U	0.78	10
Benzo[k]fluoranthene	1.0	U	0.19	1.0
Bis(2-chloroethoxy)methane	10	U	0.72	10
Bis(2-chloroethyl)ether	1.0	U	0.13	1.0
Bis(2-ethylhexyl) phthalate	2.1	U	0.75	2.1
Butyl benzyl phthalate	10	U	0.63	10
Carbazole	10	U	0.89	10
Chrysene	2.1	U	0.70	2.1
Dibenz(a,h)anthracene	1.0	U	0.094	1.0
Dibenzofuran	10	U	0.89	10
Diethyl phthalate	10	U	1.0	10
Dimethyl phthalate	10	U	1.0	10
Di-n-butyl phthalate	0.98	J	0.85	10
Di-n-octyl phthalate	10	U	0.72	10
Fluoranthene	10	U	0.75	10
Fluorene	10	U	0.83	10
Hexachlorobenzene	1.0	U	0.49	1.0
Hexachlorobutadiene	1.0	U	0.79	1.0
Hexachlorocyclopentadiene	10	U *	0.64	10
Hexachloroethane	1.0	U	0.094	1.0
Indeno[1,2,3-cd]pyrene	1.0	U	0.22	1.0
Isophorone	10	U	0.70	10
Naphthalene	10	U	0.83	10
Nitrobenzene	1.0	U	0.51	1.0

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: TW-2

Lab Sample ID: 460-139067-2

Client Matrix: Water

Date Sampled: 08/09/2017 1130

Date Received: 08/11/2017 1035

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-456044	Instrument ID:	CBNAMS6
Prep Method:	3510C	Prep Batch:	460-455934	Lab File ID:	M5163.D
Dilution:	1.0			Initial Weight/Volume:	240 mL
Analysis Date:	08/14/2017 0728			Final Weight/Volume:	2 mL
Prep Date:	08/13/2017 0615			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
N-Nitrosodi-n-propylamine	1.0	U	0.86	1.0
N-Nitrosodiphenylamine	10	U	0.77	10
Phenanthrene	10	U	0.68	10
Pyrene	10	U	0.86	10

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	87		45 - 107
Nitrobenzene-d5 (Surr)	90		51 - 108
Terphenyl-d14 (Surr)	83		40 - 148

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: GW-3

Lab Sample ID: 460-139067-3

Date Sampled: 08/10/2017 1130

Client Matrix: Water

Date Received: 08/11/2017 1035

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-456044	Instrument ID:	CBNAMS6
Prep Method:	3510C	Prep Batch:	460-455934	Lab File ID:	M5164.D
Dilution:	1.0			Initial Weight/Volume:	200 mL
Analysis Date:	08/14/2017 0750			Final Weight/Volume:	2 mL
Prep Date:	08/13/2017 0615			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	1.3	U	0.76	1.3
1,2-Dichlorobenzene	13	U	1.0	13
1,3-Dichlorobenzene	13	U	1.4	13
1,4-Dichlorobenzene	13	U	0.83	13
2,2'-oxybis[1-chloropropane]	13	U	1.2	13
2,4-Dinitrotoluene	2.5	U	1.3	2.5
2,6-Dinitrotoluene	2.5	U	1.1	2.5
2-Chloronaphthalene	13	U	0.76	13
2-Methylnaphthalene	13	U	1.1	13
2-Nitroaniline	13	U	0.81	13
3,3'-Dichlorobenzidine	13	U	1.3	13
3-Nitroaniline	13	U	1.0	13
4-Bromophenyl phenyl ether	13	U	1.3	13
4-Chloroaniline	13	U *	0.91	13
4-Chlorophenyl phenyl ether	13	U	1.2	13
4-Nitroaniline	13	U	0.60	13
Acenaphthene	13	U	1.1	13
Acenaphthylene	13	U	0.81	13
Anthracene	13	U	0.71	13
Benzo[a]anthracene	1.3	U	0.69	1.3
Benzo[a]pyrene	1.3	U	0.20	1.3
Benzo[b]fluoranthene	1.3	U	0.55	1.3
Benzo[g,h,i]perylene	13	U	0.94	13
Benzo[k]fluoranthene	1.3	U	0.23	1.3
Bis(2-chloroethoxy)methane	13	U	0.86	13
Bis(2-chloroethyl)ether	1.3	U	0.15	1.3
Bis(2-ethylhexyl) phthalate	2.5	U	0.90	2.5
Butyl benzyl phthalate	13	U	0.75	13
Carbazole	13	U	1.1	13
Chrysene	2.5	U	0.84	2.5
Dibenz(a,h)anthracene	1.3	U	0.11	1.3
Dibenzofuran	13	U	1.1	13
Diethyl phthalate	13	U	1.3	13
Dimethyl phthalate	13	U	1.2	13
Di-n-butyl phthalate	13	U	1.0	13
Di-n-octyl phthalate	13	U	0.86	13
Fluoranthene	13	U	0.90	13
Fluorene	13	U	1.0	13
Hexachlorobenzene	1.3	U	0.59	1.3
Hexachlorobutadiene	1.3	U	0.95	1.3
Hexachlorocyclopentadiene	13	U *	0.76	13
Hexachloroethane	1.3	U	0.11	1.3
Indeno[1,2,3-cd]pyrene	1.3	U	0.26	1.3
Isophorone	13	U	0.84	13
Naphthalene	13	U	1.0	13
Nitrobenzene	1.3	U	0.61	1.3

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: GW-3

Lab Sample ID: 460-139067-3

Date Sampled: 08/10/2017 1130

Client Matrix: Water

Date Received: 08/11/2017 1035

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-456044	Instrument ID:	CBNAMS6
Prep Method:	3510C	Prep Batch:	460-455934	Lab File ID:	M5164.D
Dilution:	1.0			Initial Weight/Volume:	200 mL
Analysis Date:	08/14/2017 0750			Final Weight/Volume:	2 mL
Prep Date:	08/13/2017 0615			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
N-Nitrosodi-n-propylamine	1.3	U	1.0	1.3
N-Nitrosodiphenylamine	13	U	0.93	13
Phenanthrene	13	U	0.81	13
Pyrene	13	U	1.0	13

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	86		45 - 107
Nitrobenzene-d5 (Surr)	86		51 - 108
Terphenyl-d14 (Surr)	83		40 - 148

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: GT-1

Lab Sample ID: 460-139067-5

Client Matrix: Water

Date Sampled: 08/10/2017 1110

Date Received: 08/11/2017 1035

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-456044	Instrument ID:	CBNAMS6
Prep Method:	3510C	Prep Batch:	460-455934	Lab File ID:	M5165.D
Dilution:	1.0			Initial Weight/Volume:	210 mL
Analysis Date:	08/14/2017 0813			Final Weight/Volume:	2 mL
Prep Date:	08/13/2017 0615			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	1.2	U	0.73	1.2
1,2-Dichlorobenzene	12	U	0.99	12
1,3-Dichlorobenzene	12	U	1.3	12
1,4-Dichlorobenzene	12	U	0.79	12
2,2'-oxybis[1-chloropropane]	12	U	1.1	12
2,4-Dinitrotoluene	2.4	U	1.2	2.4
2,6-Dinitrotoluene	2.4	U	1.0	2.4
2-Chloronaphthalene	12	U	0.73	12
2-Methylnaphthalene	12	U	1.0	12
2-Nitroaniline	12	U	0.77	12
3,3'-Dichlorobenzidine	12	U	1.2	12
3-Nitroaniline	12	U	0.98	12
4-Bromophenyl phenyl ether	12	U	1.2	12
4-Chloroaniline	12	U *	0.87	12
4-Chlorophenyl phenyl ether	12	U	1.1	12
4-Nitroaniline	12	U	0.57	12
Acenaphthene	12	U	1.0	12
Acenaphthylene	12	U	0.77	12
Anthracene	12	U	0.68	12
Benzo[a]anthracene	1.2	U	0.65	1.2
Benzo[a]pyrene	1.2	U	0.19	1.2
Benzo[b]fluoranthene	1.2	U	0.52	1.2
Benzo[g,h,i]perylene	12	U	0.89	12
Benzo[k]fluoranthene	1.2	U	0.21	1.2
Bis(2-chloroethoxy)methane	12	U	0.82	12
Bis(2-chloroethyl)ether	1.2	U	0.14	1.2
Bis(2-ethylhexyl) phthalate	2.4	U	0.86	2.4
Butyl benzyl phthalate	12	U	0.71	12
Carbazole	12	U	1.0	12
Chrysene	2.4	U	0.80	2.4
Dibenz(a,h)anthracene	1.2	U	0.11	1.2
Dibenzofuran	12	U	1.0	12
Diethyl phthalate	12	U	1.2	12
Dimethyl phthalate	12	U	1.2	12
Di-n-butyl phthalate	12	U	0.98	12
Di-n-octyl phthalate	12	U	0.82	12
Fluoranthene	12	U	0.86	12
Fluorene	12	U	0.95	12
Hexachlorobenzene	1.2	U	0.56	1.2
Hexachlorobutadiene	1.2	U	0.90	1.2
Hexachlorocyclopentadiene	12	U *	0.73	12
Hexachloroethane	1.2	U	0.11	1.2
Indeno[1,2,3-cd]pyrene	1.2	U	0.25	1.2
Isophorone	12	U	0.80	12
Naphthalene	12	U	0.95	12
Nitrobenzene	1.2	U	0.58	1.2

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: GT-1

Lab Sample ID: 460-139067-5

Client Matrix: Water

Date Sampled: 08/10/2017 1110

Date Received: 08/11/2017 1035

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-456044	Instrument ID:	CBNAMS6
Prep Method:	3510C	Prep Batch:	460-455934	Lab File ID:	M5165.D
Dilution:	1.0			Initial Weight/Volume:	210 mL
Analysis Date:	08/14/2017 0813			Final Weight/Volume:	2 mL
Prep Date:	08/13/2017 0615			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
N-Nitrosodi-n-propylamine	1.2	U	0.99	1.2
N-Nitrosodiphenylamine	12	U	0.88	12
Phenanthrene	12	U	0.77	12
Pyrene	12	U	0.99	12

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	81		45 - 107
Nitrobenzene-d5 (Surr)	80		51 - 108
Terphenyl-d14 (Surr)	79		40 - 148

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: GT-2

Lab Sample ID: 460-139067-6

Client Matrix: Water

Date Sampled: 08/10/2017 1210

Date Received: 08/11/2017 1035

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-456044	Instrument ID:	CBNAMS6
Prep Method:	3510C	Prep Batch:	460-455934	Lab File ID:	M5166.D
Dilution:	1.0			Initial Weight/Volume:	210 mL
Analysis Date:	08/14/2017 0835			Final Weight/Volume:	2 mL
Prep Date:	08/13/2017 0615			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	1.2	U	0.73	1.2
1,2-Dichlorobenzene	12	U	0.99	12
1,3-Dichlorobenzene	12	U	1.3	12
1,4-Dichlorobenzene	12	U	0.79	12
2,2'-oxybis[1-chloropropane]	12	U	1.1	12
2,4-Dinitrotoluene	2.4	U	1.2	2.4
2,6-Dinitrotoluene	2.4	U	1.0	2.4
2-Chloronaphthalene	12	U	0.73	12
2-Methylnaphthalene	12	U	1.0	12
2-Nitroaniline	12	U	0.77	12
3,3'-Dichlorobenzidine	12	U	1.2	12
3-Nitroaniline	12	U	0.98	12
4-Bromophenyl phenyl ether	12	U	1.2	12
4-Chloroaniline	12	U *	0.87	12
4-Chlorophenyl phenyl ether	12	U	1.1	12
4-Nitroaniline	12	U	0.57	12
Acenaphthene	12	U	1.0	12
Acenaphthylene	12	U	0.77	12
Anthracene	12	U	0.68	12
Benzo[a]anthracene	1.2	U	0.65	1.2
Benzo[a]pyrene	1.2	U	0.19	1.2
Benzo[b]fluoranthene	1.2	U	0.52	1.2
Benzo[g,h,i]perylene	12	U	0.89	12
Benzo[k]fluoranthene	1.2	U	0.21	1.2
Bis(2-chloroethoxy)methane	12	U	0.82	12
Bis(2-chloroethyl)ether	1.2	U	0.14	1.2
Bis(2-ethylhexyl) phthalate	2.4	U	0.86	2.4
Butyl benzyl phthalate	12	U	0.71	12
Carbazole	12	U	1.0	12
Chrysene	2.4	U	0.80	2.4
Dibenz(a,h)anthracene	1.2	U	0.11	1.2
Dibenzofuran	12	U	1.0	12
Diethyl phthalate	12	U	1.2	12
Dimethyl phthalate	12	U	1.2	12
Di-n-butyl phthalate	12	U	0.98	12
Di-n-octyl phthalate	12	U	0.82	12
Fluoranthene	12	U	0.86	12
Fluorene	12	U	0.95	12
Hexachlorobenzene	1.2	U	0.56	1.2
Hexachlorobutadiene	1.2	U	0.90	1.2
Hexachlorocyclopentadiene	12	U *	0.73	12
Hexachloroethane	1.2	U	0.11	1.2
Indeno[1,2,3-cd]pyrene	1.2	U	0.25	1.2
Isophorone	12	U	0.80	12
Naphthalene	12	U	0.95	12
Nitrobenzene	1.2	U	0.58	1.2

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: GT-2

Lab Sample ID: 460-139067-6

Client Matrix: Water

Date Sampled: 08/10/2017 1210

Date Received: 08/11/2017 1035

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-456044	Instrument ID:	CBNAMS6
Prep Method:	3510C	Prep Batch:	460-455934	Lab File ID:	M5166.D
Dilution:	1.0			Initial Weight/Volume:	210 mL
Analysis Date:	08/14/2017 0835			Final Weight/Volume:	2 mL
Prep Date:	08/13/2017 0615			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
N-Nitrosodi-n-propylamine	1.2	U	0.99	1.2
N-Nitrosodiphenylamine	12	U	0.88	12
Phenanthrene	12	U	0.77	12
Pyrene	12	U	0.99	12

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	92		45 - 107
Nitrobenzene-d5 (Surr)	97		51 - 108
Terphenyl-d14 (Surr)	79		40 - 148

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: GT-3

Lab Sample ID: 460-139067-7

Date Sampled: 08/10/2017 1155

Client Matrix: Water

Date Received: 08/11/2017 1035

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-456044	Instrument ID:	CBNAMS6
Prep Method:	3510C	Prep Batch:	460-455934	Lab File ID:	M5167.D
Dilution:	1.0			Initial Weight/Volume:	240 mL
Analysis Date:	08/14/2017 0858			Final Weight/Volume:	2 mL
Prep Date:	08/13/2017 0615			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	1.0	U	0.64	1.0
1,2-Dichlorobenzene	10	U	0.86	10
1,3-Dichlorobenzene	10	U	1.2	10
1,4-Dichlorobenzene	10	U	0.69	10
2,2'-oxybis[1-chloropropane]	10	U	0.97	10
2,4-Dinitrotoluene	2.1	U	1.1	2.1
2,6-Dinitrotoluene	2.1	U	0.92	2.1
2-Chloronaphthalene	10	U	0.64	10
2-Methylnaphthalene	10	U	0.92	10
2-Nitroaniline	10	U	0.68	10
3,3'-Dichlorobenzidine	10	U	1.1	10
3-Nitroaniline	10	U	0.85	10
4-Bromophenyl phenyl ether	10	U	1.1	10
4-Chloroaniline	10	U *	0.76	10
4-Chlorophenyl phenyl ether	10	U	1.0	10
4-Nitroaniline	10	U	0.50	10
Acenaphthene	10	U	0.92	10
Acenaphthylene	10	U	0.68	10
Anthracene	10	U	0.59	10
Benzo[a]anthracene	1.0	U	0.57	1.0
Benzo[a]pyrene	1.0	U	0.17	1.0
Benzo[b]fluoranthene	1.0	U	0.46	1.0
Benzo[g,h,i]perylene	10	U	0.78	10
Benzo[k]fluoranthene	1.0	U	0.19	1.0
Bis(2-chloroethoxy)methane	10	U	0.72	10
Bis(2-chloroethyl)ether	1.0	U	0.13	1.0
Bis(2-ethylhexyl) phthalate	2.1	U	0.75	2.1
Butyl benzyl phthalate	10	U	0.63	10
Carbazole	10	U	0.89	10
Chrysene	2.1	U	0.70	2.1
Dibenz(a,h)anthracene	1.0	U	0.094	1.0
Dibenzofuran	10	U	0.89	10
Diethyl phthalate	10	U	1.0	10
Dimethyl phthalate	10	U	1.0	10
Di-n-butyl phthalate	1.1	J	0.85	10
Di-n-octyl phthalate	10	U	0.72	10
Fluoranthene	10	U	0.75	10
Fluorene	10	U	0.83	10
Hexachlorobenzene	1.0	U	0.49	1.0
Hexachlorobutadiene	1.0	U	0.79	1.0
Hexachlorocyclopentadiene	10	U *	0.64	10
Hexachloroethane	1.0	U	0.094	1.0
Indeno[1,2,3-cd]pyrene	1.0	U	0.22	1.0
Isophorone	10	U	0.70	10
Naphthalene	10	U	0.83	10
Nitrobenzene	1.0	U	0.51	1.0

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: GT-3

Lab Sample ID: 460-139067-7

Client Matrix: Water

Date Sampled: 08/10/2017 1155

Date Received: 08/11/2017 1035

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-456044	Instrument ID:	CBNAMS6
Prep Method:	3510C	Prep Batch:	460-455934	Lab File ID:	M5167.D
Dilution:	1.0			Initial Weight/Volume:	240 mL
Analysis Date:	08/14/2017 0858			Final Weight/Volume:	2 mL
Prep Date:	08/13/2017 0615			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
N-Nitrosodi-n-propylamine	1.0	U	0.86	1.0
N-Nitrosodiphenylamine	10	U	0.77	10
Phenanthrene	10	U	0.68	10
Pyrene	10	U	0.86	10

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	93		45 - 107
Nitrobenzene-d5 (Surr)	98		51 - 108
Terphenyl-d14 (Surr)	82		40 - 148

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: GT-4

Lab Sample ID: 460-139067-8

Date Sampled: 08/10/2017 1145

Client Matrix: Water

Date Received: 08/11/2017 1035

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-456044

Instrument ID: CBNAMS6

Prep Method: 3510C

Prep Batch: 460-455934

Lab File ID: M5168.D

Dilution: 1.0

Initial Weight/Volume: 235 mL

Analysis Date: 08/14/2017 0920

Final Weight/Volume: 2 mL

Prep Date: 08/13/2017 0615

Injection Volume: 5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
1,2,4-Trichlorobenzene	1.1	U	0.65	1.1
1,2-Dichlorobenzene	11	U	0.88	11
1,3-Dichlorobenzene	11	U	1.2	11
1,4-Dichlorobenzene	11	U	0.70	11
2,2'-oxybis[1-chloropropane]	11	U	0.99	11
2,4-Dinitrotoluene	2.1	U	1.1	2.1
2,6-Dinitrotoluene	2.1	U	0.94	2.1
2-Chloronaphthalene	11	U	0.65	11
2-Methylnaphthalene	11	U	0.94	11
2-Nitroaniline	11	U	0.69	11
3,3'-Dichlorobenzidine	11	U	1.1	11
3-Nitroaniline	11	U	0.87	11
4-Bromophenyl phenyl ether	11	U	1.1	11
4-Chloroaniline	11	U *	0.78	11
4-Chlorophenyl phenyl ether	11	U	1.0	11
4-Nitroaniline	11	U	0.51	11
Acenaphthene	11	U	0.94	11
Acenaphthylene	11	U	0.69	11
Anthracene	11	U	0.61	11
Benzo[a]anthracene	1.1	U	0.59	1.1
Benzo[a]pyrene	1.1	U	0.17	1.1
Benzo[b]fluoranthene	1.1	U	0.47	1.1
Benzo[g,h,i]perylene	11	U	0.80	11
Benzo[k]fluoranthene	1.1	U	0.19	1.1
Bis(2-chloroethoxy)methane	11	U	0.73	11
Bis(2-chloroethyl)ether	1.1	U	0.13	1.1
Bis(2-ethylhexyl) phthalate	2.1	U	0.77	2.1
Butyl benzyl phthalate	11	U	0.64	11
Carbazole	11	U	0.90	11
Chrysene	2.1	U	0.71	2.1
Dibenz(a,h)anthracene	1.1	U	0.096	1.1
Dibenzofuran	11	U	0.90	11
Diethyl phthalate	11	U	1.1	11
Dimethyl phthalate	11	U	1.0	11
Di-n-butyl phthalate	11	U	0.87	11
Di-n-octyl phthalate	11	U	0.73	11
Fluoranthene	11	U	0.77	11
Fluorene	11	U	0.85	11
Hexachlorobenzene	1.1	U	0.50	1.1
Hexachlorobutadiene	1.1	U	0.81	1.1
Hexachlorocyclopentadiene	11	U *	0.65	11
Hexachloroethane	1.1	U	0.096	1.1
Indeno[1,2,3-cd]pyrene	1.1	U	0.22	1.1
Isophorone	11	U	0.71	11
Naphthalene	11	U	0.85	11
Nitrobenzene	1.1	U	0.52	1.1

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: GT-4

Lab Sample ID: 460-139067-8

Client Matrix: Water

Date Sampled: 08/10/2017 1145

Date Received: 08/11/2017 1035

8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270D	Analysis Batch:	460-456044	Instrument ID:	CBNAMS6
Prep Method:	3510C	Prep Batch:	460-455934	Lab File ID:	M5168.D
Dilution:	1.0			Initial Weight/Volume:	235 mL
Analysis Date:	08/14/2017 0920			Final Weight/Volume:	2 mL
Prep Date:	08/13/2017 0615			Injection Volume:	5 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
N-Nitrosodi-n-propylamine	1.1	U	0.88	1.1
N-Nitrosodiphenylamine	11	U	0.79	11
Phenanthrene	11	U	0.69	11
Pyrene	11	U	0.88	11

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl	87		45 - 107
Nitrobenzene-d5 (Surr)	89		51 - 108
Terphenyl-d14 (Surr)	75		40 - 148

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-1 (2-4)

Lab Sample ID: 460-138836-1

Date Sampled: 08/08/2017 0920

Client Matrix: Solid

% Moisture: 14.9

Date Received: 08/09/2017 1125

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-455410

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455215

Initial Weight/Volume: +15.0020 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/10/2017 1743

Injection Volume: 1 uL

Prep Date: 08/09/2017 2155

Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aroclor 1016		0.079	U	0.010	0.079
Aroclor 1221		0.079	U	0.010	0.079
Aroclor 1232		0.079	U	0.010	0.079
Aroclor 1242		0.079	U	0.010	0.079
Aroclor 1248		0.079	U	0.010	0.079
Aroclor 1254		0.079	U	0.011	0.079
Aroclor 1260		0.079	U	0.011	0.079
Aroclor-1262		0.079	U	0.011	0.079
Aroclor 1268		0.079	U	0.011	0.079
Polychlorinated biphenyls, Total		0.079	U	0.011	0.079

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	121		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-1 (2-4)

Lab Sample ID: 460-138836-1

Date Sampled: 08/08/2017 0920

Client Matrix: Solid

% Moisture: 14.9

Date Received: 08/09/2017 1125

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-455410

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455215

Initial Weight/Volume: +15.0020 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/10/2017 1743

Injection Volume: 1 uL

Prep Date: 08/09/2017 2155

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	117		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-1 (9-11)

Lab Sample ID: 460-138836-2

Date Sampled: 08/08/2017 0915

Client Matrix: Solid

% Moisture: 9.2

Date Received: 08/09/2017 1125

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-455410

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455215

Initial Weight/Volume: +15.0131 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/10/2017 1757

Injection Volume: 1 uL

Prep Date: 08/09/2017 2155

Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aroclor 1016		0.074	U	0.0098	0.074
Aroclor 1221		0.074	U	0.0098	0.074
Aroclor 1232		0.074	U	0.0098	0.074
Aroclor 1242		0.074	U	0.0098	0.074
Aroclor 1248		0.074	U	0.0098	0.074
Aroclor 1254		0.074	U	0.010	0.074
Aroclor 1260		0.074	U	0.010	0.074
Aroclor-1262		0.074	U	0.010	0.074
Aroclor 1268		0.074	U	0.010	0.074
Polychlorinated biphenyls, Total		0.074	U	0.010	0.074

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	123		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-1 (9-11)

Lab Sample ID: 460-138836-2

Date Sampled: 08/08/2017 0915

Client Matrix: Solid

% Moisture: 9.2

Date Received: 08/09/2017 1125

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-455410

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455215

Initial Weight/Volume: +15.0131 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/10/2017 1757

Injection Volume: 1 uL

Prep Date: 08/09/2017 2155

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	117		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-2 (1-3)

Lab Sample ID: 460-138836-3

Date Sampled: 08/08/2017 0830

Client Matrix: Solid

% Moisture: 6.8

Date Received: 08/09/2017 1125

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-455410

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455215

Initial Weight/Volume: +15.0441 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/10/2017 1812

Injection Volume: 1 uL

Prep Date: 08/09/2017 2155

Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aroclor 1016		0.072	U	0.0095	0.072
Aroclor 1221		0.072	U	0.0095	0.072
Aroclor 1232		0.072	U	0.0095	0.072
Aroclor 1242		0.072	U	0.0095	0.072
Aroclor 1248		0.072	U	0.0095	0.072
Aroclor 1254		0.072	U	0.0098	0.072
Aroclor 1260		0.072	U	0.0098	0.072
Aroclor-1262		0.072	U	0.0098	0.072
Aroclor 1268		0.072	U	0.0098	0.072
Polychlorinated biphenyls, Total		0.072	U	0.0098	0.072

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	112		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-2 (1-3)

Lab Sample ID: 460-138836-3

Date Sampled: 08/08/2017 0830

Client Matrix: Solid

% Moisture: 6.8

Date Received: 08/09/2017 1125

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-455410

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455215

Initial Weight/Volume: +15.0441 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/10/2017 1812

Injection Volume: 1 uL

Prep Date: 08/09/2017 2155

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	105		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-2 (16-18)

Lab Sample ID: 460-138836-4

Date Sampled: 08/08/2017 0835

Client Matrix: Solid

% Moisture: 10.8

Date Received: 08/09/2017 1125

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-455410

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455215

Initial Weight/Volume: +15.0323 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/10/2017 1827

Injection Volume: 1 uL

Prep Date: 08/09/2017 2155

Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aroclor 1016		0.075	U	0.010	0.075
Aroclor 1221		0.075	U	0.010	0.075
Aroclor 1232		0.075	U	0.010	0.075
Aroclor 1242		0.075	U	0.010	0.075
Aroclor 1248		0.075	U	0.010	0.075
Aroclor 1254		0.075	U	0.010	0.075
Aroclor 1260		0.075	U	0.010	0.075
Aroclor-1262		0.075	U	0.010	0.075
Aroclor 1268		0.075	U	0.010	0.075
Polychlorinated biphenyls, Total		0.075	U	0.010	0.075

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	115		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-2 (16-18)

Lab Sample ID: 460-138836-4

Date Sampled: 08/08/2017 0835

Client Matrix: Solid

% Moisture: 10.8

Date Received: 08/09/2017 1125

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-455410

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455215

Initial Weight/Volume: +15.0323 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/10/2017 1827

Injection Volume: 1 uL

Prep Date: 08/09/2017 2155

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	110		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-5 (2-4)

Lab Sample ID: 460-138836-5

Date Sampled: 08/08/2017 1110

Client Matrix: Solid

% Moisture: 6.7

Date Received: 08/09/2017 1125

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-455410

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455215

Initial Weight/Volume: +15.0220 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/10/2017 1841

Injection Volume: 1 uL

Prep Date: 08/09/2017 2155

Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aroclor 1016		0.072	U	0.0095	0.072
Aroclor 1221		0.072	U	0.0095	0.072
Aroclor 1232		0.072	U	0.0095	0.072
Aroclor 1242		0.072	U	0.0095	0.072
Aroclor 1248		0.072	U	0.0095	0.072
Aroclor 1254		0.072	U	0.0098	0.072
Aroclor 1260		0.072	U	0.0098	0.072
Aroclor-1262		0.072	U	0.0098	0.072
Aroclor 1268		0.072	U	0.0098	0.072
Polychlorinated biphenyls, Total		0.072	U	0.0098	0.072

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	112		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-5 (2-4)

Lab Sample ID: 460-138836-5

Date Sampled: 08/08/2017 1110

Client Matrix: Solid

% Moisture: 6.7

Date Received: 08/09/2017 1125

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-455410

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455215

Initial Weight/Volume: +15.0220 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/10/2017 1841

Injection Volume: 1 uL

Prep Date: 08/09/2017 2155

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	109		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-5 (10-12)

Lab Sample ID: 460-138836-6

Date Sampled: 08/08/2017 1115

Client Matrix: Solid

% Moisture: 16.0

Date Received: 08/09/2017 1125

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-455698

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455215

Initial Weight/Volume: +15.0119 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/11/2017 1632

Injection Volume: 1 uL

Prep Date: 08/09/2017 2155

Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aroclor 1016		0.080	U	0.011	0.080
Aroclor 1221		0.080	U	0.011	0.080
Aroclor 1232		0.080	U	0.011	0.080
Aroclor 1242		0.080	U	0.011	0.080
Aroclor 1248		0.080	U	0.011	0.080
Aroclor 1254		0.080	U	0.011	0.080
Aroclor 1260		0.080	U	0.011	0.080
Aroclor-1262		0.080	U	0.011	0.080
Aroclor 1268		0.080	U	0.011	0.080
Polychlorinated biphenyls, Total		0.080	U	0.011	0.080

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	100		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-6 (2-4)

Lab Sample ID: 460-138836-7

Date Sampled: 08/08/2017 1140

Client Matrix: Solid

% Moisture: 9.0

Date Received: 08/09/2017 1125

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-455410

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455215

Initial Weight/Volume: +15.0088 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/10/2017 1910

Injection Volume: 1 uL

Prep Date: 08/09/2017 2155

Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aroclor 1016		0.074	U	0.0098	0.074
Aroclor 1221		0.074	U	0.0098	0.074
Aroclor 1232		0.074	U	0.0098	0.074
Aroclor 1242		0.074	U	0.0098	0.074
Aroclor 1248		0.074	U	0.0098	0.074
Aroclor 1254		0.074	U	0.010	0.074
Aroclor 1260		0.074	U	0.010	0.074
Aroclor-1262		0.074	U	0.010	0.074
Aroclor 1268		0.074	U	0.010	0.074
Polychlorinated biphenyls, Total		0.074	U	0.010	0.074

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	107		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-6 (2-4)

Lab Sample ID: 460-138836-7

Date Sampled: 08/08/2017 1140

Client Matrix: Solid

% Moisture: 9.0

Date Received: 08/09/2017 1125

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-455410

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455215

Initial Weight/Volume: +15.0088 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/10/2017 1910

Injection Volume: 1 uL

Prep Date: 08/09/2017 2155

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	103		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-6 (9-11)

Lab Sample ID: 460-138836-8

Date Sampled: 08/08/2017 1145

Client Matrix: Solid

% Moisture: 17.4

Date Received: 08/09/2017 1125

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-455410

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455215

Initial Weight/Volume: +15.0077 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/10/2017 1925

Injection Volume: 1 uL

Prep Date: 08/09/2017 2155

Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aroclor 1016		0.081	U	0.011	0.081
Aroclor 1221		0.081	U	0.011	0.081
Aroclor 1232		0.081	U	0.011	0.081
Aroclor 1242		0.081	U	0.011	0.081
Aroclor 1248		0.081	U	0.011	0.081
Aroclor 1254		0.081	U	0.011	0.081
Aroclor 1260		0.081	U	0.011	0.081
Aroclor-1262		0.081	U	0.011	0.081
Aroclor 1268		0.081	U	0.011	0.081
Polychlorinated biphenyls, Total		0.081	U	0.011	0.081

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	109		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-6 (9-11)

Lab Sample ID: 460-138836-8

Date Sampled: 08/08/2017 1145

Client Matrix: Solid

% Moisture: 17.4

Date Received: 08/09/2017 1125

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-455410

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455215

Initial Weight/Volume: +15.0077 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/10/2017 1925

Injection Volume: 1 uL

Prep Date: 08/09/2017 2155

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	104		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-8 (2-4)

Lab Sample ID: 460-138836-9

Date Sampled: 08/08/2017 1035

Client Matrix: Solid

% Moisture: 5.2

Date Received: 08/09/2017 1125

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-455410

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455215

Initial Weight/Volume: +15.0042 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/10/2017 1939

Injection Volume: 1 uL

Prep Date: 08/09/2017 2155

Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aroclor 1016		0.071	U	0.0094	0.071
Aroclor 1221		0.071	U	0.0094	0.071
Aroclor 1232		0.071	U	0.0094	0.071
Aroclor 1242		0.071	U	0.0094	0.071
Aroclor 1248		0.071	U	0.0094	0.071
Aroclor 1254		0.071	U	0.0097	0.071
Aroclor 1260		0.071	U	0.0097	0.071
Aroclor-1262		0.071	U	0.0097	0.071
Aroclor 1268		0.071	U	0.0097	0.071
Polychlorinated biphenyls, Total		0.071	U	0.0097	0.071

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	114		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-8 (2-4)

Lab Sample ID: 460-138836-9

Date Sampled: 08/08/2017 1035

Client Matrix: Solid

% Moisture: 5.2

Date Received: 08/09/2017 1125

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-455410

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455215

Initial Weight/Volume: +15.0042 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/10/2017 1939

Injection Volume: 1 uL

Prep Date: 08/09/2017 2155

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	104		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-8 (9-11)

Lab Sample ID: 460-138836-10

Date Sampled: 08/08/2017 1040

Client Matrix: Solid

% Moisture: 17.4

Date Received: 08/09/2017 1125

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-455410

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455215

Initial Weight/Volume: +15.0130 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/10/2017 1954

Injection Volume: 1 uL

Prep Date: 08/09/2017 2155

Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aroclor 1016		0.081	U	0.011	0.081
Aroclor 1221		0.081	U	0.011	0.081
Aroclor 1232		0.081	U	0.011	0.081
Aroclor 1242		0.081	U	0.011	0.081
Aroclor 1248		0.081	U	0.011	0.081
Aroclor 1254		0.081	U	0.011	0.081
Aroclor 1260		0.081	U	0.011	0.081
Aroclor-1262		0.081	U	0.011	0.081
Aroclor 1268		0.081	U	0.011	0.081
Polychlorinated biphenyls, Total		0.081	U	0.011	0.081

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	119		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-8 (9-11)

Lab Sample ID: 460-138836-10

Date Sampled: 08/08/2017 1040

Client Matrix: Solid

% Moisture: 17.4

Date Received: 08/09/2017 1125

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-455410

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455215

Initial Weight/Volume: +15.0130 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/10/2017 1954

Injection Volume: 1 uL

Prep Date: 08/09/2017 2155

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	107		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-9 (1-3)

Lab Sample ID: 460-138836-11

Date Sampled: 08/08/2017 0940

Client Matrix: Solid

% Moisture: 5.5

Date Received: 08/09/2017 1125

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-455410

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455215

Initial Weight/Volume: +15.0222 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/10/2017 2008

Injection Volume: 1 uL

Prep Date: 08/09/2017 2155

Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aroclor 1016		0.071	U	0.0094	0.071
Aroclor 1221		0.071	U	0.0094	0.071
Aroclor 1232		0.071	U	0.0094	0.071
Aroclor 1242		0.071	U	0.0094	0.071
Aroclor 1248		0.071	U	0.0094	0.071
Aroclor 1254		0.071	U	0.0097	0.071
Aroclor 1260		0.071	U	0.0097	0.071
Aroclor-1262		0.071	U	0.0097	0.071
Aroclor 1268		0.071	U	0.0097	0.071
Polychlorinated biphenyls, Total		0.071	U	0.0097	0.071

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	118		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-9 (1-3)

Lab Sample ID: 460-138836-11

Date Sampled: 08/08/2017 0940

Client Matrix: Solid

% Moisture: 5.5

Date Received: 08/09/2017 1125

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-455410

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455215

Initial Weight/Volume: +15.0222 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/10/2017 2008

Injection Volume: 1 uL

Prep Date: 08/09/2017 2155

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	108		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-9 (8-10)

Lab Sample ID: 460-138836-12

Date Sampled: 08/08/2017 0945

Client Matrix: Solid

% Moisture: 12.1

Date Received: 08/09/2017 1125

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-455410

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455215

Initial Weight/Volume: +15.0001 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/10/2017 2023

Injection Volume: 1 uL

Prep Date: 08/09/2017 2155

Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aroclor 1016		0.076	U	0.010	0.076
Aroclor 1221		0.076	U	0.010	0.076
Aroclor 1232		0.076	U	0.010	0.076
Aroclor 1242		0.076	U	0.010	0.076
Aroclor 1248		0.076	U	0.010	0.076
Aroclor 1254		0.076	U	0.010	0.076
Aroclor 1260		0.076	U	0.010	0.076
Aroclor-1262		0.076	U	0.010	0.076
Aroclor 1268		0.076	U	0.010	0.076
Polychlorinated biphenyls, Total		0.076	U	0.010	0.076

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	121		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-9 (8-10)

Lab Sample ID: 460-138836-12

Date Sampled: 08/08/2017 0945

Client Matrix: Solid

% Moisture: 12.1

Date Received: 08/09/2017 1125

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-455410

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455215

Initial Weight/Volume: +15.0001 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/10/2017 2023

Injection Volume: 1 uL

Prep Date: 08/09/2017 2155

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	116		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-3 (1-3)

Lab Sample ID: 460-138908-1

Date Sampled: 08/09/2017 1440

Client Matrix: Solid

% Moisture: 4.4

Date Received: 08/10/2017 1115

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-456005

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455741

Initial Weight/Volume: 15.0201 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/13/2017 2335

Injection Volume: 1 uL

Prep Date: 08/11/2017 1702

Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aroclor 1016		0.070	U	0.0093	0.070
Aroclor 1221		0.070	U	0.0093	0.070
Aroclor 1232		0.070	U	0.0093	0.070
Aroclor 1242		0.070	U	0.0093	0.070
Aroclor 1248		0.070	U	0.0093	0.070
Aroclor 1254		0.070	U	0.0096	0.070
Aroclor 1260		0.070	U	0.0096	0.070
Aroclor-1262		0.070	U	0.0096	0.070
Aroclor 1268		0.070	U	0.0096	0.070
Polychlorinated biphenyls, Total		0.070	U	0.0096	0.070

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	124		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-3 (1-3)

Lab Sample ID: 460-138908-1

Date Sampled: 08/09/2017 1440

Client Matrix: Solid

% Moisture: 4.4

Date Received: 08/10/2017 1115

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-456005

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455741

Initial Weight/Volume: 15.0201 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/13/2017 2335

Injection Volume: 1 uL

Prep Date: 08/11/2017 1702

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	123		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-3 (17-19)

Lab Sample ID: 460-138908-2

Date Sampled: 08/09/2017 1435

Client Matrix: Solid

% Moisture: 2.3

Date Received: 08/10/2017 1115

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-456005

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455741

Initial Weight/Volume: 15.0114 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/14/2017 0201

Injection Volume: 1 uL

Prep Date: 08/11/2017 1702

Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aroclor 1016		0.068	U	0.0091	0.068
Aroclor 1221		0.068	U	0.0091	0.068
Aroclor 1232		0.068	U	0.0091	0.068
Aroclor 1242		0.068	U	0.0091	0.068
Aroclor 1248		0.068	U	0.0091	0.068
Aroclor 1254		0.068	U	0.0094	0.068
Aroclor 1260		0.068	U	0.0094	0.068
Aroclor-1262		0.068	U	0.0094	0.068
Aroclor 1268		0.068	U	0.0094	0.068
Polychlorinated biphenyls, Total		0.068	U	0.0094	0.068

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	139		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-4 (1-3)

Lab Sample ID: 460-138908-3

Date Sampled: 08/09/2017 1330

Client Matrix: Solid

% Moisture: 10.6

Date Received: 08/10/2017 1115

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-456766

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455741

Initial Weight/Volume: 15.0200 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/16/2017 2134

Injection Volume: 1 uL

Prep Date: 08/11/2017 1702

Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aroclor 1016		0.075	U	0.0099	0.075
Aroclor 1221		0.075	U	0.0099	0.075
Aroclor 1232		0.075	U	0.0099	0.075
Aroclor 1242		0.075	U	0.0099	0.075
Aroclor 1248		0.075	U	0.0099	0.075
Aroclor 1254		0.075	U	0.010	0.075
Aroclor 1260		0.075	U	0.010	0.075
Aroclor-1262		0.075	U	0.010	0.075
Aroclor 1268		0.075	U	0.010	0.075
Polychlorinated biphenyls, Total		0.075	U	0.010	0.075

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	134		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-4 (1-3)

Lab Sample ID: 460-138908-3

Date Sampled: 08/09/2017 1330

Client Matrix: Solid

% Moisture: 10.6

Date Received: 08/10/2017 1115

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-456766

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455741

Initial Weight/Volume: 15.0200 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/16/2017 2134

Injection Volume: 1 uL

Prep Date: 08/11/2017 1702

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	128		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-4 (21-23)

Lab Sample ID: 460-138908-4

Date Sampled: 08/09/2017 1325

Client Matrix: Solid

% Moisture: 12.5

Date Received: 08/10/2017 1115

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-456766

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455741

Initial Weight/Volume: 15.0220 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/16/2017 2148

Injection Volume: 1 uL

Prep Date: 08/11/2017 1702

Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aroclor 1016		0.076	U	0.010	0.076
Aroclor 1221		0.076	U	0.010	0.076
Aroclor 1232		0.076	U	0.010	0.076
Aroclor 1242		0.076	U	0.010	0.076
Aroclor 1248		0.076	U	0.010	0.076
Aroclor 1254		0.076	U	0.010	0.076
Aroclor 1260		0.076	U	0.010	0.076
Aroclor-1262		0.076	U	0.010	0.076
Aroclor 1268		0.076	U	0.010	0.076
Polychlorinated biphenyls, Total		0.076	U	0.010	0.076

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	136		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-4 (21-23)

Lab Sample ID: 460-138908-4

Date Sampled: 08/09/2017 1325

Client Matrix: Solid

% Moisture: 12.5

Date Received: 08/10/2017 1115

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-456766

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455741

Initial Weight/Volume: 15.0220 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/16/2017 2148

Injection Volume: 1 uL

Prep Date: 08/11/2017 1702

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	131		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-7 (1-3)

Lab Sample ID: 460-138908-5

Date Sampled: 08/09/2017 0930

Client Matrix: Solid

% Moisture: 9.2

Date Received: 08/10/2017 1115

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-456005

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455741

Initial Weight/Volume: 15.0104 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/14/2017 0245

Injection Volume: 1 uL

Prep Date: 08/11/2017 1702

Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aroclor 1016		0.074	U	0.0098	0.074
Aroclor 1221		0.074	U	0.0098	0.074
Aroclor 1232		0.074	U	0.0098	0.074
Aroclor 1242		0.074	U	0.0098	0.074
Aroclor 1248		0.074	U	0.0098	0.074
Aroclor 1254		0.074	U	0.010	0.074
Aroclor 1260		0.074	U	0.010	0.074
Aroclor-1262		0.074	U	0.010	0.074
Aroclor 1268		0.074	U	0.010	0.074
Polychlorinated biphenyls, Total		0.074	U	0.010	0.074

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	128		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-7 (8-10)

Lab Sample ID: 460-138908-6

Date Sampled: 08/09/2017 1030

Client Matrix: Solid

% Moisture: 11.7

Date Received: 08/10/2017 1115

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-456005

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455741

Initial Weight/Volume: 15.0450 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/14/2017 0259

Injection Volume: 1 uL

Prep Date: 08/11/2017 1702

Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aroclor 1016		0.076	U	0.010	0.076
Aroclor 1221		0.076	U	0.010	0.076
Aroclor 1232		0.076	U	0.010	0.076
Aroclor 1242		0.076	U	0.010	0.076
Aroclor 1248		0.076	U	0.010	0.076
Aroclor 1254		0.076	U	0.010	0.076
Aroclor 1260		0.076	U	0.010	0.076
Aroclor-1262		0.076	U	0.010	0.076
Aroclor 1268		0.076	U	0.010	0.076
Polychlorinated biphenyls, Total		0.076	U	0.010	0.076

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	136		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-7 (8-10)

Lab Sample ID: 460-138908-6

Date Sampled: 08/09/2017 1030

Client Matrix: Solid

% Moisture: 11.7

Date Received: 08/10/2017 1115

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-456005

Instrument ID: CPESTGC11

Prep Method: 3546

Prep Batch: 460-455741

Initial Weight/Volume: 15.0450 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 08/14/2017 0259

Injection Volume: 1 uL

Prep Date: 08/11/2017 1702

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	133		35 - 150

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-1 (2-4)

Lab Sample ID: 460-138836-1

Date Sampled: 08/08/2017 0920

Client Matrix: Solid

% Moisture: 14.9

Date Received: 08/09/2017 1125

6010C Metals (ICP)

Analysis Method: 6010C

Analysis Batch: 460-455426

Instrument ID: ICP4

Prep Method: 3050B

Prep Batch: 460-455245

Lab File ID: 455245.asc

Dilution: 4.0

Initial Weight/Volume: 1.05 g

Analysis Date: 08/10/2017 2135

Final Weight/Volume: 50 mL

Prep Date: 08/10/2017 0225

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Silver		2.2	U	0.34	2.2
Aluminum		11600		9.2	44.8
Arsenic		2.0	J	0.83	3.4
Barium		78.4		3.6	44.8
Beryllium		0.053	J	0.051	0.45
Calcium		4270		114	1120
Cadmium		0.90	U	0.13	0.90
Cobalt		7.6	J	1.3	11.2
Chromium		24.9		0.62	2.2
Copper		38.0		1.3	5.6
Iron		19700		6.0	33.6
Potassium		2080		59.5	1120
Magnesium		5340		86.3	1120
Manganese		440		0.35	3.4
Sodium		383	J	86.2	1120
Nickel		16.4		0.85	9.0
Lead		40.7		0.68	2.2
Antimony		4.5	U	0.54	4.5
Selenium		4.5	U	1.4	4.5
Thallium		4.5	U	1.3	4.5
Vanadium		35.3		1.3	11.2
Zinc		568		0.58	6.7

7471B Mercury (CVAA)

Analysis Method: 7471B

Analysis Batch: 460-455656

Instrument ID: LEEMAN7

Prep Method: 7471B

Prep Batch: 460-455535

Lab File ID: 455532HG1.CSV

Dilution: 1.0

Initial Weight/Volume: 0.67 g

Analysis Date: 08/11/2017 1000

Final Weight/Volume: 50 mL

Prep Date: 08/11/2017 0427

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.095		0.012	0.018

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-1 (9-11)

Lab Sample ID: 460-138836-2

Date Sampled: 08/08/2017 0915

Client Matrix: Solid

% Moisture: 9.2

Date Received: 08/09/2017 1125

6010C Metals (ICP)

Analysis Method: 6010C

Analysis Batch: 460-455426

Instrument ID: ICP4

Prep Method: 3050B

Prep Batch: 460-455245

Lab File ID: 455245.asc

Dilution: 4.0

Initial Weight/Volume: 1.07 g

Analysis Date: 08/10/2017 2139

Final Weight/Volume: 50 mL

Prep Date: 08/10/2017 0225

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Silver		2.1	U	0.31	2.1
Aluminum		9260		8.4	41.2
Arsenic		3.1	U	0.76	3.1
Barium		121		3.3	41.2
Beryllium		0.41	U	0.047	0.41
Calcium		2210		105	1030
Cadmium		0.82	U	0.12	0.82
Cobalt		8.9	J	1.2	10.3
Chromium		27.0		0.57	2.1
Copper		23.9		1.2	5.1
Iron		20000		5.6	30.9
Potassium		3090		54.8	1030
Magnesium		4610		79.4	1030
Manganese		314		0.32	3.1
Sodium		346	J	79.3	1030
Nickel		17.1		0.78	8.2
Lead		3.0		0.62	2.1
Antimony		4.1	U	0.49	4.1
Selenium		4.1	U	1.2	4.1
Thallium		4.1	U	1.2	4.1
Vanadium		33.9		1.2	10.3
Zinc		47.9		0.53	6.2

7471B Mercury (CVAA)

Analysis Method: 7471B

Analysis Batch: 460-455656

Instrument ID: LEEMAN7

Prep Method: 7471B

Prep Batch: 460-455535

Lab File ID: 455532HG1.CSV

Dilution: 1.0

Initial Weight/Volume: 0.61 g

Analysis Date: 08/11/2017 1002

Final Weight/Volume: 50 mL

Prep Date: 08/11/2017 0427

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.018	U	0.012	0.018

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-2 (1-3)

Lab Sample ID: 460-138836-3

Date Sampled: 08/08/2017 0830

Client Matrix: Solid

% Moisture: 6.8

Date Received: 08/09/2017 1125

6010C Metals (ICP)

Analysis Method: 6010C

Analysis Batch: 460-455426

Instrument ID: ICP4

Prep Method: 3050B

Prep Batch: 460-455253

Lab File ID: 455245.asc

Dilution: 4.0

Initial Weight/Volume: 1.00 g

Analysis Date: 08/10/2017 1635

Final Weight/Volume: 50 mL

Prep Date: 08/10/2017 0317

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Silver		2.1	U	0.33	2.1
Aluminum		12900		8.8	42.9
Arsenic		2.2	J	0.79	3.2
Barium		119		3.5	42.9
Beryllium		0.43	U	0.049	0.43
Calcium		1770		109	1070
Cadmium		0.86	U	0.13	0.86
Cobalt		9.1	J	1.2	10.7
Chromium		29.1		0.60	2.1
Copper		24.3		1.2	5.4
Iron		26000		5.8	32.2
Potassium		2600		57.1	1070
Magnesium		4320		82.8	1070
Manganese		405		0.33	3.2
Sodium		574	J	82.6	1070
Nickel		19.3		0.81	8.6
Lead		18.9		0.65	2.1
Antimony		4.3	U	0.52	4.3
Selenium		4.3	U	1.3	4.3
Thallium		4.3	U	1.3	4.3
Vanadium		40.3		1.3	10.7
Zinc		60.1		0.55	6.4

7471B Mercury (CVAA)

Analysis Method: 7471B

Analysis Batch: 460-455656

Instrument ID: LEEMAN7

Prep Method: 7471B

Prep Batch: 460-455535

Lab File ID: 455532HG1.CSV

Dilution: 1.0

Initial Weight/Volume: 0.66 g

Analysis Date: 08/11/2017 1003

Final Weight/Volume: 50 mL

Prep Date: 08/11/2017 0427

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.021		0.011	0.017

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-2 (16-18)

Lab Sample ID: 460-138836-4

Date Sampled: 08/08/2017 0835

Client Matrix: Solid

% Moisture: 10.8

Date Received: 08/09/2017 1125

6010C Metals (ICP)

Analysis Method: 6010C

Analysis Batch: 460-455426

Instrument ID: ICP4

Prep Method: 3050B

Prep Batch: 460-455253

Lab File ID: 455245.asc

Dilution: 4.0

Initial Weight/Volume: 1.08 g

Analysis Date: 08/10/2017 1639

Final Weight/Volume: 50 mL

Prep Date: 08/10/2017 0317

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Silver		2.1	U	0.32	2.1
Aluminum		7660		8.5	41.5
Arsenic		1.2	J	0.77	3.1
Barium		94.4		3.4	41.5
Beryllium		0.42	U	0.048	0.42
Calcium		2130		106	1040
Cadmium		0.83	U	0.12	0.83
Cobalt		9.3	J	1.2	10.4
Chromium		21.4		0.58	2.1
Copper		12.4		1.2	5.2
Iron		14500		5.6	31.2
Potassium		2120		55.2	1040
Magnesium		4360		80.1	1040
Manganese		173		0.32	3.1
Sodium		127	J	80.0	1040
Nickel		16.1		0.79	8.3
Lead		3.8		0.63	2.1
Antimony		4.2	U	0.50	4.2
Selenium		4.2	U	1.3	4.2
Thallium		4.2	U	1.2	4.2
Vanadium		29.3		1.2	10.4
Zinc		42.7		0.54	6.2

7471B Mercury (CVAA)

Analysis Method: 7471B

Analysis Batch: 460-455656

Instrument ID: LEEMAN7

Prep Method: 7471B

Prep Batch: 460-455535

Lab File ID: 455532HG1.CSV

Dilution: 1.0

Initial Weight/Volume: 0.62 g

Analysis Date: 08/11/2017 1005

Final Weight/Volume: 50 mL

Prep Date: 08/11/2017 0427

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.018	U	0.012	0.018

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-5 (2-4)

Lab Sample ID: 460-138836-5

Date Sampled: 08/08/2017 1110

Client Matrix: Solid

% Moisture: 6.7

Date Received: 08/09/2017 1125

6010C Metals (ICP)

Analysis Method: 6010C

Analysis Batch: 460-455426

Instrument ID: ICP4

Prep Method: 3050B

Prep Batch: 460-455253

Lab File ID: 455245.asc

Dilution: 4.0

Initial Weight/Volume: 1.06 g

Analysis Date: 08/10/2017 1643

Final Weight/Volume: 50 mL

Prep Date: 08/10/2017 0317

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Silver		2.0	U	0.31	2.0
Aluminum		11900		8.3	40.5
Arsenic		4.3		0.75	3.0
Barium		122		3.3	40.5
Beryllium		0.11	J	0.047	0.40
Calcium		34600		103	1010
Cadmium		0.68	J	0.12	0.81
Cobalt		7.1	J	1.2	10.1
Chromium		21.8		0.56	2.0
Copper		32.7		1.1	5.1
Iron		19600		5.5	30.3
Potassium		1790		53.8	1010
Magnesium		11200		78.0	1010
Manganese		307		0.31	3.0
Sodium		171	J	77.9	1010
Nickel		17.9		0.77	8.1
Lead		295		0.61	2.0
Antimony		0.58	J	0.49	4.0
Selenium		4.0	U	1.2	4.0
Thallium		4.0	U	1.2	4.0
Vanadium		34.2		1.2	10.1
Zinc		247		0.52	6.1

7471B Mercury (CVAA)

Analysis Method: 7471B

Analysis Batch: 460-455656

Instrument ID: LEEMAN7

Prep Method: 7471B

Prep Batch: 460-455535

Lab File ID: 455532HG1.CSV

Dilution: 1.0

Initial Weight/Volume: 0.60 g

Analysis Date: 08/11/2017 1007

Final Weight/Volume: 50 mL

Prep Date: 08/11/2017 0427

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.099		0.012	0.018

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-5 (10-12)

Lab Sample ID: 460-138836-6

Date Sampled: 08/08/2017 1115

Client Matrix: Solid

% Moisture: 16.0

Date Received: 08/09/2017 1125

6010C Metals (ICP)

Analysis Method: 6010C

Analysis Batch: 460-455426

Instrument ID: ICP4

Prep Method: 3050B

Prep Batch: 460-455253

Lab File ID: 455245.asc

Dilution: 4.0

Initial Weight/Volume: 1.03 g

Analysis Date: 08/10/2017 1647

Final Weight/Volume: 50 mL

Prep Date: 08/10/2017 0317

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Silver		2.3	U	0.35	2.3
Aluminum		11000		9.5	46.2
Arsenic		1.1	J	0.85	3.5
Barium		83.0		3.7	46.2
Beryllium		0.13	J	0.053	0.46
Calcium		1700		118	1160
Cadmium		0.92	U	0.14	0.92
Cobalt		8.5	J	1.3	11.6
Chromium		20.6		0.64	2.3
Copper		21.8		1.3	5.8
Iron		20300		6.2	34.7
Potassium		2430		61.5	1160
Magnesium		4240		89.1	1160
Manganese		288		0.36	3.5
Sodium		235	J	88.9	1160
Nickel		16.3		0.88	9.2
Lead		5.2		0.70	2.3
Antimony		4.6	U	0.55	4.6
Selenium		4.6	U	1.4	4.6
Thallium		4.6	U	1.4	4.6
Vanadium		34.9		1.4	11.6
Zinc		41.7		0.60	6.9

7471B Mercury (CVAA)

Analysis Method: 7471B

Analysis Batch: 460-455656

Instrument ID: LEEMAN7

Prep Method: 7471B

Prep Batch: 460-455535

Lab File ID: 455532HG1.CSV

Dilution: 1.0

Initial Weight/Volume: 0.61 g

Analysis Date: 08/11/2017 1008

Final Weight/Volume: 50 mL

Prep Date: 08/11/2017 0427

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.020	U	0.013	0.020

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-6 (2-4)

Lab Sample ID: 460-138836-7

Date Sampled: 08/08/2017 1140

Client Matrix: Solid

% Moisture: 9.0

Date Received: 08/09/2017 1125

6010C Metals (ICP)

Analysis Method: 6010C

Analysis Batch: 460-455426

Instrument ID: ICP4

Prep Method: 3050B

Prep Batch: 460-455253

Lab File ID: 455245.asc

Dilution: 4.0

Initial Weight/Volume: 1.07 g

Analysis Date: 08/10/2017 1650

Final Weight/Volume: 50 mL

Prep Date: 08/10/2017 0317

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Silver		2.1	U	0.31	2.1
Aluminum		16300		8.4	41.1
Arsenic		2.4	J	0.76	3.1
Barium		101		3.3	41.1
Beryllium		0.11	J	0.047	0.41
Calcium		2190		105	1030
Cadmium		0.82	U	0.12	0.82
Cobalt		9.6	J	1.2	10.3
Chromium		33.8		0.57	2.1
Copper		23.5		1.2	5.1
Iron		21900		5.5	30.8
Potassium		1490		54.7	1030
Magnesium		6090		79.2	1030
Manganese		374		0.32	3.1
Sodium		393	J	79.1	1030
Nickel		22.2		0.78	8.2
Lead		77.9		0.62	2.1
Antimony		4.1	U	0.49	4.1
Selenium		4.1	U	1.2	4.1
Thallium		4.1	U	1.2	4.1
Vanadium		40.2		1.2	10.3
Zinc		67.0		0.53	6.2

7471B Mercury (CVAA)

Analysis Method: 7471B

Analysis Batch: 460-455656

Instrument ID: LEEMAN7

Prep Method: 7471B

Prep Batch: 460-455535

Lab File ID: 455532HG1.CSV

Dilution: 1.0

Initial Weight/Volume: 0.63 g

Analysis Date: 08/11/2017 1010

Final Weight/Volume: 50 mL

Prep Date: 08/11/2017 0427

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.021		0.012	0.018

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-6 (9-11)

Lab Sample ID: 460-138836-8

Date Sampled: 08/08/2017 1145

Client Matrix: Solid

% Moisture: 17.4

Date Received: 08/09/2017 1125

6010C Metals (ICP)

Analysis Method: 6010C

Analysis Batch: 460-455426

Instrument ID: ICP4

Prep Method: 3050B

Prep Batch: 460-455253

Lab File ID: 455245.asc

Dilution: 4.0

Initial Weight/Volume: 1.06 g

Analysis Date: 08/10/2017 1654

Final Weight/Volume: 50 mL

Prep Date: 08/10/2017 0317

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Silver		2.3	U	0.35	2.3
Aluminum		19900		9.4	45.7
Arsenic		3.4	U	0.85	3.4
Barium		168		3.7	45.7
Beryllium		0.46	U	0.053	0.46
Calcium		1420		117	1140
Cadmium		0.91	U	0.14	0.91
Cobalt		13.8		1.3	11.4
Chromium		36.8		0.63	2.3
Copper		30.0		1.3	5.7
Iron		35500		6.2	34.3
Potassium		7410		60.8	1140
Magnesium		9190		88.1	1140
Manganese		595		0.35	3.4
Sodium		495	J	88.0	1140
Nickel		28.9		0.87	9.1
Lead		5.3		0.69	2.3
Antimony		4.6	U	0.55	4.6
Selenium		4.6	U	1.4	4.6
Thallium		4.6	U	1.3	4.6
Vanadium		57.7		1.4	11.4
Zinc		82.5		0.59	6.9

7471B Mercury (CVAA)

Analysis Method: 7471B

Analysis Batch: 460-455656

Instrument ID: LEEMAN7

Prep Method: 7471B

Prep Batch: 460-455535

Lab File ID: 455532HG1.CSV

Dilution: 1.0

Initial Weight/Volume: 0.60 g

Analysis Date: 08/11/2017 1012

Final Weight/Volume: 50 mL

Prep Date: 08/11/2017 0427

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.021	U	0.013	0.021

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-8 (2-4)

Lab Sample ID: 460-138836-9

Date Sampled: 08/08/2017 1035

Client Matrix: Solid

% Moisture: 5.2

Date Received: 08/09/2017 1125

6010C Metals (ICP)

Analysis Method: 6010C

Analysis Batch: 460-455426

Instrument ID: ICP4

Prep Method: 3050B

Prep Batch: 460-455253

Lab File ID: 455245.asc

Dilution: 4.0

Initial Weight/Volume: 1.05 g

Analysis Date: 08/10/2017 1658

Final Weight/Volume: 50 mL

Prep Date: 08/10/2017 0317

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Silver		2.0	U	0.31	2.0
Aluminum		18000		8.2	40.2
Arsenic		3.2		0.74	3.0
Barium		128		3.3	40.2
Beryllium		0.20	J	0.046	0.40
Calcium		3850		103	1000
Cadmium		0.80	U	0.12	0.80
Cobalt		12.5		1.1	10.0
Chromium		31.4		0.56	2.0
Copper		25.9		1.1	5.0
Iron		26600		5.4	30.1
Potassium		2790		53.5	1000
Magnesium		10100		77.5	1000
Manganese		489		0.31	3.0
Sodium		1000	U	77.4	1000
Nickel		19.6		0.76	8.0
Lead		32.5		0.61	2.0
Antimony		4.0	U	0.48	4.0
Selenium		4.0	U	1.2	4.0
Thallium		4.0	U	1.2	4.0
Vanadium		42.7		1.2	10.0
Zinc		76.6		0.52	6.0

7471B Mercury (CVAA)

Analysis Method: 7471B

Analysis Batch: 460-455656

Instrument ID: LEEMAN7

Prep Method: 7471B

Prep Batch: 460-455535

Lab File ID: 455532HG1.CSV

Dilution: 1.0

Initial Weight/Volume: 0.64 g

Analysis Date: 08/11/2017 1014

Final Weight/Volume: 50 mL

Prep Date: 08/11/2017 0427

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.065		0.011	0.017

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-8 (9-11)

Lab Sample ID: 460-138836-10

Date Sampled: 08/08/2017 1040

Client Matrix: Solid

% Moisture: 17.4

Date Received: 08/09/2017 1125

6010C Metals (ICP)

Analysis Method: 6010C

Analysis Batch: 460-455426

Instrument ID: ICP4

Prep Method: 3050B

Prep Batch: 460-455253

Lab File ID: 455245.asc

Dilution: 4.0

Initial Weight/Volume: 1.00 g

Analysis Date: 08/10/2017 1702

Final Weight/Volume: 50 mL

Prep Date: 08/10/2017 0317

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Silver		2.4	U	0.37	2.4
Aluminum		13200		9.9	48.4
Arsenic		3.6	U	0.90	3.6
Barium		122		3.9	48.4
Beryllium		0.48	U	0.056	0.48
Calcium		2260		123	1210
Cadmium		0.97	U	0.14	0.97
Cobalt		11.7	J	1.4	12.1
Chromium		27.6		0.67	2.4
Copper		25.5		1.4	6.1
Iron		26700		6.5	36.3
Potassium		5050		64.4	1210
Magnesium		6370		93.3	1210
Manganese		294		0.38	3.6
Sodium		101	J	93.2	1210
Nickel		25.2		0.92	9.7
Lead		5.9		0.73	2.4
Antimony		4.8	U	0.58	4.8
Selenium		4.8	U	1.5	4.8
Thallium		4.8	U	1.4	4.8
Vanadium		40.0		1.4	12.1
Zinc		61.7		0.63	7.3

7471B Mercury (CVAA)

Analysis Method: 7471B

Analysis Batch: 460-455656

Instrument ID: LEEMAN7

Prep Method: 7471B

Prep Batch: 460-455535

Lab File ID: 455532HG1.CSV

Dilution: 1.0

Initial Weight/Volume: 0.62 g

Analysis Date: 08/11/2017 1015

Final Weight/Volume: 50 mL

Prep Date: 08/11/2017 0427

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.020	U	0.013	0.020

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-9 (1-3)

Lab Sample ID: 460-138836-11

Date Sampled: 08/08/2017 0940

Client Matrix: Solid

% Moisture: 5.5

Date Received: 08/09/2017 1125

6010C Metals (ICP)

Analysis Method: 6010C

Analysis Batch: 460-455426

Instrument ID: ICP4

Prep Method: 3050B

Prep Batch: 460-455253

Lab File ID: 455245.asc

Dilution: 4.0

Initial Weight/Volume: 1.04 g

Analysis Date: 08/10/2017 1706

Final Weight/Volume: 50 mL

Prep Date: 08/10/2017 0317

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Silver		2.0	U	0.31	2.0
Aluminum		12300		8.3	40.7
Arsenic		2.3	J	0.75	3.1
Barium		136		3.3	40.7
Beryllium		0.061	J	0.047	0.41
Calcium		8530		104	1020
Cadmium		0.81	U	0.12	0.81
Cobalt		8.5	J	1.2	10.2
Chromium		25.4		0.56	2.0
Copper		29.8		1.1	5.1
Iron		21600		5.5	30.5
Potassium		2350		54.1	1020
Magnesium		6210		78.4	1020
Manganese		361		0.32	3.1
Sodium		223	J	78.3	1020
Nickel		18.6		0.77	8.1
Lead		92.1		0.61	2.0
Antimony		4.1	U	0.49	4.1
Selenium		4.1	U	1.2	4.1
Thallium		4.1	U	1.2	4.1
Vanadium		42.6		1.2	10.2
Zinc		103		0.53	6.1

7471B Mercury (CVAA)

Analysis Method: 7471B

Analysis Batch: 460-455656

Instrument ID: LEEMAN7

Prep Method: 7471B

Prep Batch: 460-455552

Lab File ID: 455532HG1.CSV

Dilution: 1.0

Initial Weight/Volume: 0.60 g

Analysis Date: 08/11/2017 1031

Final Weight/Volume: 50 mL

Prep Date: 08/11/2017 0532

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.098		0.012	0.018

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-9 (8-10)

Lab Sample ID: 460-138836-12

Date Sampled: 08/08/2017 0945

Client Matrix: Solid

% Moisture: 12.1

Date Received: 08/09/2017 1125

6010C Metals (ICP)

Analysis Method: 6010C

Analysis Batch: 460-455426

Instrument ID: ICP4

Prep Method: 3050B

Prep Batch: 460-455253

Lab File ID: 455245.asc

Dilution: 4.0

Initial Weight/Volume: 1.09 g

Analysis Date: 08/10/2017 1721

Final Weight/Volume: 50 mL

Prep Date: 08/10/2017 0317

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Silver		2.1	U	0.32	2.1
Aluminum		10200		8.6	41.7
Arsenic		3.1	U	0.77	3.1
Barium		139		3.4	41.7
Beryllium		0.42	U	0.048	0.42
Calcium		2350		106	1040
Cadmium		0.83	U	0.12	0.83
Cobalt		8.7	J	1.2	10.4
Chromium		21.8		0.58	2.1
Copper		16.7		1.2	5.2
Iron		14700		5.6	31.3
Potassium		3280		55.5	1040
Magnesium		4520		80.5	1040
Manganese		277		0.32	3.1
Sodium		193	J	80.4	1040
Nickel		18.7		0.79	8.3
Lead		5.0		0.63	2.1
Antimony		4.2	U	0.50	4.2
Selenium		4.2	U	1.3	4.2
Thallium		4.2	U	1.2	4.2
Vanadium		24.2		1.2	10.4
Zinc		45.8		0.54	6.3

7471B Mercury (CVAA)

Analysis Method: 7471B

Analysis Batch: 460-455656

Instrument ID: LEEMAN7

Prep Method: 7471B

Prep Batch: 460-455552

Lab File ID: 455532HG1.CSV

Dilution: 1.0

Initial Weight/Volume: 0.62 g

Analysis Date: 08/11/2017 1033

Final Weight/Volume: 50 mL

Prep Date: 08/11/2017 0532

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.019	U	0.012	0.019

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-3 (1-3)

Lab Sample ID: 460-138908-1

Date Sampled: 08/09/2017 1440

Client Matrix: Solid

% Moisture: 4.4

Date Received: 08/10/2017 1115

6010C Metals (ICP)

Analysis Method: 6010C

Analysis Batch: 460-455991

Instrument ID: ICP5

Prep Method: 3050B

Prep Batch: 460-455905

Lab File ID: 455886D1.asc

Dilution: 4.0

Initial Weight/Volume: 1.22 g

Analysis Date: 08/13/2017 1632

Final Weight/Volume: 50 mL

Prep Date: 08/12/2017 1626

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Silver		1.7	U	0.26	1.7
Aluminum		12300		7.0	34.3
Barium		102		2.8	34.3
Beryllium		0.47		0.039	0.34
Calcium		3640		87.5	858
Cadmium		0.69	U	0.10	0.69
Cobalt		7.2	J	0.98	8.6
Chromium		23.4		0.48	1.7
Copper		20.7		0.97	4.3
Iron		18900		4.6	25.7
Potassium		2110		45.6	858
Magnesium		5450		66.1	858
Manganese		296		0.27	2.6
Sodium		146	J	66.0	858
Nickel		15.1		0.65	6.9
Lead		52.5		0.52	1.7
Antimony		3.4	U	0.41	3.4
Thallium		3.4	U	1.0	3.4
Vanadium		32.8		1.0	8.6
Zinc		68.3		0.44	5.1

Analysis Method: 6010C

Analysis Batch: 460-456155

Instrument ID: ICP5

Prep Method: 3050B

Prep Batch: 460-455905

Lab File ID: 455997D1.asc

Dilution: 4.0

Initial Weight/Volume: 1.22 g

Analysis Date: 08/14/2017 1841

Final Weight/Volume: 50 mL

Prep Date: 08/12/2017 1626

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		2.5	J	0.63	2.6
Selenium		3.4	U	1.0	3.4

7471B Mercury (CVAA)

Analysis Method: 7471B

Analysis Batch: 460-456143

Instrument ID: LEEMAN7

Prep Method: 7471B

Prep Batch: 460-456068

Lab File ID: 456063HG1.CSV

Dilution: 1.0

Initial Weight/Volume: 0.60 g

Analysis Date: 08/14/2017 1103

Final Weight/Volume: 50 mL

Prep Date: 08/14/2017 0416

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.032		0.012	0.018

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-3 (17-19)

Lab Sample ID: 460-138908-2

Date Sampled: 08/09/2017 1435

Client Matrix: Solid

% Moisture: 2.3

Date Received: 08/10/2017 1115

6010C Metals (ICP)

Analysis Method: 6010C

Analysis Batch: 460-455991

Instrument ID: ICP5

Prep Method: 3050B

Prep Batch: 460-455905

Lab File ID: 455886D1.asc

Dilution: 4.0

Initial Weight/Volume: 1.24 g

Analysis Date: 08/13/2017 1636

Final Weight/Volume: 50 mL

Prep Date: 08/12/2017 1626

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Silver		1.7	U	0.25	1.7
Aluminum		9940		6.8	33.0
Barium		60.6		2.7	33.0
Beryllium		0.58		0.038	0.33
Calcium		3630		84.2	825
Cadmium		0.66	U	0.098	0.66
Cobalt		6.9	J	0.94	8.3
Chromium		29.7		0.46	1.7
Copper		10.8		0.93	4.1
Iron		18900		4.5	24.8
Potassium		5460		43.9	825
Magnesium		4440		63.6	825
Manganese		163		0.26	2.5
Sodium		271	J	63.5	825
Nickel		10.2		0.63	6.6
Lead		1.5	J	0.50	1.7
Thallium		3.3	U	0.97	3.3
Vanadium		38.6		0.98	8.3
Zinc		30.8		0.43	5.0

Analysis Method: 6010C

Analysis Batch: 460-456155

Instrument ID: ICP5

Prep Method: 3050B

Prep Batch: 460-455905

Lab File ID: 455997D1.asc

Dilution: 4.0

Initial Weight/Volume: 1.24 g

Analysis Date: 08/14/2017 1845

Final Weight/Volume: 50 mL

Prep Date: 08/12/2017 1626

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		0.65	J	0.61	2.5
Selenium		3.3	U	1.0	3.3

Analysis Method: 6010C

Analysis Batch: 460-457011

Instrument ID: ICP5

Prep Method: 3050B

Prep Batch: 460-455905

Lab File ID: 456856D1.asc

Dilution: 20

Initial Weight/Volume: 1.24 g

Analysis Date: 08/17/2017 1540

Final Weight/Volume: 50 mL

Prep Date: 08/12/2017 1626

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		16.5	U	2.0	16.5

7471B Mercury (CVAA)

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-3 (17-19)

Lab Sample ID: 460-138908-2

Date Sampled: 08/09/2017 1435

Client Matrix: Solid

% Moisture: 2.3

Date Received: 08/10/2017 1115

7471B Mercury (CVAA)

Analysis Method: 7471B

Analysis Batch: 460-456143

Instrument ID: LEEMAN7

Prep Method: 7471B

Prep Batch: 460-456068

Lab File ID: 456063HG1.CSV

Dilution: 1.0

Initial Weight/Volume: 0.67 g

Analysis Date: 08/14/2017 0935

Final Weight/Volume: 50 mL

Prep Date: 08/14/2017 0416

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.016	U	0.010	0.016

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-4 (1-3)

Lab Sample ID: 460-138908-3

Date Sampled: 08/09/2017 1330

Client Matrix: Solid

% Moisture: 10.6

Date Received: 08/10/2017 1115

6010C Metals (ICP)

Analysis Method: 6010C

Analysis Batch: 460-455991

Instrument ID: ICP5

Prep Method: 3050B

Prep Batch: 460-455905

Lab File ID: 455886D1.asc

Dilution: 4.0

Initial Weight/Volume: 1.30 g

Analysis Date: 08/13/2017 1639

Final Weight/Volume: 50 mL

Prep Date: 08/12/2017 1626

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Silver		1.7	U	0.26	1.7
Aluminum		11800		7.1	34.4
Barium		109		2.8	34.4
Beryllium		0.44		0.040	0.34
Calcium		6350		87.8	860
Cadmium		0.69	U	0.10	0.69
Cobalt		8.8		0.98	8.6
Chromium		29.1		0.48	1.7
Copper		36.2		0.97	4.3
Iron		26700		4.6	25.8
Potassium		2470		45.8	860
Magnesium		5650		66.3	860
Manganese		573		0.27	2.6
Sodium		1580		66.2	860
Nickel		19.4		0.65	6.9
Lead		43.3		0.52	1.7
Antimony		3.4	U	0.41	3.4
Thallium		3.4	U	1.0	3.4
Vanadium		37.6		1.0	8.6
Zinc		71.0		0.44	5.2

Analysis Method: 6010C

Analysis Batch: 460-456155

Instrument ID: ICP5

Prep Method: 3050B

Prep Batch: 460-455905

Lab File ID: 455997D1.asc

Dilution: 4.0

Initial Weight/Volume: 1.30 g

Analysis Date: 08/14/2017 1849

Final Weight/Volume: 50 mL

Prep Date: 08/12/2017 1626

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		2.4	J	0.64	2.6
Selenium		3.4	U	1.0	3.4

7471B Mercury (CVAA)

Analysis Method: 7471B

Analysis Batch: 460-456143

Instrument ID: LEEMAN7

Prep Method: 7471B

Prep Batch: 460-456068

Lab File ID: 456063HG1.CSV

Dilution: 1.0

Initial Weight/Volume: 0.63 g

Analysis Date: 08/14/2017 0937

Final Weight/Volume: 50 mL

Prep Date: 08/14/2017 0416

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.030		0.012	0.018

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-4 (21-23)

Lab Sample ID: 460-138908-4

Date Sampled: 08/09/2017 1325

Client Matrix: Solid

% Moisture: 12.5

Date Received: 08/10/2017 1115

6010C Metals (ICP)

Analysis Method: 6010C

Analysis Batch: 460-455991

Instrument ID: ICP5

Prep Method: 3050B

Prep Batch: 460-455905

Lab File ID: 455886D1.asc

Dilution: 4.0

Initial Weight/Volume: 1.29 g

Analysis Date: 08/13/2017 1643

Final Weight/Volume: 50 mL

Prep Date: 08/12/2017 1626

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Silver		1.8	U	0.27	1.8
Aluminum		8080		7.3	35.4
Barium		93.4		2.9	35.4
Beryllium		0.28	J	0.041	0.35
Calcium		1230		90.4	886
Cadmium		0.71	U	0.11	0.71
Cobalt		7.2	J	1.0	8.9
Chromium		15.6		0.49	1.8
Copper		9.9		1.0	4.4
Iron		15100		4.8	26.6
Potassium		1890		47.1	886
Magnesium		3250		68.3	886
Manganese		195		0.27	2.7
Sodium		456	J	68.2	886
Nickel		12.5		0.67	7.1
Lead		6.1		0.54	1.8
Antimony		3.5	U	0.43	3.5
Thallium		3.5	U	1.0	3.5
Vanadium		21.0		1.1	8.9
Zinc		33.7		0.46	5.3

Analysis Method: 6010C

Analysis Batch: 460-456155

Instrument ID: ICP5

Prep Method: 3050B

Prep Batch: 460-455905

Lab File ID: 455997D1.asc

Dilution: 4.0

Initial Weight/Volume: 1.29 g

Analysis Date: 08/14/2017 1912

Final Weight/Volume: 50 mL

Prep Date: 08/12/2017 1626

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		1.2	J	0.66	2.7
Selenium		3.5	U	1.1	3.5

7471B Mercury (CVAA)

Analysis Method: 7471B

Analysis Batch: 460-456143

Instrument ID: LEEMAN7

Prep Method: 7471B

Prep Batch: 460-456068

Lab File ID: 456063HG1.CSV

Dilution: 1.0

Initial Weight/Volume: 0.66 g

Analysis Date: 08/14/2017 0938

Final Weight/Volume: 50 mL

Prep Date: 08/14/2017 0416

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.018	U	0.011	0.018

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-7 (1-3)

Lab Sample ID: 460-138908-5

Date Sampled: 08/09/2017 0930

Client Matrix: Solid

% Moisture: 9.2

Date Received: 08/10/2017 1115

6010C Metals (ICP)

Analysis Method: 6010C

Analysis Batch: 460-455991

Instrument ID: ICP5

Prep Method: 3050B

Prep Batch: 460-455905

Lab File ID: 455886D1.asc

Dilution: 4.0

Initial Weight/Volume: 1.30 g

Analysis Date: 08/13/2017 1647

Final Weight/Volume: 50 mL

Prep Date: 08/12/2017 1626

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Silver		1.7	U	0.26	1.7
Aluminum		8880		6.9	33.9
Barium		68.5		2.7	33.9
Beryllium		0.35		0.039	0.34
Calcium		10200		86.4	847
Cadmium		0.68	U	0.10	0.68
Cobalt		5.5	J	0.97	8.5
Chromium		19.1		0.47	1.7
Copper		18.9		0.96	4.2
Iron		14900		4.6	25.4
Potassium		1420		45.1	847
Magnesium		4890		65.3	847
Manganese		302		0.26	2.5
Sodium		175	J	65.2	847
Nickel		13.1		0.64	6.8
Lead		67.3		0.51	1.7
Antimony		3.4	U	0.41	3.4
Thallium		3.4	U	1.0	3.4
Vanadium		24.3		1.0	8.5
Zinc		53.3		0.44	5.1

Analysis Method: 6010C

Analysis Batch: 460-456155

Instrument ID: ICP5

Prep Method: 3050B

Prep Batch: 460-455905

Lab File ID: 455997D1.asc

Dilution: 4.0

Initial Weight/Volume: 1.30 g

Analysis Date: 08/14/2017 1916

Final Weight/Volume: 50 mL

Prep Date: 08/12/2017 1626

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		2.4	J	0.63	2.5
Selenium		3.4	U	1.0	3.4

7471B Mercury (CVAA)

Analysis Method: 7471B

Analysis Batch: 460-456143

Instrument ID: LEEMAN7

Prep Method: 7471B

Prep Batch: 460-456068

Lab File ID: 456063HG1.CSV

Dilution: 1.0

Initial Weight/Volume: 0.62 g

Analysis Date: 08/14/2017 0940

Final Weight/Volume: 50 mL

Prep Date: 08/14/2017 0416

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.48		0.012	0.018

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

Client Sample ID: SB-7 (8-10)

Lab Sample ID: 460-138908-6

Date Sampled: 08/09/2017 1030

Client Matrix: Solid

% Moisture: 11.7

Date Received: 08/10/2017 1115

6010C Metals (ICP)

Analysis Method: 6010C

Analysis Batch: 460-455991

Instrument ID: ICP5

Prep Method: 3050B

Prep Batch: 460-455905

Lab File ID: 455886D1.asc

Dilution: 4.0

Initial Weight/Volume: 1.33 g

Analysis Date: 08/13/2017 1703

Final Weight/Volume: 50 mL

Prep Date: 08/12/2017 1626

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Silver		1.7	U	0.26	1.7
Aluminum		5800		7.0	34.0
Barium		40.2		2.8	34.0
Beryllium		0.25	J	0.039	0.34
Calcium		1270		86.8	851
Cadmium		0.68	U	0.10	0.68
Cobalt		4.5	J	0.97	8.5
Chromium		12.5		0.47	1.7
Copper		8.8		0.96	4.3
Iron		14000		4.6	25.5
Potassium		1120		45.3	851
Magnesium		2450		65.6	851
Manganese		269		0.26	2.6
Sodium		82.7	J	65.5	851
Nickel		9.7		0.65	6.8
Lead		2.8		0.51	1.7
Antimony		3.4	U	0.41	3.4
Thallium		3.4	U	1.0	3.4
Vanadium		15.8		1.0	8.5
Zinc		27.2		0.44	5.1

Analysis Method: 6010C

Analysis Batch: 460-456155

Instrument ID: ICP5

Prep Method: 3050B

Prep Batch: 460-455905

Lab File ID: 455997D1.asc

Dilution: 4.0

Initial Weight/Volume: 1.33 g

Analysis Date: 08/14/2017 1920

Final Weight/Volume: 50 mL

Prep Date: 08/12/2017 1626

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		2.6	U	0.63	2.6
Selenium		3.4	U	1.0	3.4

7471B Mercury (CVAA)

Analysis Method: 7471B

Analysis Batch: 460-456143

Instrument ID: LEEMAN7

Prep Method: 7471B

Prep Batch: 460-456063

Lab File ID: 456063HG1.CSV

Dilution: 1.0

Initial Weight/Volume: 0.63 g

Analysis Date: 08/14/2017 0824

Final Weight/Volume: 50 mL

Prep Date: 08/14/2017 0351

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.018	U	0.012	0.018

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

General Chemistry

Client Sample ID: SB-1 (2-4)

Lab Sample ID: 460-138836-1

Client Matrix: Solid

Date Sampled: 08/08/2017 0920

Date Received: 08/09/2017 1125

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	14.9		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456785	Analysis Date: 08/16/2017	1812				DryWt Corrected: N
Percent Solids	85.1		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456785	Analysis Date: 08/16/2017	1812				DryWt Corrected: N

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

General Chemistry

Client Sample ID: SB-1 (9-11)

Lab Sample ID: 460-138836-2

Client Matrix: Solid

Date Sampled: 08/08/2017 0915

Date Received: 08/09/2017 1125

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	9.2		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456785	Analysis Date: 08/16/2017	1812				DryWt Corrected: N
Percent Solids	90.8		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456785	Analysis Date: 08/16/2017	1812				DryWt Corrected: N

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

General Chemistry

Client Sample ID: SB-2 (1-3)

Lab Sample ID: 460-138836-3

Client Matrix: Solid

Date Sampled: 08/08/2017 0830

Date Received: 08/09/2017 1125

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	6.8		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456785	Analysis Date: 08/16/2017	1812				DryWt Corrected: N
Percent Solids	93.2		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456785	Analysis Date: 08/16/2017	1812				DryWt Corrected: N

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

General Chemistry

Client Sample ID: SB-2 (16-18)

Lab Sample ID: 460-138836-4

Client Matrix: Solid

Date Sampled: 08/08/2017 0835

Date Received: 08/09/2017 1125

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	10.8		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456785	Analysis Date: 08/16/2017	1812				DryWt Corrected: N
Percent Solids	89.2		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456785	Analysis Date: 08/16/2017	1812				DryWt Corrected: N

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

General Chemistry

Client Sample ID: SB-5 (2-4)

Lab Sample ID: 460-138836-5

Client Matrix: Solid

Date Sampled: 08/08/2017 1110

Date Received: 08/09/2017 1125

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	6.7		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456785	Analysis Date: 08/16/2017	1812				DryWt Corrected: N
Percent Solids	93.3		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456785	Analysis Date: 08/16/2017	1812				DryWt Corrected: N

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

General Chemistry

Client Sample ID: SB-5 (10-12)

Lab Sample ID: 460-138836-6

Client Matrix: Solid

Date Sampled: 08/08/2017 1115

Date Received: 08/09/2017 1125

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	16.0		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456785	Analysis Date: 08/16/2017	1812				DryWt Corrected: N
Percent Solids	84.0		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456785	Analysis Date: 08/16/2017	1812				DryWt Corrected: N

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

General Chemistry

Client Sample ID: SB-6 (2-4)

Lab Sample ID: 460-138836-7

Client Matrix: Solid

Date Sampled: 08/08/2017 1140

Date Received: 08/09/2017 1125

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	9.0		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456785	Analysis Date: 08/16/2017	1812				DryWt Corrected: N
Percent Solids	91.0		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456785	Analysis Date: 08/16/2017	1812				DryWt Corrected: N

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

General Chemistry

Client Sample ID: SB-6 (9-11)

Lab Sample ID: 460-138836-8

Client Matrix: Solid

Date Sampled: 08/08/2017 1145

Date Received: 08/09/2017 1125

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	17.4		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456785	Analysis Date: 08/16/2017	1812				DryWt Corrected: N
Percent Solids	82.6		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456785	Analysis Date: 08/16/2017	1812				DryWt Corrected: N

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

General Chemistry

Client Sample ID: SB-8 (2-4)

Lab Sample ID: 460-138836-9

Client Matrix: Solid

Date Sampled: 08/08/2017 1035

Date Received: 08/09/2017 1125

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	5.2		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456785	Analysis Date: 08/16/2017	1812				DryWt Corrected: N
Percent Solids	94.8		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456785	Analysis Date: 08/16/2017	1812				DryWt Corrected: N

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

General Chemistry

Client Sample ID: SB-8 (9-11)

Lab Sample ID: 460-138836-10

Client Matrix: Solid

Date Sampled: 08/08/2017 1040

Date Received: 08/09/2017 1125

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	17.4		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456785	Analysis Date: 08/16/2017	1812				DryWt Corrected: N
Percent Solids	82.6		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456785	Analysis Date: 08/16/2017	1812				DryWt Corrected: N

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

General Chemistry

Client Sample ID: SB-9 (1-3)

Lab Sample ID: 460-138836-11

Date Sampled: 08/08/2017 0940

Client Matrix: Solid

Date Received: 08/09/2017 1125

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	5.5		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456785	Analysis Date: 08/16/2017	1812				DryWt Corrected: N
Percent Solids	94.5		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456785	Analysis Date: 08/16/2017	1812				DryWt Corrected: N

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

General Chemistry

Client Sample ID: SB-9 (8-10)

Lab Sample ID: 460-138836-12

Client Matrix: Solid

Date Sampled: 08/08/2017 0945

Date Received: 08/09/2017 1125

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	12.1		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456785	Analysis Date: 08/16/2017	1812				DryWt Corrected: N
Percent Solids	87.9		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456785	Analysis Date: 08/16/2017	1812				DryWt Corrected: N

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

General Chemistry

Client Sample ID: SB-3 (1-3)

Lab Sample ID: 460-138908-1

Client Matrix: Solid

Date Sampled: 08/09/2017 1440

Date Received: 08/10/2017 1115

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	4.4		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456823	Analysis Date: 08/16/2017	2007				DryWt Corrected: N
Percent Solids	95.6		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456823	Analysis Date: 08/16/2017	2007				DryWt Corrected: N

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

General Chemistry

Client Sample ID: SB-3 (17-19)

Lab Sample ID: 460-138908-2

Client Matrix: Solid

Date Sampled: 08/09/2017 1435

Date Received: 08/10/2017 1115

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	2.3		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456823	Analysis Date: 08/16/2017	2007				DryWt Corrected: N
Percent Solids	97.7		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456823	Analysis Date: 08/16/2017	2007				DryWt Corrected: N

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

General Chemistry

Client Sample ID: SB-4 (1-3)

Lab Sample ID: 460-138908-3

Client Matrix: Solid

Date Sampled: 08/09/2017 1330

Date Received: 08/10/2017 1115

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	10.6		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456823	Analysis Date: 08/16/2017	2007				DryWt Corrected: N
Percent Solids	89.4		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456823	Analysis Date: 08/16/2017	2007				DryWt Corrected: N

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

General Chemistry

Client Sample ID: SB-4 (21-23)

Lab Sample ID: 460-138908-4

Client Matrix: Solid

Date Sampled: 08/09/2017 1325

Date Received: 08/10/2017 1115

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	12.5		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456823	Analysis Date: 08/16/2017	2007				DryWt Corrected: N
Percent Solids	87.5		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456823	Analysis Date: 08/16/2017	2007				DryWt Corrected: N

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

General Chemistry

Client Sample ID: SB-7 (1-3)

Lab Sample ID: 460-138908-5

Client Matrix: Solid

Date Sampled: 08/09/2017 0930

Date Received: 08/10/2017 1115

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	9.2		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456823	Analysis Date: 08/16/2017	2007				DryWt Corrected: N
Percent Solids	90.8		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456823	Analysis Date: 08/16/2017	2007				DryWt Corrected: N

Analytical Data

Client: AKRF Inc

Job Number: 460-138836-1

General Chemistry

Client Sample ID: SB-7 (8-10)

Lab Sample ID: 460-138908-6

Client Matrix: Solid

Date Sampled: 08/09/2017 1030

Date Received: 08/10/2017 1115

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	11.7		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456252	Analysis Date: 08/14/2017	2001				DryWt Corrected: N
Percent Solids	88.3		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-456252	Analysis Date: 08/14/2017	2001				DryWt Corrected: N

DATA REPORTING QUALIFIERS

Client: AKRF Inc

Job Number: 460-138836-1

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Analyzed for but not detected.
	J	Indicates an estimated value.
	*	LCS or LCSD is outside acceptance limits.
GC/MS Semi VOA		
	U	Analyzed for but not detected.
	*	Duplicate RPD exceeds control limits
	J	Indicates an estimated value.
	*	LCS or LCSD is outside acceptance limits.
	*	MS or MSD is outside acceptance limits.
	*	Surrogate is outside acceptance limits.
GC Semi VOA		
	U	Analyzed for but not detected.
	*	Duplicate RPD exceeds control limits
	p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
Metals		
	U	Indicates analyzed for but not detected.
	4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
	J	Sample result is greater than the MDL but below the CRDL
	N	Spiked sample recovery is not within control limits.

QUALITY CONTROL RESULTS

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Prep Batch: 460-455130					
460-138836-1	SB-1 (2-4)	T	Solid	5035	
460-138836-2	SB-1 (9-11)	T	Solid	5035	
460-138836-3	SB-2 (1-3)	T	Solid	5035	
460-138836-4	SB-2 (16-18)	T	Solid	5035	
460-138836-5	SB-5 (2-4)	T	Solid	5035	
460-138836-6	SB-5 (10-12)	T	Solid	5035	
460-138836-7	SB-6 (2-4)	T	Solid	5035	
460-138836-8	SB-6 (9-11)	T	Solid	5035	
460-138836-9	SB-8 (2-4)	T	Solid	5035	
460-138836-10	SB-8 (9-11)	T	Solid	5035	
460-138836-11	SB-9 (1-3)	T	Solid	5035	
460-138836-12	SB-9 (8-10)	T	Solid	5035	
Prep Batch: 460-455484					
460-138908-4	SB-4 (21-23)	T	Solid	5035	
Prep Batch: 460-455485					
460-138908-1	SB-3 (1-3)	T	Solid	5035	
460-138908-2	SB-3 (17-19)	T	Solid	5035	
460-138908-3	SB-4 (1-3)	T	Solid	5035	
460-138908-5	SB-7 (1-3)	T	Solid	5035	
460-138908-6	SB-7 (8-10)	T	Solid	5035	
Analysis Batch:460-456308					
LCS 460-456308/4	Lab Control Sample	T	Water	8260C	
LCSD 460-456308/5	Lab Control Sample Duplicate	T	Water	8260C	
MB 460-456308/8	Method Blank	T	Water	8260C	
460-139067-1	TW-1	T	Water	8260C	
460-139067-2	TW-2	T	Water	8260C	
460-139067-3	GW-3	T	Water	8260C	
460-139067-5	GT-1	T	Water	8260C	
460-139067-6	GT-2	T	Water	8260C	
460-139067-7	GT-3	T	Water	8260C	
460-139067-8	GT-4	T	Water	8260C	
460-139067-9TB	TRIP BLANK	T	Water	8260C	
Analysis Batch:460-456502					
LCS 460-456502/6	Lab Control Sample	T	Solid	8260C	
LCSD 460-456502/7	Lab Control Sample Duplicate	T	Solid	8260C	
MB 460-456502/11	Method Blank	T	Solid	8260C	
460-138908-4	SB-4 (21-23)	T	Solid	8260C	460-455484

TestAmerica Edison

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:460-456539					
LCS 460-456539/3	Lab Control Sample	T	Solid	8260C	
LCSD 460-456539/4	Lab Control Sample Duplicate	T	Solid	8260C	
MB 460-456539/7	Method Blank	T	Solid	8260C	
460-138908-1	SB-3 (1-3)	T	Solid	8260C	460-455485
460-138908-2	SB-3 (17-19)	T	Solid	8260C	460-455485
Analysis Batch:460-456664					
LCS 460-456664/4	Lab Control Sample	T	Solid	8260C	
LCSD 460-456664/5	Lab Control Sample Duplicate	T	Solid	8260C	
MB 460-456664/8	Method Blank	T	Solid	8260C	
460-138836-2	SB-1 (9-11)	T	Solid	8260C	460-455130
460-138836-3	SB-2 (1-3)	T	Solid	8260C	460-455130
460-138836-4	SB-2 (16-18)	T	Solid	8260C	460-455130
460-138836-5	SB-5 (2-4)	T	Solid	8260C	460-455130
460-138836-6	SB-5 (10-12)	T	Solid	8260C	460-455130
460-138836-7	SB-6 (2-4)	T	Solid	8260C	460-455130
460-138836-8	SB-6 (9-11)	T	Solid	8260C	460-455130
460-138836-9	SB-8 (2-4)	T	Solid	8260C	460-455130
460-138836-10	SB-8 (9-11)	T	Solid	8260C	460-455130
460-138836-11	SB-9 (1-3)	T	Solid	8260C	460-455130
460-138908-3	SB-4 (1-3)	T	Solid	8260C	460-455485
460-138908-5	SB-7 (1-3)	T	Solid	8260C	460-455485
460-138908-6	SB-7 (8-10)	T	Solid	8260C	460-455485
Analysis Batch:460-456825					
LCS 460-456825/4	Lab Control Sample	T	Solid	8260C	
LCSD 460-456825/5	Lab Control Sample Duplicate	T	Solid	8260C	
MB 460-456825/8	Method Blank	T	Solid	8260C	
460-138836-1	SB-1 (2-4)	T	Solid	8260C	460-455130
460-138836-12	SB-9 (8-10)	T	Solid	8260C	460-455130
Analysis Batch:460-457628					
LCS 460-457628/3	Lab Control Sample	T	Water	8260C	
LCSD 460-457628/4	Lab Control Sample Duplicate	T	Water	8260C	
MB 460-457628/7	Method Blank	T	Water	8260C	
460-139067-4	GW-4	T	Water	8260C	

Report Basis

T = Total

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 460-455572					
LCS 460-455572/2-A	Lab Control Sample	T	Solid	3546	
MB 460-455572/1-A	Method Blank	T	Solid	3546	
460-138308-A-3-B MS	Matrix Spike	T	Solid	3546	
460-138308-A-3-C MSD	Matrix Spike Duplicate	T	Solid	3546	
460-138836-1	SB-1 (2-4)	T	Solid	3546	
460-138836-2	SB-1 (9-11)	T	Solid	3546	
460-138836-3	SB-2 (1-3)	T	Solid	3546	
Prep Batch: 460-455573					
LCS 460-455573/2-A	Lab Control Sample	T	Solid	3546	
MB 460-455573/1-A	Method Blank	T	Solid	3546	
460-138836-4	SB-2 (16-18)	T	Solid	3546	
460-138836-4MS	Matrix Spike	T	Solid	3546	
460-138836-4MSD	Matrix Spike Duplicate	T	Solid	3546	
460-138836-5	SB-5 (2-4)	T	Solid	3546	
460-138836-6	SB-5 (10-12)	T	Solid	3546	
460-138836-7	SB-6 (2-4)	T	Solid	3546	
Analysis Batch: 460-455727					
LCS 460-455573/2-A	Lab Control Sample	T	Solid	8270D	460-455573
MB 460-455573/1-A	Method Blank	T	Solid	8270D	460-455573
460-138836-4	SB-2 (16-18)	T	Solid	8270D	460-455573
460-138836-4MS	Matrix Spike	T	Solid	8270D	460-455573
460-138836-4MSD	Matrix Spike Duplicate	T	Solid	8270D	460-455573
Prep Batch: 460-455775					
LCS 460-455775/2-A	Lab Control Sample	T	Solid	3546	
MB 460-455775/1-A	Method Blank	T	Solid	3546	
460-138570-A-24-B MS	Matrix Spike	T	Solid	3546	
460-138570-A-24-C MSD	Matrix Spike Duplicate	T	Solid	3546	
460-138836-8	SB-6 (9-11)	T	Solid	3546	
460-138836-9	SB-8 (2-4)	T	Solid	3546	
460-138836-10	SB-8 (9-11)	T	Solid	3546	
460-138836-11	SB-9 (1-3)	T	Solid	3546	
460-138836-12	SB-9 (8-10)	T	Solid	3546	
460-138908-1	SB-3 (1-3)	T	Solid	3546	
460-138908-2	SB-3 (17-19)	T	Solid	3546	
460-138908-3	SB-4 (1-3)	T	Solid	3546	
460-138908-4	SB-4 (21-23)	T	Solid	3546	
460-138908-5	SB-7 (1-3)	T	Solid	3546	
460-138908-6	SB-7 (8-10)	T	Solid	3546	

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Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Analysis Batch:460-455798					
LCS 460-455572/2-A	Lab Control Sample	T	Solid	8270D	460-455572
MB 460-455572/1-A	Method Blank	T	Solid	8270D	460-455572
460-138836-1	SB-1 (2-4)	T	Solid	8270D	460-455572
460-138836-2	SB-1 (9-11)	T	Solid	8270D	460-455572
460-138836-3	SB-2 (1-3)	T	Solid	8270D	460-455572
Prep Batch: 460-455934					
LCS 460-455934/2-A	Lab Control Sample	T	Water	3510C	
LCSD 460-455934/3-A	Lab Control Sample Duplicate	T	Water	3510C	
MB 460-455934/1-A	Method Blank	T	Water	3510C	
460-139067-1	TW-1	T	Water	3510C	
460-139067-2	TW-2	T	Water	3510C	
460-139067-3	GW-3	T	Water	3510C	
460-139067-5	GT-1	T	Water	3510C	
460-139067-6	GT-2	T	Water	3510C	
460-139067-7	GT-3	T	Water	3510C	
460-139067-8	GT-4	T	Water	3510C	
Analysis Batch:460-456035					
LCS 460-455775/2-A	Lab Control Sample	T	Solid	8270D	460-455775
MB 460-455775/1-A	Method Blank	T	Solid	8270D	460-455775
460-138570-A-24-B MS	Matrix Spike	T	Solid	8270D	460-455775
460-138570-A-24-C MSD	Matrix Spike Duplicate	T	Solid	8270D	460-455775
460-138836-9	SB-8 (2-4)	T	Solid	8270D	460-455775
460-138836-10	SB-8 (9-11)	T	Solid	8270D	460-455775
460-138836-11	SB-9 (1-3)	T	Solid	8270D	460-455775
460-138836-12	SB-9 (8-10)	T	Solid	8270D	460-455775
Analysis Batch:460-456044					
LCS 460-455934/2-A	Lab Control Sample	T	Water	8270D	460-455934
LCSD 460-455934/3-A	Lab Control Sample Duplicate	T	Water	8270D	460-455934
MB 460-455934/1-A	Method Blank	T	Water	8270D	460-455934
460-139067-1	TW-1	T	Water	8270D	460-455934
460-139067-2	TW-2	T	Water	8270D	460-455934
460-139067-3	GW-3	T	Water	8270D	460-455934
460-139067-5	GT-1	T	Water	8270D	460-455934
460-139067-6	GT-2	T	Water	8270D	460-455934
460-139067-7	GT-3	T	Water	8270D	460-455934
460-139067-8	GT-4	T	Water	8270D	460-455934

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Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Analysis Batch:460-456195					
460-138836-8	SB-6 (9-11)	T	Solid	8270D	460-455775
460-138908-1	SB-3 (1-3)	T	Solid	8270D	460-455775
460-138908-2	SB-3 (17-19)	T	Solid	8270D	460-455775
460-138908-3	SB-4 (1-3)	T	Solid	8270D	460-455775
460-138908-4	SB-4 (21-23)	T	Solid	8270D	460-455775
460-138908-5	SB-7 (1-3)	T	Solid	8270D	460-455775
460-138908-6	SB-7 (8-10)	T	Solid	8270D	460-455775
Analysis Batch:460-456219					
460-138308-A-3-B MS	Matrix Spike	T	Solid	8270D	460-455572
460-138308-A-3-C MSD	Matrix Spike Duplicate	T	Solid	8270D	460-455572
Analysis Batch:460-456615					
460-138836-5	SB-5 (2-4)	T	Solid	8270D	460-455573
460-138836-6	SB-5 (10-12)	T	Solid	8270D	460-455573
460-138836-7	SB-6 (2-4)	T	Solid	8270D	460-455573

Report Basis

T = Total

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 460-455215					
LCS 460-455215/2-A	Lab Control Sample	T	Solid	3546	
MB 460-455215/1-A	Method Blank	T	Solid	3546	
460-138719-A-1-B MS	Matrix Spike	T	Solid	3546	
460-138719-A-1-E MSD	Matrix Spike Duplicate	T	Solid	3546	
460-138836-1	SB-1 (2-4)	T	Solid	3546	
460-138836-2	SB-1 (9-11)	T	Solid	3546	
460-138836-3	SB-2 (1-3)	T	Solid	3546	
460-138836-4	SB-2 (16-18)	T	Solid	3546	
460-138836-5	SB-5 (2-4)	T	Solid	3546	
460-138836-6	SB-5 (10-12)	T	Solid	3546	
460-138836-7	SB-6 (2-4)	T	Solid	3546	
460-138836-8	SB-6 (9-11)	T	Solid	3546	
460-138836-9	SB-8 (2-4)	T	Solid	3546	
460-138836-10	SB-8 (9-11)	T	Solid	3546	
460-138836-11	SB-9 (1-3)	T	Solid	3546	
460-138836-12	SB-9 (8-10)	T	Solid	3546	
Analysis Batch:460-455410					
LCS 460-455215/2-A	Lab Control Sample	T	Solid	8082A	460-455215
MB 460-455215/1-A	Method Blank	T	Solid	8082A	460-455215
460-138719-A-1-B MS	Matrix Spike	T	Solid	8082A	460-455215
460-138719-A-1-E MSD	Matrix Spike Duplicate	T	Solid	8082A	460-455215
460-138836-1	SB-1 (2-4)	T	Solid	8082A	460-455215
460-138836-2	SB-1 (9-11)	T	Solid	8082A	460-455215
460-138836-3	SB-2 (1-3)	T	Solid	8082A	460-455215
460-138836-4	SB-2 (16-18)	T	Solid	8082A	460-455215
460-138836-5	SB-5 (2-4)	T	Solid	8082A	460-455215
460-138836-7	SB-6 (2-4)	T	Solid	8082A	460-455215
460-138836-8	SB-6 (9-11)	T	Solid	8082A	460-455215
460-138836-9	SB-8 (2-4)	T	Solid	8082A	460-455215
460-138836-10	SB-8 (9-11)	T	Solid	8082A	460-455215
460-138836-11	SB-9 (1-3)	T	Solid	8082A	460-455215
460-138836-12	SB-9 (8-10)	T	Solid	8082A	460-455215
Analysis Batch:460-455698					
460-138836-6	SB-5 (10-12)	T	Solid	8082A	460-455215

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Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 460-455741					
LCS 460-455741/2-A	Lab Control Sample	T	Solid	3546	
MB 460-455741/1-A	Method Blank	T	Solid	3546	
460-138908-1	SB-3 (1-3)	T	Solid	3546	
460-138908-1MS	Matrix Spike	T	Solid	3546	
460-138908-1MSD	Matrix Spike Duplicate	T	Solid	3546	
460-138908-2	SB-3 (17-19)	T	Solid	3546	
460-138908-3	SB-4 (1-3)	T	Solid	3546	
460-138908-4	SB-4 (21-23)	T	Solid	3546	
460-138908-5	SB-7 (1-3)	T	Solid	3546	
460-138908-6	SB-7 (8-10)	T	Solid	3546	
Analysis Batch:460-456005					
LCS 460-455741/2-A	Lab Control Sample	T	Solid	8082A	460-455741
MB 460-455741/1-A	Method Blank	T	Solid	8082A	460-455741
460-138908-1	SB-3 (1-3)	T	Solid	8082A	460-455741
460-138908-1MS	Matrix Spike	T	Solid	8082A	460-455741
460-138908-1MSD	Matrix Spike Duplicate	T	Solid	8082A	460-455741
460-138908-2	SB-3 (17-19)	T	Solid	8082A	460-455741
460-138908-5	SB-7 (1-3)	T	Solid	8082A	460-455741
460-138908-6	SB-7 (8-10)	T	Solid	8082A	460-455741
Analysis Batch:460-456766					
460-138908-3	SB-4 (1-3)	T	Solid	8082A	460-455741
460-138908-4	SB-4 (21-23)	T	Solid	8082A	460-455741

Report Basis

T = Total

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 460-455245					
LCSSRM 460-455245/2-A	LCS-Certified Reference Material	T	Solid	3050B	
MB 460-455245/1-A ^2	Method Blank	T	Solid	3050B	
460-138795-E-9-B DU	Duplicate	T	Solid	3050B	
460-138795-E-9-C MS	Matrix Spike	T	Solid	3050B	
460-138836-1	SB-1 (2-4)	T	Solid	3050B	
460-138836-2	SB-1 (9-11)	T	Solid	3050B	
Prep Batch: 460-455253					
LCSSRM 460-455253/2-A	LCS-Certified Reference Material	T	Solid	3050B	
MB 460-455253/1-A ^2	Method Blank	T	Solid	3050B	
460-138836-3	SB-2 (1-3)	T	Solid	3050B	
460-138836-4	SB-2 (16-18)	T	Solid	3050B	
460-138836-5	SB-5 (2-4)	T	Solid	3050B	
460-138836-6	SB-5 (10-12)	T	Solid	3050B	
460-138836-7	SB-6 (2-4)	T	Solid	3050B	
460-138836-8	SB-6 (9-11)	T	Solid	3050B	
460-138836-9	SB-8 (2-4)	T	Solid	3050B	
460-138836-10	SB-8 (9-11)	T	Solid	3050B	
460-138836-11	SB-9 (1-3)	T	Solid	3050B	
460-138836-12	SB-9 (8-10)	T	Solid	3050B	
460-138837-D-2-B DU	Duplicate	T	Solid	3050B	
460-138837-D-2-C MS	Matrix Spike	T	Solid	3050B	
Analysis Batch:460-455426					
LCSSRM 460-455245/2-A	LCS-Certified Reference Material	T	Solid	6010C	460-455245
MB 460-455245/1-A ^2	Method Blank	T	Solid	6010C	460-455245
LCSSRM 460-455253/2-A	LCS-Certified Reference Material	T	Solid	6010C	460-455253
MB 460-455253/1-A ^2	Method Blank	T	Solid	6010C	460-455253
460-138795-E-9-B DU	Duplicate	T	Solid	6010C	460-455245
460-138795-E-9-C MS	Matrix Spike	T	Solid	6010C	460-455245
460-138836-1	SB-1 (2-4)	T	Solid	6010C	460-455245
460-138836-2	SB-1 (9-11)	T	Solid	6010C	460-455245
460-138836-3	SB-2 (1-3)	T	Solid	6010C	460-455253
460-138836-4	SB-2 (16-18)	T	Solid	6010C	460-455253
460-138836-5	SB-5 (2-4)	T	Solid	6010C	460-455253
460-138836-6	SB-5 (10-12)	T	Solid	6010C	460-455253
460-138836-7	SB-6 (2-4)	T	Solid	6010C	460-455253
460-138836-8	SB-6 (9-11)	T	Solid	6010C	460-455253
460-138836-9	SB-8 (2-4)	T	Solid	6010C	460-455253
460-138836-10	SB-8 (9-11)	T	Solid	6010C	460-455253
460-138836-11	SB-9 (1-3)	T	Solid	6010C	460-455253
460-138836-12	SB-9 (8-10)	T	Solid	6010C	460-455253
460-138837-D-2-B DU	Duplicate	T	Solid	6010C	460-455253
460-138837-D-2-C MS	Matrix Spike	T	Solid	6010C	460-455253

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Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 460-455535					
LCSSRM 460-455535/2-A ^40	LCS-Certified Reference Material	T	Solid	7471B	
MB 460-455535/1-A	Method Blank	T	Solid	7471B	
460-138836-1	SB-1 (2-4)	T	Solid	7471B	
460-138836-2	SB-1 (9-11)	T	Solid	7471B	
460-138836-3	SB-2 (1-3)	T	Solid	7471B	
460-138836-4	SB-2 (16-18)	T	Solid	7471B	
460-138836-5	SB-5 (2-4)	T	Solid	7471B	
460-138836-6	SB-5 (10-12)	T	Solid	7471B	
460-138836-7	SB-6 (2-4)	T	Solid	7471B	
460-138836-8	SB-6 (9-11)	T	Solid	7471B	
460-138836-9	SB-8 (2-4)	T	Solid	7471B	
460-138836-10	SB-8 (9-11)	T	Solid	7471B	
460-138964-A-5-H DU	Duplicate	T	Solid	7471B	
460-138964-A-5-I MS	Matrix Spike	T	Solid	7471B	
Prep Batch: 460-455552					
LCSSRM 460-455552/2-A ^40	LCS-Certified Reference Material	T	Solid	7471B	
MB 460-455552/1-A	Method Blank	T	Solid	7471B	
460-138836-11	SB-9 (1-3)	T	Solid	7471B	
460-138836-12	SB-9 (8-10)	T	Solid	7471B	
460-138855-A-1-E DU	Duplicate	T	Solid	7471B	
460-138855-A-1-F MS	Matrix Spike	T	Solid	7471B	
Analysis Batch: 460-455656					
LCSSRM 460-455535/2-A ^40	LCS-Certified Reference Material	T	Solid	7471B	460-455535
MB 460-455535/1-A	Method Blank	T	Solid	7471B	460-455535
LCSSRM 460-455552/2-A ^40	LCS-Certified Reference Material	T	Solid	7471B	460-455552
MB 460-455552/1-A	Method Blank	T	Solid	7471B	460-455552
460-138836-1	SB-1 (2-4)	T	Solid	7471B	460-455535
460-138836-2	SB-1 (9-11)	T	Solid	7471B	460-455535
460-138836-3	SB-2 (1-3)	T	Solid	7471B	460-455535
460-138836-4	SB-2 (16-18)	T	Solid	7471B	460-455535
460-138836-5	SB-5 (2-4)	T	Solid	7471B	460-455535
460-138836-6	SB-5 (10-12)	T	Solid	7471B	460-455535
460-138836-7	SB-6 (2-4)	T	Solid	7471B	460-455535
460-138836-8	SB-6 (9-11)	T	Solid	7471B	460-455535
460-138836-9	SB-8 (2-4)	T	Solid	7471B	460-455535
460-138836-10	SB-8 (9-11)	T	Solid	7471B	460-455535
460-138836-11	SB-9 (1-3)	T	Solid	7471B	460-455552
460-138836-12	SB-9 (8-10)	T	Solid	7471B	460-455552
460-138855-A-1-E DU	Duplicate	T	Solid	7471B	460-455552
460-138855-A-1-F MS	Matrix Spike	T	Solid	7471B	460-455552
460-138964-A-5-H DU	Duplicate	T	Solid	7471B	460-455535
460-138964-A-5-I MS	Matrix Spike	T	Solid	7471B	460-455535

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Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 460-455905					
LCSSRM 460-455905/2-A ^4	LCS-Certified Reference Material	T	Solid	3050B	
MB 460-455905/1-A ^2	Method Blank	T	Solid	3050B	
460-138908-1	SB-3 (1-3)	T	Solid	3050B	
460-138908-2	SB-3 (17-19)	T	Solid	3050B	
460-138908-3	SB-4 (1-3)	T	Solid	3050B	
460-138908-4	SB-4 (21-23)	T	Solid	3050B	
460-138908-5	SB-7 (1-3)	T	Solid	3050B	
460-138908-6	SB-7 (8-10)	T	Solid	3050B	
460-138986-E-6-D DU ^4	Duplicate	T	Solid	3050B	
460-138986-E-6-E MS ^4	Matrix Spike	T	Solid	3050B	
Analysis Batch:460-455991					
LCSSRM 460-455905/2-A ^4	LCS-Certified Reference Material	T	Solid	6010C	460-455905
460-138908-1	SB-3 (1-3)	T	Solid	6010C	460-455905
460-138908-2	SB-3 (17-19)	T	Solid	6010C	460-455905
460-138908-3	SB-4 (1-3)	T	Solid	6010C	460-455905
460-138908-4	SB-4 (21-23)	T	Solid	6010C	460-455905
460-138908-5	SB-7 (1-3)	T	Solid	6010C	460-455905
460-138908-6	SB-7 (8-10)	T	Solid	6010C	460-455905
460-138986-E-6-D DU ^4	Duplicate	T	Solid	6010C	460-455905
460-138986-E-6-E MS ^4	Matrix Spike	T	Solid	6010C	460-455905
Prep Batch: 460-456063					
LCSSRM 460-456063/11-A ^4	LCS-Certified Reference Material	T	Solid	7471B	
MB 460-456063/10-A	Method Blank	T	Solid	7471B	
460-138908-6	SB-7 (8-10)	T	Solid	7471B	
460-138908-6DU	Duplicate	T	Solid	7471B	
460-138908-6MS	Matrix Spike	T	Solid	7471B	
Prep Batch: 460-456068					
LCSSRM 460-456068/2-A ^40	LCS-Certified Reference Material	T	Solid	7471B	
MB 460-456068/1-A	Method Blank	T	Solid	7471B	
460-138904-E-3-E DU	Duplicate	T	Solid	7471B	
460-138904-E-3-F MS	Matrix Spike	T	Solid	7471B	
460-138908-1	SB-3 (1-3)	T	Solid	7471B	
460-138908-2	SB-3 (17-19)	T	Solid	7471B	
460-138908-3	SB-4 (1-3)	T	Solid	7471B	
460-138908-4	SB-4 (21-23)	T	Solid	7471B	
460-138908-5	SB-7 (1-3)	T	Solid	7471B	

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:460-456143					
LCSSRM 460-456063/11-A ^4	LCS-Certified Reference Material	T	Solid	7471B	460-456063
MB 460-456063/10-A	Method Blank	T	Solid	7471B	460-456063
LCSSRM 460-456068/2-A ^40	LCS-Certified Reference Material	T	Solid	7471B	460-456068
MB 460-456068/1-A	Method Blank	T	Solid	7471B	460-456068
460-138904-E-3-E DU	Duplicate	T	Solid	7471B	460-456068
460-138904-E-3-F MS	Matrix Spike	T	Solid	7471B	460-456068
460-138908-1	SB-3 (1-3)	T	Solid	7471B	460-456068
460-138908-2	SB-3 (17-19)	T	Solid	7471B	460-456068
460-138908-3	SB-4 (1-3)	T	Solid	7471B	460-456068
460-138908-4	SB-4 (21-23)	T	Solid	7471B	460-456068
460-138908-5	SB-7 (1-3)	T	Solid	7471B	460-456068
460-138908-6	SB-7 (8-10)	T	Solid	7471B	460-456063
460-138908-6DU	Duplicate	T	Solid	7471B	460-456063
460-138908-6MS	Matrix Spike	T	Solid	7471B	460-456063
Analysis Batch:460-456155					
LCSSRM 460-455905/2-A ^4	LCS-Certified Reference Material	T	Solid	6010C	460-455905
MB 460-455905/1-A ^2	Method Blank	T	Solid	6010C	460-455905
460-138908-1	SB-3 (1-3)	T	Solid	6010C	460-455905
460-138908-2	SB-3 (17-19)	T	Solid	6010C	460-455905
460-138908-3	SB-4 (1-3)	T	Solid	6010C	460-455905
460-138908-4	SB-4 (21-23)	T	Solid	6010C	460-455905
460-138908-5	SB-7 (1-3)	T	Solid	6010C	460-455905
460-138908-6	SB-7 (8-10)	T	Solid	6010C	460-455905
460-138986-E-6-D DU ^4	Duplicate	T	Solid	6010C	460-455905
460-138986-E-6-E MS ^4	Matrix Spike	T	Solid	6010C	460-455905
Analysis Batch:460-456387					
LCSSRM 460-455253/2-A	LCS-Certified Reference Material	T	Solid	6010C	460-455253
Analysis Batch:460-457011					
460-138908-2	SB-3 (17-19)	T	Solid	6010C	460-455905

Report Basis

T = Total

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:460-456252					
460-138503-A-9 MS	Matrix Spike	T	Solid	Moisture	
460-138503-A-9 MSD	Matrix Spike Duplicate	T	Solid	Moisture	
460-138908-6	SB-7 (8-10)	T	Solid	Moisture	
460-139142-A-3 DU	Duplicate	T	Solid	Moisture	
Analysis Batch:460-456785					
460-138836-1	SB-1 (2-4)	T	Solid	Moisture	
460-138836-2	SB-1 (9-11)	T	Solid	Moisture	
460-138836-3	SB-2 (1-3)	T	Solid	Moisture	
460-138836-4	SB-2 (16-18)	T	Solid	Moisture	
460-138836-5	SB-5 (2-4)	T	Solid	Moisture	
460-138836-6	SB-5 (10-12)	T	Solid	Moisture	
460-138836-7	SB-6 (2-4)	T	Solid	Moisture	
460-138836-8	SB-6 (9-11)	T	Solid	Moisture	
460-138836-9	SB-8 (2-4)	T	Solid	Moisture	
460-138836-10	SB-8 (9-11)	T	Solid	Moisture	
460-138836-11	SB-9 (1-3)	T	Solid	Moisture	
460-138836-12	SB-9 (8-10)	T	Solid	Moisture	
460-138849-A-5 DU	Duplicate	T	Solid	Moisture	
Analysis Batch:460-456823					
460-138908-1	SB-3 (1-3)	T	Solid	Moisture	
460-138908-2	SB-3 (17-19)	T	Solid	Moisture	
460-138908-3	SB-4 (1-3)	T	Solid	Moisture	
460-138908-4	SB-4 (21-23)	T	Solid	Moisture	
460-138908-5	SB-7 (1-3)	T	Solid	Moisture	
460-139030-E-11 DU	Duplicate	T	Solid	Moisture	

Report Basis

T = Total

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Surrogate Recovery Report

8260C Volatile Organic Compounds by GC/MS

Client Matrix: Solid

Lab Sample ID	Client Sample ID	DCA %Rec	BFB %Rec	DBFM %Rec	TOL %Rec
460-138836-1	SB-1 (2-4)	101	96	102	97
460-138836-2	SB-1 (9-11)	108	105	111	105
460-138836-3	SB-2 (1-3)	107	103	108	104
460-138836-4	SB-2 (16-18)	105	101	107	103
460-138836-5	SB-5 (2-4)	105	96	104	102
460-138836-6	SB-5 (10-12)	107	101	109	105
460-138836-7	SB-6 (2-4)	105	102	106	103
460-138836-8	SB-6 (9-11)	104	99	104	101
460-138836-9	SB-8 (2-4)	106	99	107	103
460-138836-10	SB-8 (9-11)	104	99	103	100
460-138836-11	SB-9 (1-3)	106	104	106	105
460-138836-12	SB-9 (8-10)	105	105	106	104
460-138908-1	SB-3 (1-3)	103	100	105	101
460-138908-2	SB-3 (17-19)	100	98	101	98
460-138908-3	SB-4 (1-3)	110	102	110	106
460-138908-5	SB-7 (1-3)	105	99	105	103
460-138908-6	SB-7 (8-10)	103	100	105	102
MB 460-456539/7		98	102	104	104
MB 460-456664/8		102	99	102	100
MB 460-456825/8		100	103	104	104
LCS 460-456539/3		97	100	100	102
LCS 460-456664/4		104	100	105	106
LCS 460-456825/4		103	100	104	103
LCSD 460-456539/4		98	99	101	103
LCSD 460-456664/5		99	98	101	103
LCSD 460-456825/5		102	101	104	105

Surrogate	Acceptance Limits
DCA = 1,2-Dichloroethane-d4 (Surr)	78-135
BFB = 4-Bromofluorobenzene	67-126
DBFM = Dibromofluoromethane (Surr)	61-149
TOL = Toluene-d8 (Surr)	73-121

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Surrogate Recovery Report

8260C Volatile Organic Compounds by GC/MS

Client Matrix: Solid

Lab Sample ID	Client Sample ID	DCA %Rec	BFB %Rec	DBFM %Rec	TOL %Rec
460-138908-4	SB-4 (21-23)	89	115	100	97
MB 460-456502/11		89	116	102	98
LCS 460-456502/6		89	111	100	97
LCSD 460-456502/7		87	110	99	98

Surrogate	Acceptance Limits
DCA = 1,2-Dichloroethane-d4 (Surr)	69-143
BFB = 4-Bromofluorobenzene	61-137
DBFM = Dibromofluoromethane (Surr)	61-135
TOL = Toluene-d8 (Surr)	67-127

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Surrogate Recovery Report

8260C Volatile Organic Compounds by GC/MS

Client Matrix: Water

Lab Sample ID	Client Sample ID	DCA %Rec	BFB %Rec	DBFM %Rec	TOL %Rec
460-139067-1	TW-1	93	114	102	98
460-139067-2	TW-2	88	114	103	97
460-139067-3	GW-3	90	113	102	97
460-139067-4	GW-4	119	91	124	109
460-139067-5	GT-1	89	113	100	95
460-139067-6	GT-2	90	112	104	95
460-139067-7	GT-3	91	111	102	94
460-139067-8	GT-4	90	111	102	98
460-139067-9	TRIP BLANK	86	114	102	97
MB 460-456308/8		86	111	100	98
MB 460-457628/7		80	88	97	92
LCS 460-456308/4		89	110	101	99
LCS 460-457628/3		78	105	95	107
LCSD 460-456308/5		89	113	98	97
LCSD 460-457628/4		76	106	92	108

Surrogate	Acceptance Limits
DCA = 1,2-Dichloroethane-d4 (Surr)	74-132
BFB = 4-Bromofluorobenzene	77-124
DBFM = Dibromofluoromethane (Surr)	72-131
TOL = Toluene-d8 (Surr)	80-120

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	FBP %Rec	NBZ %Rec	TPHL %Rec
460-138836-1	SB-1 (2-4)	77	73	96
460-138836-2	SB-1 (9-11)	66	65	99
460-138836-3	SB-2 (1-3)	73	67	100
460-138836-4	SB-2 (16-18)	67	69	84
460-138836-5	SB-5 (2-4)	72	67	79
460-138836-6	SB-5 (10-12)	66	71	92
460-138836-7	SB-6 (2-4)	64	57	78
460-138836-8	SB-6 (9-11)	50	54	60
460-138836-9	SB-8 (2-4)	56	60	70
460-138836-10	SB-8 (9-11)	62	68	75
460-138836-11	SB-9 (1-3)	62	64	80
460-138836-12	SB-9 (8-10)	67	72	89
460-138908-1	SB-3 (1-3)	63	67	80
460-138908-2	SB-3 (17-19)	61	62	83
460-138908-3	SB-4 (1-3)	59	57	68
460-138908-4	SB-4 (21-23)	71	87	96
460-138908-5	SB-7 (1-3)	69	72	65
460-138908-6	SB-7 (8-10)	70	77	99
MB 460-455572/1-A		74	77	86
MB 460-455573/1-A		66	67	78
MB 460-455775/1-A		73	83	87
LCS 460-455572/2-A		78	83	77
LCS 460-455573/2-A		83	80	89
LCS 460-455775/2-A		80	91	100
460-138836-4 MS	SB-2 (16-18) MS	68	65	73
460-138308-A-3-B MS		74	75	65
460-138570-A-24-B MS		62	176*	62
460-138836-4 MSD	SB-2 (16-18) MSD	74	70	82

Surrogate	Acceptance Limits
FBP = 2-Fluorobiphenyl	38-95
NBZ = Nitrobenzene-d5 (Surr)	37-94
TPHL = Terphenyl-d14 (Surr)	24-109

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	FBP %Rec	NBZ %Rec	TPHL %Rec
460-138308-A-3-C MSD		69	76	63
460-138570-A-24-C MSD		56	169*	60

Surrogate	Acceptance Limits
FBP = 2-Fluorobiphenyl	38-95
NBZ = Nitrobenzene-d5 (Surr)	37-94
TPHL = Terphenyl-d14 (Surr)	24-109

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Surrogate Recovery Report

8270D Semivolatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	FBP %Rec	NBZ %Rec	TPHL %Rec
460-139067-1	TW-1	85	84	52
460-139067-2	TW-2	87	90	83
460-139067-3	GW-3	86	86	83
460-139067-5	GT-1	81	80	79
460-139067-6	GT-2	92	97	79
460-139067-7	GT-3	93	98	82
460-139067-8	GT-4	87	89	75
MB 460-455934/1-A		96	98	95
LCS 460-455934/2-A		99	90	90
LCSD 460-455934/3-A		95	108	88

Surrogate	Acceptance Limits
FBP = 2-Fluorobiphenyl	45-107
NBZ = Nitrobenzene-d5 (Surr)	51-108
TPHL = Terphenyl-d14 (Surr)	40-148

Client: AKRF Inc

Job Number: 460-138836-1

Surrogate Recovery Report**8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography****Client Matrix: Solid**

Lab Sample ID	Client Sample ID	DCBP1 %Rec	DCBP2 %Rec
460-138836-1	SB-1 (2-4)	117	121
460-138836-2	SB-1 (9-11)	123	117
460-138836-3	SB-2 (1-3)	112	105
460-138836-4	SB-2 (16-18)	115	110
460-138836-5	SB-5 (2-4)	112	109
460-138836-6	SB-5 (10-12)		100
460-138836-7	SB-6 (2-4)	103	107
460-138836-8	SB-6 (9-11)	104	109
460-138836-9	SB-8 (2-4)	104	114
460-138836-10	SB-8 (9-11)	119	107
460-138836-11	SB-9 (1-3)	118	108
460-138836-12	SB-9 (8-10)	121	116
460-138908-1	SB-3 (1-3)	124	123
460-138908-2	SB-3 (17-19)	139	
460-138908-3	SB-4 (1-3)	128	134
460-138908-4	SB-4 (21-23)	136	131
460-138908-5	SB-7 (1-3)		128
460-138908-6	SB-7 (8-10)	136	133
MB 460-455215/1-A		129	119
MB 460-455741/1-A		136	130
LCS 460-455215/2-A		124	129
LCS 460-455741/2-A		122	121
460-138908-1 MS	SB-3 (1-3) MS	129	129
460-138719-A-1-B MS		119	115
460-138908-1 MSD	SB-3 (1-3) MSD	129	124
460-138719-A-1-E MSD		110	108

Surrogate

Acceptance Limits

DCBP = DCB Decachlorobiphenyl

35-150

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Method Blank - Batch: 460-456308

Method: 8260C

Preparation: 5030C

Lab Sample ID: MB 460-456308/8
Client Matrix: Water
Dilution: 1.0
Analysis Date: 08/15/2017 0808
Prep Date: 08/15/2017 0808
Leach Date: N/A

Analysis Batch: 460-456308
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: CVOAMS6
Lab File ID: F51911.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.28	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.19	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.34	1.0
1,1,2-Trichloroethane	1.0	U	0.080	1.0
1,1-Dichloroethane	1.0	U	0.24	1.0
1,1-Dichloroethene	1.0	U	0.34	1.0
1,2,3-Trichlorobenzene	1.0	U	0.35	1.0
1,2,4-Trichlorobenzene	1.0	U	0.27	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.23	1.0
1,2-Dichlorobenzene	1.0	U	0.22	1.0
1,2-Dichloroethane	1.0	U	0.25	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.33	1.0
1,4-Dichlorobenzene	1.0	U	0.33	1.0
1,4-Dioxane	50	U	8.7	50
2-Butanone (MEK)	5.0	U	2.2	5.0
2-Hexanone	5.0	U	0.72	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.63	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.090	1.0
Bromoform	1.0	U	0.18	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.22	1.0
Carbon tetrachloride	1.0	U	0.33	1.0
Chlorobenzene	1.0	U	0.24	1.0
Chlorobromomethane	1.0	U	0.30	1.0
Chlorodibromomethane	1.0	U	0.22	1.0
Chloroethane	1.0	U	0.37	1.0
Chloroform	1.0	U	0.22	1.0
Chloromethane	1.0	U	0.22	1.0
cis-1,2-Dichloroethene	1.0	U	0.26	1.0
cis-1,3-Dichloropropene	1.0	U	0.16	1.0
Cyclohexane	1.0	U	0.26	1.0
Dichlorobromomethane	1.0	U	0.15	1.0
Dichlorodifluoromethane	1.0	U	0.14	1.0
Ethylbenzene	1.0	U	0.30	1.0
Ethylene Dibromide	1.0	U	0.19	1.0
Isopropylbenzene	1.0	U	0.32	1.0
Methyl acetate	5.0	U	0.58	5.0
Methyl tert-butyl ether	1.0	U	0.13	1.0
Methylcyclohexane	1.0	U	0.22	1.0
Methylene Chloride	1.0	U	0.21	1.0
m-Xylene & p-Xylene	1.0	U	0.28	1.0
o-Xylene	1.0	U	0.32	1.0
Styrene	1.0	U	0.17	1.0

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Method Blank - Batch: 460-456308

Method: 8260C

Preparation: 5030C

Lab Sample ID: MB 460-456308/8
Client Matrix: Water
Dilution: 1.0
Analysis Date: 08/15/2017 0808
Prep Date: 08/15/2017 0808
Leach Date: N/A

Analysis Batch: 460-456308
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: CVOAMS6
Lab File ID: F51911.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Tetrachloroethene	1.0	U	0.12	1.0
Toluene	1.0	U	0.25	1.0
trans-1,2-Dichloroethene	1.0	U	0.18	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	1.0	U	0.22	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.060	1.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	86	74 - 132
4-Bromofluorobenzene	111	77 - 124
Dibromofluoromethane (Surr)	100	72 - 131
Toluene-d8 (Surr)	98	80 - 120

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 460-456308

Method: 8260C

Preparation: 5030C

LCS Lab Sample ID: LCS 460-456308/4	Analysis Batch: 460-456308	Instrument ID: CVOAMS6
Client Matrix: Water	Prep Batch: N/A	Lab File ID: F51907.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 08/15/2017 0635	Units: ug/L	Final Weight/Volume: 5 mL
Prep Date: 08/15/2017 0635		1 uL
Leach Date: N/A		

LCSD Lab Sample ID: LCSD 460-456308/5	Analysis Batch: 460-456308	Instrument ID: CVOAMS6
Client Matrix: Water	Prep Batch: N/A	Lab File ID: F51908.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 08/15/2017 0659	Units: ug/L	Final Weight/Volume: 5 mL
Prep Date: 08/15/2017 0659		1 uL
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
1,1,1-Trichloroethane	103	105	75 - 125	2	30		
1,1,2,2-Tetrachloroethane	96	94	74 - 120	2	30		
1,1,2-Trichloro-1,2,2-trifluoroethane	94	95	59 - 150	1	30		
1,1,2-Trichloroethane	97	101	78 - 120	4	30		
1,1-Dichloroethane	97	101	77 - 123	4	30		
1,1-Dichloroethene	100	104	74 - 123	4	30		
1,2,3-Trichlorobenzene	103	103	78 - 131	0	30		
1,2,4-Trichlorobenzene	103	104	80 - 124	1	30		
1,2-Dibromo-3-Chloropropane	84	90	55 - 134	7	30		
1,2-Dichlorobenzene	103	102	80 - 120	1	30		
1,2-Dichloroethane	92	96	76 - 121	4	30		
1,2-Dichloropropane	100	99	77 - 123	1	30		
1,3-Dichlorobenzene	103	103	80 - 120	0	30		
1,4-Dichlorobenzene	99	102	80 - 120	2	30		
1,4-Dioxane	126	132	10 - 150	4	30		
2-Butanone (MEK)	104	97	64 - 120	7	30		
2-Hexanone	104	105	71 - 125	1	30		
4-Methyl-2-pentanone (MIBK)	103	101	78 - 124	2	30		
Acetone	106	106	39 - 150	0	30		
Benzene	102	101	77 - 121	1	30		
Bromoform	107	107	53 - 120	0	30		
Bromomethane	78	81	10 - 150	5	30		
Carbon disulfide	96	98	69 - 133	2	30		
Carbon tetrachloride	106	108	70 - 132	2	30		
Chlorobenzene	102	103	80 - 120	1	30		
Chlorobromomethane	108	108	77 - 127	0	30		
Chlorodibromomethane	103	102	73 - 120	1	30		
Chloroethane	78	75	52 - 150	3	30		
Chloroform	100	101	80 - 120	1	30		
Chloromethane	85	90	56 - 131	6	30		
cis-1,2-Dichloroethene	105	107	80 - 120	2	30		
cis-1,3-Dichloropropene	99	99	77 - 120	1	30		
Cyclohexane	94	95	56 - 150	1	30		
Dichlorobromomethane	95	100	76 - 120	5	30		
Dichlorodifluoromethane	100	104	50 - 131	4	30		

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 460-456308

Method: 8260C

Preparation: 5030C

LCS Lab Sample ID: LCS 460-456308/4	Analysis Batch: 460-456308	Instrument ID: CVOAMS6
Client Matrix: Water	Prep Batch: N/A	Lab File ID: F51907.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 08/15/2017 0635	Units: ug/L	Final Weight/Volume: 5 mL
Prep Date: 08/15/2017 0635		1 uL
Leach Date: N/A		

LCSD Lab Sample ID: LCSD 460-456308/5	Analysis Batch: 460-456308	Instrument ID: CVOAMS6
Client Matrix: Water	Prep Batch: N/A	Lab File ID: F51908.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 08/15/2017 0659	Units: ug/L	Final Weight/Volume: 5 mL
Prep Date: 08/15/2017 0659		1 uL
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Ethylbenzene	102	101	80 - 120	1	30		
Ethylene Dibromide	105	108	80 - 120	2	30		
Isopropylbenzene	100	104	80 - 123	4	30		
Methyl acetate	104	103	66 - 144	1	30		
Methyl tert-butyl ether	104	107	79 - 122	3	30		
Methylcyclohexane	89	92	61 - 145	3	30		
Methylene Chloride	101	102	77 - 123	0	30		
m-Xylene & p-Xylene	102	106	80 - 120	3	30		
o-Xylene	100	104	80 - 120	3	30		
Styrene	108	107	80 - 120	1	30		
Tetrachloroethene	112	112	78 - 122	0	30		
Toluene	99	100	80 - 120	1	30		
trans-1,2-Dichloroethene	104	104	79 - 120	1	30		
trans-1,3-Dichloropropene	104	103	76 - 120	1	30		
Trichloroethene	103	106	77 - 120	3	30		
Trichlorofluoromethane	108	113	71 - 143	5	30		
Vinyl chloride	89	93	62 - 138	5	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	89	89	74 - 132
4-Bromofluorobenzene	110	113	77 - 124
Dibromofluoromethane (Surr)	101	98	72 - 131
Toluene-d8 (Surr)	99	97	80 - 120

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Method Blank - Batch: 460-456502

Method: 8260C Preparation: N/A

Lab Sample ID: MB 460-456502/11
Client Matrix: Solid
Dilution: 50
Analysis Date: 08/15/2017 2121
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 460-456502
Prep Batch: N/A
Leach Batch: N/A
Units: mg/Kg

Instrument ID: CVOAMS6
Lab File ID: F51944.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
1,1,1-Trichloroethane	0.050	U	0.014	0.050
1,1,2,2-Tetrachloroethane	0.050	U	0.0095	0.050
1,1,2-Trichloro-1,2,2-trifluoroethane	0.050	U	0.017	0.050
1,1,2-Trichloroethane	0.050	U	0.0040	0.050
1,1-Dichloroethane	0.050	U	0.012	0.050
1,1-Dichloroethene	0.050	U	0.017	0.050
1,2,3-Trichlorobenzene	0.050	U	0.018	0.050
1,2,4-Trichlorobenzene	0.050	U	0.014	0.050
1,2-Dibromo-3-Chloropropane	0.050	U	0.012	0.050
1,2-Dichlorobenzene	0.050	U	0.011	0.050
1,2-Dichloroethane	0.050	U	0.013	0.050
1,2-Dichloropropane	0.050	U	0.0090	0.050
1,3-Dichlorobenzene	0.050	U	0.017	0.050
1,4-Dichlorobenzene	0.050	U	0.017	0.050
1,4-Dioxane	2.5	U	0.44	2.5
2-Butanone (MEK)	0.25	U	0.11	0.25
2-Hexanone	0.25	U	0.036	0.25
4-Methyl-2-pentanone (MIBK)	0.25	U	0.032	0.25
Acetone	0.25	U	0.054	0.25
Acetonitrile	0.50	U	0.065	0.50
Acrolein	0.25	U	0.044	0.25
Benzene	0.050	U	0.0095	0.050
Bromoform	0.050	U	0.0090	0.050
Bromomethane	0.050	U	0.0090	0.050
Carbon disulfide	0.050	U	0.011	0.050
Carbon tetrachloride	0.050	U	0.017	0.050
Chlorobenzene	0.050	U	0.012	0.050
Chlorobromomethane	0.050	U	0.015	0.050
Chlorodibromomethane	0.050	U	0.011	0.050
Chloroethane	0.050	U	0.019	0.050
Chloroform	0.050	U	0.011	0.050
Chloromethane	0.050	U	0.011	0.050
cis-1,2-Dichloroethene	0.050	U	0.013	0.050
cis-1,3-Dichloropropene	0.050	U	0.0080	0.050
Cyclohexane	0.050	U	0.013	0.050
Dichlorobromomethane	0.050	U	0.0075	0.050
Dichlorodifluoromethane	0.050	U	0.0070	0.050
Ethylbenzene	0.050	U	0.015	0.050
Ethylene Dibromide	0.050	U	0.0095	0.050
Isopropylbenzene	0.050	U	0.016	0.050
Methyl acetate	0.25	U	0.029	0.25
Methyl tert-butyl ether	0.050	U	0.0065	0.050
Methylcyclohexane	0.050	U	0.011	0.050
Methylene Chloride	0.050	U	0.011	0.050
m-Xylene & p-Xylene	0.050	U	0.014	0.050

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Method Blank - Batch: 460-456502

Method: 8260C
Preparation: N/A

Lab Sample ID:	MB 460-456502/11	Analysis Batch:	460-456502	Instrument ID:	CVOAMS6
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	F51944.D
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	08/15/2017 2121	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
o-Xylene	0.050	U	0.016	0.050
Styrene	0.050	U	0.0085	0.050
TBA	0.50	U	0.060	0.50
Tetrachloroethene	0.050	U	0.018	0.050
Toluene	0.050	U	0.013	0.050
trans-1,2-Dichloroethene	0.050	U	0.0090	0.050
trans-1,3-Dichloropropene	0.050	U	0.0095	0.050
Trichloroethene	0.050	U	0.011	0.050
Trichlorofluoromethane	0.050	U	0.0075	0.050
Vinyl chloride	0.050	U	0.010	0.050
Surrogate	% Rec	Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	89	69 - 143		
4-Bromofluorobenzene	116	61 - 137		
Dibromofluoromethane (Surr)	102	61 - 135		
Toluene-d8 (Surr)	98	67 - 127		

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 460-456502

Method: 8260C

Preparation: N/A

LCS Lab Sample ID: LCS 460-456502/6	Analysis Batch: 460-456502	Instrument ID: CVOAMS6
Client Matrix: Solid	Prep Batch: N/A	Lab File ID: F51939.D
Dilution: 50	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 08/15/2017 1928	Units: mg/Kg	Final Weight/Volume: 5 mL
Prep Date: N/A		1 uL
Leach Date: N/A		

LCSD Lab Sample ID: LCSD 460-456502/7	Analysis Batch: 460-456502	Instrument ID: CVOAMS6
Client Matrix: Solid	Prep Batch: N/A	Lab File ID: F51940.D
Dilution: 50	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 08/15/2017 1950	Units: mg/Kg	Final Weight/Volume: 5 mL
Prep Date: N/A		1 uL
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
1,1,1-Trichloroethane	103	106	80 - 124	2	30		
1,1,2,2-Tetrachloroethane	94	92	68 - 124	2	30		
1,1,2-Trichloro-1,2,2-trifluoroethane	92	91	73 - 124	1	30		
1,1,2-Trichloroethane	95	97	74 - 120	2	30		
1,1-Dichloroethane	95	98	79 - 120	2	30		
1,1-Dichloroethene	100	99	77 - 120	0	30		
1,2,3-Trichlorobenzene	96	104	73 - 126	7	30		
1,2,4-Trichlorobenzene	100	102	73 - 121	2	30		
1,2-Dibromo-3-Chloropropane	90	87	60 - 123	2	30		
1,2-Dichlorobenzene	99	103	78 - 120	4	30		
1,2-Dichloroethane	93	92	80 - 126	0	30		
1,2-Dichloropropane	100	101	78 - 120	1	30		
1,3-Dichlorobenzene	97	103	80 - 120	6	30		
1,4-Dichlorobenzene	96	99	77 - 120	3	30		
1,4-Dioxane	126	130	66 - 139	3	30		
2-Butanone (MEK)	101	106	54 - 128	4	30		
2-Hexanone	109	109	68 - 134	1	30		
4-Methyl-2-pentanone (MIBK)	102	109	80 - 123	7	30		
Acetone	103	107	78 - 122	3	30		
Acetonitrile	115	111	50 - 146	3	30		
Acrolein	196	203	53 - 148	3	30	*	*
Benzene	94	100	76 - 120	7	30		
Bromoform	104	109	77 - 124	4	30		
Bromomethane	82	82	59 - 132	0	30		
Carbon disulfide	97	98	68 - 120	1	30		
Carbon tetrachloride	105	106	80 - 131	1	30		
Chlorobenzene	99	102	80 - 120	3	30		
Chlorobromomethane	105	108	80 - 123	3	30		
Chlorodibromomethane	98	102	79 - 120	4	30		
Chloroethane	76	78	57 - 143	2	30		
Chloroform	97	101	80 - 120	4	30		
Chloromethane	85	89	48 - 147	4	30		
cis-1,2-Dichloroethene	100	108	80 - 120	7	30		
cis-1,3-Dichloropropene	96	97	76 - 120	0	30		
Cyclohexane	89	94	68 - 120	5	30		

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 460-456502

Method: 8260C

Preparation: N/A

LCS Lab Sample ID: LCS 460-456502/6	Analysis Batch: 460-456502	Instrument ID: CVOAMS6
Client Matrix: Solid	Prep Batch: N/A	Lab File ID: F51939.D
Dilution: 50	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 08/15/2017 1928	Units: mg/Kg	Final Weight/Volume: 5 mL
Prep Date: N/A		1 uL
Leach Date: N/A		

LCSD Lab Sample ID: LCSD 460-456502/7	Analysis Batch: 460-456502	Instrument ID: CVOAMS6
Client Matrix: Solid	Prep Batch: N/A	Lab File ID: F51940.D
Dilution: 50	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 08/15/2017 1950	Units: mg/Kg	Final Weight/Volume: 5 mL
Prep Date: N/A		1 uL
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Dichlorobromomethane	96	98	80 - 120	2	30		
Dichlorodifluoromethane	97	104	59 - 131	7	30		
Ethylbenzene	94	102	76 - 120	7	30		
Ethylene Dibromide	106	105	78 - 120	0	30		
Isopropylbenzene	95	104	77 - 120	9	30		
Methyl acetate	101	100	72 - 150	0	30		
Methyl tert-butyl ether	104	103	80 - 125	2	30		
Methylcyclohexane	86	87	58 - 123	1	30		
Methylene Chloride	102	102	77 - 120	0	30		
m-Xylene & p-Xylene	99	105	78 - 120	6	30		
o-Xylene	98	105	80 - 120	7	30		
Styrene	102	106	80 - 120	4	30		
TBA	117	112	80 - 120	5	30		
Tetrachloroethene	105	114	77 - 125	8	30		
Toluene	95	99	80 - 120	4	30		
trans-1,2-Dichloroethene	103	106	77 - 120	3	30		
trans-1,3-Dichloropropene	106	103	69 - 120	3	30		
Trichloroethene	97	104	80 - 120	7	30		
Trichlorofluoromethane	109	111	76 - 128	1	30		
Vinyl chloride	91	91	60 - 144	0	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	89	87	69 - 143
4-Bromofluorobenzene	111	110	61 - 137
Dibromofluoromethane (Surr)	100	99	61 - 135
Toluene-d8 (Surr)	97	98	67 - 127

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Method Blank - Batch: 460-456539

Method: 8260C Preparation: N/A

Lab Sample ID: MB 460-456539/7
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 08/15/2017 2327
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 460-456539
Prep Batch: N/A
Leach Batch: N/A
Units: mg/Kg

Instrument ID: CVOAMS9
Lab File ID: K72117.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
1,1,1-Trichloroethane	0.0010	U	0.00023	0.0010
1,1,2,2-Tetrachloroethane	0.0010	U	0.00021	0.0010
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0010	U	0.00030	0.0010
1,1,2-Trichloroethane	0.0010	U	0.00018	0.0010
1,1-Dichloroethane	0.0010	U	0.00021	0.0010
1,1-Dichloroethene	0.0010	U	0.00023	0.0010
1,2,3-Trichlorobenzene	0.0010	U	0.00018	0.0010
1,2,4-Trichlorobenzene	0.0010	U	0.000092	0.0010
1,2-Dibromo-3-Chloropropane	0.0010	U	0.00046	0.0010
1,2-Dichlorobenzene	0.0010	U	0.00014	0.0010
1,2-Dichloroethane	0.0010	U	0.00030	0.0010
1,2-Dichloropropane	0.0010	U	0.00042	0.0010
1,3-Dichlorobenzene	0.0010	U	0.00016	0.0010
1,4-Dichlorobenzene	0.0010	U	0.00010	0.0010
1,4-Dioxane	0.020	U	0.0092	0.020
2-Butanone (MEK)	0.0050	U	0.0011	0.0050
2-Hexanone	0.0050	U	0.00078	0.0050
4-Methyl-2-pentanone (MIBK)	0.0050	U	0.00066	0.0050
Acetone	0.0050	U	0.0038	0.0050
Acetonitrile	0.010	U	0.0062	0.010
Acrolein	0.10	U	0.028	0.10
Benzene	0.0010	U	0.00026	0.0010
Bromoform	0.0010	U	0.00043	0.0010
Bromomethane	0.0010	U	0.00047	0.0010
Carbon disulfide	0.0010	U	0.00027	0.0010
Carbon tetrachloride	0.0010	U	0.00018	0.0010
Chlorobenzene	0.0010	U	0.00018	0.0010
Chlorobromomethane	0.0010	U	0.00028	0.0010
Chlorodibromomethane	0.0010	U	0.00019	0.0010
Chloroethane	0.0010	U	0.00052	0.0010
Chloroform	0.0010	U	0.00032	0.0010
Chloromethane	0.0010	U	0.00044	0.0010
cis-1,2-Dichloroethene	0.0010	U	0.00015	0.0010
cis-1,3-Dichloropropene	0.0010	U	0.00027	0.0010
Cyclohexane	0.0010	U	0.00022	0.0010
Dichlorobromomethane	0.0010	U	0.00026	0.0010
Dichlorodifluoromethane	0.0010	U	0.00034	0.0010
Ethylbenzene	0.0010	U	0.00020	0.0010
Ethylene Dibromide	0.0010	U	0.00018	0.0010
Isopropylbenzene	0.0010	U	0.00013	0.0010
Methyl acetate	0.0050	U	0.0043	0.0050
Methyl tert-butyl ether	0.0010	U	0.00013	0.0010
Methylcyclohexane	0.0010	U	0.00016	0.0010
Methylene Chloride	0.0010	U	0.00016	0.0010
m-Xylene & p-Xylene	0.0010	U	0.00017	0.0010

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Method Blank - Batch: 460-456539

Method: 8260C Preparation: N/A

Lab Sample ID:	MB 460-456539/7	Analysis Batch:	460-456539	Instrument ID:	CVOAMS9
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	K72117.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	08/15/2017 2327	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
o-Xylene	0.0010	U	0.000095	0.0010
Styrene	0.0010	U	0.00012	0.0010
TBA	0.010	U	0.0033	0.010
Tetrachloroethene	0.0010	U	0.00014	0.0010
Toluene	0.0010	U	0.00063	0.0010
trans-1,2-Dichloroethene	0.0010	U	0.00025	0.0010
trans-1,3-Dichloropropene	0.0010	U	0.00027	0.0010
Trichloroethene	0.0010	U	0.00014	0.0010
Trichlorofluoromethane	0.0010	U	0.00041	0.0010
Vinyl chloride	0.0010	U	0.00055	0.0010
Surrogate	% Rec	Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	98	78 - 135		
4-Bromofluorobenzene	102	67 - 126		
Dibromofluoromethane (Surr)	104	61 - 149		
Toluene-d8 (Surr)	104	73 - 121		

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 460-456539

Method: 8260C

Preparation: N/A

LCS Lab Sample ID: LCS 460-456539/3	Analysis Batch: 460-456539	Instrument ID: CVOAMS9
Client Matrix: Solid	Prep Batch: N/A	Lab File ID: K72113.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 08/15/2017 2139	Units: mg/Kg	Final Weight/Volume: 5 mL
Prep Date: N/A		5 mL
Leach Date: N/A		

LCSD Lab Sample ID: LCSD 460-456539/4	Analysis Batch: 460-456539	Instrument ID: CVOAMS9
Client Matrix: Solid	Prep Batch: N/A	Lab File ID: K72114.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 08/15/2017 2202	Units: mg/Kg	Final Weight/Volume: 5 mL
Prep Date: N/A		5 mL
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
1,1,1-Trichloroethane	102	101	80 - 125	0	30		
1,1,2,2-Tetrachloroethane	103	101	72 - 131	2	30		
1,1,2-Trichloro-1,2,2-trifluoroethane	109	108	78 - 132	1	30		
1,1,2-Trichloroethane	102	102	76 - 124	0	30		
1,1-Dichloroethane	106	106	80 - 124	0	30		
1,1-Dichloroethene	102	101	79 - 132	1	30		
1,2,3-Trichlorobenzene	103	104	75 - 123	1	30		
1,2,4-Trichlorobenzene	101	103	74 - 124	2	30		
1,2-Dibromo-3-Chloropropane	82	82	65 - 129	0	30		
1,2-Dichlorobenzene	103	103	80 - 121	0	30		
1,2-Dichloroethane	99	99	68 - 120	0	30		
1,2-Dichloropropane	105	104	77 - 124	1	30		
1,3-Dichlorobenzene	106	102	79 - 124	4	30		
1,4-Dichlorobenzene	102	103	79 - 121	1	30		
1,4-Dioxane	125	114	67 - 150	8	30		
2-Butanone (MEK)	96	92	61 - 140	5	30		
2-Hexanone	114	110	78 - 120	4	30		
4-Methyl-2-pentanone (MIBK)	111	109	80 - 120	2	30		
Acetone	84	82	75 - 120	3	30		
Acetonitrile	101	100	60 - 137	1	30		
Acrolein	96	99	11 - 143	3	30		
Benzene	105	106	75 - 127	1	30		
Bromoform	80	83	19 - 150	3	30		
Bromomethane	94	93	59 - 136	1	30		
Carbon disulfide	102	103	74 - 130	0	30		
Carbon tetrachloride	99	99	77 - 138	0	30		
Chlorobenzene	106	104	80 - 120	2	30		
Chlorobromomethane	101	101	80 - 125	1	30		
Chlorodibromomethane	92	89	67 - 143	3	30		
Chloroethane	98	93	50 - 139	4	30		
Chloroform	104	105	80 - 122	1	30		
Chloromethane	99	96	66 - 128	2	30		
cis-1,2-Dichloroethene	101	102	80 - 123	1	30		
cis-1,3-Dichloropropene	103	102	75 - 124	0	30		
Cyclohexane	109	109	67 - 135	1	30		

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 460-456539

Method: 8260C

Preparation: N/A

LCS Lab Sample ID: LCS 460-456539/3	Analysis Batch: 460-456539	Instrument ID: CVOAMS9
Client Matrix: Solid	Prep Batch: N/A	Lab File ID: K72113.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 08/15/2017 2139	Units: mg/Kg	Final Weight/Volume: 5 mL
Prep Date: N/A		5 mL
Leach Date: N/A		

LCSD Lab Sample ID: LCSD 460-456539/4	Analysis Batch: 460-456539	Instrument ID: CVOAMS9
Client Matrix: Solid	Prep Batch: N/A	Lab File ID: K72114.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 08/15/2017 2202	Units: mg/Kg	Final Weight/Volume: 5 mL
Prep Date: N/A		5 mL
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Dichlorobromomethane	100	96	76 - 129	3	30		
Dichlorodifluoromethane	98	94	72 - 127	4	30		
Ethylbenzene	105	100	79 - 124	5	30		
Ethylene Dibromide	102	99	80 - 122	3	30		
Isopropylbenzene	104	103	80 - 125	2	30		
Methyl acetate	102	102	73 - 123	1	30		
Methyl tert-butyl ether	101	101	80 - 120	0	30		
Methylcyclohexane	108	107	71 - 137	1	30		
Methylene Chloride	104	106	79 - 128	2	30		
m-Xylene & p-Xylene	103	101	79 - 121	2	30		
o-Xylene	104	102	79 - 123	2	30		
Styrene	103	100	78 - 123	3	30		
TBA	107	107	71 - 120	1	30		
Tetrachloroethene	104	102	73 - 130	1	30		
Toluene	106	105	75 - 122	1	30		
trans-1,2-Dichloroethene	105	106	80 - 129	1	30		
trans-1,3-Dichloropropene	104	103	72 - 121	1	30		
Trichloroethene	105	103	79 - 122	2	30		
Trichlorofluoromethane	98	95	68 - 136	3	30		
Vinyl chloride	100	97	70 - 134	4	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	97	98	78 - 135
4-Bromofluorobenzene	100	99	67 - 126
Dibromofluoromethane (Surr)	100	101	61 - 149
Toluene-d8 (Surr)	102	103	73 - 121

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Method Blank - Batch: 460-456664

Method: 8260C Preparation: N/A

Lab Sample ID: MB 460-456664/8
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 08/16/2017 1145
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 460-456664
Prep Batch: N/A
Leach Batch: N/A
Units: mg/Kg

Instrument ID: CVOAMS9
Lab File ID: K72147.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
1,1,1-Trichloroethane	0.0010	U	0.00023	0.0010
1,1,2,2-Tetrachloroethane	0.0010	U	0.00021	0.0010
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0010	U	0.00030	0.0010
1,1,2-Trichloroethane	0.0010	U	0.00018	0.0010
1,1-Dichloroethane	0.0010	U	0.00021	0.0010
1,1-Dichloroethene	0.0010	U	0.00023	0.0010
1,2,3-Trichlorobenzene	0.0010	U	0.00018	0.0010
1,2,4-Trichlorobenzene	0.0010	U	0.000092	0.0010
1,2-Dibromo-3-Chloropropane	0.0010	U	0.00046	0.0010
1,2-Dichlorobenzene	0.0010	U	0.00014	0.0010
1,2-Dichloroethane	0.0010	U	0.00030	0.0010
1,2-Dichloropropane	0.0010	U	0.00042	0.0010
1,3-Dichlorobenzene	0.0010	U	0.00016	0.0010
1,4-Dichlorobenzene	0.0010	U	0.00010	0.0010
1,4-Dioxane	0.020	U	0.0092	0.020
2-Butanone (MEK)	0.0050	U	0.0011	0.0050
2-Hexanone	0.0050	U	0.00078	0.0050
4-Methyl-2-pentanone (MIBK)	0.0050	U	0.00066	0.0050
Acetone	0.0050	U	0.0038	0.0050
Acetonitrile	0.010	U	0.0062	0.010
Acrolein	0.10	U	0.028	0.10
Benzene	0.0010	U	0.00026	0.0010
Bromoform	0.0010	U	0.00043	0.0010
Bromomethane	0.0010	U	0.00047	0.0010
Carbon disulfide	0.0010	U	0.00027	0.0010
Carbon tetrachloride	0.0010	U	0.00018	0.0010
Chlorobenzene	0.0010	U	0.00018	0.0010
Chlorobromomethane	0.0010	U	0.00028	0.0010
Chlorodibromomethane	0.0010	U	0.00019	0.0010
Chloroethane	0.0010	U	0.00052	0.0010
Chloroform	0.0010	U	0.00032	0.0010
Chloromethane	0.0010	U	0.00044	0.0010
cis-1,2-Dichloroethene	0.0010	U	0.00015	0.0010
cis-1,3-Dichloropropene	0.0010	U	0.00027	0.0010
Cyclohexane	0.0010	U	0.00022	0.0010
Dichlorobromomethane	0.0010	U	0.00026	0.0010
Dichlorodifluoromethane	0.0010	U	0.00034	0.0010
Ethylbenzene	0.0010	U	0.00020	0.0010
Ethylene Dibromide	0.0010	U	0.00018	0.0010
Isopropylbenzene	0.0010	U	0.00013	0.0010
Methyl acetate	0.0050	U	0.0043	0.0050
Methyl tert-butyl ether	0.0010	U	0.00013	0.0010
Methylcyclohexane	0.0010	U	0.00016	0.0010
Methylene Chloride	0.0010	U	0.00016	0.0010
m-Xylene & p-Xylene	0.0010	U	0.00017	0.0010

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Method Blank - Batch: 460-456664

Method: 8260C
Preparation: N/A

Lab Sample ID: MB 460-456664/8
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 08/16/2017 1145
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 460-456664
Prep Batch: N/A
Leach Batch: N/A
Units: mg/Kg

Instrument ID: CVOAMS9
Lab File ID: K72147.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
o-Xylene	0.0010	U	0.000095	0.0010
Styrene	0.0010	U	0.00012	0.0010
TBA	0.010	U	0.0033	0.010
Tetrachloroethene	0.0010	U	0.00014	0.0010
Toluene	0.0010	U	0.00063	0.0010
trans-1,2-Dichloroethene	0.0010	U	0.00025	0.0010
trans-1,3-Dichloropropene	0.0010	U	0.00027	0.0010
Trichloroethene	0.0010	U	0.00014	0.0010
Trichlorofluoromethane	0.0010	U	0.00041	0.0010
Vinyl chloride	0.0010	U	0.00055	0.0010

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	102	78 - 135
4-Bromofluorobenzene	99	67 - 126
Dibromofluoromethane (Surr)	102	61 - 149
Toluene-d8 (Surr)	100	73 - 121

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 460-456664

Method: 8260C

Preparation: N/A

LCS Lab Sample ID: LCS 460-456664/4	Analysis Batch: 460-456664	Instrument ID: CVOAMS9
Client Matrix: Solid	Prep Batch: N/A	Lab File ID: K72143.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 08/16/2017 1011	Units: mg/Kg	Final Weight/Volume: 5 mL
Prep Date: N/A		5 mL
Leach Date: N/A		

LCSD Lab Sample ID: LCSD 460-456664/5	Analysis Batch: 460-456664	Instrument ID: CVOAMS9
Client Matrix: Solid	Prep Batch: N/A	Lab File ID: K72144.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 08/16/2017 1034	Units: mg/Kg	Final Weight/Volume: 5 mL
Prep Date: N/A		5 mL
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
1,1,1-Trichloroethane	100	100	80 - 125	1	30		
1,1,2,2-Tetrachloroethane	102	101	72 - 131	1	30		
1,1,2-Trichloro-1,2,2-trifluoroethane	109	108	78 - 132	1	30		
1,1,2-Trichloroethane	99	100	76 - 124	1	30		
1,1-Dichloroethane	108	107	80 - 124	1	30		
1,1-Dichloroethene	105	102	79 - 132	3	30		
1,2,3-Trichlorobenzene	100	97	75 - 123	3	30		
1,2,4-Trichlorobenzene	101	97	74 - 124	4	30		
1,2-Dibromo-3-Chloropropane	84	80	65 - 129	6	30		
1,2-Dichlorobenzene	99	99	80 - 121	0	30		
1,2-Dichloroethane	98	98	68 - 120	0	30		
1,2-Dichloropropane	101	104	77 - 124	3	30		
1,3-Dichlorobenzene	98	98	79 - 124	0	30		
1,4-Dichlorobenzene	98	97	79 - 121	1	30		
1,4-Dioxane	113	118	67 - 150	4	30		
2-Butanone (MEK)	89	92	61 - 140	4	30		
2-Hexanone	99	105	78 - 120	6	30		
4-Methyl-2-pentanone (MIBK)	99	104	80 - 120	6	30		
Acetone	85	88	75 - 120	3	30		
Acetonitrile	90	97	60 - 137	8	30		
Acrolein	60	62	11 - 143	3	30		
Benzene	107	105	75 - 127	2	30		
Bromoform	78	77	19 - 150	1	30		
Bromomethane	104	102	59 - 136	2	30		
Carbon disulfide	104	102	74 - 130	2	30		
Carbon tetrachloride	97	98	77 - 138	1	30		
Chlorobenzene	99	100	80 - 120	2	30		
Chlorobromomethane	102	100	80 - 125	2	30		
Chlorodibromomethane	86	86	67 - 143	1	30		
Chloroethane	113	108	50 - 139	5	30		
Chloroform	104	103	80 - 122	1	30		
Chloromethane	113	107	66 - 128	5	30		
cis-1,2-Dichloroethene	101	102	80 - 123	1	30		
cis-1,3-Dichloropropene	100	101	75 - 124	1	30		
Cyclohexane	109	107	67 - 135	3	30		

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 460-456664

Method: 8260C

Preparation: N/A

LCS Lab Sample ID: LCS 460-456664/4	Analysis Batch: 460-456664	Instrument ID: CVOAMS9
Client Matrix: Solid	Prep Batch: N/A	Lab File ID: K72143.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 08/16/2017 1011	Units: mg/Kg	Final Weight/Volume: 5 mL
Prep Date: N/A		5 mL
Leach Date: N/A		

LCSD Lab Sample ID: LCSD 460-456664/5	Analysis Batch: 460-456664	Instrument ID: CVOAMS9
Client Matrix: Solid	Prep Batch: N/A	Lab File ID: K72144.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 08/16/2017 1034	Units: mg/Kg	Final Weight/Volume: 5 mL
Prep Date: N/A		5 mL
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Dichlorobromomethane	93	95	76 - 129	3	30		
Dichlorodifluoromethane	111	106	72 - 127	5	30		
Ethylbenzene	99	98	79 - 124	1	30		
Ethylene Dibromide	97	98	80 - 122	1	30		
Isopropylbenzene	100	100	80 - 125	0	30		
Methyl acetate	112	106	73 - 123	5	30		
Methyl tert-butyl ether	104	102	80 - 120	3	30		
Methylcyclohexane	107	103	71 - 137	4	30		
Methylene Chloride	108	107	79 - 128	1	30		
m-Xylene & p-Xylene	98	99	79 - 121	1	30		
o-Xylene	99	99	79 - 123	1	30		
Styrene	96	98	78 - 123	2	30		
TBA	99	102	71 - 120	3	30		
Tetrachloroethene	100	99	73 - 130	2	30		
Toluene	101	102	75 - 122	0	30		
trans-1,2-Dichloroethene	106	105	80 - 129	1	30		
trans-1,3-Dichloropropene	98	100	72 - 121	1	30		
Trichloroethene	100	98	79 - 122	2	30		
Trichlorofluoromethane	109	101	68 - 136	8	30		
Vinyl chloride	112	105	70 - 134	6	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104	99	78 - 135
4-Bromofluorobenzene	100	98	67 - 126
Dibromofluoromethane (Surr)	105	101	61 - 149
Toluene-d8 (Surr)	106	103	73 - 121

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Method Blank - Batch: 460-456825

Method: 8260C Preparation: N/A

Lab Sample ID: MB 460-456825/8
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 08/16/2017 2357
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 460-456825
Prep Batch: N/A
Leach Batch: N/A
Units: mg/Kg

Instrument ID: CVOAMS9
Lab File ID: K72177.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
1,1,1-Trichloroethane	0.0010	U	0.00023	0.0010
1,1,2,2-Tetrachloroethane	0.0010	U	0.00021	0.0010
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0010	U	0.00030	0.0010
1,1,2-Trichloroethane	0.0010	U	0.00018	0.0010
1,1-Dichloroethane	0.0010	U	0.00021	0.0010
1,1-Dichloroethene	0.0010	U	0.00023	0.0010
1,2,3-Trichlorobenzene	0.0010	U	0.00018	0.0010
1,2,4-Trichlorobenzene	0.0010	U	0.000092	0.0010
1,2-Dibromo-3-Chloropropane	0.0010	U	0.00046	0.0010
1,2-Dichlorobenzene	0.0010	U	0.00014	0.0010
1,2-Dichloroethane	0.0010	U	0.00030	0.0010
1,2-Dichloropropane	0.0010	U	0.00042	0.0010
1,3-Dichlorobenzene	0.0010	U	0.00016	0.0010
1,4-Dichlorobenzene	0.0010	U	0.00010	0.0010
1,4-Dioxane	0.020	U	0.0092	0.020
2-Butanone (MEK)	0.0050	U	0.0011	0.0050
2-Hexanone	0.0050	U	0.00078	0.0050
4-Methyl-2-pentanone (MIBK)	0.0050	U	0.00066	0.0050
Acetone	0.0050	U	0.0038	0.0050
Acetonitrile	0.010	U	0.0062	0.010
Acrolein	0.10	U	0.028	0.10
Benzene	0.0010	U	0.00026	0.0010
Bromoform	0.0010	U	0.00043	0.0010
Bromomethane	0.0010	U	0.00047	0.0010
Carbon disulfide	0.0010	U	0.00027	0.0010
Carbon tetrachloride	0.0010	U	0.00018	0.0010
Chlorobenzene	0.0010	U	0.00018	0.0010
Chlorobromomethane	0.0010	U	0.00028	0.0010
Chlorodibromomethane	0.0010	U	0.00019	0.0010
Chloroethane	0.0010	U	0.00052	0.0010
Chloroform	0.0010	U	0.00032	0.0010
Chloromethane	0.0010	U	0.00044	0.0010
cis-1,2-Dichloroethene	0.0010	U	0.00015	0.0010
cis-1,3-Dichloropropene	0.0010	U	0.00027	0.0010
Cyclohexane	0.0010	U	0.00022	0.0010
Dichlorobromomethane	0.0010	U	0.00026	0.0010
Dichlorodifluoromethane	0.0010	U	0.00034	0.0010
Ethylbenzene	0.0010	U	0.00020	0.0010
Ethylene Dibromide	0.0010	U	0.00018	0.0010
Isopropylbenzene	0.0010	U	0.00013	0.0010
Methyl acetate	0.0050	U	0.0043	0.0050
Methyl tert-butyl ether	0.0010	U	0.00013	0.0010
Methylcyclohexane	0.0010	U	0.00016	0.0010
Methylene Chloride	0.0010	U	0.00016	0.0010
m-Xylene & p-Xylene	0.0010	U	0.00017	0.0010

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Method Blank - Batch: 460-456825

Method: 8260C Preparation: N/A

Lab Sample ID:	MB 460-456825/8	Analysis Batch:	460-456825	Instrument ID:	CVOAMS9
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	K72177.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	08/16/2017 2357	Units:	mg/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
o-Xylene	0.0010	U	0.000095	0.0010
Styrene	0.0010	U	0.00012	0.0010
TBA	0.010	U	0.0033	0.010
Tetrachloroethene	0.0010	U	0.00014	0.0010
Toluene	0.0010	U	0.00063	0.0010
trans-1,2-Dichloroethene	0.0010	U	0.00025	0.0010
trans-1,3-Dichloropropene	0.0010	U	0.00027	0.0010
Trichloroethene	0.0010	U	0.00014	0.0010
Trichlorofluoromethane	0.0010	U	0.00041	0.0010
Vinyl chloride	0.0010	U	0.00055	0.0010
Surrogate	% Rec	Acceptance Limits		
1,2-Dichloroethane-d4 (Surr)	100	78 - 135		
4-Bromofluorobenzene	103	67 - 126		
Dibromofluoromethane (Surr)	104	61 - 149		
Toluene-d8 (Surr)	104	73 - 121		

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 460-456825

Method: 8260C

Preparation: N/A

LCS Lab Sample ID: LCS 460-456825/4	Analysis Batch: 460-456825	Instrument ID: CVOAMS9
Client Matrix: Solid	Prep Batch: N/A	Lab File ID: K72173.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 08/16/2017 2205	Units: mg/Kg	Final Weight/Volume: 5 mL
Prep Date: N/A		5 mL
Leach Date: N/A		

LCSD Lab Sample ID: LCSD 460-456825/5	Analysis Batch: 460-456825	Instrument ID: CVOAMS9
Client Matrix: Solid	Prep Batch: N/A	Lab File ID: K72174.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 08/16/2017 2235	Units: mg/Kg	Final Weight/Volume: 5 mL
Prep Date: N/A		5 mL
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
1,1,1-Trichloroethane	109	104	80 - 125	4	30		
1,1,2,2-Tetrachloroethane	101	107	72 - 131	6	30		
1,1,2-Trichloro-1,2,2-trifluoroethane	119	112	78 - 132	6	30		
1,1,2-Trichloroethane	106	105	76 - 124	1	30		
1,1-Dichloroethane	114	110	80 - 124	4	30		
1,1-Dichloroethene	112	105	79 - 132	7	30		
1,2,3-Trichlorobenzene	107	109	75 - 123	2	30		
1,2,4-Trichlorobenzene	103	105	74 - 124	2	30		
1,2-Dibromo-3-Chloropropane	84	89	65 - 129	7	30		
1,2-Dichlorobenzene	102	104	80 - 121	2	30		
1,2-Dichloroethane	103	104	68 - 120	2	30		
1,2-Dichloropropane	108	106	77 - 124	2	30		
1,3-Dichlorobenzene	102	102	79 - 124	0	30		
1,4-Dichlorobenzene	102	102	79 - 121	0	30		
1,4-Dioxane	122	124	67 - 150	2	30		
2-Butanone (MEK)	95	95	61 - 140	1	30		
2-Hexanone	112	109	78 - 120	3	30		
4-Methyl-2-pentanone (MIBK)	106	109	80 - 120	3	30		
Acetone	88	91	75 - 120	3	30		
Acetonitrile	104	102	60 - 137	2	30		
Acrolein	61	58	11 - 143	5	30		
Benzene	105	110	75 - 127	5	30		
Bromoform	80	83	19 - 150	4	30		
Bromomethane	110	99	59 - 136	10	30		
Carbon disulfide	110	104	74 - 130	5	30		
Carbon tetrachloride	103	102	77 - 138	1	30		
Chlorobenzene	104	104	80 - 120	0	30		
Chlorobromomethane	104	105	80 - 125	0	30		
Chlorodibromomethane	91	94	67 - 143	3	30		
Chloroethane	111	100	50 - 139	10	30		
Chloroform	110	109	80 - 122	1	30		
Chloromethane	117	106	66 - 128	10	30		
cis-1,2-Dichloroethene	106	106	80 - 123	1	30		
cis-1,3-Dichloropropene	104	104	75 - 124	0	30		
Cyclohexane	117	112	67 - 135	5	30		

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 460-456825

Method: 8260C

Preparation: N/A

LCS Lab Sample ID: LCS 460-456825/4	Analysis Batch: 460-456825	Instrument ID: CVOAMS9
Client Matrix: Solid	Prep Batch: N/A	Lab File ID: K72173.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 08/16/2017 2205	Units: mg/Kg	Final Weight/Volume: 5 mL
Prep Date: N/A		5 mL
Leach Date: N/A		

LCSD Lab Sample ID: LCSD 460-456825/5	Analysis Batch: 460-456825	Instrument ID: CVOAMS9
Client Matrix: Solid	Prep Batch: N/A	Lab File ID: K72174.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 08/16/2017 2235	Units: mg/Kg	Final Weight/Volume: 5 mL
Prep Date: N/A		5 mL
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Dichlorobromomethane	100	100	76 - 129	0	30		
Dichlorodifluoromethane	114	103	72 - 127	10	30		
Ethylbenzene	99	102	79 - 124	3	30		
Ethylene Dibromide	106	103	80 - 122	3	30		
Isopropylbenzene	100	105	80 - 125	4	30		
Methyl acetate	113	117	73 - 123	3	30		
Methyl tert-butyl ether	114	111	80 - 120	2	30		
Methylcyclohexane	114	109	71 - 137	4	30		
Methylene Chloride	117	113	79 - 128	3	30		
m-Xylene & p-Xylene	100	102	79 - 121	2	30		
o-Xylene	100	104	79 - 123	3	30		
Styrene	102	102	78 - 123	0	30		
TBA	110	106	71 - 120	3	30		
Tetrachloroethene	100	102	73 - 130	2	30		
Toluene	104	106	75 - 122	2	30		
trans-1,2-Dichloroethene	112	108	80 - 129	4	30		
trans-1,3-Dichloropropene	109	106	72 - 121	2	30		
Trichloroethene	105	104	79 - 122	1	30		
Trichlorofluoromethane	113	102	68 - 136	10	30		
Vinyl chloride	118	104	70 - 134	12	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	103	102	78 - 135
4-Bromofluorobenzene	100	101	67 - 126
Dibromofluoromethane (Surr)	104	104	61 - 149
Toluene-d8 (Surr)	103	105	73 - 121

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Method Blank - Batch: 460-457628

Method: 8260C

Preparation: 5030C

Lab Sample ID: MB 460-457628/7
Client Matrix: Water
Dilution: 1.0
Analysis Date: 08/21/2017 0635
Prep Date: 08/21/2017 0635
Leach Date: N/A

Analysis Batch: 460-457628
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: CVOAMS2
Lab File ID: B19723.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.28	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.19	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.34	1.0
1,1,2-Trichloroethane	1.0	U	0.080	1.0
1,1-Dichloroethane	1.0	U	0.24	1.0
1,1-Dichloroethene	1.0	U	0.34	1.0
1,2,3-Trichlorobenzene	1.0	U	0.35	1.0
1,2,4-Trichlorobenzene	1.0	U	0.27	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.23	1.0
1,2-Dichlorobenzene	1.0	U	0.22	1.0
1,2-Dichloroethane	1.0	U	0.25	1.0
1,2-Dichloropropane	1.0	U	0.18	1.0
1,3-Dichlorobenzene	1.0	U	0.33	1.0
1,4-Dichlorobenzene	1.0	U	0.33	1.0
1,4-Dioxane	50	U	8.7	50
2-Butanone (MEK)	5.0	U	2.2	5.0
2-Hexanone	5.0	U	0.72	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	0.63	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.090	1.0
Bromoform	1.0	U	0.18	1.0
Bromomethane	1.0	U	0.18	1.0
Carbon disulfide	1.0	U	0.22	1.0
Carbon tetrachloride	1.0	U	0.33	1.0
Chlorobenzene	1.0	U	0.24	1.0
Chlorobromomethane	1.0	U	0.30	1.0
Chlorodibromomethane	1.0	U	0.22	1.0
Chloroethane	1.0	U	0.37	1.0
Chloroform	1.0	U	0.22	1.0
Chloromethane	1.0	U	0.22	1.0
cis-1,2-Dichloroethene	1.0	U	0.26	1.0
cis-1,3-Dichloropropene	1.0	U	0.16	1.0
Cyclohexane	1.0	U	0.26	1.0
Dichlorobromomethane	1.0	U	0.15	1.0
Dichlorodifluoromethane	1.0	U	0.14	1.0
Ethylbenzene	1.0	U	0.30	1.0
Ethylene Dibromide	1.0	U	0.19	1.0
Isopropylbenzene	1.0	U	0.32	1.0
Methyl acetate	5.0	U	0.58	5.0
Methyl tert-butyl ether	1.0	U	0.13	1.0
Methylcyclohexane	1.0	U	0.22	1.0
Methylene Chloride	1.0	U	0.21	1.0
m-Xylene & p-Xylene	1.0	U	0.28	1.0
o-Xylene	1.0	U	0.32	1.0
Styrene	1.0	U	0.17	1.0

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Method Blank - Batch: 460-457628

Method: 8260C

Preparation: 5030C

Lab Sample ID: MB 460-457628/7
Client Matrix: Water
Dilution: 1.0
Analysis Date: 08/21/2017 0635
Prep Date: 08/21/2017 0635
Leach Date: N/A

Analysis Batch: 460-457628
Prep Batch: N/A
Leach Batch: N/A
Units: ug/L

Instrument ID: CVOAMS2
Lab File ID: B19723.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Tetrachloroethene	1.0	U	0.12	1.0
Toluene	1.0	U	0.25	1.0
trans-1,2-Dichloroethene	1.0	U	0.18	1.0
trans-1,3-Dichloropropene	1.0	U	0.19	1.0
Trichloroethene	1.0	U	0.22	1.0
Trichlorofluoromethane	1.0	U	0.15	1.0
Vinyl chloride	1.0	U	0.060	1.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	80	74 - 132
4-Bromofluorobenzene	88	77 - 124
Dibromofluoromethane (Surr)	97	72 - 131
Toluene-d8 (Surr)	92	80 - 120

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 460-457628

Method: 8260C

Preparation: 5030C

LCS Lab Sample ID: LCS 460-457628/3	Analysis Batch: 460-457628	Instrument ID: CVOAMS2
Client Matrix: Water	Prep Batch: N/A	Lab File ID: B19719.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 08/21/2017 0502	Units: ug/L	Final Weight/Volume: 5 mL
Prep Date: 08/21/2017 0502		5 mL
Leach Date: N/A		

LCSD Lab Sample ID: LCSD 460-457628/4	Analysis Batch: 460-457628	Instrument ID: CVOAMS2
Client Matrix: Water	Prep Batch: N/A	Lab File ID: B19720.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 08/21/2017 0525	Units: ug/L	Final Weight/Volume: 5 mL
Prep Date: 08/21/2017 0525		5 mL
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
1,1,1-Trichloroethane	100	94	75 - 125	6	30		
1,1,2,2-Tetrachloroethane	116	116	74 - 120	0	30		
1,1,2-Trichloro-1,2,2-trifluoroethane	110	112	59 - 150	2	30		
1,1,2-Trichloroethane	103	111	78 - 120	7	30		
1,1-Dichloroethane	98	96	77 - 123	2	30		
1,1-Dichloroethene	97	108	74 - 123	10	30		
1,2,3-Trichlorobenzene	95	97	78 - 131	3	30		
1,2,4-Trichlorobenzene	95	100	80 - 124	5	30		
1,2-Dibromo-3-Chloropropane	101	102	55 - 134	1	30		
1,2-Dichlorobenzene	103	105	80 - 120	2	30		
1,2-Dichloroethane	82	83	76 - 121	1	30		
1,2-Dichloropropane	98	94	77 - 123	5	30		
1,3-Dichlorobenzene	95	100	80 - 120	5	30		
1,4-Dichlorobenzene	103	100	80 - 120	4	30		
1,4-Dioxane	102	110	10 - 150	8	30		
2-Butanone (MEK)	119	120	64 - 120	0	30		
2-Hexanone	94	95	71 - 125	1	30		
4-Methyl-2-pentanone (MIBK)	92	96	78 - 124	4	30		
Acetone	99	95	39 - 150	4	30		
Benzene	118	116	77 - 121	2	30		
Bromoform	88	84	53 - 120	4	30		
Bromomethane	81	83	10 - 150	3	30		
Carbon disulfide	111	107	69 - 133	4	30		
Carbon tetrachloride	104	97	70 - 132	7	30		
Chlorobenzene	108	111	80 - 120	3	30		
Chlorobromomethane	100	98	77 - 127	2	30		
Chlorodibromomethane	99	101	73 - 120	1	30		
Chloroethane	103	114	52 - 150	10	30		
Chloroform	98	94	80 - 120	5	30		
Chloromethane	88	80	56 - 131	10	30		
cis-1,2-Dichloroethene	104	101	80 - 120	3	30		
cis-1,3-Dichloropropene	104	109	77 - 120	5	30		
Cyclohexane	109	104	56 - 150	4	30		
Dichlorobromomethane	95	97	76 - 120	2	30		
Dichlorodifluoromethane	106	92	50 - 131	14	30		

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 460-457628

Method: 8260C

Preparation: 5030C

LCS Lab Sample ID: LCS 460-457628/3	Analysis Batch: 460-457628	Instrument ID: CVOAMS2
Client Matrix: Water	Prep Batch: N/A	Lab File ID: B19719.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 08/21/2017 0502	Units: ug/L	Final Weight/Volume: 5 mL
Prep Date: 08/21/2017 0502		5 mL
Leach Date: N/A		

LCSD Lab Sample ID: LCSD 460-457628/4	Analysis Batch: 460-457628	Instrument ID: CVOAMS2
Client Matrix: Water	Prep Batch: N/A	Lab File ID: B19720.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 08/21/2017 0525	Units: ug/L	Final Weight/Volume: 5 mL
Prep Date: 08/21/2017 0525		5 mL
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Ethylbenzene	106	111	80 - 120	5	30		
Ethylene Dibromide	107	114	80 - 120	6	30		
Isopropylbenzene	109	112	80 - 123	3	30		
Methyl acetate	92	91	66 - 144	1	30		
Methyl tert-butyl ether	101	106	79 - 122	5	30		
Methylcyclohexane	113	111	61 - 145	2	30		
Methylene Chloride	115	117	77 - 123	2	30		
m-Xylene & p-Xylene	100	106	80 - 120	6	30		
o-Xylene	97	106	80 - 120	9	30		
Styrene	104	109	80 - 120	5	30		
Tetrachloroethene	100	98	78 - 122	2	30		
Toluene	109	111	80 - 120	2	30		
trans-1,2-Dichloroethene	112	107	79 - 120	5	30		
trans-1,3-Dichloropropene	100	98	76 - 120	1	30		
Trichloroethene	101	97	77 - 120	4	30		
Trichlorofluoromethane	134	122	71 - 143	10	30		
Vinyl chloride	96	84	62 - 138	13	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	78	76	74 - 132
4-Bromofluorobenzene	105	106	77 - 124
Dibromofluoromethane (Surr)	95	92	72 - 131
Toluene-d8 (Surr)	107	108	80 - 120

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Method Blank - Batch: 460-455572

Method: 8270D Preparation: 3546

Lab Sample ID: MB 460-455572/1-A
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 08/12/2017 0724
Prep Date: 08/11/2017 0723
Leach Date: N/A

Analysis Batch: 460-455798
Prep Batch: 460-455572
Leach Batch: N/A
Units: mg/Kg

Instrument ID: CBNAMS5
Lab File ID: X263291.D
Initial Weight/Volume: 15.0000 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Result	Qual	MDL	RL
1,2,4-Trichlorobenzene	0.033	U	0.0073	0.033
1,2-Dichlorobenzene	0.33	U	0.011	0.33
1,3-Dichlorobenzene	0.33	U	0.026	0.33
1,4-Dichlorobenzene	0.33	U	0.026	0.33
2,2'-oxybis[1-chloropropane]	0.33	U	0.014	0.33
2,4-Dinitrotoluene	0.067	U	0.013	0.067
2,6-Dinitrotoluene	0.067	U	0.018	0.067
2-Chloronaphthalene	0.33	U	0.0075	0.33
2-Methylnaphthalene	0.33	U	0.0073	0.33
2-Nitroaniline	0.33	U	0.011	0.33
3,3'-Dichlorobenzidine	0.13	U	0.037	0.13
3-Nitroaniline	0.33	U	0.0098	0.33
4-Bromophenyl phenyl ether	0.33	U	0.010	0.33
4-Chloroaniline	0.33	U	0.0085	0.33
4-Chlorophenyl phenyl ether	0.33	U	0.0099	0.33
4-Nitroaniline	0.33	U	0.013	0.33
Acenaphthene	0.33	U	0.0080	0.33
Acenaphthylene	0.33	U	0.0085	0.33
Anthracene	0.33	U	0.031	0.33
Benzo[a]anthracene	0.033	U	0.028	0.033
Benzo[a]pyrene	0.033	U	0.010	0.033
Benzo[b]fluoranthene	0.033	U	0.013	0.033
Benzo[g,h,i]perylene	0.33	U	0.019	0.33
Benzo[k]fluoranthene	0.033	U	0.014	0.033
Bis(2-chloroethoxy)methane	0.33	U	0.010	0.33
Bis(2-chloroethyl)ether	0.033	U	0.0078	0.033
Bis(2-ethylhexyl) phthalate	0.33	U	0.013	0.33
Butyl benzyl phthalate	0.33	U	0.010	0.33
Carbazole	0.33	U	0.0082	0.33
Chrysene	0.33	U	0.0090	0.33
Dibenz(a,h)anthracene	0.033	U	0.017	0.033
Dibenzofuran	0.33	U	0.010	0.33
Diethyl phthalate	0.33	U	0.0094	0.33
Dimethyl phthalate	0.33	U	0.0096	0.33
Di-n-butyl phthalate	0.33	U	0.0099	0.33
Di-n-octyl phthalate	0.33	U	0.017	0.33
Fluoranthene	0.33	U	0.0098	0.33
Fluorene	0.33	U	0.0072	0.33
Hexachlorobenzene	0.033	U	0.013	0.033
Hexachlorobutadiene	0.067	U	0.0093	0.067
Hexachlorocyclopentadiene	0.33	U	0.021	0.33
Hexachloroethane	0.033	U	0.012	0.033
Indeno[1,2,3-cd]pyrene	0.033	U	0.022	0.033
Isophorone	0.13	U	0.0071	0.13
Naphthalene	0.33	U	0.0084	0.33

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Method Blank - Batch: 460-455572

Method: 8270D Preparation: 3546

Lab Sample ID: MB 460-455572/1-A
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 08/12/2017 0724
Prep Date: 08/11/2017 0723
Leach Date: N/A

Analysis Batch: 460-455798
Prep Batch: 460-455572
Leach Batch: N/A
Units: mg/Kg

Instrument ID: CBNAMS5
Lab File ID: X263291.D
Initial Weight/Volume: 15.0000 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Result	Qual	MDL	RL
Nitrobenzene	0.033	U	0.010	0.033
N-Nitrosodi-n-propylamine	0.033	U	0.011	0.033
N-Nitrosodiphenylamine	0.33	U	0.030	0.33
Phenanthrene	0.33	U	0.0088	0.33
Pyrene	0.33	U	0.015	0.33
Surrogate	% Rec		Acceptance Limits	
2-Fluorobiphenyl	74		38 - 95	
Nitrobenzene-d5 (Surr)	77		37 - 94	
Terphenyl-d14 (Surr)	86		24 - 109	

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Lab Control Sample - Batch: 460-455572

Method: 8270D
Preparation: 3546

Lab Sample ID:	LCS 460-455572/2-A	Analysis Batch:	460-455798	Instrument ID:	CBNAMS5
Client Matrix:	Solid	Prep Batch:	460-455572	Lab File ID:	X263290.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.0000 g
Analysis Date:	08/12/2017 0700	Units:	mg/Kg	Final Weight/Volume:	1 mL
Prep Date:	08/11/2017 0723			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,2,4-Trichlorobenzene	3.33	2.72	82	62 - 104	
1,2-Dichlorobenzene	3.33	2.59	78	64 - 98	
1,3-Dichlorobenzene	3.33	2.59	78	62 - 96	
1,4-Dichlorobenzene	3.33	2.60	78	63 - 97	
2,2'-oxybis[1-chloropropane]	3.33	2.22	67	39 - 122	
2,4-Dinitrotoluene	3.33	3.09	93	66 - 122	
2,6-Dinitrotoluene	3.33	2.88	86	70 - 114	
2-Chloronaphthalene	3.33	2.59	78	63 - 107	
2-Methylnaphthalene	3.33	2.74	82	65 - 104	
2-Nitroaniline	3.33	2.58	77	57 - 114	
3,3'-Dichlorobenzidine	3.33	1.76	53	18 - 88	
3-Nitroaniline	3.33	2.22	67	30 - 94	
4-Bromophenyl phenyl ether	3.33	2.70	81	59 - 122	
4-Chloroaniline	3.33	2.17	65	18 - 94	
4-Chlorophenyl phenyl ether	3.33	2.75	82	66 - 110	
4-Nitroaniline	3.33	2.67	80	49 - 118	
Acenaphthene	3.33	2.72	82	62 - 108	
Acenaphthylene	3.33	2.73	82	67 - 107	
Anthracene	3.33	2.80	84	69 - 111	
Benzo[a]anthracene	3.33	2.75	83	68 - 110	
Benzo[a]pyrene	3.33	2.83	85	72 - 115	
Benzo[b]fluoranthene	3.33	2.84	85	69 - 119	
Benzo[g,h,i]perylene	3.33	2.75	83	54 - 128	
Benzo[k]fluoranthene	3.33	2.83	85	70 - 115	
Bis(2-chloroethoxy)methane	3.33	2.58	77	65 - 106	
Bis(2-chloroethyl)ether	3.33	2.59	78	64 - 105	
Bis(2-ethylhexyl) phthalate	3.33	2.93	88	63 - 125	
Butyl benzyl phthalate	3.33	2.87	86	65 - 125	
Carbazole	3.33	2.85	86	66 - 115	
Chrysene	3.33	2.79	84	70 - 111	
Dibenz(a,h)anthracene	3.33	2.90	87	60 - 130	
Dibenzofuran	3.33	2.72	82	67 - 107	
Diethyl phthalate	3.33	3.02	90	66 - 117	
Dimethyl phthalate	3.33	2.91	87	68 - 112	
Di-n-butyl phthalate	3.33	3.01	90	67 - 119	
Di-n-octyl phthalate	3.33	3.00	90	57 - 138	
Fluoranthene	3.33	2.93	88	64 - 114	
Fluorene	3.33	2.76	83	66 - 110	
Hexachlorobenzene	3.33	2.96	89	57 - 128	
Hexachlorobutadiene	3.33	2.93	88	60 - 108	
Hexachlorocyclopentadiene	3.33	2.99	90	50 - 129	

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Lab Control Sample - Batch: 460-455572

Method: 8270D
Preparation: 3546

Lab Sample ID:	LCS 460-455572/2-A	Analysis Batch:	460-455798	Instrument ID:	CBNAM5
Client Matrix:	Solid	Prep Batch:	460-455572	Lab File ID:	X263290.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.0000 g
Analysis Date:	08/12/2017 0700	Units:	mg/Kg	Final Weight/Volume:	1 mL
Prep Date:	08/11/2017 0723			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Hexachloroethane	3.33	2.59	78	63 - 99	
Indeno[1,2,3-cd]pyrene	3.33	2.62	79	53 - 137	
Isophorone	3.33	2.76	83	68 - 111	
Naphthalene	3.33	2.64	79	65 - 102	
Nitrobenzene	3.33	2.60	78	66 - 108	
N-Nitrosodi-n-propylamine	3.33	2.63	79	63 - 117	
N-Nitrosodiphenylamine	3.33	2.63	79	65 - 114	
Phenanthrene	3.33	2.76	83	68 - 111	
Pyrene	3.33	2.62	79	64 - 121	
Surrogate	% Rec		Acceptance Limits		
2-Fluorobiphenyl	78		38 - 95		
Nitrobenzene-d5 (Surr)	83		37 - 94		
Terphenyl-d14 (Surr)	77		24 - 109		

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 460-455572

Method: 8270D
Preparation: 3546

MS Lab Sample ID: 460-138308-A-3-B MS
Client Matrix: Solid
Dilution: 10
Analysis Date: 08/14/2017 2217
Prep Date: 08/11/2017 0723
Leach Date: N/A

Analysis Batch: 460-456219
Prep Batch: 460-455572
Leach Batch: N/A

Instrument ID: CBNAMS5
Lab File ID: X263362.D
Initial Weight/Volume: 15.0201 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

MSD Lab Sample ID: 460-138308-A-3-C MSD
Client Matrix: Solid
Dilution: 10
Analysis Date: 08/14/2017 2129
Prep Date: 08/11/2017 0723
Leach Date: N/A

Analysis Batch: 460-456219
Prep Batch: 460-455572
Leach Batch: N/A

Instrument ID: CBNAMS5
Lab File ID: X263360.D
Initial Weight/Volume: 15.0432 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
1,2,4-Trichlorobenzene	70	70	62 - 104	0	30		
1,2-Dichlorobenzene	65	62	64 - 98	4	30	J	J *
1,3-Dichlorobenzene	63	62	62 - 96	2	30	J	J
1,4-Dichlorobenzene	64	63	63 - 97	2	30	J	J
2,2'-oxybis[1-chloropropane]	58	58	39 - 122	0	30	J	J
2,4-Dinitrotoluene	203	210	66 - 122	3	30	*	*
2,6-Dinitrotoluene	105	109	70 - 114	4	30		
2-Chloronaphthalene	74	71	63 - 107	4	30	J	J
2-Methylnaphthalene	296	346	65 - 104	5	30	*	*
2-Nitroaniline	183	182	57 - 114	1	30	*	*
3,3'-Dichlorobenzidine	50	50	18 - 88	1	30		
3-Nitroaniline	21	79	30 - 94	117	30	J *	J *
4-Bromophenyl phenyl ether	68	75	59 - 122	10	30	J	J
4-Chloroaniline	16	15	18 - 94	6	30	J *	J *
4-Chlorophenyl phenyl ether	74	73	66 - 110	2	30	J	J
4-Nitroaniline	60	60	49 - 118	0	30	J	J
Acenaphthene	124	116	62 - 108	7	30	*	*
Acenaphthylene	94	94	67 - 107	0	30	J	J
Anthracene	77	98	69 - 111	22	30	J	
Benzo[a]anthracene	76	75	68 - 110	1	30		
Benzo[a]pyrene	70	72	72 - 115	3	30	*	
Benzo[b]fluoranthene	65	68	69 - 119	4	30	*	*
Benzo[g,h,i]perylene	64	66	54 - 128	2	30	J	J
Benzo[k]fluoranthene	75	79	70 - 115	5	30		
Bis(2-chloroethoxy)methane	75	74	65 - 106	1	30	J	J
Bis(2-chloroethyl)ether	62	60	64 - 105	3	30	*	*
Bis(2-ethylhexyl) phthalate	67	71	63 - 125	7	30	J	J
Butyl benzyl phthalate	72	73	65 - 125	1	30	J	J
Carbazole	90	92	66 - 115	1	30	J	J
Chrysene	73	78	70 - 111	7	30	J	J
Dibenz(a,h)anthracene	63	66	60 - 130	4	30		
Dibenzofuran	124	121	67 - 107	3	30	*	*

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 460-455572

Method: 8270D
Preparation: 3546

MS Lab Sample ID: 460-138308-A-3-B MS	Analysis Batch: 460-456219	Instrument ID: CBNAMS5
Client Matrix: Solid	Prep Batch: 460-455572	Lab File ID: X263362.D
Dilution: 10	Leach Batch: N/A	Initial Weight/Volume: 15.0201 g
Analysis Date: 08/14/2017 2217		Final Weight/Volume: 1 mL
Prep Date: 08/11/2017 0723		Injection Volume: 1 uL
Leach Date: N/A		

MSD Lab Sample ID: 460-138308-A-3-C MSD	Analysis Batch: 460-456219	Instrument ID: CBNAMS5
Client Matrix: Solid	Prep Batch: 460-455572	Lab File ID: X263360.D
Dilution: 10	Leach Batch: N/A	Initial Weight/Volume: 15.0432 g
Analysis Date: 08/14/2017 2129		Final Weight/Volume: 1 mL
Prep Date: 08/11/2017 0723		Injection Volume: 1 uL
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Diethyl phthalate	87	90	66 - 117	3	30	J	J
Dimethyl phthalate	84	85	68 - 112	0	30	J	J
Di-n-butyl phthalate	83	86	67 - 119	3	30	J	J
Di-n-octyl phthalate	64	66	57 - 138	3	30	J	J
Fluoranthene	87	85	64 - 114	2	30	J	J
Fluorene	97	102	66 - 110	3	30		
Hexachlorobenzene	74	72	57 - 128	3	30		
Hexachlorobutadiene	70	70	60 - 108	1	30		
Hexachlorocyclopentadiene	30	25	50 - 129	19	30	J *	J *
Hexachloroethane	68	64	63 - 99	6	30		
Indeno[1,2,3-cd]pyrene	52	58	53 - 137	10	30	*	
Isophorone	87	91	68 - 111	4	30		
Naphthalene	83	8	65 - 102	166	30	J	J *
Nitrobenzene	60	63	66 - 108	4	30	*	*
N-Nitrosodi-n-propylamine	79	82	63 - 117	4	30		
N-Nitrosodiphenylamine	267	257	65 - 114	4	30	*	*
Phenanthrene	126	140	68 - 111	4	30	*	*
Pyrene	68	71	64 - 121	4	30	J	J
Surrogate	MS % Rec		MSD % Rec		Acceptance Limits		
2-Fluorobiphenyl	74		69		38 - 95		
Nitrobenzene-d5 (Surr)	75		76		37 - 94		
Terphenyl-d14 (Surr)	65		63		24 - 109		

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Method Blank - Batch: 460-455573

Method: 8270D Preparation: 3546

Lab Sample ID: MB 460-455573/1-A
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 08/11/2017 1852
Prep Date: 08/11/2017 0728
Leach Date: N/A

Analysis Batch: 460-455727
Prep Batch: 460-455573
Leach Batch: N/A
Units: mg/Kg

Instrument ID: CBNAMS11
Lab File ID: z47124.D
Initial Weight/Volume: 15.0000 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Result	Qual	MDL	RL
1,2,4-Trichlorobenzene	0.033	U	0.0073	0.033
1,2-Dichlorobenzene	0.33	U	0.011	0.33
1,3-Dichlorobenzene	0.33	U	0.026	0.33
1,4-Dichlorobenzene	0.33	U	0.026	0.33
2,2'-oxybis[1-chloropropane]	0.33	U	0.014	0.33
2,4-Dinitrotoluene	0.067	U	0.013	0.067
2,6-Dinitrotoluene	0.067	U	0.018	0.067
2-Chloronaphthalene	0.33	U	0.0075	0.33
2-Methylnaphthalene	0.33	U	0.0073	0.33
2-Nitroaniline	0.33	U	0.011	0.33
3,3'-Dichlorobenzidine	0.13	U	0.037	0.13
3-Nitroaniline	0.33	U	0.0098	0.33
4-Bromophenyl phenyl ether	0.33	U	0.010	0.33
4-Chloroaniline	0.33	U	0.0085	0.33
4-Chlorophenyl phenyl ether	0.33	U	0.0099	0.33
4-Nitroaniline	0.33	U	0.013	0.33
Acenaphthene	0.33	U	0.0080	0.33
Acenaphthylene	0.33	U	0.0085	0.33
Anthracene	0.33	U	0.031	0.33
Benzo[a]anthracene	0.033	U	0.028	0.033
Benzo[a]pyrene	0.033	U	0.010	0.033
Benzo[b]fluoranthene	0.033	U	0.013	0.033
Benzo[g,h,i]perylene	0.33	U	0.019	0.33
Benzo[k]fluoranthene	0.033	U	0.014	0.033
Bis(2-chloroethoxy)methane	0.33	U	0.010	0.33
Bis(2-chloroethyl)ether	0.033	U	0.0078	0.033
Bis(2-ethylhexyl) phthalate	0.33	U	0.013	0.33
Butyl benzyl phthalate	0.33	U	0.010	0.33
Carbazole	0.33	U	0.0082	0.33
Chrysene	0.33	U	0.0090	0.33
Dibenz(a,h)anthracene	0.033	U	0.017	0.033
Dibenzofuran	0.33	U	0.010	0.33
Diethyl phthalate	0.33	U	0.0094	0.33
Dimethyl phthalate	0.33	U	0.0096	0.33
Di-n-butyl phthalate	0.33	U	0.0099	0.33
Di-n-octyl phthalate	0.33	U	0.017	0.33
Fluoranthene	0.33	U	0.0098	0.33
Fluorene	0.33	U	0.0072	0.33
Hexachlorobenzene	0.033	U	0.013	0.033
Hexachlorobutadiene	0.067	U	0.0093	0.067
Hexachlorocyclopentadiene	0.33	U	0.021	0.33
Hexachloroethane	0.033	U	0.012	0.033
Indeno[1,2,3-cd]pyrene	0.033	U	0.022	0.033
Isophorone	0.13	U	0.0071	0.13
Naphthalene	0.33	U	0.0084	0.33

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Method Blank - Batch: 460-455573

Method: 8270D Preparation: 3546

Lab Sample ID: MB 460-455573/1-A
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 08/11/2017 1852
Prep Date: 08/11/2017 0728
Leach Date: N/A

Analysis Batch: 460-455727
Prep Batch: 460-455573
Leach Batch: N/A
Units: mg/Kg

Instrument ID: CBNAMS11
Lab File ID: z47124.D
Initial Weight/Volume: 15.0000 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Result	Qual	MDL	RL
Nitrobenzene	0.033	U	0.010	0.033
N-Nitrosodi-n-propylamine	0.033	U	0.011	0.033
N-Nitrosodiphenylamine	0.33	U	0.030	0.33
Phenanthrene	0.33	U	0.0088	0.33
Pyrene	0.33	U	0.015	0.33
Surrogate	% Rec		Acceptance Limits	
2-Fluorobiphenyl	66		38 - 95	
Nitrobenzene-d5 (Surr)	67		37 - 94	
Terphenyl-d14 (Surr)	78		24 - 109	

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Lab Control Sample - Batch: 460-455573

Method: 8270D
Preparation: 3546

Lab Sample ID:	LCS 460-455573/2-A	Analysis Batch:	460-455727	Instrument ID:	CBNAMS11
Client Matrix:	Solid	Prep Batch:	460-455573	Lab File ID:	z47125.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.0000 g
Analysis Date:	08/11/2017 1916	Units:	mg/Kg	Final Weight/Volume:	1 mL
Prep Date:	08/11/2017 0728			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,2,4-Trichlorobenzene	3.33	2.84	85	62 - 104	
1,2-Dichlorobenzene	3.33	2.77	83	64 - 98	
1,3-Dichlorobenzene	3.33	2.72	82	62 - 96	
1,4-Dichlorobenzene	3.33	2.70	81	63 - 97	
2,2'-oxybis[1-chloropropane]	3.33	2.76	83	39 - 122	
2,4-Dinitrotoluene	3.33	3.11	93	66 - 122	
2,6-Dinitrotoluene	3.33	3.15	95	70 - 114	
2-Chloronaphthalene	3.33	2.84	85	63 - 107	
2-Methylnaphthalene	3.33	2.82	85	65 - 104	
2-Nitroaniline	3.33	2.86	86	57 - 114	
3,3'-Dichlorobenzidine	3.33	1.90	57	18 - 88	
3-Nitroaniline	3.33	2.04	61	30 - 94	
4-Bromophenyl phenyl ether	3.33	3.07	92	59 - 122	
4-Chloroaniline	3.33	2.21	66	18 - 94	
4-Chlorophenyl phenyl ether	3.33	2.87	86	66 - 110	
4-Nitroaniline	3.33	2.76	83	49 - 118	
Acenaphthene	3.33	2.81	84	62 - 108	
Acenaphthylene	3.33	2.94	88	67 - 107	
Anthracene	3.33	3.04	91	69 - 111	
Benzo[a]anthracene	3.33	3.08	92	68 - 110	
Benzo[a]pyrene	3.33	3.38	101	72 - 115	
Benzo[b]fluoranthene	3.33	3.24	97	69 - 119	
Benzo[g,h,i]perylene	3.33	3.34	100	54 - 128	
Benzo[k]fluoranthene	3.33	3.20	96	70 - 115	
Bis(2-chloroethoxy)methane	3.33	2.76	83	65 - 106	
Bis(2-chloroethyl)ether	3.33	2.82	84	64 - 105	
Bis(2-ethylhexyl) phthalate	3.33	3.07	92	63 - 125	
Butyl benzyl phthalate	3.33	2.99	90	65 - 125	
Carbazole	3.33	3.04	91	66 - 115	
Chrysene	3.33	3.07	92	70 - 111	
Dibenz(a,h)anthracene	3.33	3.41	102	60 - 130	
Dibenzofuran	3.33	2.89	87	67 - 107	
Diethyl phthalate	3.33	2.95	89	66 - 117	
Dimethyl phthalate	3.33	2.93	88	68 - 112	
Di-n-butyl phthalate	3.33	3.08	92	67 - 119	
Di-n-octyl phthalate	3.33	3.07	92	57 - 138	
Fluoranthene	3.33	3.04	91	64 - 114	
Fluorene	3.33	2.89	87	66 - 110	
Hexachlorobenzene	3.33	3.27	98	57 - 128	
Hexachlorobutadiene	3.33	2.92	88	60 - 108	
Hexachlorocyclopentadiene	3.33	2.81	84	50 - 129	

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Lab Control Sample - Batch: 460-455573

Method: 8270D
Preparation: 3546

Lab Sample ID:	LCS 460-455573/2-A	Analysis Batch:	460-455727	Instrument ID:	CBNAMS11
Client Matrix:	Solid	Prep Batch:	460-455573	Lab File ID:	z47125.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.0000 g
Analysis Date:	08/11/2017 1916	Units:	mg/Kg	Final Weight/Volume:	1 mL
Prep Date:	08/11/2017 0728			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Hexachloroethane	3.33	2.73	82	63 - 99	
Indeno[1,2,3-cd]pyrene	3.33	3.44	103	53 - 137	
Isophorone	3.33	2.87	86	68 - 111	
Naphthalene	3.33	2.78	83	65 - 102	
Nitrobenzene	3.33	2.74	82	66 - 108	
N-Nitrosodi-n-propylamine	3.33	3.01	90	63 - 117	
N-Nitrosodiphenylamine	3.33	3.05	92	65 - 114	
Phenanthrene	3.33	3.01	90	68 - 111	
Pyrene	3.33	2.91	87	64 - 121	
Surrogate	% Rec		Acceptance Limits		
2-Fluorobiphenyl	83		38 - 95		
Nitrobenzene-d5 (Surr)	80		37 - 94		
Terphenyl-d14 (Surr)	89		24 - 109		

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 460-455573

Method: 8270D
Preparation: 3546

MS Lab Sample ID: 460-138836-4
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 08/11/2017 2026
Prep Date: 08/11/2017 0728
Leach Date: N/A

Analysis Batch: 460-455727
Prep Batch: 460-455573
Leach Batch: N/A

Instrument ID: CBNAMS11
Lab File ID: z47128.D
Initial Weight/Volume: 15.0219 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

MSD Lab Sample ID: 460-138836-4
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 08/11/2017 2050
Prep Date: 08/11/2017 0728
Leach Date: N/A

Analysis Batch: 460-455727
Prep Batch: 460-455573
Leach Batch: N/A

Instrument ID: CBNAMS11
Lab File ID: z47129.D
Initial Weight/Volume: 15.0415 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
1,2,4-Trichlorobenzene	70	75	62 - 104	6	30		
1,2-Dichlorobenzene	68	70	64 - 98	3	30		
1,3-Dichlorobenzene	67	68	62 - 96	1	30		
1,4-Dichlorobenzene	67	68	63 - 97	2	30		
2,2'-oxybis[1-chloropropane]	67	70	39 - 122	4	30		
2,4-Dinitrotoluene	78	88	66 - 122	11	30		
2,6-Dinitrotoluene	76	85	70 - 114	11	30		
2-Chloronaphthalene	68	75	63 - 107	10	30		
2-Methylnaphthalene	71	77	65 - 104	7	30		
2-Nitroaniline	69	77	57 - 114	11	30		
3,3'-Dichlorobenzidine	54	67	18 - 88	22	30		
3-Nitroaniline	57	64	30 - 94	12	30		
4-Bromophenyl phenyl ether	76	84	59 - 122	10	30		
4-Chloroaniline	54	61	18 - 94	13	30		
4-Chlorophenyl phenyl ether	71	79	66 - 110	10	30		
4-Nitroaniline	72	78	49 - 118	9	30		
Acenaphthene	68	76	62 - 108	10	30		
Acenaphthylene	72	78	67 - 107	9	30		
Anthracene	75	82	69 - 111	9	30		
Benzo[a]anthracene	75	84	68 - 110	12	30		
Benzo[a]pyrene	83	91	72 - 115	10	30		
Benzo[b]fluoranthene	79	88	69 - 119	10	30		
Benzo[g,h,i]perylene	80	90	54 - 128	12	30		
Benzo[k]fluoranthene	77	86	70 - 115	10	30		
Bis(2-chloroethoxy)methane	69	74	65 - 106	7	30		
Bis(2-chloroethyl)ether	67	70	64 - 105	3	30		
Bis(2-ethylhexyl) phthalate	73	82	63 - 125	12	30		
Butyl benzyl phthalate	72	80	65 - 125	11	30		
Carbazole	73	79	66 - 115	7	30		
Chrysene	75	84	70 - 111	11	30		
Dibenz(a,h)anthracene	82	92	60 - 130	12	30		
Dibenzofuran	72	79	67 - 107	9	30		

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 460-455573

Method: 8270D
Preparation: 3546

MS Lab Sample ID: 460-138836-4
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 08/11/2017 2026
Prep Date: 08/11/2017 0728
Leach Date: N/A

Analysis Batch: 460-455727
Prep Batch: 460-455573
Leach Batch: N/A

Instrument ID: CBNAMS11
Lab File ID: z47128.D
Initial Weight/Volume: 15.0219 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

MSD Lab Sample ID: 460-138836-4
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 08/11/2017 2050
Prep Date: 08/11/2017 0728
Leach Date: N/A

Analysis Batch: 460-455727
Prep Batch: 460-455573
Leach Batch: N/A

Instrument ID: CBNAMS11
Lab File ID: z47129.D
Initial Weight/Volume: 15.0415 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Diethyl phthalate	74	82	66 - 117	10	30		
Dimethyl phthalate	73	81	68 - 112	10	30		
Di-n-butyl phthalate	74	81	67 - 119	9	30		
Di-n-octyl phthalate	73	80	57 - 138	9	30		
Fluoranthene	72	80	64 - 114	10	30		
Fluorene	73	80	66 - 110	10	30		
Hexachlorobenzene	82	89	57 - 128	8	30		
Hexachlorobutadiene	74	78	60 - 108	5	30		
Hexachlorocyclopentadiene	56	57	50 - 129	3	30		
Hexachloroethane	69	71	63 - 99	2	30		
Indeno[1,2,3-cd]pyrene	83	93	53 - 137	12	30		
Isophorone	73	78	68 - 111	7	30		
Naphthalene	69	75	65 - 102	7	30		
Nitrobenzene	67	71	66 - 108	6	30		
N-Nitrosodi-n-propylamine	76	82	63 - 117	6	30		
N-Nitrosodiphenylamine	74	81	65 - 114	9	30		
Phenanthrene	74	81	68 - 111	9	30		
Pyrene	70	79	64 - 121	12	30		
Surrogate	MS % Rec		MSD % Rec		Acceptance Limits		
2-Fluorobiphenyl	68		74		38 - 95		
Nitrobenzene-d5 (Surr)	65		70		37 - 94		
Terphenyl-d14 (Surr)	73		82		24 - 109		

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Method Blank - Batch: 460-455775

Method: 8270D Preparation: 3546

Lab Sample ID: MB 460-455775/1-A
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 08/14/2017 0506
Prep Date: 08/11/2017 2150
Leach Date: N/A

Analysis Batch: 460-456035
Prep Batch: 460-455775
Leach Batch: N/A
Units: mg/Kg

Instrument ID: CBNAMS12
Lab File ID: L19790.D
Initial Weight/Volume: 15.0000 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Result	Qual	MDL	RL
1,2,4-Trichlorobenzene	0.033	U	0.0073	0.033
1,2-Dichlorobenzene	0.33	U	0.011	0.33
1,3-Dichlorobenzene	0.33	U	0.026	0.33
1,4-Dichlorobenzene	0.33	U	0.026	0.33
2,2'-oxybis[1-chloropropane]	0.33	U	0.014	0.33
2,4-Dinitrotoluene	0.067	U	0.013	0.067
2,6-Dinitrotoluene	0.067	U	0.018	0.067
2-Chloronaphthalene	0.33	U	0.0075	0.33
2-Methylnaphthalene	0.33	U	0.0073	0.33
2-Nitroaniline	0.33	U	0.011	0.33
3,3'-Dichlorobenzidine	0.13	U	0.037	0.13
3-Nitroaniline	0.33	U	0.0098	0.33
4-Bromophenyl phenyl ether	0.33	U	0.010	0.33
4-Chloroaniline	0.33	U	0.0085	0.33
4-Chlorophenyl phenyl ether	0.33	U	0.0099	0.33
4-Nitroaniline	0.33	U	0.013	0.33
Acenaphthene	0.33	U	0.0080	0.33
Acenaphthylene	0.33	U	0.0085	0.33
Anthracene	0.33	U	0.031	0.33
Benzo[a]anthracene	0.033	U	0.028	0.033
Benzo[a]pyrene	0.033	U	0.010	0.033
Benzo[b]fluoranthene	0.033	U	0.013	0.033
Benzo[g,h,i]perylene	0.33	U	0.019	0.33
Benzo[k]fluoranthene	0.033	U	0.014	0.033
Bis(2-chloroethoxy)methane	0.33	U	0.010	0.33
Bis(2-chloroethyl)ether	0.033	U	0.0078	0.033
Bis(2-ethylhexyl) phthalate	0.33	U	0.013	0.33
Butyl benzyl phthalate	0.33	U	0.010	0.33
Carbazole	0.33	U	0.0082	0.33
Chrysene	0.33	U	0.0090	0.33
Dibenz(a,h)anthracene	0.033	U	0.017	0.033
Dibenzofuran	0.33	U	0.010	0.33
Diethyl phthalate	0.33	U	0.0094	0.33
Dimethyl phthalate	0.33	U	0.0096	0.33
Di-n-butyl phthalate	0.33	U	0.0099	0.33
Di-n-octyl phthalate	0.33	U	0.017	0.33
Fluoranthene	0.33	U	0.0098	0.33
Fluorene	0.33	U	0.0072	0.33
Hexachlorobenzene	0.033	U	0.013	0.033
Hexachlorobutadiene	0.067	U	0.0093	0.067
Hexachlorocyclopentadiene	0.33	U	0.021	0.33
Hexachloroethane	0.033	U	0.012	0.033
Indeno[1,2,3-cd]pyrene	0.033	U	0.022	0.033
Isophorone	0.13	U	0.0071	0.13
Naphthalene	0.33	U	0.0084	0.33

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Method Blank - Batch: 460-455775

Method: 8270D Preparation: 3546

Lab Sample ID: MB 460-455775/1-A
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 08/14/2017 0506
Prep Date: 08/11/2017 2150
Leach Date: N/A

Analysis Batch: 460-456035
Prep Batch: 460-455775
Leach Batch: N/A
Units: mg/Kg

Instrument ID: CBNAMS12
Lab File ID: L19790.D
Initial Weight/Volume: 15.0000 g
Final Weight/Volume: 1 mL
Injection Volume: 1 uL

Analyte	Result	Qual	MDL	RL
Nitrobenzene	0.033	U	0.010	0.033
N-Nitrosodi-n-propylamine	0.033	U	0.011	0.033
N-Nitrosodiphenylamine	0.33	U	0.030	0.33
Phenanthrene	0.33	U	0.0088	0.33
Pyrene	0.33	U	0.015	0.33
Surrogate	% Rec		Acceptance Limits	
2-Fluorobiphenyl	73		38 - 95	
Nitrobenzene-d5 (Surr)	83		37 - 94	
Terphenyl-d14 (Surr)	87		24 - 109	

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Lab Control Sample - Batch: 460-455775

Method: 8270D
Preparation: 3546

Lab Sample ID:	LCS 460-455775/2-A	Analysis Batch:	460-456035	Instrument ID:	CBNAMS12
Client Matrix:	Solid	Prep Batch:	460-455775	Lab File ID:	L19791.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.0000 g
Analysis Date:	08/14/2017 0527	Units:	mg/Kg	Final Weight/Volume:	1 mL
Prep Date:	08/11/2017 2150			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,2,4-Trichlorobenzene	3.33	2.85	86	62 - 104	
1,2-Dichlorobenzene	3.33	2.90	87	64 - 98	
1,3-Dichlorobenzene	3.33	2.80	84	62 - 96	
1,4-Dichlorobenzene	3.33	2.84	85	63 - 97	
2,2'-oxybis[1-chloropropane]	3.33	3.01	90	39 - 122	
2,4-Dinitrotoluene	3.33	3.44	103	66 - 122	
2,6-Dinitrotoluene	3.33	3.50	105	70 - 114	
2-Chloronaphthalene	3.33	2.88	87	63 - 107	
2-Methylnaphthalene	3.33	3.00	90	65 - 104	
2-Nitroaniline	3.33	2.89	87	57 - 114	
3,3'-Dichlorobenzidine	3.33	2.14	64	18 - 88	
3-Nitroaniline	3.33	3.12	94	30 - 94	
4-Bromophenyl phenyl ether	3.33	3.01	90	59 - 122	
4-Chloroaniline	3.33	2.52	76	18 - 94	
4-Chlorophenyl phenyl ether	3.33	3.00	90	66 - 110	
4-Nitroaniline	3.33	3.69	111	49 - 118	
Acenaphthene	3.33	2.74	82	62 - 108	
Acenaphthylene	3.33	3.07	92	67 - 107	
Anthracene	3.33	3.10	93	69 - 111	
Benzo[a]anthracene	3.33	3.16	95	68 - 110	
Benzo[a]pyrene	3.33	3.51	105	72 - 115	
Benzo[b]fluoranthene	3.33	3.63	109	69 - 119	
Benzo[g,h,i]perylene	3.33	2.37	71	54 - 128	
Benzo[k]fluoranthene	3.33	3.51	105	70 - 115	
Bis(2-chloroethoxy)methane	3.33	3.09	93	65 - 106	
Bis(2-chloroethyl)ether	3.33	3.16	95	64 - 105	
Bis(2-ethylhexyl) phthalate	3.33	3.20	96	63 - 125	
Butyl benzyl phthalate	3.33	3.21	96	65 - 125	
Carbazole	3.33	3.28	98	66 - 115	
Chrysene	3.33	2.99	90	70 - 111	
Dibenz(a,h)anthracene	3.33	2.59	78	60 - 130	
Dibenzofuran	3.33	3.05	91	67 - 107	
Diethyl phthalate	3.33	3.23	97	66 - 117	
Dimethyl phthalate	3.33	3.16	95	68 - 112	
Di-n-butyl phthalate	3.33	3.18	95	67 - 119	
Di-n-octyl phthalate	3.33	4.01	120	57 - 138	
Fluoranthene	3.33	3.09	93	64 - 114	
Fluorene	3.33	3.08	92	66 - 110	
Hexachlorobenzene	3.33	3.02	91	57 - 128	
Hexachlorobutadiene	3.33	2.80	84	60 - 108	
Hexachlorocyclopentadiene	3.33	3.05	92	50 - 129	

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Lab Control Sample - Batch: 460-455775

Method: 8270D
Preparation: 3546

Lab Sample ID:	LCS 460-455775/2-A	Analysis Batch:	460-456035	Instrument ID:	CBNAMS12
Client Matrix:	Solid	Prep Batch:	460-455775	Lab File ID:	L19791.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.0000 g
Analysis Date:	08/14/2017 0527	Units:	mg/Kg	Final Weight/Volume:	1 mL
Prep Date:	08/11/2017 2150			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Hexachloroethane	3.33	2.86	86	63 - 99	
Indeno[1,2,3-cd]pyrene	3.33	3.12	94	53 - 137	
Isophorone	3.33	3.11	93	68 - 111	
Naphthalene	3.33	2.95	89	65 - 102	
Nitrobenzene	3.33	3.09	93	66 - 108	
N-Nitrosodi-n-propylamine	3.33	3.27	98	63 - 117	
N-Nitrosodiphenylamine	3.33	3.00	90	65 - 114	
Phenanthrene	3.33	3.02	91	68 - 111	
Pyrene	3.33	3.19	96	64 - 121	
Surrogate	% Rec		Acceptance Limits		
2-Fluorobiphenyl	80		38 - 95		
Nitrobenzene-d5 (Surr)	91		37 - 94		
Terphenyl-d14 (Surr)	100		24 - 109		

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 460-455775

Method: 8270D
Preparation: 3546

MS Lab Sample ID: 460-138570-A-24-B MS	Analysis Batch: 460-456035	Instrument ID: CBNAMS12
Client Matrix: Solid	Prep Batch: 460-455775	Lab File ID: L19813.D
Dilution: 10	Leach Batch: N/A	Initial Weight/Volume: 15.0306 g
Analysis Date: 08/14/2017 1330		Final Weight/Volume: 1 mL
Prep Date: 08/11/2017 2150		Injection Volume: 1 uL
Leach Date: N/A		

MSD Lab Sample ID: 460-138570-A-24-C MSD	Analysis Batch: 460-456035	Instrument ID: CBNAMS12
Client Matrix: Solid	Prep Batch: 460-455775	Lab File ID: L19814.D
Dilution: 10	Leach Batch: N/A	Initial Weight/Volume: 15.0391 g
Analysis Date: 08/14/2017 1352		Final Weight/Volume: 1 mL
Prep Date: 08/11/2017 2150		Injection Volume: 1 uL
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
1,2,4-Trichlorobenzene	61	59	62 - 104	4	30	*	*
1,2-Dichlorobenzene	58	55	64 - 98	5	30	J *	J *
1,3-Dichlorobenzene	59	53	62 - 96	11	30	J *	J *
1,4-Dichlorobenzene	57	54	63 - 97	6	30	J *	J *
2,2'-oxybis[1-chloropropane]	65	59	39 - 122	8	30	J	J
2,4-Dinitrotoluene	0	90	66 - 122	NC	30	U *	
2,6-Dinitrotoluene	118	136	70 - 114	14	30	*	*
2-Chloronaphthalene	63	53	63 - 107	18	30	J	J *
2-Methylnaphthalene	-57	-155	65 - 104	12	30	*	*
2-Nitroaniline	0	0	57 - 114	NC	30	U *	U *
3,3'-Dichlorobenzidine	20	18	18 - 88	13	30	J	J
3-Nitroaniline	39	37	30 - 94	7	30	J	J
4-Bromophenyl phenyl ether	60	66	59 - 122	9	30	J	J
4-Chloroaniline	0	48	18 - 94	NC	30	U *	J
4-Chlorophenyl phenyl ether	68	62	66 - 110	10	30	J	J *
4-Nitroaniline	35	27	49 - 118	23	30	J *	J *
Acenaphthene	70	60	62 - 108	15	30	J	J *
Acenaphthylene	74	68	67 - 107	8	30	J	J
Anthracene	68	66	69 - 111	4	30	J *	J *
Benzo[a]anthracene	63	62	68 - 110	0	30	*	*
Benzo[a]pyrene	68	64	72 - 115	5	30	*	*
Benzo[b]fluoranthene	77	73	69 - 119	6	30		
Benzo[g,h,i]perylene	56	55	54 - 128	3	30	J	J
Benzo[k]fluoranthene	72	69	70 - 115	5	30		*
Bis(2-chloroethoxy)methane	132	101	65 - 106	27	30	*	
Bis(2-chloroethyl)ether	62	59	64 - 105	4	30	*	*
Bis(2-ethylhexyl) phthalate	61	60	63 - 125	3	30	J *	J *
Butyl benzyl phthalate	61	60	65 - 125	2	30	J *	J *
Carbazole	68	60	66 - 115	12	30	J	J *
Chrysene	62	61	70 - 111	2	30	J *	J *
Dibenz(a,h)anthracene	64	58	60 - 130	9	30		*
Dibenzofuran	100	96	67 - 107	4	30		J

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 460-455775

Method: 8270D
Preparation: 3546

MS Lab Sample ID: 460-138570-A-24-B MS	Analysis Batch: 460-456035	Instrument ID: CBNAMS12
Client Matrix: Solid	Prep Batch: 460-455775	Lab File ID: L19813.D
Dilution: 10	Leach Batch: N/A	Initial Weight/Volume: 15.0306 g
Analysis Date: 08/14/2017 1330		Final Weight/Volume: 1 mL
Prep Date: 08/11/2017 2150		Injection Volume: 1 uL
Leach Date: N/A		

MSD Lab Sample ID: 460-138570-A-24-C MSD	Analysis Batch: 460-456035	Instrument ID: CBNAMS12
Client Matrix: Solid	Prep Batch: 460-455775	Lab File ID: L19814.D
Dilution: 10	Leach Batch: N/A	Initial Weight/Volume: 15.0391 g
Analysis Date: 08/14/2017 1352		Final Weight/Volume: 1 mL
Prep Date: 08/11/2017 2150		Injection Volume: 1 uL
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Diethyl phthalate	84	77	66 - 117	9	30	J	J
Dimethyl phthalate	70	65	68 - 112	7	30	J	J *
Di-n-butyl phthalate	68	65	67 - 119	5	30	J	J *
Di-n-octyl phthalate	71	65	57 - 138	9	30	J	J
Fluoranthene	68	65	64 - 114	5	30	J	J
Fluorene	97	96	66 - 110	2	30	J	J
Hexachlorobenzene	62	60	57 - 128	4	30		
Hexachlorobutadiene	64	58	60 - 108	10	30		*
Hexachlorocyclopentadiene	45	46	50 - 129	3	30	J *	J *
Hexachloroethane	0	55	63 - 99	NC	30	U *	*
Indeno[1,2,3-cd]pyrene	82	96	53 - 137	16	30		
Isophorone	237	210	68 - 111	12	30	*	*
Naphthalene	22	-28	65 - 102	11	30	*	*
Nitrobenzene	92	77	66 - 108	18	30		
N-Nitrosodi-n-propylamine	156	181	63 - 117	14	30	*	*
N-Nitrosodiphenylamine	257	229	65 - 114	12	30	*	*
Phenanthrene	49	36	68 - 111	7	30	*	*
Pyrene	55	51	64 - 121	4	30	J *	J *
Surrogate	MS % Rec		MSD % Rec		Acceptance Limits		
2-Fluorobiphenyl	62		56		38 - 95		
Nitrobenzene-d5 (Surr)	176		169		37 - 94		
Terphenyl-d14 (Surr)	62		60		24 - 109		

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Method Blank - Batch: 460-455934

Method: 8270D

Preparation: 3510C

Lab Sample ID: MB 460-455934/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 08/14/2017 0514
Prep Date: 08/13/2017 0615
Leach Date: N/A

Analysis Batch: 460-456044
Prep Batch: 460-455934
Leach Batch: N/A
Units: ug/L

Instrument ID: CBNAMS6
Lab File ID: M5157.D
Initial Weight/Volume: 250 mL
Final Weight/Volume: 2 mL
Injection Volume: 5 uL

Analyte	Result	Qual	MDL	RL
1,2,4-Trichlorobenzene	1.0	U	0.61	1.0
1,2-Dichlorobenzene	10	U	0.83	10
1,3-Dichlorobenzene	10	U	1.1	10
1,4-Dichlorobenzene	10	U	0.66	10
2,2'-oxybis[1-chloropropane]	10	U	0.93	10
2,4-Dinitrotoluene	2.0	U	1.0	2.0
2,6-Dinitrotoluene	2.0	U	0.88	2.0
2-Chloronaphthalene	10	U	0.61	10
2-Methylnaphthalene	10	U	0.88	10
2-Nitroaniline	10	U	0.65	10
3,3'-Dichlorobenzidine	10	U	1.0	10
3-Nitroaniline	10	U	0.82	10
4-Bromophenyl phenyl ether	10	U	1.0	10
4-Chloroaniline	10	U	0.73	10
4-Chlorophenyl phenyl ether	10	U	0.96	10
4-Nitroaniline	10	U	0.48	10
Acenaphthene	10	U	0.88	10
Acenaphthylene	10	U	0.65	10
Anthracene	10	U	0.57	10
Benzo[a]anthracene	1.0	U	0.55	1.0
Benzo[a]pyrene	1.0	U	0.16	1.0
Benzo[b]fluoranthene	1.0	U	0.44	1.0
Benzo[g,h,i]perylene	10	U	0.75	10
Benzo[k]fluoranthene	1.0	U	0.18	1.0
Bis(2-chloroethoxy)methane	10	U	0.69	10
Bis(2-chloroethyl)ether	1.0	U	0.12	1.0
Bis(2-ethylhexyl) phthalate	2.0	U	0.72	2.0
Butyl benzyl phthalate	10	U	0.60	10
Carbazole	10	U	0.85	10
Chrysene	2.0	U	0.67	2.0
Dibenz(a,h)anthracene	1.0	U	0.090	1.0
Dibenzofuran	10	U	0.85	10
Diethyl phthalate	10	U	1.0	10
Dimethyl phthalate	10	U	0.98	10
Di-n-butyl phthalate	10	U	0.82	10
Di-n-octyl phthalate	10	U	0.69	10
Fluoranthene	10	U	0.72	10
Fluorene	10	U	0.80	10
Hexachlorobenzene	1.0	U	0.47	1.0
Hexachlorobutadiene	1.0	U	0.76	1.0
Hexachlorocyclopentadiene	10	U	0.61	10
Hexachloroethane	0.357	J	0.090	1.0
Indeno[1,2,3-cd]pyrene	1.0	U	0.21	1.0
Isophorone	10	U	0.67	10
Naphthalene	10	U	0.80	10

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Method Blank - Batch: 460-455934

Method: 8270D

Preparation: 3510C

Lab Sample ID: MB 460-455934/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 08/14/2017 0514
Prep Date: 08/13/2017 0615
Leach Date: N/A

Analysis Batch: 460-456044
Prep Batch: 460-455934
Leach Batch: N/A
Units: ug/L

Instrument ID: CBNAMS6
Lab File ID: M5157.D
Initial Weight/Volume: 250 mL
Final Weight/Volume: 2 mL
Injection Volume: 5 uL

Analyte	Result	Qual	MDL	RL
Nitrobenzene	1.0	U	0.49	1.0
N-Nitrosodi-n-propylamine	1.0	U	0.83	1.0
N-Nitrosodiphenylamine	10	U	0.74	10
Phenanthrene	10	U	0.65	10
Pyrene	10	U	0.83	10
Surrogate	% Rec		Acceptance Limits	
2-Fluorobiphenyl	96		45 - 107	
Nitrobenzene-d5 (Surr)	98		51 - 108	
Terphenyl-d14 (Surr)	95		40 - 148	

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 460-455934

Method: 8270D

Preparation: 3510C

LCS Lab Sample ID: LCS 460-455934/2-A	Analysis Batch: 460-456044	Instrument ID: CBNAMS6
Client Matrix: Water	Prep Batch: 460-455934	Lab File ID: M5158.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 250 mL
Analysis Date: 08/14/2017 0537	Units: ug/L	Final Weight/Volume: 2 mL
Prep Date: 08/13/2017 0615		Injection Volume: 5 uL
Leach Date: N/A		

LCSD Lab Sample ID: LCSD 460-455934/3-A	Analysis Batch: 460-456044	Instrument ID: CBNAMS6
Client Matrix: Water	Prep Batch: 460-455934	Lab File ID: M5159.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 250 mL
Analysis Date: 08/14/2017 0559	Units: ug/L	Final Weight/Volume: 2 mL
Prep Date: 08/13/2017 0615		Injection Volume: 5 uL
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
1,2,4-Trichlorobenzene	84	86	43 - 98	2	30		
1,2-Dichlorobenzene	75	74	42 - 95	0	30		
1,3-Dichlorobenzene	71	72	40 - 92	0	30		
1,4-Dichlorobenzene	76	76	42 - 94	0	30		
2,2'-oxybis[1-chloropropane]	78	84	50 - 108	7	30		
2,4-Dinitrotoluene	88	95	70 - 123	7	30		
2,6-Dinitrotoluene	99	99	68 - 121	0	30		
2-Chloronaphthalene	100	98	54 - 105	2	30		
2-Methylnaphthalene	86	84	47 - 104	2	30		
2-Nitroaniline	94	112	46 - 124	17	30		
3,3'-Dichlorobenzidine	107	97	68 - 123	9	30		
3-Nitroaniline	61	61	60 - 117	0	30		
4-Bromophenyl phenyl ether	105	97	57 - 126	8	30		
4-Chloroaniline	53	50	51 - 108	7	30		*
4-Chlorophenyl phenyl ether	104	102	60 - 114	1	30		
4-Nitroaniline	72	83	48 - 135	14	30		
Acenaphthene	94	90	58 - 107	4	30		
Acenaphthylene	102	100	61 - 106	1	30		
Anthracene	105	103	70 - 118	2	30		
Benzo[a]anthracene	99	101	73 - 119	1	30		
Benzo[a]pyrene	105	110	76 - 125	5	30		
Benzo[b]fluoranthene	98	115	78 - 123	16	30		
Benzo[g,h,i]perylene	106	110	63 - 133	4	30		
Benzo[k]fluoranthene	110	108	71 - 126	2	30		
Bis(2-chloroethoxy)methane	92	98	67 - 104	7	30		
Bis(2-chloroethyl)ether	81	86	63 - 106	5	30		
Bis(2-ethylhexyl) phthalate	104	107	63 - 135	3	30		
Butyl benzyl phthalate	106	111	66 - 129	4	30		
Carbazole	96	102	68 - 121	6	30		
Chrysene	111	102	73 - 121	9	30		
Dibenz(a,h)anthracene	99	107	59 - 136	8	30		
Dibenzofuran	99	94	67 - 108	5	30		
Diethyl phthalate	97	100	61 - 129	3	30		
Dimethyl phthalate	96	96	65 - 121	0	30		
Di-n-butyl phthalate	97	104	64 - 130	7	30		

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 460-455934

Method: 8270D

Preparation: 3510C

LCS Lab Sample ID: LCS 460-455934/2-A	Analysis Batch: 460-456044	Instrument ID: CBNAMS6
Client Matrix: Water	Prep Batch: 460-455934	Lab File ID: M5158.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 250 mL
Analysis Date: 08/14/2017 0537	Units: ug/L	Final Weight/Volume: 2 mL
Prep Date: 08/13/2017 0615		Injection Volume: 5 uL
Leach Date: N/A		

LCSD Lab Sample ID: LCSD 460-455934/3-A	Analysis Batch: 460-456044	Instrument ID: CBNAMS6
Client Matrix: Water	Prep Batch: 460-455934	Lab File ID: M5159.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 250 mL
Analysis Date: 08/14/2017 0559	Units: ug/L	Final Weight/Volume: 2 mL
Prep Date: 08/13/2017 0615		Injection Volume: 5 uL
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Di-n-octyl phthalate	101	107	64 - 131	6	30		
Fluoranthene	100	103	66 - 123	3	30		
Fluorene	101	101	67 - 112	0	30		
Hexachlorobenzene	112	97	63 - 125	14	30		
Hexachlorobutadiene	84	82	34 - 99	2	30		
Hexachlorocyclopentadiene	113	109	18 - 99	4	30	*	*
Hexachloroethane	66	78	39 - 92	16	30		
Indeno[1,2,3-cd]pyrene	123	124	57 - 142	1	30		
Isophorone	82	87	55 - 105	6	30		
Naphthalene	86	90	51 - 98	4	30		
Nitrobenzene	80	94	56 - 106	16	30		
N-Nitrosodi-n-propylamine	74	80	48 - 118	8	30		
N-Nitrosodiphenylamine	100	98	69 - 118	2	30		
Phenanthrene	104	105	70 - 117	1	30		
Pyrene	116	107	63 - 129	8	30		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
2-Fluorobiphenyl	99		95		45 - 107		
Nitrobenzene-d5 (Surr)	90		108		51 - 108		
Terphenyl-d14 (Surr)	90		88		40 - 148		

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Method Blank - Batch: 460-455215

Method: 8082A Preparation: 3546

Lab Sample ID: MB 460-455215/1-A
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 08/10/2017 1448
Prep Date: 08/09/2017 2155
Leach Date: N/A

Analysis Batch: 460-455410
Prep Batch: 460-455215
Leach Batch: N/A
Units: mg/Kg

Instrument ID: CPESTGC11
Lab File ID: T1347115.D
Initial Weight/Volume: +15.0000 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
Aroclor 1016	0.067	U	0.0089	0.067
Aroclor 1221	0.067	U	0.0089	0.067
Aroclor 1232	0.067	U	0.0089	0.067
Aroclor 1242	0.067	U	0.0089	0.067
Aroclor 1248	0.067	U	0.0089	0.067
Aroclor 1254	0.067	U	0.0092	0.067
Aroclor 1260	0.067	U	0.0092	0.067
Aroclor-1262	0.067	U	0.0092	0.067
Aroclor 1268	0.067	U	0.0092	0.067
Polychlorinated biphenyls, Total	0.067	U	0.0092	0.067

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	129	35 - 150
Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	119	35 - 150

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Lab Control Sample - Batch: 460-455215

Method: 8082A
Preparation: 3546

Lab Sample ID:	LCS 460-455215/2-A	Analysis Batch:	460-455410	Instrument ID:	CPESTGC11
Client Matrix:	Solid	Prep Batch:	460-455215	Lab File ID:	T1347116.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	+15.0000 g
Analysis Date:	08/10/2017 1502	Units:	mg/Kg	Final Weight/Volume:	10 mL
Prep Date:	08/09/2017 2155			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor 1016	0.333	0.406	122	77 - 150	
Aroclor 1260	0.333	0.407	122	79 - 150	
Surrogate	% Rec		Acceptance Limits		
DCB Decachlorobiphenyl	129		35 - 150		

Lab Control Sample - Batch: 460-455215

Method: 8082A
Preparation: 3546

Lab Sample ID:	LCS 460-455215/2-A	Analysis Batch:	460-455410	Instrument ID:	CPESTGC11
Client Matrix:	Solid	Prep Batch:	460-455215	Lab File ID:	T1347116.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	+15.0000 g
Analysis Date:	08/10/2017 1502	Units:	mg/Kg	Final Weight/Volume:	10 mL
Prep Date:	08/09/2017 2155			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor 1016	0.333	0.403	121	77 - 150	
Aroclor 1260	0.333	0.405	121	79 - 150	
Surrogate	% Rec		Acceptance Limits		
DCB Decachlorobiphenyl	124		35 - 150		

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 460-455215

Method: 8082A
Preparation: 3546

MS Lab Sample ID: 460-138719-A-1-B MS	Analysis Batch: 460-455410	Instrument ID: CPESTGC11
Client Matrix: Solid	Prep Batch: 460-455215	Lab File ID: T1347118.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: +15.0020 g
Analysis Date: 08/10/2017 1532		Final Weight/Volume: 10 mL
Prep Date: 08/09/2017 2155		Injection Volume: 1 uL
Leach Date: N/A		Column ID: PRIMARY

MSD Lab Sample ID: 460-138719-A-1-E MSD	Analysis Batch: 460-455410	Instrument ID: CPESTGC11
Client Matrix: Solid	Prep Batch: 460-455215	Lab File ID: T1347119.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: +15.0069 g
Analysis Date: 08/10/2017 1546		Final Weight/Volume: 10 mL
Prep Date: 08/09/2017 2155		Injection Volume: 1 uL
Leach Date: N/A		Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Aroclor 1016	103	144	77 - 150	33	30		*
Aroclor 1260	112	106	79 - 150	6	30		
Surrogate	MS % Rec		MSD % Rec	Acceptance Limits			
DCB Decachlorobiphenyl	119		110	35 - 150			

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 460-455215

Method: 8082A
Preparation: 3546

MS Lab Sample ID: 460-138719-A-1-B MS	Analysis Batch: 460-455410	Instrument ID: CPESTGC11
Client Matrix: Solid	Prep Batch: 460-455215	Lab File ID: T1347118.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: +15.0020 g
Analysis Date: 08/10/2017 1532		Final Weight/Volume: 10 mL
Prep Date: 08/09/2017 2155		Injection Volume: 1 uL
Leach Date: N/A		Column ID: SECONDARY

MSD Lab Sample ID: 460-138719-A-1-E MSD	Analysis Batch: 460-455410	Instrument ID: CPESTGC11
Client Matrix: Solid	Prep Batch: 460-455215	Lab File ID: T1347119.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: +15.0069 g
Analysis Date: 08/10/2017 1546		Final Weight/Volume: 10 mL
Prep Date: 08/09/2017 2155		Injection Volume: 1 uL
Leach Date: N/A		Column ID: SECONDARY

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Aroclor 1016	102	100	77 - 150	2	30		
Aroclor 1260	110	103	79 - 150	7	30		
Surrogate	MS % Rec		MSD % Rec	Acceptance Limits			
DCB Decachlorobiphenyl	115		108	35 - 150			

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Method Blank - Batch: 460-455741

Method: 8082A Preparation: 3546

Lab Sample ID: MB 460-455741/1-A
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 08/13/2017 2237
Prep Date: 08/11/2017 1702
Leach Date: N/A

Analysis Batch: 460-456005
Prep Batch: 460-455741
Leach Batch: N/A
Units: mg/Kg

Instrument ID: CPESTGC11
Lab File ID: T1347330.D
Initial Weight/Volume: 15.0000 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
Aroclor 1016	0.067	U	0.0089	0.067
Aroclor 1221	0.067	U	0.0089	0.067
Aroclor 1232	0.067	U	0.0089	0.067
Aroclor 1242	0.067	U	0.0089	0.067
Aroclor 1248	0.067	U	0.0089	0.067
Aroclor 1254	0.067	U	0.0092	0.067
Aroclor 1260	0.067	U	0.0092	0.067
Aroclor-1262	0.067	U	0.0092	0.067
Aroclor 1268	0.067	U	0.0092	0.067
Polychlorinated biphenyls, Total	0.067	U	0.0092	0.067

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	136	35 - 150
Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	130	35 - 150

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Lab Control Sample - Batch: 460-455741

Method: 8082A
Preparation: 3546

Lab Sample ID:	LCS 460-455741/2-A	Analysis Batch:	460-456005	Instrument ID:	CPESTGC11
Client Matrix:	Solid	Prep Batch:	460-455741	Lab File ID:	T1347331.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.0000 g
Analysis Date:	08/13/2017 2252	Units:	mg/Kg	Final Weight/Volume:	10 mL
Prep Date:	08/11/2017 1702			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor 1016	0.333	0.396	119	77 - 150	
Aroclor 1260	0.333	0.380	114	79 - 150	
Surrogate	% Rec		Acceptance Limits		
DCB Decachlorobiphenyl	122		35 - 150		

Lab Control Sample - Batch: 460-455741

Method: 8082A
Preparation: 3546

Lab Sample ID:	LCS 460-455741/2-A	Analysis Batch:	460-456005	Instrument ID:	CPESTGC11
Client Matrix:	Solid	Prep Batch:	460-455741	Lab File ID:	T1347331.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.0000 g
Analysis Date:	08/13/2017 2252	Units:	mg/Kg	Final Weight/Volume:	10 mL
Prep Date:	08/11/2017 1702			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor 1016	0.333	0.374	112	77 - 150	
Aroclor 1260	0.333	0.382	115	79 - 150	
Surrogate	% Rec		Acceptance Limits		
DCB Decachlorobiphenyl	121		35 - 150		

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 460-455741

Method: 8082A
Preparation: 3546

MS Lab Sample ID: 460-138908-1
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 08/13/2017 2306
Prep Date: 08/11/2017 1702
Leach Date: N/A

Analysis Batch: 460-456005
Prep Batch: 460-455741
Leach Batch: N/A

Instrument ID: CPESTGC11
Lab File ID: T1347332.D
Initial Weight/Volume: 15.0110 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

MSD Lab Sample ID: 460-138908-1
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 08/13/2017 2321
Prep Date: 08/11/2017 1702
Leach Date: N/A

Analysis Batch: 460-456005
Prep Batch: 460-455741
Leach Batch: N/A

Instrument ID: CPESTGC11
Lab File ID: T1347333.D
Initial Weight/Volume: 15.0201 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Aroclor 1016	126	121	77 - 150	4	30		
Aroclor 1260	124	122	79 - 150	2	30		
Surrogate	MS % Rec		MSD % Rec	Acceptance Limits			
DCB Decachlorobiphenyl	129		129	35 - 150			

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 460-455741

Method: 8082A
Preparation: 3546

MS Lab Sample ID: 460-138908-1
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 08/13/2017 2306
Prep Date: 08/11/2017 1702
Leach Date: N/A

Analysis Batch: 460-456005
Prep Batch: 460-455741
Leach Batch: N/A

Instrument ID: CPESTGC11
Lab File ID: T1347332.D
Initial Weight/Volume: 15.0110 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: SECONDARY

MSD Lab Sample ID: 460-138908-1
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 08/13/2017 2321
Prep Date: 08/11/2017 1702
Leach Date: N/A

Analysis Batch: 460-456005
Prep Batch: 460-455741
Leach Batch: N/A

Instrument ID: CPESTGC11
Lab File ID: T1347333.D
Initial Weight/Volume: 15.0201 g
Final Weight/Volume: 10 mL
Injection Volume: 1 uL
Column ID: SECONDARY

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Aroclor 1016	123	114	77 - 150	8	30		
Aroclor 1260	124	118	79 - 150	4	30		
Surrogate	MS % Rec		MSD % Rec	Acceptance Limits			
DCB Decachlorobiphenyl	129		124	35 - 150			

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Method Blank - Batch: 460-455245

Method: 6010C

Preparation: 3050B

Lab Sample ID: MB 460-455245/1-A ^2
Client Matrix: Solid
Dilution: 2.0
Analysis Date: 08/10/2017 1926
Prep Date: 08/10/2017 0225
Leach Date: N/A

Analysis Batch: 460-455426
Prep Batch: 460-455245
Leach Batch: N/A
Units: mg/Kg

Instrument ID: ICP4
Lab File ID: 455245.asc
Initial Weight/Volume: 1.0 g
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Silver	1.0	U	0.15	1.0
Aluminum	20.0	U	4.1	20.0
Arsenic	1.5	U	0.37	1.5
Barium	20.0	U	1.6	20.0
Beryllium	0.20	U	0.023	0.20
Calcium	500	U	51.0	500
Cadmium	0.40	U	0.060	0.40
Cobalt	5.0	U	0.57	5.0
Chromium	1.0	U	0.28	1.0
Copper	2.5	U	0.57	2.5
Iron	15.0	U	2.7	15.0
Potassium	500	U	26.6	500
Magnesium	500	U	38.6	500
Manganese	1.5	U	0.16	1.5
Sodium	500	U	38.5	500
Nickel	4.0	U	0.38	4.0
Lead	1.0	U	0.30	1.0
Antimony	2.0	U	0.24	2.0
Selenium	2.0	U	0.61	2.0
Thallium	2.0	U	0.59	2.0
Vanadium	5.0	U	0.60	5.0
Zinc	3.0	U	0.26	3.0

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

LCS-Certified Reference Material - Batch: 460-455245

Method: 6010C

Preparation: 3050B

Lab Sample ID: LCSSRM 460-455245/2-A Analysis Batch: 460-455426
 Client Matrix: Solid Prep Batch: 460-455245
 Dilution: 4.0 Leach Batch: N/A
 Analysis Date: 08/10/2017 1930 Units: mg/Kg
 Prep Date: 08/10/2017 0225
 Leach Date: N/A

Instrument ID: ICP4
 Lab File ID: 455245.asc
 Initial Weight/Volume: 1.02 g
 Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Silver	40.7	36.53	89.8	79.6 - 120.4	
Aluminum	8000	6829	85.4	47.4 - 152.5	
Arsenic	147	131.2	89.3	83.0 - 117.0	
Barium	314	302.5	96.4	82.2 - 117.8	
Beryllium	53.4	52.65	98.6	82.8 - 117.2	
Calcium	4580	4390	95.9	80.8 - 119.0	
Cadmium	193	183.7	95.2	82.4 - 117.6	
Cobalt	81.3	81.92	100.8	83.4 - 116.6	
Chromium	82.6	77.82	94.2	81.8 - 118.2	
Copper	171	159.4	93.2	83.6 - 116.4	
Iron	14100	11960	84.8	60.4 - 139.7	
Potassium	2000	1713	85.7	69.5 - 130.5	
Magnesium	2240	2022	90.2	75.4 - 125.0	
Manganese	222	210.6	94.9	82.0 - 118.0	
Sodium	216	184.1	85.2	72.2 - 127.8	J
Nickel	137	137.4	100.3	82.5 - 118.2	
Lead	92.3	88.69	96.1	82.8 - 117.0	
Antimony	65.1	30.33	46.6	0.2 - 212.0	
Selenium	187	175.8	94.0	79.1 - 121.4	
Thallium	153	158.3	103.4	81.0 - 119.0	
Vanadium	86.6	79.37	91.7	77.6 - 122.4	
Zinc	189	188.1	99.5	79.9 - 120.1	

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Matrix Spike - Batch: 460-455245

Method: 6010C

Preparation: 3050B

Lab Sample ID: 460-138795-E-9-C MS
Client Matrix: Solid
Dilution: 4.0
Analysis Date: 08/10/2017 1957
Prep Date: 08/10/2017 0225
Leach Date: N/A

Analysis Batch: 460-455426
Prep Batch: 460-455245
Leach Batch: N/A
Units: mg/Kg

Instrument ID: ICP4
Lab File ID: 455245.asc
Initial Weight/Volume: 1.02 g
Final Weight/Volume: 50 mL

Analyte	Sample	Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Silver	2.2	U	5.82	5.80	100	75 - 125	
Aluminum	2290		233	5910	1556	75 - 125	4
Arsenic	3.3	U	233	216.6	93	75 - 125	
Barium	44.4	U	233	238.3	102	75 - 125	
Beryllium	0.44	U	5.82	5.93	102	75 - 125	
Calcium	1110	U	2330	2418	104	75 - 125	
Cadmium	0.89	U	5.82	5.88	101	75 - 125	
Cobalt	11.1	U	58.2	61.96	107	75 - 125	
Chromium	3.5		23.3	30.20	115	75 - 125	
Copper	5.5	U	29.1	30.13	104	75 - 125	
Iron	1130		116	1303	146	75 - 125	4
Potassium	1110	U	2330	2265	97	75 - 125	
Magnesium	1110	U	2330	2371	102	75 - 125	
Manganese	1.8	J	58.2	63.94	107	75 - 125	
Sodium	1110	U	2330	2239	96	75 - 125	
Nickel	8.9	U	58.2	61.24	105	75 - 125	
Lead	1.1	J	58.2	61.75	104	75 - 125	
Antimony	4.4	U	58.2	38.46	66	75 - 125	N
Selenium	4.4	U	233	228.4	98	75 - 125	
Thallium	4.4	U	233	254.1	109	75 - 125	
Vanadium	3.0	J	58.2	64.94	106	75 - 125	
Zinc	1.3	J	58.2	61.92	104	75 - 125	

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Duplicate - Batch: 460-455245

Method: 6010C
Preparation: 3050B

Lab Sample ID: 460-138795-E-9-B DU
Client Matrix: Solid
Dilution: 4.0
Analysis Date: 08/10/2017 1934
Prep Date: 08/10/2017 0225
Leach Date: N/A

Analysis Batch: 460-455426
Prep Batch: 460-455245
Leach Batch: N/A
Units: mg/Kg

Instrument ID: ICP4
Lab File ID: 455245.asc
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Silver	2.2	U	2.4	NC	20	U
Aluminum	2290		2459	7	20	
Arsenic	3.3	U	3.6	NC	20	U
Barium	44.4	U	47.5	NC	20	U
Beryllium	0.44	U	0.47	NC	20	U
Calcium	1110	U	1190	NC	20	U
Cadmium	0.89	U	0.95	NC	20	U
Cobalt	11.1	U	11.9	NC	20	U
Chromium	3.5		3.88	9	20	
Copper	5.5	U	5.9	NC	20	U
Iron	1130		1212	7	20	
Potassium	1110	U	1190	NC	20	U
Magnesium	1110	U	1190	NC	20	U
Manganese	1.8	J	1.97	7	20	J
Sodium	1110	U	1190	NC	20	U
Nickel	8.9	U	9.5	NC	20	U
Lead	1.1	J	1.49	29	20	J
Antimony	4.4	U	4.7	NC	20	U
Selenium	4.4	U	4.7	NC	20	U
Thallium	4.4	U	4.7	NC	20	U
Vanadium	3.0	J	3.17	6	20	J
Zinc	1.3	J	1.36	7	20	J

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Method Blank - Batch: 460-455253

Method: 6010C

Preparation: 3050B

Lab Sample ID: MB 460-455253/1-A ^2
Client Matrix: Solid
Dilution: 2.0
Analysis Date: 08/10/2017 1555
Prep Date: 08/10/2017 0317
Leach Date: N/A

Analysis Batch: 460-455426
Prep Batch: 460-455253
Leach Batch: N/A
Units: mg/Kg

Instrument ID: ICP4
Lab File ID: 455245.asc
Initial Weight/Volume: 1.0 g
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Silver	1.0	U	0.15	1.0
Aluminum	20.0	U	4.1	20.0
Arsenic	1.5	U	0.37	1.5
Barium	20.0	U	1.6	20.0
Beryllium	0.20	U	0.023	0.20
Calcium	500	U	51.0	500
Cadmium	0.40	U	0.060	0.40
Cobalt	5.0	U	0.57	5.0
Chromium	1.0	U	0.28	1.0
Copper	2.5	U	0.57	2.5
Iron	15.0	U	2.7	15.0
Potassium	500	U	26.6	500
Magnesium	500	U	38.6	500
Manganese	1.5	U	0.16	1.5
Sodium	500	U	38.5	500
Nickel	4.0	U	0.38	4.0
Lead	1.0	U	0.30	1.0
Antimony	2.0	U	0.24	2.0
Selenium	2.0	U	0.61	2.0
Thallium	2.0	U	0.59	2.0
Vanadium	5.0	U	0.60	5.0
Zinc	3.0	U	0.26	3.0

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

LCS-Certified Reference Material - Batch: 460-455253

Method: 6010C

Preparation: 3050B

Lab Sample ID: LCSSRM 460-455253/2-A Analysis Batch: 460-456387
 Client Matrix: Solid Prep Batch: 460-455253
 Dilution: 4.0 Leach Batch: N/A
 Analysis Date: 08/14/2017 1201 Units: mg/Kg
 Prep Date: 08/10/2017 0317
 Leach Date: N/A

Instrument ID: ICP4
 Lab File ID: A456136.asc
 Initial Weight/Volume: 1.02 g
 Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Silver	40.7	35.80	88.0	79.6 - 120.4	
Aluminum	8000	6659	83.2	47.4 - 152.5	
Arsenic	147	133.6	90.9	83.0 - 117.0	
Barium	314	303.5	96.7	82.2 - 117.8	
Beryllium	53.4	51.25	96.0	82.8 - 117.2	
Calcium	4580	4229	92.3	80.8 - 119.0	
Cadmium	193	184.4	95.6	82.4 - 117.6	
Cobalt	81.3	81.47	100.2	83.4 - 116.6	
Chromium	82.6	76.22	92.3	81.8 - 118.2	
Copper	171	152.5	89.2	83.6 - 116.4	
Iron	14100	12880	91.4	60.4 - 139.7	
Potassium	2000	1710	85.5	69.5 - 130.5	
Magnesium	2240	2020	90.2	75.4 - 125.0	
Manganese	222	219.6	98.9	82.0 - 118.0	
Sodium	216	177.9	82.4	72.2 - 127.8	J
Nickel	137	136.8	99.9	82.5 - 118.2	
Lead	92.3	88.94	96.4	82.8 - 117.0	
Antimony	65.1	39.41	60.5	0.2 - 212.0	
Selenium	187	174.9	93.5	79.1 - 121.4	
Thallium	153	161.0	105.2	81.0 - 119.0	
Vanadium	86.6	80.43	92.9	77.6 - 122.4	
Zinc	189	185.7	98.3	79.9 - 120.1	

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Matrix Spike - Batch: 460-455253

Method: 6010C

Preparation: 3050B

Lab Sample ID: 460-138837-D-2-C MS
Client Matrix: Solid
Dilution: 4.0
Analysis Date: 08/10/2017 1614
Prep Date: 08/10/2017 0317
Leach Date: N/A

Analysis Batch: 460-455426
Prep Batch: 460-455253
Leach Batch: N/A
Units: mg/Kg

Instrument ID: ICP4
Lab File ID: 455245.asc
Initial Weight/Volume: 1.02 g
Final Weight/Volume: 50 mL

Analyte	Sample	Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Silver	2.1	U	5.38	4.87	90	75 - 125	
Aluminum	6490		215	8393	884	75 - 125	4
Arsenic	8.4		215	192.2	85	75 - 125	
Barium	48.0		215	244.2	91	75 - 125	
Beryllium	0.16	J	5.38	5.18	93	75 - 125	
Calcium	281	J	2150	2250	92	75 - 125	
Cadmium	0.84	U	5.38	4.84	90	75 - 125	
Cobalt	10.6	U	53.8	53.36	99	75 - 125	
Chromium	7.3		21.5	29.37	102	75 - 125	
Copper	4.3	J	26.9	29.30	93	75 - 125	
Iron	9870		108	9860	-10	75 - 125	4
Potassium	854	J	2150	2440	74	75 - 125	N
Magnesium	302	J	2150	2429	99	75 - 125	
Manganese	42.1		53.8	97.49	103	75 - 125	
Sodium	1060	U	2150	1954	91	75 - 125	
Nickel	2.3	J	53.8	54.13	96	75 - 125	
Lead	4.7		53.8	55.55	94	75 - 125	
Antimony	4.2	U	53.8	17.10	32	75 - 125	N
Selenium	4.2	U	215	193.9	90	75 - 125	
Thallium	4.2	U	215	213.6	99	75 - 125	
Vanadium	9.3	J	53.8	62.16	98	75 - 125	
Zinc	7.7		53.8	62.14	101	75 - 125	

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Duplicate - Batch: 460-455253

Method: 6010C

Preparation: 3050B

Lab Sample ID: 460-138837-D-2-B DU
Client Matrix: Solid
Dilution: 4.0
Analysis Date: 08/10/2017 1602
Prep Date: 08/10/2017 0317
Leach Date: N/A

Analysis Batch: 460-455426
Prep Batch: 460-455253
Leach Batch: N/A
Units: mg/Kg

Instrument ID: ICP4
Lab File ID: 455245.asc
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Silver	2.1	U	2.2	NC	20	U
Aluminum	6490		6856	5	20	
Arsenic	8.4		9.09	7	20	
Barium	48.0		51.42	7	20	
Beryllium	0.16	J	0.171	5	20	J
Calcium	281	J	295.2	5	20	J
Cadmium	0.84	U	0.88	NC	20	U
Cobalt	10.6	U	11.0	NC	20	U
Chromium	7.3		7.84	7	20	
Copper	4.3	J	4.67	7	20	J
Iron	9870		10340	5	20	
Potassium	854	J	915.6	7	20	J
Magnesium	302	J	316.7	5	20	J
Manganese	42.1		44.04	5	20	
Sodium	1060	U	1100	NC	20	U
Nickel	2.3	J	2.52	7	20	J
Lead	4.7		4.85	2	20	
Antimony	4.2	U	4.4	NC	20	U
Selenium	4.2	U	4.4	NC	20	U
Thallium	4.2	U	4.4	NC	20	U
Vanadium	9.3	J	10.05	7	20	J
Zinc	7.7		8.14	6	20	

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Method Blank - Batch: 460-455905

Method: 6010C

Preparation: 3050B

Lab Sample ID: MB 460-455905/1-A ^2
Client Matrix: Solid
Dilution: 2.0
Analysis Date: 08/14/2017 1908
Prep Date: 08/12/2017 1626
Leach Date: N/A

Analysis Batch: 460-456155
Prep Batch: 460-455905
Leach Batch: N/A
Units: mg/Kg

Instrument ID: ICP5
Lab File ID: 455997D1.asc
Initial Weight/Volume: 1.00 g
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Silver	1.0	U	0.15	1.0
Aluminum	20.0	U	4.1	20.0
Barium	20.0	U	1.6	20.0
Beryllium	0.20	U	0.023	0.20
Calcium	500	U	51.0	500
Cadmium	0.40	U	0.060	0.40
Cobalt	5.0	U	0.57	5.0
Chromium	1.0	U	0.28	1.0
Copper	2.5	U	0.57	2.5
Iron	15.0	U	2.7	15.0
Potassium	500	U	26.6	500
Magnesium	500	U	38.6	500
Manganese	1.5	U	0.16	1.5
Sodium	500	U	38.5	500
Nickel	4.0	U	0.38	4.0
Lead	1.0	U	0.30	1.0
Antimony	2.0	U	0.24	2.0
Selenium	2.0	U	0.61	2.0
Thallium	2.0	U	0.59	2.0
Vanadium	5.0	U	0.60	5.0
Zinc	3.0	U	0.26	3.0

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

LCS-Certified Reference Material - Batch: 460-455905

Method: 6010C

Preparation: 3050B

Lab Sample ID: LCSSRM 460-455905/2-A Analysis Batch: 460-455991
 Client Matrix: Solid Prep Batch: 460-455905
 Dilution: 4.0 Leach Batch: N/A
 Analysis Date: 08/13/2017 1556 Units: mg/Kg
 Prep Date: 08/12/2017 1626
 Leach Date: N/A

Instrument ID: ICP5
 Lab File ID: 455886D1.asc
 Initial Weight/Volume: 1.00 g
 Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Calcium	4580	4546	99.3	80.8 - 119.0	

LCS-Certified Reference Material - Batch: 460-455905

Method: 6010C

Preparation: 3050B

Lab Sample ID: LCSSRM 460-455905/2-A Analysis Batch: 460-456155
 Client Matrix: Solid Prep Batch: 460-455905
 Dilution: 4.0 Leach Batch: N/A
 Analysis Date: 08/14/2017 1853 Units: mg/Kg
 Prep Date: 08/12/2017 1626
 Leach Date: N/A

Instrument ID: ICP5
 Lab File ID: 455997D1.asc
 Initial Weight/Volume: 1.00 g
 Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Silver	40.7	35.28	86.7	79.6 - 120.4	
Aluminum	8000	6518	81.5	47.4 - 152.5	
Arsenic	147	134.9	91.8	83.0 - 117.0	
Barium	314	305.4	97.3	82.2 - 117.8	
Beryllium	53.4	51.04	95.6	82.8 - 117.2	
Cadmium	193	183.3	95.0	82.4 - 117.6	
Cobalt	81.3	81.18	99.9	83.4 - 116.6	
Chromium	82.6	74.22	89.9	81.8 - 118.2	
Copper	171	159.1	93.0	83.6 - 116.4	
Iron	14100	11220	79.5	60.4 - 139.7	
Potassium	2000	1679	83.9	69.5 - 130.5	
Magnesium	2240	1892	84.4	75.4 - 125.0	
Manganese	222	205.6	92.6	82.0 - 118.0	
Sodium	216	190.6	88.2	72.2 - 127.8	J
Nickel	137	136.2	99.4	82.5 - 118.2	
Lead	92.3	91.12	98.7	82.8 - 117.0	
Antimony	65.1	34.42	52.9	0.2 - 212.0	
Selenium	187	177.2	94.8	79.1 - 121.4	
Thallium	153	158.9	103.8	81.0 - 119.0	
Vanadium	86.6	76.14	87.9	77.6 - 122.4	
Zinc	189	178.6	94.5	79.9 - 120.1	

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Matrix Spike - Batch: 460-455905

Method: 6010C
Preparation: 3050B

Lab Sample ID:	460-138986-E-6-E MS ^4	Analysis Batch:	460-455991	Instrument ID:	ICP5
Client Matrix:	Solid	Prep Batch:	460-455905	Lab File ID:	455886D1.asc
Dilution:	4.0	Leach Batch:	N/A	Initial Weight/Volume:	1.30 g
Analysis Date:	08/13/2017 1616	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	08/12/2017 1626				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Calcium	822	U	1640	1802	110	75 - 125	

Matrix Spike - Batch: 460-455905

Method: 6010C
Preparation: 3050B

Lab Sample ID:	460-138986-E-6-E MS ^4	Analysis Batch:	460-456155	Instrument ID:	ICP5
Client Matrix:	Solid	Prep Batch:	460-455905	Lab File ID:	455997D1.asc
Dilution:	4.0	Leach Batch:	N/A	Initial Weight/Volume:	1.30 g
Analysis Date:	08/14/2017 1826	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	08/12/2017 1626				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Silver	1.6	U	4.11	3.93	96	75 - 125	
Aluminum	435		164	1032	363	75 - 125	N
Arsenic	0.87	J	164	153.4	93	75 - 125	
Barium	32.9	U	164	167.7	102	75 - 125	
Beryllium	0.33	U	4.11	3.98	97	75 - 125	
Cadmium	0.66	U	4.11	4.00	97	75 - 125	
Cobalt	8.2	U	41.1	41.51	101	75 - 125	
Chromium	1.1	J	16.4	17.38	99	75 - 125	
Copper	4.1	U	20.5	20.19	98	75 - 125	
Iron	604		82.2	727.6	150	75 - 125	4
Potassium	58.6	J	1640	1609	94	75 - 125	
Magnesium	822	U	1640	1540	94	75 - 125	
Manganese	2.7		41.1	43.46	99	75 - 125	
Sodium	822	U	1640	1592	97	75 - 125	
Nickel	6.6	U	41.1	40.65	99	75 - 125	
Lead	0.87	J	41.1	41.84	100	75 - 125	
Antimony	3.3	U	41.1	34.77	85	75 - 125	
Selenium	3.3	U	164	152.9	93	75 - 125	
Thallium	3.3	U	164	168.8	103	75 - 125	
Vanadium	1.6	J	41.1	40.88	96	75 - 125	
Zinc	1.6	J	41.1	40.85	96	75 - 125	

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Duplicate - Batch: 460-455905

Method: 6010C
Preparation: 3050B

Lab Sample ID:	460-138986-E-6-D DU ^4	Analysis Batch:	460-455991	Instrument ID:	ICP5
Client Matrix:	Solid	Prep Batch:	460-455905	Lab File ID:	455886D1.asc
Dilution:	4.0	Leach Batch:	N/A	Initial Weight/Volume:	1.31 g
Analysis Date:	08/13/2017 1620	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	08/12/2017 1626				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Calcium	822	U	816	NC	20	U

Duplicate - Batch: 460-455905

Method: 6010C
Preparation: 3050B

Lab Sample ID:	460-138986-E-6-D DU ^4	Analysis Batch:	460-456155	Instrument ID:	ICP5
Client Matrix:	Solid	Prep Batch:	460-455905	Lab File ID:	455997D1.asc
Dilution:	4.0	Leach Batch:	N/A	Initial Weight/Volume:	1.31 g
Analysis Date:	08/14/2017 1829	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	08/12/2017 1626				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Silver	1.6	U	1.6	NC	20	U
Aluminum	435		428.7	2	20	
Arsenic	0.87	J	0.701	22	20	J
Barium	32.9	U	2.65	NC	20	J
Beryllium	0.33	U	0.33	NC	20	U
Cadmium	0.66	U	0.65	NC	20	U
Cobalt	8.2	U	8.2	NC	20	U
Chromium	1.1	J	1.07	0.5	20	J
Copper	4.1	U	4.1	NC	20	U
Iron	604		593.2	2	20	
Potassium	58.6	J	60.02	2	20	J
Magnesium	822	U	816	NC	20	U
Manganese	2.7		2.63	2	20	
Sodium	822	U	816	NC	20	U
Nickel	6.6	U	6.5	NC	20	U
Lead	0.87	J	0.838	4	20	J
Antimony	3.3	U	3.3	NC	20	U
Selenium	3.3	U	3.3	NC	20	U
Thallium	3.3	U	3.3	NC	20	U
Vanadium	1.6	J	1.55	4	20	J
Zinc	1.6	J	1.39	11	20	J

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Method Blank - Batch: 460-455535

Method: 7471B
Preparation: 7471B

Lab Sample ID:	MB 460-455535/1-A	Analysis Batch:	460-455656	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-455535	Lab File ID:	455532HG1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	08/11/2017 0925	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	08/11/2017 0427				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.017	U	0.011	0.017

LCS-Certified Reference Material - Batch: 460-455535

Method: 7471B
Preparation: 7471B

Lab Sample ID:	LCSSRM 460-455535/2-A	Analysis Batch:	460-455656	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-455535	Lab File ID:	455532HG1.CSV
Dilution:	40	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	08/11/2017 0927	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	08/11/2017 0427				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	17.8	16.57	93.1	66.9 - 133.1	

Matrix Spike - Batch: 460-455535

Method: 7471B
Preparation: 7471B

Lab Sample ID:	460-138964-A-5-I MS	Analysis Batch:	460-455656	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-455535	Lab File ID:	455532HG1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.65 g
Analysis Date:	08/11/2017 0932	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	08/11/2017 0427				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.036	0.0846	0.134	115	75 - 125	

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Duplicate - Batch: 460-455535

Method: 7471B

Preparation: 7471B

Lab Sample ID: 460-138964-A-5-H DU
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 08/11/2017 0931
Prep Date: 08/11/2017 0427
Leach Date: N/A

Analysis Batch: 460-455656
Prep Batch: 460-455535
Leach Batch: N/A
Units: mg/Kg

Instrument ID: LEEMAN7
Lab File ID: 455532HG1.CSV
Initial Weight/Volume: 0.65 g
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	0.036	0.0412	13	20	

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Method Blank - Batch: 460-455552

Method: 7471B
Preparation: 7471B

Lab Sample ID:	MB 460-455552/1-A	Analysis Batch:	460-455656	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-455552	Lab File ID:	455532HG1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	08/11/2017 1021	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	08/11/2017 0532				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.017	U	0.011	0.017

LCS-Certified Reference Material - Batch: 460-455552

Method: 7471B
Preparation: 7471B

Lab Sample ID:	LCSSRM 460-455552/2-A	Analysis Batch:	460-455656	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-455552	Lab File ID:	455532HG1.CSV
Dilution:	40	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	08/11/2017 1022	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	08/11/2017 0532				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	17.8	17.19	96.6	66.9 - 133.1	

Matrix Spike - Batch: 460-455552

Method: 7471B
Preparation: 7471B

Lab Sample ID:	460-138855-A-1-F MS	Analysis Batch:	460-455656	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-455552	Lab File ID:	455532HG1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.63 g
Analysis Date:	08/11/2017 1027	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	08/11/2017 0532				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.056	0.106	0.161	98	75 - 125	

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Duplicate - Batch: 460-455552

Method: 7471B

Preparation: 7471B

Lab Sample ID: 460-138855-A-1-E DU
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 08/11/2017 1026
Prep Date: 08/11/2017 0532
Leach Date: N/A

Analysis Batch: 460-455656
Prep Batch: 460-455552
Leach Batch: N/A
Units: mg/Kg

Instrument ID: LEEMAN7
Lab File ID: 455532HG1.CSV
Initial Weight/Volume: 0.63 g
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	0.056	0.0636	12	20	

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Method Blank - Batch: 460-456063

Method: 7471B
Preparation: 7471B

Lab Sample ID:	MB 460-456063/10-A	Analysis Batch:	460-456143	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-456063	Lab File ID:	456063HG1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	08/14/2017 0821	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	08/14/2017 0351				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.017	U	0.011	0.017

LCS-Certified Reference Material - Batch: 460-456063

Method: 7471B
Preparation: 7471B

Lab Sample ID:	LCSSRM 460-456063/11-	Analysis Batch:	460-456143	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-456063	Lab File ID:	456063HG1.CSV
Dilution:	40	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	08/14/2017 0823	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	08/14/2017 0351				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	17.8	17.30	97.2	66.9 - 133.1	

Matrix Spike - Batch: 460-456063

Method: 7471B
Preparation: 7471B

Lab Sample ID:	460-138908-6	Analysis Batch:	460-456143	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-456063	Lab File ID:	456063HG1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.63 g
Analysis Date:	08/14/2017 0828	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	08/14/2017 0351				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.018 U	0.0898	0.0973	108	75 - 125	

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Duplicate - Batch: 460-456063

Method: 7471B

Preparation: 7471B

Lab Sample ID:	460-138908-6	Analysis Batch:	460-456143	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-456063	Lab File ID:	456063HG1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.63 g
Analysis Date:	08/14/2017 0826	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	08/14/2017 0351				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	0.018 U	0.018	NC	20	U

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Method Blank - Batch: 460-456068

Method: 7471B
Preparation: 7471B

Lab Sample ID:	MB 460-456068/1-A	Analysis Batch:	460-456143	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-456068	Lab File ID:	456063HG1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	08/14/2017 0913	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	08/14/2017 0416				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.017	U	0.011	0.017

LCS-Certified Reference Material - Batch: 460-456068

Method: 7471B
Preparation: 7471B

Lab Sample ID:	LCSSRM 460-456068/2-A	Analysis Batch:	460-456143	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-456068	Lab File ID:	456063HG1.CSV
Dilution:	40	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	08/14/2017 0914	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	08/14/2017 0416				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	17.8	16.92	95.1	66.9 - 133.1	

Matrix Spike - Batch: 460-456068

Method: 7471B
Preparation: 7471B

Lab Sample ID:	460-138904-E-3-F MS	Analysis Batch:	460-456143	Instrument ID:	LEEMAN7
Client Matrix:	Solid	Prep Batch:	460-456068	Lab File ID:	456063HG1.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.67 g
Analysis Date:	08/14/2017 0919	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	08/14/2017 0416				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.042	0.0786	0.131	113	75 - 125	

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Duplicate - Batch: 460-456068

Method: 7471B

Preparation: 7471B

Lab Sample ID: 460-138904-E-3-E DU
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 08/14/2017 0918
Prep Date: 08/14/2017 0416
Leach Date: N/A

Analysis Batch: 460-456143
Prep Batch: 460-456068
Leach Batch: N/A
Units: mg/Kg

Instrument ID: LEEMAN7
Lab File ID: 456063HG1.CSV
Initial Weight/Volume: 0.67 g
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	0.042	0.0439	3	20	

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Duplicate - Batch: 460-456252

**Method: Moisture
Preparation: N/A**

Lab Sample ID:	460-139142-A-3 DU	Analysis Batch:	460-456252	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	08/14/2017 2001	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	11.9	13.2	10	20	
Percent Solids	88.1	86.8	1	20	

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Duplicate - Batch: 460-456785

Method: Moisture
Preparation: N/A

Lab Sample ID:	460-138849-A-5 DU	Analysis Batch:	460-456785	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	08/16/2017 1812	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	2.7	2.4	10	20	
Percent Solids	97.3	97.6	0.3	20	

Quality Control Results

Client: AKRF Inc

Job Number: 460-138836-1

Duplicate - Batch: 460-456823

**Method: Moisture
Preparation: N/A**

Lab Sample ID:	460-139030-E-11 DU	Analysis Batch:	460-456823	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	08/16/2017 2007	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	82.0	81.7	0.4	20	
Percent Solids	18.0	18.3	2	20	


Page 1 of 2

Name (for report and invoice)		Becky King / E. Matthews		Samples Name (Printed)		E. Matthews / J. Smith		Site/Project Identification		100 Hamilton	
Company		AKRF		P.O. #		170029		State (Location of site): NJ		NY	
Address		34 South Broadway #401		Analysis Turnaround Time		Standard <input checked="" type="checkbox"/>		Rush Charges Authorized For:		2 Week <input type="checkbox"/>	
City		White Plains		State		NY		1 Week <input type="checkbox"/>		Other <input type="checkbox"/>	
Phone		914 922 2362		Fax							
Sample Identification		Date		Time		Matrix		No. of Cont.		VOCs 8260	
SB-1 (2-4)		8/8/17		920		S		S		X	
SB-1 (4-11)		8/8/17		915		S		S		X	
SB-2 (1-3)		8/8/17		830		S		S		X	
SB-2 (16-18)		8/8/17		835		S		S		X	
SB-5 (12-4)		8/8/17		1110		S		S		X	
SB-5 (10-12)		8/8/17		1115		S		S		X	
SB-6 (2-4)		8/8/17		1140		S		S		X	
SB-6 (9-11)		8/8/17		1145		S		S		X	
SB-8 (2-4)		8/8/17		1035		S		S		X	
SB-8 (9-11)		8/8/17		1040		S		S		X	
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH		Soil:		Water:		10		10		10	
6 = Other		7 = Other		Water:		10		10		10	
LAB USE ONLY		Job No:		136836		Sample Numbers		1		2	
Project No:								3		4	
								6		7	
								8		9	
								10			

Spectral Instructions

Year SDG-open day 1043

Water Metals Filtered (Yes/No)?

Relinquished by	Company	Date / Time	Received by	Company
	ALICE	8/19/07 0940	1) VIKI MANSURANI	CHALLENGER CONSULT
Relinquished by	Company	Date / Time	Received by	Company
2) VIKI MANSURANI	CHALLENGER CONSULT	8/19/17 1125	2) THERESA DUFFY	TAED 11:25 8/19/17
Relinquished by	Company	Date / Time	Received by	Company
3)			3)	
Relinquished by	Company	Date / Time	Received by	Company
4)			4)	

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132)

TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578)

1.7% IR#9 No 5

134836

2

RAW	CORRECTED
1	1
2	2
3	3
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98	98
99	99
100	100

[illegible][illegible]

08/23/2017


TestAmerica

777 New Durham Road
Edison, New Jersey 08817
Phone: (732) 549-3900 Fax: (732) 549-3679

THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Page 1 of 1

Name (for report and invoice)		Sample Name (Printed)		Site/Project Identification	
Berklyn Heights, Maryland		E. Montgomery		200 Homewood	
Company		P.O. #		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: <input type="checkbox"/>	
34 South Broadway #401		170029		Regulatory Program:	
Address		Analysis Turnaround Time		LAB USE ONLY	
AKRF		Standard <input checked="" type="checkbox"/>		Project No:	
City: White Plains NY 10601		Rush Charges Authorized For:		Job No: 138908	
Phone: 914 922 2362 Fax:		2 Week <input type="checkbox"/>			
		1 Week <input type="checkbox"/>			
		Other <input type="checkbox"/>			
Sample Identification		Date	Time	Matrix	No. of Cont.
SB-3 (1-3)	8/9/17	1440	3	3	3
SB-3 (17-19)	8/9/17	1445	3	3	3
SB-4 (1-3)	8/9/17	1330	3	3	3
SB-4 (21-23)	8/9/17	1325	3	3	3
SB-7 (1-3)	8/9/17	0630	3	3	3
SB-7 (8-10)	8/9/17	1030	3	3	3
Preservation Used: 1 = ICB, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH		Soil:		Water:	
6 = Other _____, 7 = Other _____		6		6	
<div style="text-align: center;">  <p>460-138908 Chain of Custody</p> </div>					
<div style="text-align: center;"> <p>SHORT HOLD</p> </div>					
Sample Numbers					
-1					
-2					
-3					
-4					
-5					
-6					
<div style="text-align: center;"> <p>Special Instructions</p> <p>Keep SDG open Day 2 of 3</p> </div>					
Relinquished by	Company	Date / Time	Received by	Company	Water Metals Filtered (Yes/No)?
AKRF	AKRF	8/10/17 0930	1) Vicky Manuwan	AKRF	
Relinquished by	Company	Date / Time	Received by	Company	
2) Vicky Manuwan	AKRF	8/10/17 1115	2) Kelly Gao	TA Edison	
Relinquished by	Company	Date / Time	Received by	Company	
3)			3)		
Relinquished by	Company	Date / Time	Received by	Company	
4)			4)		

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).

TAL-0016 (07/15)

Massachusetts (M-NU312), North Carolina (No. 578)

1.2°C IR #9 NO C.S.

138908

9

1. The first step in the process is to identify the problem or issue that needs to be addressed. This involves gathering information and understanding the context of the problem.

	NOV	CORRECTION
Cooler #1:	1.2 °C	0.2
Cooler #2:	°C	
Cooler #3:	°C	

[illegible]

If pH adjustme

Sample No(s). adjusted: _____

Preservative Name/Conc.:

Preservative Name/Conc.:

Lot # of Preservative(s): _____

Lot # of Preservative(s): _____

The app

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THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY / ANALYSIS REQUEST

Page 1 of 1

Name (for report and invoice) Belknap, Elizabeth, Materials Environmental Services		Sample Name (Printed) Soil		Site/Project Identification 200 Hampton	
Company AKRF		P. O. # 170029		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: <input type="checkbox"/>	
Address 34 South Broadway #401		Analysis Turnaround Time Standard <input checked="" type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input type="checkbox"/>		Regulatory Program: <input type="checkbox"/>	
City Wilmington, MA		State MA		ZIP 01860	
Phone 914 9222362		Fax 914 9222362		LAB USE ONLY Project No: 139007	

Sample Identification	Date	Time	Matrix	No. of Cont.	ANALYSIS REQUESTED (ENTER X; BELOW TO INDICATE REQUEST)	Sample Numbers
TW-1	8/4/13	13:50	AQ	5	X	1
TW-2	8/4/13	11:30	AQ	5	X	2
GW-3	8/10/13	11:30	AQ	5	X	3
GW-4	8/10/13	11:20	AQ	5	X	4
GT-1	8/10/13	11:10	AQ	5	X	5
GT-2	8/10/13	12:10	AQ	5	X	6
GT-3	8/10/13	11:55	AQ	5	X	7
GT-4	8/10/13	11:45	AQ	5	X	8
TRIP BUNK						9

Preservation Used: 1 = ICE, 2 = HCl, 3 = H₂SO₄, 4 = HNO₃, 5 = NaOH
Soil: ☐ Water: ☐
6 = Other ☐ 7 = Other ☐

460-139067 Chain of Custody

Special Instructions

CLOSE SDG Day 30+3, HOLD GW-4

Water Metals Filtered (Yes/No)?

Relinquished by	Company	Date / Time	Received by	Company	Date / Time
Relinquished by	AKRF	8/11/2013 09:15	Received by	AKRF	8/11/2013 09:15
Relinquished by	AKRF	8/11/2013 10:35	Received by	AKRF	8/11/2013 10:35
Relinquished by	AKRF	8/11/2013 10:35	Received by	AKRF	8/11/2013 10:35
Relinquished by	AKRF	8/11/2013 10:35	Received by	AKRF	8/11/2013 10:35
Relinquished by	AKRF	8/11/2013 10:35	Received by	AKRF	8/11/2013 10:35

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132),
Massachusetts (M-NJ312), North Carolina (No. 578)

13067

D

	RAW	CORRECTED
Cooler #1:	13 °C	13 °C
Cooler #2:	°C	°C
Cooler #3:	°C	°C
Cooler #4:	°C	°C
Cooler #5:	°C	°C
Cooler #6:	°C	°C
Cooler #7:	°C	°C
Cooler #8:	°C	°C
Cooler #9:	°C	°C

RAW		CORRECTED	
Cooler #1:	1.3 °C	1.3 °C	1.3 °C
Cooler #2:	°C	°C	°C
Cooler #3:	°C	°C	°C
Cooler #4:	°C	°C	°C
Cooler #5:	°C	°C	°C
Cooler #6:	°C	°C	°C
Cooler #7:	°C	°C	°C
Cooler #8:	°C	°C	°C
Cooler #9:	°C	°C	°C

[illegible]

EDS-WI-038, Rev 4, 06/09/2014

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-138836-1

Login Number: 138836

List Source: TestAmerica Edison

List Number: 1

Creator: Meyers, Gary

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	Not present
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	1.7 ° C iR #8
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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-138836-1

Login Number: 138908

List Source: TestAmerica Edison

List Number: 1

Creator: Lysy, Susan

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	
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	1.2°C IR#9
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 $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 460-138836-1

Login Number: 139067

List Source: TestAmerica Edison

List Number: 1

Creator: Wisnewski, Kelly R

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
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	1.3°C, IR#9
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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Burlington

30 Community Drive

Suite 11

South Burlington, VT 05403

Tel: (802)660-1990

TestAmerica Job ID: 200-39689-1

TestAmerica Sample Delivery Group: 200-39689-1

Client Project/Site: 200 Hamilton

For:

AKRF Inc

440 Park Avenue South

7th Floor

New York, New York 10016

Attn: Ms. Elizabeth Matamoros



Authorized for release by:

8/18/2017 4:21:29 PM

Kristine Dusablon, Project Manager II

(802)660-1990

kris.dusablon@testamericainc.com

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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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Definitions/Glossary

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Air - GC/MS VOA TICs

Qualifier	Qualifier Description
J	Indicates an Estimated Value for TICs
N	This flag indicates the presumptive evidence of a compound.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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)

Case Narrative

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Job ID: 200-39689-1

Laboratory: TestAmerica Burlington

Narrative

CASE NARRATIVE

Client: AKRF Inc

Project: 200 Hamilton

Report Number: 200-39689-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 08/11/2017; the samples arrived in good condition.

VOLATILE ORGANIC COMPOUNDS

Samples SV-1, SV-2, SV-3, SV-4, SV-5 and AA-1 were analyzed for Volatile Organic Compounds in accordance with EPA Method TO-15. The samples were analyzed on 08/12/2017, 08/14/2017, 08/15/2017 and 08/16/2017.

Samples SV-1[8X], SV-2[13.1X], SV-3[6X] and SV-5[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

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

Detection Summary

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Client Sample ID: SV-1

Lab Sample ID: 200-39689-1

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
n-Butane	8.2		4.0		ppb v/v	8		TO-15	Total/NA
1,3-Butadiene	3.3		1.6		ppb v/v	8		TO-15	Total/NA
Acetone	72		40		ppb v/v	8		TO-15	Total/NA
n-Hexane	11		1.6		ppb v/v	8		TO-15	Total/NA
Methyl Ethyl Ketone	12		4.0		ppb v/v	8		TO-15	Total/NA
2,2,4-Trimethylpentane	5.3		1.6		ppb v/v	8		TO-15	Total/NA
Benzene	3.6		1.6		ppb v/v	8		TO-15	Total/NA
n-Heptane	3.0		1.6		ppb v/v	8		TO-15	Total/NA
Toluene	6.1		1.6		ppb v/v	8		TO-15	Total/NA
Ethylbenzene	12		1.6		ppb v/v	8		TO-15	Total/NA
m,p-Xylene	4.3		4.0		ppb v/v	8		TO-15	Total/NA
Xylene, o-	1.7		1.6		ppb v/v	8		TO-15	Total/NA
Xylene (total)	6.0		5.6		ppb v/v	8		TO-15	Total/NA
n-Propylbenzene	1.7		1.6		ppb v/v	8		TO-15	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
n-Butane	19		9.5		ug/m3	8		TO-15	Total/NA
1,3-Butadiene	7.2		3.5		ug/m3	8		TO-15	Total/NA
Acetone	170		95		ug/m3	8		TO-15	Total/NA
n-Hexane	40		5.6		ug/m3	8		TO-15	Total/NA
Methyl Ethyl Ketone	36		12		ug/m3	8		TO-15	Total/NA
2,2,4-Trimethylpentane	25		7.5		ug/m3	8		TO-15	Total/NA
Benzene	11		5.1		ug/m3	8		TO-15	Total/NA
n-Heptane	12		6.6		ug/m3	8		TO-15	Total/NA
Toluene	23		6.0		ug/m3	8		TO-15	Total/NA
Ethylbenzene	50		6.9		ug/m3	8		TO-15	Total/NA
m,p-Xylene	18		17		ug/m3	8		TO-15	Total/NA
Xylene, o-	7.4		6.9		ug/m3	8		TO-15	Total/NA
Xylene (total)	26		24		ug/m3	8		TO-15	Total/NA
n-Propylbenzene	8.6		7.9		ug/m3	8		TO-15	Total/NA

Client Sample ID: SV-2

Lab Sample ID: 200-39689-2

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Chloromethane	9.6		6.6		ppb v/v	13.1		TO-15	Total/NA
n-Butane	310		6.6		ppb v/v	13.1		TO-15	Total/NA
1,3-Butadiene	39		2.6		ppb v/v	13.1		TO-15	Total/NA
Acetone	72		66		ppb v/v	13.1		TO-15	Total/NA
Carbon disulfide	33		6.6		ppb v/v	13.1		TO-15	Total/NA
n-Hexane	170		2.6		ppb v/v	13.1		TO-15	Total/NA
Methyl Ethyl Ketone	15		6.6		ppb v/v	13.1		TO-15	Total/NA
Cyclohexane	5.3		2.6		ppb v/v	13.1		TO-15	Total/NA
2,2,4-Trimethylpentane	3.3		2.6		ppb v/v	13.1		TO-15	Total/NA
Benzene	16		2.6		ppb v/v	13.1		TO-15	Total/NA
n-Heptane	60		2.6		ppb v/v	13.1		TO-15	Total/NA
Toluene	6.2		2.6		ppb v/v	13.1		TO-15	Total/NA
Ethylbenzene	8.7		2.6		ppb v/v	13.1		TO-15	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Chloromethane	20		14		ug/m3	13.1		TO-15	Total/NA
n-Butane	730		16		ug/m3	13.1		TO-15	Total/NA
1,3-Butadiene	87		5.8		ug/m3	13.1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Burlington

Detection Summary

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Client Sample ID: SV-2 (Continued)

Lab Sample ID: 200-39689-2

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Acetone	170		160		ug/m3	13.1		TO-15	Total/NA
Carbon disulfide	100		20		ug/m3	13.1		TO-15	Total/NA
n-Hexane	590		9.2		ug/m3	13.1		TO-15	Total/NA
Methyl Ethyl Ketone	44		19		ug/m3	13.1		TO-15	Total/NA
Cyclohexane	18		9.0		ug/m3	13.1		TO-15	Total/NA
2,2,4-Trimethylpentane	15		12		ug/m3	13.1		TO-15	Total/NA
Benzene	52		8.4		ug/m3	13.1		TO-15	Total/NA
n-Heptane	240		11		ug/m3	13.1		TO-15	Total/NA
Toluene	23		9.9		ug/m3	13.1		TO-15	Total/NA
Ethylbenzene	38		11		ug/m3	13.1		TO-15	Total/NA

Client Sample ID: SV-3

Lab Sample ID: 200-39689-3

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Freon 22	5.0		3.0		ppb v/v	6		TO-15	Total/NA
n-Butane	20		3.0		ppb v/v	6		TO-15	Total/NA
Acetone	110		30		ppb v/v	6		TO-15	Total/NA
Methylene Chloride	70		3.0		ppb v/v	6		TO-15	Total/NA
n-Hexane	100		1.2		ppb v/v	6		TO-15	Total/NA
Methyl Ethyl Ketone	6.3		3.0		ppb v/v	6		TO-15	Total/NA
Cyclohexane	7.5		1.2		ppb v/v	6		TO-15	Total/NA
n-Heptane	2.0		1.2		ppb v/v	6		TO-15	Total/NA
Trichloroethene	13		0.24		ppb v/v	6		TO-15	Total/NA
Toluene	65		1.2		ppb v/v	6		TO-15	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Freon 22	18		11		ug/m3	6		TO-15	Total/NA
n-Butane	48		7.1		ug/m3	6		TO-15	Total/NA
Acetone	270		71		ug/m3	6		TO-15	Total/NA
Methylene Chloride	240		10		ug/m3	6		TO-15	Total/NA
n-Hexane	350		4.2		ug/m3	6		TO-15	Total/NA
Methyl Ethyl Ketone	18		8.8		ug/m3	6		TO-15	Total/NA
Cyclohexane	26		4.1		ug/m3	6		TO-15	Total/NA
n-Heptane	8.0		4.9		ug/m3	6		TO-15	Total/NA
Trichloroethene	69		1.3		ug/m3	6		TO-15	Total/NA
Toluene	250		4.5		ug/m3	6		TO-15	Total/NA

Client Sample ID: SV-4

Lab Sample ID: 200-39689-4

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Freon 22	1.1		0.50		ppb v/v	1		TO-15	Total/NA
n-Butane	1.1		0.50		ppb v/v	1		TO-15	Total/NA
Trichlorofluoromethane	0.39		0.20		ppb v/v	1		TO-15	Total/NA
Acetone	17		5.0		ppb v/v	1		TO-15	Total/NA
n-Hexane	0.36		0.20		ppb v/v	1		TO-15	Total/NA
Methyl Ethyl Ketone	3.8		0.50		ppb v/v	1		TO-15	Total/NA
Chloroform	0.25		0.20		ppb v/v	1		TO-15	Total/NA
Benzene	0.90		0.20		ppb v/v	1		TO-15	Total/NA
Trichloroethene	0.045		0.040		ppb v/v	1		TO-15	Total/NA
Toluene	1.6		0.20		ppb v/v	1		TO-15	Total/NA
Methyl Butyl Ketone (2-Hexanone)	0.67		0.50		ppb v/v	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Burlington

Detection Summary

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Client Sample ID: SV-4 (Continued)

Lab Sample ID: 200-39689-4

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	0.93		0.20		ppb v/v	1		TO-15	Total/NA
m,p-Xylene	0.66		0.50		ppb v/v	1		TO-15	Total/NA
Xylene, o-	0.31		0.20		ppb v/v	1		TO-15	Total/NA
Xylene (total)	0.97		0.70		ppb v/v	1		TO-15	Total/NA
n-Propylbenzene	0.35		0.20		ppb v/v	1		TO-15	Total/NA
4-Ethyltoluene	0.64		0.20		ppb v/v	1		TO-15	Total/NA
1,3,5-Trimethylbenzene	0.56		0.20		ppb v/v	1		TO-15	Total/NA
1,2,4-Trimethylbenzene	1.4		0.20		ppb v/v	1		TO-15	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Freon 22	3.8		1.8		ug/m3	1		TO-15	Total/NA
n-Butane	2.5		1.2		ug/m3	1		TO-15	Total/NA
Trichlorofluoromethane	2.2		1.1		ug/m3	1		TO-15	Total/NA
Acetone	41		12		ug/m3	1		TO-15	Total/NA
n-Hexane	1.3		0.70		ug/m3	1		TO-15	Total/NA
Methyl Ethyl Ketone	11		1.5		ug/m3	1		TO-15	Total/NA
Chloroform	1.2		0.98		ug/m3	1		TO-15	Total/NA
Benzene	2.9		0.64		ug/m3	1		TO-15	Total/NA
Trichloroethene	0.24		0.21		ug/m3	1		TO-15	Total/NA
Toluene	6.0		0.75		ug/m3	1		TO-15	Total/NA
Methyl Butyl Ketone (2-Hexanone)	2.7		2.0		ug/m3	1		TO-15	Total/NA
Ethylbenzene	4.0		0.87		ug/m3	1		TO-15	Total/NA
m,p-Xylene	2.9		2.2		ug/m3	1		TO-15	Total/NA
Xylene, o-	1.3		0.87		ug/m3	1		TO-15	Total/NA
Xylene (total)	4.2		3.0		ug/m3	1		TO-15	Total/NA
n-Propylbenzene	1.7		0.98		ug/m3	1		TO-15	Total/NA
4-Ethyltoluene	3.2		0.98		ug/m3	1		TO-15	Total/NA
1,3,5-Trimethylbenzene	2.8		0.98		ug/m3	1		TO-15	Total/NA
1,2,4-Trimethylbenzene	6.8		0.98		ug/m3	1		TO-15	Total/NA

Client Sample ID: SV-5

Lab Sample ID: 200-39689-5

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Freon 22	6.9		5.0		ppb v/v	10		TO-15	Total/NA
n-Butane	13		5.0		ppb v/v	10		TO-15	Total/NA
1,3-Butadiene	2.5		2.0		ppb v/v	10		TO-15	Total/NA
Acetone	310		50		ppb v/v	10		TO-15	Total/NA
Methylene Chloride	15		5.0		ppb v/v	10		TO-15	Total/NA
n-Hexane	29		2.0		ppb v/v	10		TO-15	Total/NA
Methyl Ethyl Ketone	8.7		5.0		ppb v/v	10		TO-15	Total/NA
Chloroform	2.1		2.0		ppb v/v	10		TO-15	Total/NA
n-Heptane	4.1		2.0		ppb v/v	10		TO-15	Total/NA
Trichloroethene	2.4		0.40		ppb v/v	10		TO-15	Total/NA
Toluene	12		2.0		ppb v/v	10		TO-15	Total/NA
Ethylbenzene	2.3		2.0		ppb v/v	10		TO-15	Total/NA
Cumene	2.6		2.0		ppb v/v	10		TO-15	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Freon 22	24		18		ug/m3	10		TO-15	Total/NA
n-Butane	31		12		ug/m3	10		TO-15	Total/NA
1,3-Butadiene	5.4		4.4		ug/m3	10		TO-15	Total/NA
Acetone	750		120		ug/m3	10		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Burlington

Detection Summary

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Client Sample ID: SV-5 (Continued)

Lab Sample ID: 200-39689-5

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	53		17		ug/m3	10		TO-15	Total/NA
n-Hexane	100		7.0		ug/m3	10		TO-15	Total/NA
Methyl Ethyl Ketone	26		15		ug/m3	10		TO-15	Total/NA
Chloroform	10		9.8		ug/m3	10		TO-15	Total/NA
n-Heptane	17		8.2		ug/m3	10		TO-15	Total/NA
Trichloroethene	13		2.1		ug/m3	10		TO-15	Total/NA
Toluene	45		7.5		ug/m3	10		TO-15	Total/NA
Ethylbenzene	10		8.7		ug/m3	10		TO-15	Total/NA
Cumene	13		9.8		ug/m3	10		TO-15	Total/NA

Client Sample ID: AA-1

Lab Sample ID: 200-39689-6

Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Carbon tetrachloride	0.052		0.040		ppb v/v	1		TO-15	Total/NA
Analyte	Result	Qualifier	RL	RL	Unit	Dil Fac	D	Method	Prep Type
Carbon tetrachloride	0.33		0.25		ug/m3	1		TO-15	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Burlington

Client Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Client Sample ID: SV-1

Date Collected: 08/08/17 14:26

Date Received: 08/11/17 10:30

Sample Container: Summa Canister 6L

Lab Sample ID: 200-39689-1

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	4.0	U	4.0		ppb v/v			08/15/17 17:08	8
Freon 22	4.0	U	4.0		ppb v/v			08/15/17 17:08	8
1,2-Dichlorotetrafluoroethane	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
Chloromethane	4.0	U	4.0		ppb v/v			08/15/17 17:08	8
n-Butane	8.2		4.0		ppb v/v			08/15/17 17:08	8
Vinyl chloride	0.32	U	0.32		ppb v/v			08/15/17 17:08	8
1,3-Butadiene	3.3		1.6		ppb v/v			08/15/17 17:08	8
Bromomethane	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
Chloroethane	4.0	U	4.0		ppb v/v			08/15/17 17:08	8
Bromoethene(Vinyl Bromide)	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
Trichlorofluoromethane	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
Freon TF	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
1,1-Dichloroethene	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
Acetone	72		40		ppb v/v			08/15/17 17:08	8
Isopropyl alcohol	40	U	40		ppb v/v			08/15/17 17:08	8
Carbon disulfide	4.0	U	4.0		ppb v/v			08/15/17 17:08	8
3-Chloropropene	4.0	U	4.0		ppb v/v			08/15/17 17:08	8
Methylene Chloride	4.0	U	4.0		ppb v/v			08/15/17 17:08	8
tert-Butyl alcohol	40	U	40		ppb v/v			08/15/17 17:08	8
Methyl tert-butyl ether	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
trans-1,2-Dichloroethene	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
n-Hexane	11		1.6		ppb v/v			08/15/17 17:08	8
1,1-Dichloroethane	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
Methyl Ethyl Ketone	12		4.0		ppb v/v			08/15/17 17:08	8
cis-1,2-Dichloroethene	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
1,2-Dichloroethene, Total	3.2	U	3.2		ppb v/v			08/15/17 17:08	8
Chloroform	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
Tetrahydrofuran	40	U	40		ppb v/v			08/15/17 17:08	8
1,1,1-Trichloroethane	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
Cyclohexane	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
Carbon tetrachloride	0.32	U	0.32		ppb v/v			08/15/17 17:08	8
2,2,4-Trimethylpentane	5.3		1.6		ppb v/v			08/15/17 17:08	8
Benzene	3.6		1.6		ppb v/v			08/15/17 17:08	8
1,2-Dichloroethane	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
n-Heptane	3.0		1.6		ppb v/v			08/15/17 17:08	8
Trichloroethene	0.32	U	0.32		ppb v/v			08/15/17 17:08	8
Methyl methacrylate	4.0	U	4.0		ppb v/v			08/15/17 17:08	8
1,2-Dichloropropane	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
1,4-Dioxane	40	U	40		ppb v/v			08/15/17 17:08	8
Bromodichloromethane	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
cis-1,3-Dichloropropene	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
methyl isobutyl ketone	4.0	U	4.0		ppb v/v			08/15/17 17:08	8
Toluene	6.1		1.6		ppb v/v			08/15/17 17:08	8
trans-1,3-Dichloropropene	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
1,1,2-Trichloroethane	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
Tetrachloroethene	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
Methyl Butyl Ketone (2-Hexanone)	4.0	U	4.0		ppb v/v			08/15/17 17:08	8
Dibromochloromethane	1.6	U	1.6		ppb v/v			08/15/17 17:08	8

TestAmerica Burlington

Client Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Client Sample ID: SV-1

Lab Sample ID: 200-39689-1

Date Collected: 08/08/17 14:26

Matrix: Air

Date Received: 08/11/17 10:30

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
Chlorobenzene	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
Ethylbenzene	12		1.6		ppb v/v			08/15/17 17:08	8
m,p-Xylene	4.3		4.0		ppb v/v			08/15/17 17:08	8
Xylene, o-	1.7		1.6		ppb v/v			08/15/17 17:08	8
Xylene (total)	6.0		5.6		ppb v/v			08/15/17 17:08	8
Styrene	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
Bromoform	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
Cumene	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
1,1,2,2-Tetrachloroethane	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
n-Propylbenzene	1.7		1.6		ppb v/v			08/15/17 17:08	8
4-Ethyltoluene	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
1,3,5-Trimethylbenzene	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
2-Chlorotoluene	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
tert-Butylbenzene	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
1,2,4-Trimethylbenzene	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
sec-Butylbenzene	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
4-Isopropyltoluene	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
1,3-Dichlorobenzene	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
1,4-Dichlorobenzene	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
Benzyl chloride	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
n-Butylbenzene	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
1,2-Dichlorobenzene	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
1,2,4-Trichlorobenzene	4.0	U	4.0		ppb v/v			08/15/17 17:08	8
Hexachlorobutadiene	1.6	U	1.6		ppb v/v			08/15/17 17:08	8
Naphthalene	4.0	U	4.0		ppb v/v			08/15/17 17:08	8
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	20	U	20		ug/m3			08/15/17 17:08	8
Freon 22	14	U	14		ug/m3			08/15/17 17:08	8
1,2-Dichlorotetrafluoroethane	11	U	11		ug/m3			08/15/17 17:08	8
Chloromethane	8.3	U	8.3		ug/m3			08/15/17 17:08	8
n-Butane	19		9.5		ug/m3			08/15/17 17:08	8
Vinyl chloride	0.82	U	0.82		ug/m3			08/15/17 17:08	8
1,3-Butadiene	7.2		3.5		ug/m3			08/15/17 17:08	8
Bromomethane	6.2	U	6.2		ug/m3			08/15/17 17:08	8
Chloroethane	11	U	11		ug/m3			08/15/17 17:08	8
Bromoethene(Vinyl Bromide)	7.0	U	7.0		ug/m3			08/15/17 17:08	8
Trichlorofluoromethane	9.0	U	9.0		ug/m3			08/15/17 17:08	8
Freon TF	12	U	12		ug/m3			08/15/17 17:08	8
1,1-Dichloroethene	6.3	U	6.3		ug/m3			08/15/17 17:08	8
Acetone	170		95		ug/m3			08/15/17 17:08	8
Isopropyl alcohol	98	U	98		ug/m3			08/15/17 17:08	8
Carbon disulfide	12	U	12		ug/m3			08/15/17 17:08	8
3-Chloropropene	13	U	13		ug/m3			08/15/17 17:08	8
Methylene Chloride	14	U	14		ug/m3			08/15/17 17:08	8
tert-Butyl alcohol	120	U	120		ug/m3			08/15/17 17:08	8
Methyl tert-butyl ether	5.8	U	5.8		ug/m3			08/15/17 17:08	8
trans-1,2-Dichloroethene	6.3	U	6.3		ug/m3			08/15/17 17:08	8

TestAmerica Burlington

Client Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Client Sample ID: SV-1

Lab Sample ID: 200-39689-1

Date Collected: 08/08/17 14:26

Matrix: Air

Date Received: 08/11/17 10:30

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
n-Hexane	40		5.6		ug/m3			08/15/17 17:08	8
1,1-Dichloroethane	6.5	U	6.5		ug/m3			08/15/17 17:08	8
Methyl Ethyl Ketone	36		12		ug/m3			08/15/17 17:08	8
cis-1,2-Dichloroethene	6.3	U	6.3		ug/m3			08/15/17 17:08	8
1,2-Dichloroethene, Total	13	U	13		ug/m3			08/15/17 17:08	8
Chloroform	7.8	U	7.8		ug/m3			08/15/17 17:08	8
Tetrahydrofuran	120	U	120		ug/m3			08/15/17 17:08	8
1,1,1-Trichloroethane	8.7	U	8.7		ug/m3			08/15/17 17:08	8
Cyclohexane	5.5	U	5.5		ug/m3			08/15/17 17:08	8
Carbon tetrachloride	2.0	U	2.0		ug/m3			08/15/17 17:08	8
2,2,4-Trimethylpentane	25		7.5		ug/m3			08/15/17 17:08	8
Benzene	11		5.1		ug/m3			08/15/17 17:08	8
1,2-Dichloroethane	6.5	U	6.5		ug/m3			08/15/17 17:08	8
n-Heptane	12		6.6		ug/m3			08/15/17 17:08	8
Trichloroethene	1.7	U	1.7		ug/m3			08/15/17 17:08	8
Methyl methacrylate	16	U	16		ug/m3			08/15/17 17:08	8
1,2-Dichloropropane	7.4	U	7.4		ug/m3			08/15/17 17:08	8
1,4-Dioxane	140	U	140		ug/m3			08/15/17 17:08	8
Bromodichloromethane	11	U	11		ug/m3			08/15/17 17:08	8
cis-1,3-Dichloropropene	7.3	U	7.3		ug/m3			08/15/17 17:08	8
methyl isobutyl ketone	16	U	16		ug/m3			08/15/17 17:08	8
Toluene	23		6.0		ug/m3			08/15/17 17:08	8
trans-1,3-Dichloropropene	7.3	U	7.3		ug/m3			08/15/17 17:08	8
1,1,2-Trichloroethane	8.7	U	8.7		ug/m3			08/15/17 17:08	8
Tetrachloroethene	11	U	11		ug/m3			08/15/17 17:08	8
Methyl Butyl Ketone (2-Hexanone)	16	U	16		ug/m3			08/15/17 17:08	8
Dibromochloromethane	14	U	14		ug/m3			08/15/17 17:08	8
1,2-Dibromoethane	12	U	12		ug/m3			08/15/17 17:08	8
Chlorobenzene	7.4	U	7.4		ug/m3			08/15/17 17:08	8
Ethylbenzene	50		6.9		ug/m3			08/15/17 17:08	8
m,p-Xylene	18		17		ug/m3			08/15/17 17:08	8
Xylene, o-	7.4		6.9		ug/m3			08/15/17 17:08	8
Xylene (total)	26		24		ug/m3			08/15/17 17:08	8
Styrene	6.8	U	6.8		ug/m3			08/15/17 17:08	8
Bromoform	17	U	17		ug/m3			08/15/17 17:08	8
Cumene	7.9	U	7.9		ug/m3			08/15/17 17:08	8
1,1,2,2-Tetrachloroethane	11	U	11		ug/m3			08/15/17 17:08	8
n-Propylbenzene	8.6		7.9		ug/m3			08/15/17 17:08	8
4-Ethyltoluene	7.9	U	7.9		ug/m3			08/15/17 17:08	8
1,3,5-Trimethylbenzene	7.9	U	7.9		ug/m3			08/15/17 17:08	8
2-Chlorotoluene	8.3	U	8.3		ug/m3			08/15/17 17:08	8
tert-Butylbenzene	8.8	U	8.8		ug/m3			08/15/17 17:08	8
1,2,4-Trimethylbenzene	7.9	U	7.9		ug/m3			08/15/17 17:08	8
sec-Butylbenzene	8.8	U	8.8		ug/m3			08/15/17 17:08	8
4-Isopropyltoluene	8.8	U	8.8		ug/m3			08/15/17 17:08	8
1,3-Dichlorobenzene	9.6	U	9.6		ug/m3			08/15/17 17:08	8
1,4-Dichlorobenzene	9.6	U	9.6		ug/m3			08/15/17 17:08	8
Benzyl chloride	8.3	U	8.3		ug/m3			08/15/17 17:08	8

TestAmerica Burlington

Client Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Client Sample ID: SV-1

Date Collected: 08/08/17 14:26

Date Received: 08/11/17 10:30

Sample Container: Summa Canister 6L

Lab Sample ID: 200-39689-1

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	8.8	U	8.8		ug/m3			08/15/17 17:08	8
1,2-Dichlorobenzene	9.6	U	9.6		ug/m3			08/15/17 17:08	8
1,2,4-Trichlorobenzene	30	U	30		ug/m3			08/15/17 17:08	8
Hexachlorobutadiene	17	U	17		ug/m3			08/15/17 17:08	8
Naphthalene	21	U	21		ug/m3			08/15/17 17:08	8

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Propene	11	J N	ppb v/v		3.14	115-07-1		08/15/17 17:08	8
Unknown	9.0	J	ppb v/v		4.02			08/15/17 17:08	8
Unknown	8.5	J	ppb v/v		9.05			08/15/17 17:08	8
Unknown	12	J	ppb v/v		16.51			08/15/17 17:08	8
Unknown	65	J	ppb v/v		18.65			08/15/17 17:08	8
4,7-Methano-1H-indene, octahydro-	8.7	J N	ppb v/v		19.13	6004-38-2		08/15/17 17:08	8

Client Sample ID: SV-2

Date Collected: 08/08/17 15:00

Date Received: 08/11/17 10:30

Sample Container: Summa Canister 6L

Lab Sample ID: 200-39689-2

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	6.6	U	6.6		ppb v/v			08/16/17 23:55	13.1
Freon 22	6.6	U	6.6		ppb v/v			08/16/17 23:55	13.1
1,2-Dichlorotetrafluoroethane	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
Chloromethane	9.6		6.6		ppb v/v			08/16/17 23:55	13.1
n-Butane	310		6.6		ppb v/v			08/16/17 23:55	13.1
Vinyl chloride	0.52	U	0.52		ppb v/v			08/16/17 23:55	13.1
1,3-Butadiene	39		2.6		ppb v/v			08/16/17 23:55	13.1
Bromomethane	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
Chloroethane	6.6	U	6.6		ppb v/v			08/16/17 23:55	13.1
Bromoethene(Vinyl Bromide)	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
Trichlorofluoromethane	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
Freon TF	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
1,1-Dichloroethene	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
Acetone	72		66		ppb v/v			08/16/17 23:55	13.1
Isopropyl alcohol	66	U	66		ppb v/v			08/16/17 23:55	13.1
Carbon disulfide	33		6.6		ppb v/v			08/16/17 23:55	13.1
3-Chloropropene	6.6	U	6.6		ppb v/v			08/16/17 23:55	13.1
Methylene Chloride	6.6	U	6.6		ppb v/v			08/16/17 23:55	13.1
tert-Butyl alcohol	66	U	66		ppb v/v			08/16/17 23:55	13.1
Methyl tert-butyl ether	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
trans-1,2-Dichloroethene	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
n-Hexane	170		2.6		ppb v/v			08/16/17 23:55	13.1
1,1-Dichloroethane	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
Methyl Ethyl Ketone	15		6.6		ppb v/v			08/16/17 23:55	13.1
cis-1,2-Dichloroethene	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
1,2-Dichloroethene, Total	5.2	U	5.2		ppb v/v			08/16/17 23:55	13.1
Chloroform	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
Tetrahydrofuran	66	U	66		ppb v/v			08/16/17 23:55	13.1

TestAmerica Burlington

Client Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Client Sample ID: SV-2

Lab Sample ID: 200-39689-2

Date Collected: 08/08/17 15:00

Matrix: Air

Date Received: 08/11/17 10:30

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
Cyclohexane	5.3		2.6		ppb v/v			08/16/17 23:55	13.1
Carbon tetrachloride	0.52	U	0.52		ppb v/v			08/16/17 23:55	13.1
2,2,4-Trimethylpentane	3.3		2.6		ppb v/v			08/16/17 23:55	13.1
Benzene	16		2.6		ppb v/v			08/16/17 23:55	13.1
1,2-Dichloroethane	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
n-Heptane	60		2.6		ppb v/v			08/16/17 23:55	13.1
Trichloroethene	0.52	U	0.52		ppb v/v			08/16/17 23:55	13.1
Methyl methacrylate	6.6	U	6.6		ppb v/v			08/16/17 23:55	13.1
1,2-Dichloropropane	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
1,4-Dioxane	66	U	66		ppb v/v			08/16/17 23:55	13.1
Bromodichloromethane	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
cis-1,3-Dichloropropene	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
methyl isobutyl ketone	6.6	U	6.6		ppb v/v			08/16/17 23:55	13.1
Toluene	6.2		2.6		ppb v/v			08/16/17 23:55	13.1
trans-1,3-Dichloropropene	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
1,1,2-Trichloroethane	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
Tetrachloroethene	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
Methyl Butyl Ketone (2-Hexanone)	6.6	U	6.6		ppb v/v			08/16/17 23:55	13.1
Dibromochloromethane	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
1,2-Dibromoethane	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
Chlorobenzene	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
Ethylbenzene	8.7		2.6		ppb v/v			08/16/17 23:55	13.1
m,p-Xylene	6.6	U	6.6		ppb v/v			08/16/17 23:55	13.1
Xylene, o-	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
Xylene (total)	9.2	U	9.2		ppb v/v			08/16/17 23:55	13.1
Styrene	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
Bromoform	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
Cumene	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
1,1,2,2-Tetrachloroethane	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
n-Propylbenzene	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
4-Ethyltoluene	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
1,3,5-Trimethylbenzene	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
2-Chlorotoluene	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
tert-Butylbenzene	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
1,2,4-Trimethylbenzene	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
sec-Butylbenzene	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
4-Isopropyltoluene	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
1,3-Dichlorobenzene	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
1,4-Dichlorobenzene	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
Benzyl chloride	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
n-Butylbenzene	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
1,2-Dichlorobenzene	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
1,2,4-Trichlorobenzene	6.6	U	6.6		ppb v/v			08/16/17 23:55	13.1
Hexachlorobutadiene	2.6	U	2.6		ppb v/v			08/16/17 23:55	13.1
Naphthalene	6.6	U	6.6		ppb v/v			08/16/17 23:55	13.1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	32	U	32		ug/m3			08/16/17 23:55	13.1

TestAmerica Burlington

Client Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Client Sample ID: SV-2

Lab Sample ID: 200-39689-2

Date Collected: 08/08/17 15:00

Matrix: Air

Date Received: 08/11/17 10:30

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Freon 22	23	U	23		ug/m3			08/16/17 23:55	13.1
1,2-Dichlorotetrafluoroethane	18	U	18		ug/m3			08/16/17 23:55	13.1
Chloromethane	20		14		ug/m3			08/16/17 23:55	13.1
n-Butane	730		16		ug/m3			08/16/17 23:55	13.1
Vinyl chloride	1.3	U	1.3		ug/m3			08/16/17 23:55	13.1
1,3-Butadiene	87		5.8		ug/m3			08/16/17 23:55	13.1
Bromomethane	10	U	10		ug/m3			08/16/17 23:55	13.1
Chloroethane	17	U	17		ug/m3			08/16/17 23:55	13.1
Bromoethene(Vinyl Bromide)	11	U	11		ug/m3			08/16/17 23:55	13.1
Trichlorofluoromethane	15	U	15		ug/m3			08/16/17 23:55	13.1
Freon TF	20	U	20		ug/m3			08/16/17 23:55	13.1
1,1-Dichloroethene	10	U	10		ug/m3			08/16/17 23:55	13.1
Acetone	170		160		ug/m3			08/16/17 23:55	13.1
Isopropyl alcohol	160	U	160		ug/m3			08/16/17 23:55	13.1
Carbon disulfide	100		20		ug/m3			08/16/17 23:55	13.1
3-Chloropropene	21	U	21		ug/m3			08/16/17 23:55	13.1
Methylene Chloride	23	U	23		ug/m3			08/16/17 23:55	13.1
tert-Butyl alcohol	200	U	200		ug/m3			08/16/17 23:55	13.1
Methyl tert-butyl ether	9.4	U	9.4		ug/m3			08/16/17 23:55	13.1
trans-1,2-Dichloroethene	10	U	10		ug/m3			08/16/17 23:55	13.1
n-Hexane	590		9.2		ug/m3			08/16/17 23:55	13.1
1,1-Dichloroethane	11	U	11		ug/m3			08/16/17 23:55	13.1
Methyl Ethyl Ketone	44		19		ug/m3			08/16/17 23:55	13.1
cis-1,2-Dichloroethene	10	U	10		ug/m3			08/16/17 23:55	13.1
1,2-Dichloroethene, Total	21	U	21		ug/m3			08/16/17 23:55	13.1
Chloroform	13	U	13		ug/m3			08/16/17 23:55	13.1
Tetrahydrofuran	190	U	190		ug/m3			08/16/17 23:55	13.1
1,1,1-Trichloroethane	14	U	14		ug/m3			08/16/17 23:55	13.1
Cyclohexane	18		9.0		ug/m3			08/16/17 23:55	13.1
Carbon tetrachloride	3.3	U	3.3		ug/m3			08/16/17 23:55	13.1
2,2,4-Trimethylpentane	15		12		ug/m3			08/16/17 23:55	13.1
Benzene	52		8.4		ug/m3			08/16/17 23:55	13.1
1,2-Dichloroethane	11	U	11		ug/m3			08/16/17 23:55	13.1
n-Heptane	240		11		ug/m3			08/16/17 23:55	13.1
Trichloroethene	2.8	U	2.8		ug/m3			08/16/17 23:55	13.1
Methyl methacrylate	27	U	27		ug/m3			08/16/17 23:55	13.1
1,2-Dichloropropane	12	U	12		ug/m3			08/16/17 23:55	13.1
1,4-Dioxane	240	U	240		ug/m3			08/16/17 23:55	13.1
Bromodichloromethane	18	U	18		ug/m3			08/16/17 23:55	13.1
cis-1,3-Dichloropropene	12	U	12		ug/m3			08/16/17 23:55	13.1
methyl isobutyl ketone	27	U	27		ug/m3			08/16/17 23:55	13.1
Toluene	23		9.9		ug/m3			08/16/17 23:55	13.1
trans-1,3-Dichloropropene	12	U	12		ug/m3			08/16/17 23:55	13.1
1,1,2-Trichloroethane	14	U	14		ug/m3			08/16/17 23:55	13.1
Tetrachloroethene	18	U	18		ug/m3			08/16/17 23:55	13.1
Methyl Butyl Ketone (2-Hexanone)	27	U	27		ug/m3			08/16/17 23:55	13.1
Dibromochloromethane	22	U	22		ug/m3			08/16/17 23:55	13.1
1,2-Dibromoethane	20	U	20		ug/m3			08/16/17 23:55	13.1

TestAmerica Burlington

Client Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Client Sample ID: SV-2

Lab Sample ID: 200-39689-2

Date Collected: 08/08/17 15:00

Matrix: Air

Date Received: 08/11/17 10:30

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	12	U	12		ug/m3			08/16/17 23:55	13.1
Ethylbenzene	38		11		ug/m3			08/16/17 23:55	13.1
m,p-Xylene	28	U	28		ug/m3			08/16/17 23:55	13.1
Xylene, o-	11	U	11		ug/m3			08/16/17 23:55	13.1
Xylene (total)	40	U	40		ug/m3			08/16/17 23:55	13.1
Styrene	11	U	11		ug/m3			08/16/17 23:55	13.1
Bromoform	27	U	27		ug/m3			08/16/17 23:55	13.1
Cumene	13	U	13		ug/m3			08/16/17 23:55	13.1
1,1,2,2-Tetrachloroethane	18	U	18		ug/m3			08/16/17 23:55	13.1
n-Propylbenzene	13	U	13		ug/m3			08/16/17 23:55	13.1
4-Ethyltoluene	13	U	13		ug/m3			08/16/17 23:55	13.1
1,3,5-Trimethylbenzene	13	U	13		ug/m3			08/16/17 23:55	13.1
2-Chlorotoluene	14	U	14		ug/m3			08/16/17 23:55	13.1
tert-Butylbenzene	14	U	14		ug/m3			08/16/17 23:55	13.1
1,2,4-Trimethylbenzene	13	U	13		ug/m3			08/16/17 23:55	13.1
sec-Butylbenzene	14	U	14		ug/m3			08/16/17 23:55	13.1
4-Isopropyltoluene	14	U	14		ug/m3			08/16/17 23:55	13.1
1,3-Dichlorobenzene	16	U	16		ug/m3			08/16/17 23:55	13.1
1,4-Dichlorobenzene	16	U	16		ug/m3			08/16/17 23:55	13.1
Benzyl chloride	14	U	14		ug/m3			08/16/17 23:55	13.1
n-Butylbenzene	14	U	14		ug/m3			08/16/17 23:55	13.1
1,2-Dichlorobenzene	16	U	16		ug/m3			08/16/17 23:55	13.1
1,2,4-Trichlorobenzene	49	U	49		ug/m3			08/16/17 23:55	13.1
Hexachlorobutadiene	28	U	28		ug/m3			08/16/17 23:55	13.1
Naphthalene	34	U	34		ug/m3			08/16/17 23:55	13.1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	200	J	ppb v/v		3.12			08/16/17 23:55	13.1
Unknown	36	J	ppb v/v		3.41			08/16/17 23:55	13.1
Unknown	29	J	ppb v/v		3.81			08/16/17 23:55	13.1
Pentane	120	J N	ppb v/v		5.01	109-66-0		08/16/17 23:55	13.1
Cyclopropane, 1,2-dimethyl-, cis-	36	J N	ppb v/v		5.26	930-18-7		08/16/17 23:55	13.1
Unknown	64	J	ppb v/v		6.62			08/16/17 23:55	13.1
Unknown	52	J	ppb v/v		7.04			08/16/17 23:55	13.1
2-Hexene, (Z)-	29	J N	ppb v/v		7.83	7688-21-3		08/16/17 23:55	13.1
Hexane, 3-methyl-	61	J N	ppb v/v		10.03	589-34-4		08/16/17 23:55	13.1
Unknown	28	J	ppb v/v		22.62			08/16/17 23:55	13.1

Client Sample ID: SV-3

Lab Sample ID: 200-39689-3

Date Collected: 08/09/17 12:20

Matrix: Air

Date Received: 08/11/17 10:30

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	3.0	U	3.0		ppb v/v			08/15/17 18:01	6
Freon 22	5.0		3.0		ppb v/v			08/15/17 18:01	6
1,2-Dichlorotetrafluoroethane	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
Chloromethane	3.0	U	3.0		ppb v/v			08/15/17 18:01	6

TestAmerica Burlington

Client Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Client Sample ID: SV-3

Lab Sample ID: 200-39689-3

Date Collected: 08/09/17 12:20

Matrix: Air

Date Received: 08/11/17 10:30

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butane	20		3.0		ppb v/v			08/15/17 18:01	6
Vinyl chloride	0.24	U	0.24		ppb v/v			08/15/17 18:01	6
1,3-Butadiene	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
Bromomethane	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
Chloroethane	3.0	U	3.0		ppb v/v			08/15/17 18:01	6
Bromoethene(Vinyl Bromide)	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
Trichlorofluoromethane	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
Freon TF	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
1,1-Dichloroethene	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
Acetone	110		30		ppb v/v			08/15/17 18:01	6
Isopropyl alcohol	30	U	30		ppb v/v			08/15/17 18:01	6
Carbon disulfide	3.0	U	3.0		ppb v/v			08/15/17 18:01	6
3-Chloropropene	3.0	U	3.0		ppb v/v			08/15/17 18:01	6
Methylene Chloride	70		3.0		ppb v/v			08/15/17 18:01	6
tert-Butyl alcohol	30	U	30		ppb v/v			08/15/17 18:01	6
Methyl tert-butyl ether	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
trans-1,2-Dichloroethene	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
n-Hexane	100		1.2		ppb v/v			08/15/17 18:01	6
1,1-Dichloroethane	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
Methyl Ethyl Ketone	6.3		3.0		ppb v/v			08/15/17 18:01	6
cis-1,2-Dichloroethene	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
1,2-Dichloroethene, Total	2.4	U	2.4		ppb v/v			08/15/17 18:01	6
Chloroform	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
Tetrahydrofuran	30	U	30		ppb v/v			08/15/17 18:01	6
1,1,1-Trichloroethane	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
Cyclohexane	7.5		1.2		ppb v/v			08/15/17 18:01	6
Carbon tetrachloride	0.24	U	0.24		ppb v/v			08/15/17 18:01	6
2,2,4-Trimethylpentane	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
Benzene	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
1,2-Dichloroethane	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
n-Heptane	2.0		1.2		ppb v/v			08/15/17 18:01	6
Trichloroethene	13		0.24		ppb v/v			08/15/17 18:01	6
Methyl methacrylate	3.0	U	3.0		ppb v/v			08/15/17 18:01	6
1,2-Dichloropropane	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
1,4-Dioxane	30	U	30		ppb v/v			08/15/17 18:01	6
Bromodichloromethane	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
cis-1,3-Dichloropropene	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
methyl isobutyl ketone	3.0	U	3.0		ppb v/v			08/15/17 18:01	6
Toluene	65		1.2		ppb v/v			08/15/17 18:01	6
trans-1,3-Dichloropropene	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
1,1,2-Trichloroethane	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
Tetrachloroethene	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
Methyl Butyl Ketone (2-Hexanone)	3.0	U	3.0		ppb v/v			08/15/17 18:01	6
Dibromochloromethane	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
1,2-Dibromoethane	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
Chlorobenzene	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
Ethylbenzene	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
m,p-Xylene	3.0	U	3.0		ppb v/v			08/15/17 18:01	6

TestAmerica Burlington

Client Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Client Sample ID: SV-3

Lab Sample ID: 200-39689-3

Date Collected: 08/09/17 12:20

Matrix: Air

Date Received: 08/11/17 10:30

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Xylene, o-	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
Xylene (total)	4.2	U	4.2		ppb v/v			08/15/17 18:01	6
Styrene	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
Bromoform	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
Cumene	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
1,1,2,2-Tetrachloroethane	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
n-Propylbenzene	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
4-Ethyltoluene	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
1,3,5-Trimethylbenzene	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
2-Chlorotoluene	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
tert-Butylbenzene	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
1,2,4-Trimethylbenzene	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
sec-Butylbenzene	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
4-Isopropyltoluene	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
1,3-Dichlorobenzene	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
1,4-Dichlorobenzene	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
Benzyl chloride	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
n-Butylbenzene	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
1,2-Dichlorobenzene	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
1,2,4-Trichlorobenzene	3.0	U	3.0		ppb v/v			08/15/17 18:01	6
Hexachlorobutadiene	1.2	U	1.2		ppb v/v			08/15/17 18:01	6
Naphthalene	3.0	U	3.0		ppb v/v			08/15/17 18:01	6
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	15	U	15		ug/m3			08/15/17 18:01	6
Freon 22	18		11		ug/m3			08/15/17 18:01	6
1,2-Dichlorotetrafluoroethane	8.4	U	8.4		ug/m3			08/15/17 18:01	6
Chloromethane	6.2	U	6.2		ug/m3			08/15/17 18:01	6
n-Butane	48		7.1		ug/m3			08/15/17 18:01	6
Vinyl chloride	0.61	U	0.61		ug/m3			08/15/17 18:01	6
1,3-Butadiene	2.7	U	2.7		ug/m3			08/15/17 18:01	6
Bromomethane	4.7	U	4.7		ug/m3			08/15/17 18:01	6
Chloroethane	7.9	U	7.9		ug/m3			08/15/17 18:01	6
Bromoethene(Vinyl Bromide)	5.2	U	5.2		ug/m3			08/15/17 18:01	6
Trichlorofluoromethane	6.7	U	6.7		ug/m3			08/15/17 18:01	6
Freon TF	9.2	U	9.2		ug/m3			08/15/17 18:01	6
1,1-Dichloroethene	4.8	U	4.8		ug/m3			08/15/17 18:01	6
Acetone	270		71		ug/m3			08/15/17 18:01	6
Isopropyl alcohol	74	U	74		ug/m3			08/15/17 18:01	6
Carbon disulfide	9.3	U	9.3		ug/m3			08/15/17 18:01	6
3-Chloropropene	9.4	U	9.4		ug/m3			08/15/17 18:01	6
Methylene Chloride	240		10		ug/m3			08/15/17 18:01	6
tert-Butyl alcohol	91	U	91		ug/m3			08/15/17 18:01	6
Methyl tert-butyl ether	4.3	U	4.3		ug/m3			08/15/17 18:01	6
trans-1,2-Dichloroethene	4.8	U	4.8		ug/m3			08/15/17 18:01	6
n-Hexane	350		4.2		ug/m3			08/15/17 18:01	6
1,1-Dichloroethane	4.9	U	4.9		ug/m3			08/15/17 18:01	6
Methyl Ethyl Ketone	18		8.8		ug/m3			08/15/17 18:01	6
cis-1,2-Dichloroethene	4.8	U	4.8		ug/m3			08/15/17 18:01	6

TestAmerica Burlington

Client Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Client Sample ID: SV-3

Lab Sample ID: 200-39689-3

Date Collected: 08/09/17 12:20

Matrix: Air

Date Received: 08/11/17 10:30

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	9.5	U	9.5		ug/m3			08/15/17 18:01	6
Chloroform	5.9	U	5.9		ug/m3			08/15/17 18:01	6
Tetrahydrofuran	88	U	88		ug/m3			08/15/17 18:01	6
1,1,1-Trichloroethane	6.5	U	6.5		ug/m3			08/15/17 18:01	6
Cyclohexane	26		4.1		ug/m3			08/15/17 18:01	6
Carbon tetrachloride	1.5	U	1.5		ug/m3			08/15/17 18:01	6
2,2,4-Trimethylpentane	5.6	U	5.6		ug/m3			08/15/17 18:01	6
Benzene	3.8	U	3.8		ug/m3			08/15/17 18:01	6
1,2-Dichloroethane	4.9	U	4.9		ug/m3			08/15/17 18:01	6
n-Heptane	8.0		4.9		ug/m3			08/15/17 18:01	6
Trichloroethene	69		1.3		ug/m3			08/15/17 18:01	6
Methyl methacrylate	12	U	12		ug/m3			08/15/17 18:01	6
1,2-Dichloropropane	5.5	U	5.5		ug/m3			08/15/17 18:01	6
1,4-Dioxane	110	U	110		ug/m3			08/15/17 18:01	6
Bromodichloromethane	8.0	U	8.0		ug/m3			08/15/17 18:01	6
cis-1,3-Dichloropropene	5.4	U	5.4		ug/m3			08/15/17 18:01	6
methyl isobutyl ketone	12	U	12		ug/m3			08/15/17 18:01	6
Toluene	250		4.5		ug/m3			08/15/17 18:01	6
trans-1,3-Dichloropropene	5.4	U	5.4		ug/m3			08/15/17 18:01	6
1,1,2-Trichloroethane	6.5	U	6.5		ug/m3			08/15/17 18:01	6
Tetrachloroethene	8.1	U	8.1		ug/m3			08/15/17 18:01	6
Methyl Butyl Ketone (2-Hexanone)	12	U	12		ug/m3			08/15/17 18:01	6
Dibromochloromethane	10	U	10		ug/m3			08/15/17 18:01	6
1,2-Dibromoethane	9.2	U	9.2		ug/m3			08/15/17 18:01	6
Chlorobenzene	5.5	U	5.5		ug/m3			08/15/17 18:01	6
Ethylbenzene	5.2	U	5.2		ug/m3			08/15/17 18:01	6
m,p-Xylene	13	U	13		ug/m3			08/15/17 18:01	6
Xylene, o-	5.2	U	5.2		ug/m3			08/15/17 18:01	6
Xylene (total)	18	U	18		ug/m3			08/15/17 18:01	6
Styrene	5.1	U	5.1		ug/m3			08/15/17 18:01	6
Bromoform	12	U	12		ug/m3			08/15/17 18:01	6
Cumene	5.9	U	5.9		ug/m3			08/15/17 18:01	6
1,1,2,2-Tetrachloroethane	8.2	U	8.2		ug/m3			08/15/17 18:01	6
n-Propylbenzene	5.9	U	5.9		ug/m3			08/15/17 18:01	6
4-Ethyltoluene	5.9	U	5.9		ug/m3			08/15/17 18:01	6
1,3,5-Trimethylbenzene	5.9	U	5.9		ug/m3			08/15/17 18:01	6
2-Chlorotoluene	6.2	U	6.2		ug/m3			08/15/17 18:01	6
tert-Butylbenzene	6.6	U	6.6		ug/m3			08/15/17 18:01	6
1,2,4-Trimethylbenzene	5.9	U	5.9		ug/m3			08/15/17 18:01	6
sec-Butylbenzene	6.6	U	6.6		ug/m3			08/15/17 18:01	6
4-Isopropyltoluene	6.6	U	6.6		ug/m3			08/15/17 18:01	6
1,3-Dichlorobenzene	7.2	U	7.2		ug/m3			08/15/17 18:01	6
1,4-Dichlorobenzene	7.2	U	7.2		ug/m3			08/15/17 18:01	6
Benzyl chloride	6.2	U	6.2		ug/m3			08/15/17 18:01	6
n-Butylbenzene	6.6	U	6.6		ug/m3			08/15/17 18:01	6
1,2-Dichlorobenzene	7.2	U	7.2		ug/m3			08/15/17 18:01	6
1,2,4-Trichlorobenzene	22	U	22		ug/m3			08/15/17 18:01	6
Hexachlorobutadiene	13	U	13		ug/m3			08/15/17 18:01	6

TestAmerica Burlington

Client Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Client Sample ID: SV-3

Date Collected: 08/09/17 12:20

Date Received: 08/11/17 10:30

Sample Container: Summa Canister 6L

Lab Sample ID: 200-39689-3

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	16	U	16		ug/m3			08/15/17 18:01	6
<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Unknown	15	J	ppb v/v		3.14			08/15/17 18:01	6
Isobutane	11	J N	ppb v/v		3.44	75-28-5		08/15/17 18:01	6
Pentane, 2-methyl-	36	J N	ppb v/v		7.15	107-83-5		08/15/17 18:01	6
Pentane, 3-methyl-	48	J N	ppb v/v		7.59	96-14-0		08/15/17 18:01	6
Cyclopentane, methyl-	35	J N	ppb v/v		9.05	96-37-7		08/15/17 18:01	6
Hexane, 2-methyl-	6.8	J N	ppb v/v		9.90	591-76-4		08/15/17 18:01	6
Hexane, 3-methyl-	6.1	J N	ppb v/v		10.17	589-34-4		08/15/17 18:01	6
Unknown	12	J	ppb v/v		16.51			08/15/17 18:01	6
Unknown	25	J	ppb v/v		18.66			08/15/17 18:01	6

Client Sample ID: SV-4

Date Collected: 08/09/17 13:15

Date Received: 08/11/17 10:30

Sample Container: Summa Canister 6L

Lab Sample ID: 200-39689-4

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.50	U	0.50		ppb v/v			08/14/17 21:06	1
Freon 22	1.1		0.50		ppb v/v			08/14/17 21:06	1
1,2-Dichlorotetrafluoroethane	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
Chloromethane	0.50	U	0.50		ppb v/v			08/14/17 21:06	1
n-Butane	1.1		0.50		ppb v/v			08/14/17 21:06	1
Vinyl chloride	0.040	U	0.040		ppb v/v			08/14/17 21:06	1
1,3-Butadiene	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
Bromomethane	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
Chloroethane	0.50	U	0.50		ppb v/v			08/14/17 21:06	1
Bromoethene(Vinyl Bromide)	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
Trichlorofluoromethane	0.39		0.20		ppb v/v			08/14/17 21:06	1
Freon TF	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
1,1-Dichloroethene	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
Acetone	17		5.0		ppb v/v			08/14/17 21:06	1
Isopropyl alcohol	5.0	U	5.0		ppb v/v			08/14/17 21:06	1
Carbon disulfide	0.50	U	0.50		ppb v/v			08/14/17 21:06	1
3-Chloropropene	0.50	U	0.50		ppb v/v			08/14/17 21:06	1
Methylene Chloride	0.50	U	0.50		ppb v/v			08/14/17 21:06	1
tert-Butyl alcohol	5.0	U	5.0		ppb v/v			08/14/17 21:06	1
Methyl tert-butyl ether	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
trans-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
n-Hexane	0.36		0.20		ppb v/v			08/14/17 21:06	1
1,1-Dichloroethane	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
Methyl Ethyl Ketone	3.8		0.50		ppb v/v			08/14/17 21:06	1
cis-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
1,2-Dichloroethene, Total	0.40	U	0.40		ppb v/v			08/14/17 21:06	1
Chloroform	0.25		0.20		ppb v/v			08/14/17 21:06	1
Tetrahydrofuran	5.0	U	5.0		ppb v/v			08/14/17 21:06	1
1,1,1-Trichloroethane	0.20	U	0.20		ppb v/v			08/14/17 21:06	1

TestAmerica Burlington

Client Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Client Sample ID: SV-4

Date Collected: 08/09/17 13:15

Date Received: 08/11/17 10:30

Sample Container: Summa Canister 6L

Lab Sample ID: 200-39689-4

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
Carbon tetrachloride	0.040	U	0.040		ppb v/v			08/14/17 21:06	1
2,2,4-Trimethylpentane	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
Benzene	0.90		0.20		ppb v/v			08/14/17 21:06	1
1,2-Dichloroethane	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
n-Heptane	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
Trichloroethene	0.045		0.040		ppb v/v			08/14/17 21:06	1
Methyl methacrylate	0.50	U	0.50		ppb v/v			08/14/17 21:06	1
1,2-Dichloropropane	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
1,4-Dioxane	5.0	U	5.0		ppb v/v			08/14/17 21:06	1
Bromodichloromethane	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
cis-1,3-Dichloropropene	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
methyl isobutyl ketone	0.50	U	0.50		ppb v/v			08/14/17 21:06	1
Toluene	1.6		0.20		ppb v/v			08/14/17 21:06	1
trans-1,3-Dichloropropene	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
1,1,2-Trichloroethane	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
Tetrachloroethene	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
Methyl Butyl Ketone (2-Hexanone)	0.67		0.50		ppb v/v			08/14/17 21:06	1
Dibromochloromethane	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
1,2-Dibromoethane	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
Chlorobenzene	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
Ethylbenzene	0.93		0.20		ppb v/v			08/14/17 21:06	1
m,p-Xylene	0.66		0.50		ppb v/v			08/14/17 21:06	1
Xylene, o-	0.31		0.20		ppb v/v			08/14/17 21:06	1
Xylene (total)	0.97		0.70		ppb v/v			08/14/17 21:06	1
Styrene	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
Bromoform	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
Cumene	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
1,1,2,2-Tetrachloroethane	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
n-Propylbenzene	0.35		0.20		ppb v/v			08/14/17 21:06	1
4-Ethyltoluene	0.64		0.20		ppb v/v			08/14/17 21:06	1
1,3,5-Trimethylbenzene	0.56		0.20		ppb v/v			08/14/17 21:06	1
2-Chlorotoluene	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
tert-Butylbenzene	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
1,2,4-Trimethylbenzene	1.4		0.20		ppb v/v			08/14/17 21:06	1
sec-Butylbenzene	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
4-Isopropyltoluene	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
1,3-Dichlorobenzene	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
1,4-Dichlorobenzene	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
Benzyl chloride	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
n-Butylbenzene	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
1,2-Dichlorobenzene	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
1,2,4-Trichlorobenzene	0.50	U	0.50		ppb v/v			08/14/17 21:06	1
Hexachlorobutadiene	0.20	U	0.20		ppb v/v			08/14/17 21:06	1
Naphthalene	0.50	U	0.50		ppb v/v			08/14/17 21:06	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	2.5	U	2.5		ug/m3			08/14/17 21:06	1
Freon 22	3.8		1.8		ug/m3			08/14/17 21:06	1

TestAmerica Burlington

Client Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Client Sample ID: SV-4

Date Collected: 08/09/17 13:15

Date Received: 08/11/17 10:30

Sample Container: Summa Canister 6L

Lab Sample ID: 200-39689-4

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorotetrafluoroethane	1.4	U	1.4		ug/m3			08/14/17 21:06	1
Chloromethane	1.0	U	1.0		ug/m3			08/14/17 21:06	1
n-Butane	2.5		1.2		ug/m3			08/14/17 21:06	1
Vinyl chloride	0.10	U	0.10		ug/m3			08/14/17 21:06	1
1,3-Butadiene	0.44	U	0.44		ug/m3			08/14/17 21:06	1
Bromomethane	0.78	U	0.78		ug/m3			08/14/17 21:06	1
Chloroethane	1.3	U	1.3		ug/m3			08/14/17 21:06	1
Bromoethene(Vinyl Bromide)	0.87	U	0.87		ug/m3			08/14/17 21:06	1
Trichlorofluoromethane	2.2		1.1		ug/m3			08/14/17 21:06	1
Freon TF	1.5	U	1.5		ug/m3			08/14/17 21:06	1
1,1-Dichloroethene	0.79	U	0.79		ug/m3			08/14/17 21:06	1
Acetone	41		12		ug/m3			08/14/17 21:06	1
Isopropyl alcohol	12	U	12		ug/m3			08/14/17 21:06	1
Carbon disulfide	1.6	U	1.6		ug/m3			08/14/17 21:06	1
3-Chloropropene	1.6	U	1.6		ug/m3			08/14/17 21:06	1
Methylene Chloride	1.7	U	1.7		ug/m3			08/14/17 21:06	1
tert-Butyl alcohol	15	U	15		ug/m3			08/14/17 21:06	1
Methyl tert-butyl ether	0.72	U	0.72		ug/m3			08/14/17 21:06	1
trans-1,2-Dichloroethene	0.79	U	0.79		ug/m3			08/14/17 21:06	1
n-Hexane	1.3		0.70		ug/m3			08/14/17 21:06	1
1,1-Dichloroethane	0.81	U	0.81		ug/m3			08/14/17 21:06	1
Methyl Ethyl Ketone	11		1.5		ug/m3			08/14/17 21:06	1
cis-1,2-Dichloroethene	0.79	U	0.79		ug/m3			08/14/17 21:06	1
1,2-Dichloroethene, Total	1.6	U	1.6		ug/m3			08/14/17 21:06	1
Chloroform	1.2		0.98		ug/m3			08/14/17 21:06	1
Tetrahydrofuran	15	U	15		ug/m3			08/14/17 21:06	1
1,1,1-Trichloroethane	1.1	U	1.1		ug/m3			08/14/17 21:06	1
Cyclohexane	0.69	U	0.69		ug/m3			08/14/17 21:06	1
Carbon tetrachloride	0.25	U	0.25		ug/m3			08/14/17 21:06	1
2,2,4-Trimethylpentane	0.93	U	0.93		ug/m3			08/14/17 21:06	1
Benzene	2.9		0.64		ug/m3			08/14/17 21:06	1
1,2-Dichloroethane	0.81	U	0.81		ug/m3			08/14/17 21:06	1
n-Heptane	0.82	U	0.82		ug/m3			08/14/17 21:06	1
Trichloroethene	0.24		0.21		ug/m3			08/14/17 21:06	1
Methyl methacrylate	2.0	U	2.0		ug/m3			08/14/17 21:06	1
1,2-Dichloropropane	0.92	U	0.92		ug/m3			08/14/17 21:06	1
1,4-Dioxane	18	U	18		ug/m3			08/14/17 21:06	1
Bromodichloromethane	1.3	U	1.3		ug/m3			08/14/17 21:06	1
cis-1,3-Dichloropropene	0.91	U	0.91		ug/m3			08/14/17 21:06	1
methyl isobutyl ketone	2.0	U	2.0		ug/m3			08/14/17 21:06	1
Toluene	6.0		0.75		ug/m3			08/14/17 21:06	1
trans-1,3-Dichloropropene	0.91	U	0.91		ug/m3			08/14/17 21:06	1
1,1,2-Trichloroethane	1.1	U	1.1		ug/m3			08/14/17 21:06	1
Tetrachloroethene	1.4	U	1.4		ug/m3			08/14/17 21:06	1
Methyl Butyl Ketone (2-Hexanone)	2.7		2.0		ug/m3			08/14/17 21:06	1
Dibromochloromethane	1.7	U	1.7		ug/m3			08/14/17 21:06	1
1,2-Dibromoethane	1.5	U	1.5		ug/m3			08/14/17 21:06	1
Chlorobenzene	0.92	U	0.92		ug/m3			08/14/17 21:06	1

TestAmerica Burlington

Client Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Client Sample ID: SV-4

Lab Sample ID: 200-39689-4

Date Collected: 08/09/17 13:15

Matrix: Air

Date Received: 08/11/17 10:30

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	4.0		0.87		ug/m3			08/14/17 21:06	1
m,p-Xylene	2.9		2.2		ug/m3			08/14/17 21:06	1
Xylene, o-	1.3		0.87		ug/m3			08/14/17 21:06	1
Xylene (total)	4.2		3.0		ug/m3			08/14/17 21:06	1
Styrene	0.85	U	0.85		ug/m3			08/14/17 21:06	1
Bromoform	2.1	U	2.1		ug/m3			08/14/17 21:06	1
Cumene	0.98	U	0.98		ug/m3			08/14/17 21:06	1
1,1,2,2-Tetrachloroethane	1.4	U	1.4		ug/m3			08/14/17 21:06	1
n-Propylbenzene	1.7		0.98		ug/m3			08/14/17 21:06	1
4-Ethyltoluene	3.2		0.98		ug/m3			08/14/17 21:06	1
1,3,5-Trimethylbenzene	2.8		0.98		ug/m3			08/14/17 21:06	1
2-Chlorotoluene	1.0	U	1.0		ug/m3			08/14/17 21:06	1
tert-Butylbenzene	1.1	U	1.1		ug/m3			08/14/17 21:06	1
1,2,4-Trimethylbenzene	6.8		0.98		ug/m3			08/14/17 21:06	1
sec-Butylbenzene	1.1	U	1.1		ug/m3			08/14/17 21:06	1
4-Isopropyltoluene	1.1	U	1.1		ug/m3			08/14/17 21:06	1
1,3-Dichlorobenzene	1.2	U	1.2		ug/m3			08/14/17 21:06	1
1,4-Dichlorobenzene	1.2	U	1.2		ug/m3			08/14/17 21:06	1
Benzyl chloride	1.0	U	1.0		ug/m3			08/14/17 21:06	1
n-Butylbenzene	1.1	U	1.1		ug/m3			08/14/17 21:06	1
1,2-Dichlorobenzene	1.2	U	1.2		ug/m3			08/14/17 21:06	1
1,2,4-Trichlorobenzene	3.7	U	3.7		ug/m3			08/14/17 21:06	1
Hexachlorobutadiene	2.1	U	2.1		ug/m3			08/14/17 21:06	1
Naphthalene	2.6	U	2.6		ug/m3			08/14/17 21:06	1

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	1.1	J	ppb v/v		3.96			08/14/17 21:06	1
Butanal	1.1	J N	ppb v/v		8.75	123-72-8		08/14/17 21:06	1
Unknown	2.3	J	ppb v/v		19.84			08/14/17 21:06	1
Unknown	1.0	J	ppb v/v		21.25			08/14/17 21:06	1
Unknown	8.3	J	ppb v/v		22.62			08/14/17 21:06	1

Client Sample ID: SV-5

Lab Sample ID: 200-39689-5

Date Collected: 08/09/17 12:30

Matrix: Air

Date Received: 08/11/17 10:30

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	5.0	U	5.0		ppb v/v			08/14/17 21:57	10
Freon 22	6.9		5.0		ppb v/v			08/14/17 21:57	10
1,2-Dichlorotetrafluoroethane	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
Chloromethane	5.0	U	5.0		ppb v/v			08/14/17 21:57	10
n-Butane	13		5.0		ppb v/v			08/14/17 21:57	10
Vinyl chloride	0.40	U	0.40		ppb v/v			08/14/17 21:57	10
1,3-Butadiene	2.5		2.0		ppb v/v			08/14/17 21:57	10
Bromomethane	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
Chloroethane	5.0	U	5.0		ppb v/v			08/14/17 21:57	10
Bromoethene(Vinyl Bromide)	2.0	U	2.0		ppb v/v			08/14/17 21:57	10

TestAmerica Burlington

Client Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Client Sample ID: SV-5

Date Collected: 08/09/17 12:30

Date Received: 08/11/17 10:30

Sample Container: Summa Canister 6L

Lab Sample ID: 200-39689-5

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
Freon TF	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
1,1-Dichloroethene	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
Acetone	310		50		ppb v/v			08/14/17 21:57	10
Isopropyl alcohol	50	U	50		ppb v/v			08/14/17 21:57	10
Carbon disulfide	5.0	U	5.0		ppb v/v			08/14/17 21:57	10
3-Chloropropene	5.0	U	5.0		ppb v/v			08/14/17 21:57	10
Methylene Chloride	15		5.0		ppb v/v			08/14/17 21:57	10
tert-Butyl alcohol	50	U	50		ppb v/v			08/14/17 21:57	10
Methyl tert-butyl ether	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
trans-1,2-Dichloroethene	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
n-Hexane	29		2.0		ppb v/v			08/14/17 21:57	10
1,1-Dichloroethane	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
Methyl Ethyl Ketone	8.7		5.0		ppb v/v			08/14/17 21:57	10
cis-1,2-Dichloroethene	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
1,2-Dichloroethene, Total	4.0	U	4.0		ppb v/v			08/14/17 21:57	10
Chloroform	2.1		2.0		ppb v/v			08/14/17 21:57	10
Tetrahydrofuran	50	U	50		ppb v/v			08/14/17 21:57	10
1,1,1-Trichloroethane	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
Cyclohexane	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
Carbon tetrachloride	0.40	U	0.40		ppb v/v			08/14/17 21:57	10
2,2,4-Trimethylpentane	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
Benzene	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
1,2-Dichloroethane	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
n-Heptane	4.1		2.0		ppb v/v			08/14/17 21:57	10
Trichloroethene	2.4		0.40		ppb v/v			08/14/17 21:57	10
Methyl methacrylate	5.0	U	5.0		ppb v/v			08/14/17 21:57	10
1,2-Dichloropropane	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
1,4-Dioxane	50	U	50		ppb v/v			08/14/17 21:57	10
Bromodichloromethane	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
cis-1,3-Dichloropropene	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
methyl isobutyl ketone	5.0	U	5.0		ppb v/v			08/14/17 21:57	10
Toluene	12		2.0		ppb v/v			08/14/17 21:57	10
trans-1,3-Dichloropropene	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
1,1,2-Trichloroethane	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
Tetrachloroethene	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
Methyl Butyl Ketone (2-Hexanone)	5.0	U	5.0		ppb v/v			08/14/17 21:57	10
Dibromochloromethane	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
1,2-Dibromoethane	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
Chlorobenzene	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
Ethylbenzene	2.3		2.0		ppb v/v			08/14/17 21:57	10
m,p-Xylene	5.0	U	5.0		ppb v/v			08/14/17 21:57	10
Xylene, o-	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
Xylene (total)	7.0	U	7.0		ppb v/v			08/14/17 21:57	10
Styrene	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
Bromoform	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
Cumene	2.6		2.0		ppb v/v			08/14/17 21:57	10
1,1,2,2-Tetrachloroethane	2.0	U	2.0		ppb v/v			08/14/17 21:57	10

TestAmerica Burlington

Client Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Client Sample ID: SV-5

Lab Sample ID: 200-39689-5

Date Collected: 08/09/17 12:30

Matrix: Air

Date Received: 08/11/17 10:30

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
n-Propylbenzene	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
4-Ethyltoluene	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
1,3,5-Trimethylbenzene	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
2-Chlorotoluene	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
tert-Butylbenzene	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
1,2,4-Trimethylbenzene	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
sec-Butylbenzene	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
4-Isopropyltoluene	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
1,3-Dichlorobenzene	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
1,4-Dichlorobenzene	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
Benzyl chloride	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
n-Butylbenzene	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
1,2-Dichlorobenzene	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
1,2,4-Trichlorobenzene	5.0	U	5.0		ppb v/v			08/14/17 21:57	10
Hexachlorobutadiene	2.0	U	2.0		ppb v/v			08/14/17 21:57	10
Naphthalene	5.0	U	5.0		ppb v/v			08/14/17 21:57	10
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	25	U	25		ug/m3			08/14/17 21:57	10
Freon 22	24		18		ug/m3			08/14/17 21:57	10
1,2-Dichlorotetrafluoroethane	14	U	14		ug/m3			08/14/17 21:57	10
Chloromethane	10	U	10		ug/m3			08/14/17 21:57	10
n-Butane	31		12		ug/m3			08/14/17 21:57	10
Vinyl chloride	1.0	U	1.0		ug/m3			08/14/17 21:57	10
1,3-Butadiene	5.4		4.4		ug/m3			08/14/17 21:57	10
Bromomethane	7.8	U	7.8		ug/m3			08/14/17 21:57	10
Chloroethane	13	U	13		ug/m3			08/14/17 21:57	10
Bromoethene(Vinyl Bromide)	8.7	U	8.7		ug/m3			08/14/17 21:57	10
Trichlorofluoromethane	11	U	11		ug/m3			08/14/17 21:57	10
Freon TF	15	U	15		ug/m3			08/14/17 21:57	10
1,1-Dichloroethene	7.9	U	7.9		ug/m3			08/14/17 21:57	10
Acetone	750		120		ug/m3			08/14/17 21:57	10
Isopropyl alcohol	120	U	120		ug/m3			08/14/17 21:57	10
Carbon disulfide	16	U	16		ug/m3			08/14/17 21:57	10
3-Chloropropene	16	U	16		ug/m3			08/14/17 21:57	10
Methylene Chloride	53		17		ug/m3			08/14/17 21:57	10
tert-Butyl alcohol	150	U	150		ug/m3			08/14/17 21:57	10
Methyl tert-butyl ether	7.2	U	7.2		ug/m3			08/14/17 21:57	10
trans-1,2-Dichloroethene	7.9	U	7.9		ug/m3			08/14/17 21:57	10
n-Hexane	100		7.0		ug/m3			08/14/17 21:57	10
1,1-Dichloroethane	8.1	U	8.1		ug/m3			08/14/17 21:57	10
Methyl Ethyl Ketone	26		15		ug/m3			08/14/17 21:57	10
cis-1,2-Dichloroethene	7.9	U	7.9		ug/m3			08/14/17 21:57	10
1,2-Dichloroethene, Total	16	U	16		ug/m3			08/14/17 21:57	10
Chloroform	10		9.8		ug/m3			08/14/17 21:57	10
Tetrahydrofuran	150	U	150		ug/m3			08/14/17 21:57	10
1,1,1-Trichloroethane	11	U	11		ug/m3			08/14/17 21:57	10
Cyclohexane	6.9	U	6.9		ug/m3			08/14/17 21:57	10
Carbon tetrachloride	2.5	U	2.5		ug/m3			08/14/17 21:57	10

TestAmerica Burlington

Client Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Client Sample ID: SV-5

Lab Sample ID: 200-39689-5

Date Collected: 08/09/17 12:30

Matrix: Air

Date Received: 08/11/17 10:30

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
2,2,4-Trimethylpentane	9.3	U	9.3		ug/m3			08/14/17 21:57	10
Benzene	6.4	U	6.4		ug/m3			08/14/17 21:57	10
1,2-Dichloroethane	8.1	U	8.1		ug/m3			08/14/17 21:57	10
n-Heptane	17		8.2		ug/m3			08/14/17 21:57	10
Trichloroethene	13		2.1		ug/m3			08/14/17 21:57	10
Methyl methacrylate	20	U	20		ug/m3			08/14/17 21:57	10
1,2-Dichloropropane	9.2	U	9.2		ug/m3			08/14/17 21:57	10
1,4-Dioxane	180	U	180		ug/m3			08/14/17 21:57	10
Bromodichloromethane	13	U	13		ug/m3			08/14/17 21:57	10
cis-1,3-Dichloropropene	9.1	U	9.1		ug/m3			08/14/17 21:57	10
methyl isobutyl ketone	20	U	20		ug/m3			08/14/17 21:57	10
Toluene	45		7.5		ug/m3			08/14/17 21:57	10
trans-1,3-Dichloropropene	9.1	U	9.1		ug/m3			08/14/17 21:57	10
1,1,2-Trichloroethane	11	U	11		ug/m3			08/14/17 21:57	10
Tetrachloroethene	14	U	14		ug/m3			08/14/17 21:57	10
Methyl Butyl Ketone (2-Hexanone)	20	U	20		ug/m3			08/14/17 21:57	10
Dibromochloromethane	17	U	17		ug/m3			08/14/17 21:57	10
1,2-Dibromoethane	15	U	15		ug/m3			08/14/17 21:57	10
Chlorobenzene	9.2	U	9.2		ug/m3			08/14/17 21:57	10
Ethylbenzene	10		8.7		ug/m3			08/14/17 21:57	10
m,p-Xylene	22	U	22		ug/m3			08/14/17 21:57	10
Xylene, o-	8.7	U	8.7		ug/m3			08/14/17 21:57	10
Xylene (total)	30	U	30		ug/m3			08/14/17 21:57	10
Styrene	8.5	U	8.5		ug/m3			08/14/17 21:57	10
Bromoform	21	U	21		ug/m3			08/14/17 21:57	10
Cumene	13		9.8		ug/m3			08/14/17 21:57	10
1,1,2,2-Tetrachloroethane	14	U	14		ug/m3			08/14/17 21:57	10
n-Propylbenzene	9.8	U	9.8		ug/m3			08/14/17 21:57	10
4-Ethyltoluene	9.8	U	9.8		ug/m3			08/14/17 21:57	10
1,3,5-Trimethylbenzene	9.8	U	9.8		ug/m3			08/14/17 21:57	10
2-Chlorotoluene	10	U	10		ug/m3			08/14/17 21:57	10
tert-Butylbenzene	11	U	11		ug/m3			08/14/17 21:57	10
1,2,4-Trimethylbenzene	9.8	U	9.8		ug/m3			08/14/17 21:57	10
sec-Butylbenzene	11	U	11		ug/m3			08/14/17 21:57	10
4-Isopropyltoluene	11	U	11		ug/m3			08/14/17 21:57	10
1,3-Dichlorobenzene	12	U	12		ug/m3			08/14/17 21:57	10
1,4-Dichlorobenzene	12	U	12		ug/m3			08/14/17 21:57	10
Benzyl chloride	10	U	10		ug/m3			08/14/17 21:57	10
n-Butylbenzene	11	U	11		ug/m3			08/14/17 21:57	10
1,2-Dichlorobenzene	12	U	12		ug/m3			08/14/17 21:57	10
1,2,4-Trichlorobenzene	37	U	37		ug/m3			08/14/17 21:57	10
Hexachlorobutadiene	21	U	21		ug/m3			08/14/17 21:57	10
Naphthalene	26	U	26		ug/m3			08/14/17 21:57	10

Tentatively Identified Compound	Est. Result	Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Unknown	20	J	ppb v/v		3.12			08/14/17 21:57	10

TestAmerica Burlington

Client Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Client Sample ID: AA-1

Date Collected: 08/09/17 13:30

Date Received: 08/11/17 10:30

Sample Container: Summa Canister 6L

Lab Sample ID: 200-39689-6

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.50	U	0.50		ppb v/v			08/12/17 06:18	1
Freon 22	0.50	U	0.50		ppb v/v			08/12/17 06:18	1
1,2-Dichlorotetrafluoroethane	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
Chloromethane	0.50	U	0.50		ppb v/v			08/12/17 06:18	1
n-Butane	0.50	U	0.50		ppb v/v			08/12/17 06:18	1
Vinyl chloride	0.040	U	0.040		ppb v/v			08/12/17 06:18	1
1,3-Butadiene	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
Bromomethane	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
Chloroethane	0.50	U	0.50		ppb v/v			08/12/17 06:18	1
Bromoethene(Vinyl Bromide)	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
Trichlorofluoromethane	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
Freon TF	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
1,1-Dichloroethene	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
Acetone	5.0	U	5.0		ppb v/v			08/12/17 06:18	1
Isopropyl alcohol	5.0	U	5.0		ppb v/v			08/12/17 06:18	1
Carbon disulfide	0.50	U	0.50		ppb v/v			08/12/17 06:18	1
3-Chloropropene	0.50	U	0.50		ppb v/v			08/12/17 06:18	1
Methylene Chloride	0.50	U	0.50		ppb v/v			08/12/17 06:18	1
tert-Butyl alcohol	5.0	U	5.0		ppb v/v			08/12/17 06:18	1
Methyl tert-butyl ether	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
trans-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
n-Hexane	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
1,1-Dichloroethane	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
Methyl Ethyl Ketone	0.50	U	0.50		ppb v/v			08/12/17 06:18	1
cis-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
1,2-Dichloroethene, Total	0.40	U	0.40		ppb v/v			08/12/17 06:18	1
Chloroform	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
Tetrahydrofuran	5.0	U	5.0		ppb v/v			08/12/17 06:18	1
1,1,1-Trichloroethane	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
Cyclohexane	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
Carbon tetrachloride	0.052		0.040		ppb v/v			08/12/17 06:18	1
2,2,4-Trimethylpentane	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
Benzene	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
1,2-Dichloroethane	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
n-Heptane	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
Trichloroethene	0.040	U	0.040		ppb v/v			08/12/17 06:18	1
Methyl methacrylate	0.50	U	0.50		ppb v/v			08/12/17 06:18	1
1,2-Dichloropropane	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
1,4-Dioxane	5.0	U	5.0		ppb v/v			08/12/17 06:18	1
Bromodichloromethane	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
cis-1,3-Dichloropropene	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
methyl isobutyl ketone	0.50	U	0.50		ppb v/v			08/12/17 06:18	1
Toluene	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
trans-1,3-Dichloropropene	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
1,1,2-Trichloroethane	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
Tetrachloroethene	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50		ppb v/v			08/12/17 06:18	1
Dibromochloromethane	0.20	U	0.20		ppb v/v			08/12/17 06:18	1

TestAmerica Burlington

Client Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Client Sample ID: AA-1

Lab Sample ID: 200-39689-6

Date Collected: 08/09/17 13:30

Matrix: Air

Date Received: 08/11/17 10:30

Sample Container: Summa Canister 6L

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
Chlorobenzene	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
Ethylbenzene	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
m,p-Xylene	0.50	U	0.50		ppb v/v			08/12/17 06:18	1
Xylene, o-	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
Xylene (total)	0.70	U	0.70		ppb v/v			08/12/17 06:18	1
Styrene	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
Bromoform	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
Cumene	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
1,1,2,2-Tetrachloroethane	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
n-Propylbenzene	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
4-Ethyltoluene	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
1,3,5-Trimethylbenzene	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
2-Chlorotoluene	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
tert-Butylbenzene	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
1,2,4-Trimethylbenzene	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
sec-Butylbenzene	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
4-Isopropyltoluene	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
1,3-Dichlorobenzene	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
1,4-Dichlorobenzene	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
Benzyl chloride	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
n-Butylbenzene	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
1,2-Dichlorobenzene	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
1,2,4-Trichlorobenzene	0.50	U	0.50		ppb v/v			08/12/17 06:18	1
Hexachlorobutadiene	0.20	U	0.20		ppb v/v			08/12/17 06:18	1
Naphthalene	0.50	U	0.50		ppb v/v			08/12/17 06:18	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	2.5	U	2.5		ug/m3			08/12/17 06:18	1
Freon 22	1.8	U	1.8		ug/m3			08/12/17 06:18	1
1,2-Dichlorotetrafluoroethane	1.4	U	1.4		ug/m3			08/12/17 06:18	1
Chloromethane	1.0	U	1.0		ug/m3			08/12/17 06:18	1
n-Butane	1.2	U	1.2		ug/m3			08/12/17 06:18	1
Vinyl chloride	0.10	U	0.10		ug/m3			08/12/17 06:18	1
1,3-Butadiene	0.44	U	0.44		ug/m3			08/12/17 06:18	1
Bromomethane	0.78	U	0.78		ug/m3			08/12/17 06:18	1
Chloroethane	1.3	U	1.3		ug/m3			08/12/17 06:18	1
Bromoethene(Vinyl Bromide)	0.87	U	0.87		ug/m3			08/12/17 06:18	1
Trichlorofluoromethane	1.1	U	1.1		ug/m3			08/12/17 06:18	1
Freon TF	1.5	U	1.5		ug/m3			08/12/17 06:18	1
1,1-Dichloroethene	0.79	U	0.79		ug/m3			08/12/17 06:18	1
Acetone	12	U	12		ug/m3			08/12/17 06:18	1
Isopropyl alcohol	12	U	12		ug/m3			08/12/17 06:18	1
Carbon disulfide	1.6	U	1.6		ug/m3			08/12/17 06:18	1
3-Chloropropene	1.6	U	1.6		ug/m3			08/12/17 06:18	1
Methylene Chloride	1.7	U	1.7		ug/m3			08/12/17 06:18	1
tert-Butyl alcohol	15	U	15		ug/m3			08/12/17 06:18	1
Methyl tert-butyl ether	0.72	U	0.72		ug/m3			08/12/17 06:18	1
trans-1,2-Dichloroethene	0.79	U	0.79		ug/m3			08/12/17 06:18	1

TestAmerica Burlington

Client Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Client Sample ID: AA-1

Date Collected: 08/09/17 13:30

Date Received: 08/11/17 10:30

Sample Container: Summa Canister 6L

Lab Sample ID: 200-39689-6

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
n-Hexane	0.70	U	0.70		ug/m3			08/12/17 06:18	1
1,1-Dichloroethane	0.81	U	0.81		ug/m3			08/12/17 06:18	1
Methyl Ethyl Ketone	1.5	U	1.5		ug/m3			08/12/17 06:18	1
cis-1,2-Dichloroethene	0.79	U	0.79		ug/m3			08/12/17 06:18	1
1,2-Dichloroethene, Total	1.6	U	1.6		ug/m3			08/12/17 06:18	1
Chloroform	0.98	U	0.98		ug/m3			08/12/17 06:18	1
Tetrahydrofuran	15	U	15		ug/m3			08/12/17 06:18	1
1,1,1-Trichloroethane	1.1	U	1.1		ug/m3			08/12/17 06:18	1
Cyclohexane	0.69	U	0.69		ug/m3			08/12/17 06:18	1
Carbon tetrachloride	0.33		0.25		ug/m3			08/12/17 06:18	1
2,2,4-Trimethylpentane	0.93	U	0.93		ug/m3			08/12/17 06:18	1
Benzene	0.64	U	0.64		ug/m3			08/12/17 06:18	1
1,2-Dichloroethane	0.81	U	0.81		ug/m3			08/12/17 06:18	1
n-Heptane	0.82	U	0.82		ug/m3			08/12/17 06:18	1
Trichloroethene	0.21	U	0.21		ug/m3			08/12/17 06:18	1
Methyl methacrylate	2.0	U	2.0		ug/m3			08/12/17 06:18	1
1,2-Dichloropropane	0.92	U	0.92		ug/m3			08/12/17 06:18	1
1,4-Dioxane	18	U	18		ug/m3			08/12/17 06:18	1
Bromodichloromethane	1.3	U	1.3		ug/m3			08/12/17 06:18	1
cis-1,3-Dichloropropene	0.91	U	0.91		ug/m3			08/12/17 06:18	1
methyl isobutyl ketone	2.0	U	2.0		ug/m3			08/12/17 06:18	1
Toluene	0.75	U	0.75		ug/m3			08/12/17 06:18	1
trans-1,3-Dichloropropene	0.91	U	0.91		ug/m3			08/12/17 06:18	1
1,1,2-Trichloroethane	1.1	U	1.1		ug/m3			08/12/17 06:18	1
Tetrachloroethene	1.4	U	1.4		ug/m3			08/12/17 06:18	1
Methyl Butyl Ketone (2-Hexanone)	2.0	U	2.0		ug/m3			08/12/17 06:18	1
Dibromochloromethane	1.7	U	1.7		ug/m3			08/12/17 06:18	1
1,2-Dibromoethane	1.5	U	1.5		ug/m3			08/12/17 06:18	1
Chlorobenzene	0.92	U	0.92		ug/m3			08/12/17 06:18	1
Ethylbenzene	0.87	U	0.87		ug/m3			08/12/17 06:18	1
m,p-Xylene	2.2	U	2.2		ug/m3			08/12/17 06:18	1
Xylene, o-	0.87	U	0.87		ug/m3			08/12/17 06:18	1
Xylene (total)	3.0	U	3.0		ug/m3			08/12/17 06:18	1
Styrene	0.85	U	0.85		ug/m3			08/12/17 06:18	1
Bromoform	2.1	U	2.1		ug/m3			08/12/17 06:18	1
Cumene	0.98	U	0.98		ug/m3			08/12/17 06:18	1
1,1,2,2-Tetrachloroethane	1.4	U	1.4		ug/m3			08/12/17 06:18	1
n-Propylbenzene	0.98	U	0.98		ug/m3			08/12/17 06:18	1
4-Ethyltoluene	0.98	U	0.98		ug/m3			08/12/17 06:18	1
1,3,5-Trimethylbenzene	0.98	U	0.98		ug/m3			08/12/17 06:18	1
2-Chlorotoluene	1.0	U	1.0		ug/m3			08/12/17 06:18	1
tert-Butylbenzene	1.1	U	1.1		ug/m3			08/12/17 06:18	1
1,2,4-Trimethylbenzene	0.98	U	0.98		ug/m3			08/12/17 06:18	1
sec-Butylbenzene	1.1	U	1.1		ug/m3			08/12/17 06:18	1
4-Isopropyltoluene	1.1	U	1.1		ug/m3			08/12/17 06:18	1
1,3-Dichlorobenzene	1.2	U	1.2		ug/m3			08/12/17 06:18	1
1,4-Dichlorobenzene	1.2	U	1.2		ug/m3			08/12/17 06:18	1
Benzyl chloride	1.0	U	1.0		ug/m3			08/12/17 06:18	1

TestAmerica Burlington

Client Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Client Sample ID: AA-1

Date Collected: 08/09/17 13:30

Date Received: 08/11/17 10:30

Sample Container: Summa Canister 6L

Lab Sample ID: 200-39689-6

Matrix: Air

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	1.1	U	1.1		ug/m3			08/12/17 06:18	1
1,2-Dichlorobenzene	1.2	U	1.2		ug/m3			08/12/17 06:18	1
1,2,4-Trichlorobenzene	3.7	U	3.7		ug/m3			08/12/17 06:18	1
Hexachlorobutadiene	2.1	U	2.1		ug/m3			08/12/17 06:18	1
Naphthalene	2.6	U	2.6		ug/m3			08/12/17 06:18	1

<i>Tentatively Identified Compound</i>	<i>Est. Result</i>	<i>Qualifier</i>	<i>Unit</i>	<i>D</i>	<i>RT</i>	<i>CAS No.</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Cyclotrisiloxane, hexamethyl-</i>	<i>1.5</i>	<i>J N</i>	<i>ppb v/v</i>		<i>13.54</i>	<i>541-05-9</i>		<i>08/12/17 06:18</i>	<i>1</i>

QC Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air

Lab Sample ID: MB 200-119644/4

Matrix: Air

Analysis Batch: 119644

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.50	U	0.50		ppb v/v			08/11/17 12:40	1
Freon 22	0.50	U	0.50		ppb v/v			08/11/17 12:40	1
1,2-Dichlorotetrafluoroethane	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
Chloromethane	0.50	U	0.50		ppb v/v			08/11/17 12:40	1
n-Butane	0.50	U	0.50		ppb v/v			08/11/17 12:40	1
Vinyl chloride	0.040	U	0.040		ppb v/v			08/11/17 12:40	1
1,3-Butadiene	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
Bromomethane	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
Chloroethane	0.50	U	0.50		ppb v/v			08/11/17 12:40	1
Bromoethene(Vinyl Bromide)	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
Trichlorofluoromethane	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
Freon TF	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
1,1-Dichloroethene	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
Acetone	5.0	U	5.0		ppb v/v			08/11/17 12:40	1
Isopropyl alcohol	5.0	U	5.0		ppb v/v			08/11/17 12:40	1
Carbon disulfide	0.50	U	0.50		ppb v/v			08/11/17 12:40	1
3-Chloropropene	0.50	U	0.50		ppb v/v			08/11/17 12:40	1
Methylene Chloride	0.50	U	0.50		ppb v/v			08/11/17 12:40	1
tert-Butyl alcohol	5.0	U	5.0		ppb v/v			08/11/17 12:40	1
Methyl tert-butyl ether	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
trans-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
n-Hexane	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
1,1-Dichloroethane	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
Methyl Ethyl Ketone	0.50	U	0.50		ppb v/v			08/11/17 12:40	1
cis-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
1,2-Dichloroethene, Total	0.40	U	0.40		ppb v/v			08/11/17 12:40	1
Chloroform	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
Tetrahydrofuran	5.0	U	5.0		ppb v/v			08/11/17 12:40	1
1,1,1-Trichloroethane	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
Cyclohexane	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
Carbon tetrachloride	0.040	U	0.040		ppb v/v			08/11/17 12:40	1
2,2,4-Trimethylpentane	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
Benzene	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
1,2-Dichloroethane	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
n-Heptane	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
Trichloroethene	0.040	U	0.040		ppb v/v			08/11/17 12:40	1
Methyl methacrylate	0.50	U	0.50		ppb v/v			08/11/17 12:40	1
1,2-Dichloropropane	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
1,4-Dioxane	5.0	U	5.0		ppb v/v			08/11/17 12:40	1
Bromodichloromethane	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
cis-1,3-Dichloropropene	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
methyl isobutyl ketone	0.50	U	0.50		ppb v/v			08/11/17 12:40	1
Toluene	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
trans-1,3-Dichloropropene	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
1,1,2-Trichloroethane	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
Tetrachloroethene	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50		ppb v/v			08/11/17 12:40	1
Dibromochloromethane	0.20	U	0.20		ppb v/v			08/11/17 12:40	1

TestAmerica Burlington

QC Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-119644/4

Matrix: Air

Analysis Batch: 119644

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
Chlorobenzene	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
Ethylbenzene	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
m,p-Xylene	0.50	U	0.50		ppb v/v			08/11/17 12:40	1
Xylene, o-	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
Xylene (total)	0.70	U	0.70		ppb v/v			08/11/17 12:40	1
Styrene	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
Bromoform	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
Cumene	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
1,1,2,2-Tetrachloroethane	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
n-Propylbenzene	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
4-Ethyltoluene	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
1,3,5-Trimethylbenzene	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
2-Chlorotoluene	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
tert-Butylbenzene	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
1,2,4-Trimethylbenzene	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
sec-Butylbenzene	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
4-Isopropyltoluene	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
1,3-Dichlorobenzene	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
1,4-Dichlorobenzene	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
Benzyl chloride	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
n-Butylbenzene	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
1,2-Dichlorobenzene	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
1,2,4-Trichlorobenzene	0.50	U	0.50		ppb v/v			08/11/17 12:40	1
Hexachlorobutadiene	0.20	U	0.20		ppb v/v			08/11/17 12:40	1
Naphthalene	0.50	U	0.50		ppb v/v			08/11/17 12:40	1

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	2.5	U	2.5		ug/m3			08/11/17 12:40	1
Freon 22	1.8	U	1.8		ug/m3			08/11/17 12:40	1
1,2-Dichlorotetrafluoroethane	1.4	U	1.4		ug/m3			08/11/17 12:40	1
Chloromethane	1.0	U	1.0		ug/m3			08/11/17 12:40	1
n-Butane	1.2	U	1.2		ug/m3			08/11/17 12:40	1
Vinyl chloride	0.10	U	0.10		ug/m3			08/11/17 12:40	1
1,3-Butadiene	0.44	U	0.44		ug/m3			08/11/17 12:40	1
Bromomethane	0.78	U	0.78		ug/m3			08/11/17 12:40	1
Chloroethane	1.3	U	1.3		ug/m3			08/11/17 12:40	1
Bromoethene(Vinyl Bromide)	0.87	U	0.87		ug/m3			08/11/17 12:40	1
Trichlorofluoromethane	1.1	U	1.1		ug/m3			08/11/17 12:40	1
Freon TF	1.5	U	1.5		ug/m3			08/11/17 12:40	1
1,1-Dichloroethene	0.79	U	0.79		ug/m3			08/11/17 12:40	1
Acetone	12	U	12		ug/m3			08/11/17 12:40	1
Isopropyl alcohol	12	U	12		ug/m3			08/11/17 12:40	1
Carbon disulfide	1.6	U	1.6		ug/m3			08/11/17 12:40	1
3-Chloropropene	1.6	U	1.6		ug/m3			08/11/17 12:40	1
Methylene Chloride	1.7	U	1.7		ug/m3			08/11/17 12:40	1
tert-Butyl alcohol	15	U	15		ug/m3			08/11/17 12:40	1
Methyl tert-butyl ether	0.72	U	0.72		ug/m3			08/11/17 12:40	1

TestAmerica Burlington

QC Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-119644/4

Matrix: Air

Analysis Batch: 119644

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.79	U	0.79		ug/m3			08/11/17 12:40	1
n-Hexane	0.70	U	0.70		ug/m3			08/11/17 12:40	1
1,1-Dichloroethane	0.81	U	0.81		ug/m3			08/11/17 12:40	1
Methyl Ethyl Ketone	1.5	U	1.5		ug/m3			08/11/17 12:40	1
cis-1,2-Dichloroethene	0.79	U	0.79		ug/m3			08/11/17 12:40	1
1,2-Dichloroethene, Total	1.6	U	1.6		ug/m3			08/11/17 12:40	1
Chloroform	0.98	U	0.98		ug/m3			08/11/17 12:40	1
Tetrahydrofuran	15	U	15		ug/m3			08/11/17 12:40	1
1,1,1-Trichloroethane	1.1	U	1.1		ug/m3			08/11/17 12:40	1
Cyclohexane	0.69	U	0.69		ug/m3			08/11/17 12:40	1
Carbon tetrachloride	0.25	U	0.25		ug/m3			08/11/17 12:40	1
2,2,4-Trimethylpentane	0.93	U	0.93		ug/m3			08/11/17 12:40	1
Benzene	0.64	U	0.64		ug/m3			08/11/17 12:40	1
1,2-Dichloroethane	0.81	U	0.81		ug/m3			08/11/17 12:40	1
n-Heptane	0.82	U	0.82		ug/m3			08/11/17 12:40	1
Trichloroethene	0.21	U	0.21		ug/m3			08/11/17 12:40	1
Methyl methacrylate	2.0	U	2.0		ug/m3			08/11/17 12:40	1
1,2-Dichloropropane	0.92	U	0.92		ug/m3			08/11/17 12:40	1
1,4-Dioxane	18	U	18		ug/m3			08/11/17 12:40	1
Bromodichloromethane	1.3	U	1.3		ug/m3			08/11/17 12:40	1
cis-1,3-Dichloropropene	0.91	U	0.91		ug/m3			08/11/17 12:40	1
methyl isobutyl ketone	2.0	U	2.0		ug/m3			08/11/17 12:40	1
Toluene	0.75	U	0.75		ug/m3			08/11/17 12:40	1
trans-1,3-Dichloropropene	0.91	U	0.91		ug/m3			08/11/17 12:40	1
1,1,2-Trichloroethane	1.1	U	1.1		ug/m3			08/11/17 12:40	1
Tetrachloroethene	1.4	U	1.4		ug/m3			08/11/17 12:40	1
Methyl Butyl Ketone (2-Hexanone)	2.0	U	2.0		ug/m3			08/11/17 12:40	1
Dibromochloromethane	1.7	U	1.7		ug/m3			08/11/17 12:40	1
1,2-Dibromoethane	1.5	U	1.5		ug/m3			08/11/17 12:40	1
Chlorobenzene	0.92	U	0.92		ug/m3			08/11/17 12:40	1
Ethylbenzene	0.87	U	0.87		ug/m3			08/11/17 12:40	1
m,p-Xylene	2.2	U	2.2		ug/m3			08/11/17 12:40	1
Xylene, o-	0.87	U	0.87		ug/m3			08/11/17 12:40	1
Xylene (total)	3.0	U	3.0		ug/m3			08/11/17 12:40	1
Styrene	0.85	U	0.85		ug/m3			08/11/17 12:40	1
Bromoform	2.1	U	2.1		ug/m3			08/11/17 12:40	1
Cumene	0.98	U	0.98		ug/m3			08/11/17 12:40	1
1,1,2,2-Tetrachloroethane	1.4	U	1.4		ug/m3			08/11/17 12:40	1
n-Propylbenzene	0.98	U	0.98		ug/m3			08/11/17 12:40	1
4-Ethyltoluene	0.98	U	0.98		ug/m3			08/11/17 12:40	1
1,3,5-Trimethylbenzene	0.98	U	0.98		ug/m3			08/11/17 12:40	1
2-Chlorotoluene	1.0	U	1.0		ug/m3			08/11/17 12:40	1
tert-Butylbenzene	1.1	U	1.1		ug/m3			08/11/17 12:40	1
1,2,4-Trimethylbenzene	0.98	U	0.98		ug/m3			08/11/17 12:40	1
sec-Butylbenzene	1.1	U	1.1		ug/m3			08/11/17 12:40	1
4-Isopropyltoluene	1.1	U	1.1		ug/m3			08/11/17 12:40	1
1,3-Dichlorobenzene	1.2	U	1.2		ug/m3			08/11/17 12:40	1
1,4-Dichlorobenzene	1.2	U	1.2		ug/m3			08/11/17 12:40	1

TestAmerica Burlington

QC Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-119644/4

Matrix: Air

Analysis Batch: 119644

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzyl chloride	1.0	U	1.0		ug/m3			08/11/17 12:40	1
n-Butylbenzene	1.1	U	1.1		ug/m3			08/11/17 12:40	1
1,2-Dichlorobenzene	1.2	U	1.2		ug/m3			08/11/17 12:40	1
1,2,4-Trichlorobenzene	3.7	U	3.7		ug/m3			08/11/17 12:40	1
Hexachlorobutadiene	2.1	U	2.1		ug/m3			08/11/17 12:40	1
Naphthalene	2.6	U	2.6		ug/m3			08/11/17 12:40	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ppb v/v					08/11/17 12:40	1

Lab Sample ID: LCS 200-119644/3

Matrix: Air

Analysis Batch: 119644

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	10.0	9.15		ppb v/v		92	68 - 128
Freon 22	10.0	9.31		ppb v/v		93	64 - 128
1,2-Dichlorotetrafluoroethane	10.0	10.3		ppb v/v		103	78 - 138
Chloromethane	10.0	9.28		ppb v/v		93	57 - 126
n-Butane	10.0	9.40		ppb v/v		94	56 - 130
Vinyl chloride	10.0	9.28		ppb v/v		93	62 - 125
1,3-Butadiene	10.0	9.15		ppb v/v		91	59 - 125
Bromomethane	10.0	9.62		ppb v/v		96	68 - 128
Chloroethane	10.0	8.93		ppb v/v		89	65 - 125
Bromoethene(Vinyl Bromide)	10.0	9.24		ppb v/v		92	67 - 127
Trichlorofluoromethane	10.0	8.62		ppb v/v		86	67 - 127
Freon TF	10.0	8.12		ppb v/v		81	68 - 128
1,1-Dichloroethene	10.0	8.07		ppb v/v		81	67 - 127
Acetone	10.0	7.99		ppb v/v		80	64 - 136
Isopropyl alcohol	10.0	6.78		ppb v/v		68	55 - 124
Carbon disulfide	10.0	8.91		ppb v/v		89	81 - 141
3-Chloropropene	10.0	6.64		ppb v/v		66	53 - 133
Methylene Chloride	10.0	6.93		ppb v/v		69	62 - 122
tert-Butyl alcohol	10.0	8.26		ppb v/v		83	64 - 124
Methyl tert-butyl ether	10.0	8.94		ppb v/v		89	67 - 127
trans-1,2-Dichloroethene	10.0	9.49		ppb v/v		95	72 - 132
n-Hexane	10.0	11.0		ppb v/v		110	71 - 131
1,1-Dichloroethane	10.0	10.2		ppb v/v		102	66 - 126
Methyl Ethyl Ketone	10.0	10.4		ppb v/v		104	62 - 122
cis-1,2-Dichloroethene	10.0	10.1		ppb v/v		101	67 - 127
Chloroform	10.0	10.1		ppb v/v		101	69 - 129
Tetrahydrofuran	10.0	10.3		ppb v/v		103	61 - 136
1,1,1-Trichloroethane	10.0	9.88		ppb v/v		99	70 - 130
Cyclohexane	10.0	10.4		ppb v/v		104	69 - 129
Carbon tetrachloride	10.0	10.3		ppb v/v		103	62 - 143
2,2,4-Trimethylpentane	10.0	10.2		ppb v/v		102	67 - 127
Benzene	10.0	10.1		ppb v/v		101	67 - 127
1,2-Dichloroethane	10.0	9.75		ppb v/v		98	67 - 132

TestAmerica Burlington

QC Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-119644/3

Matrix: Air

Analysis Batch: 119644

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
n-Heptane	10.0	9.95		ppb v/v		100	62 - 130
Trichloroethene	10.0	9.45		ppb v/v		94	68 - 128
Methyl methacrylate	10.0	10.5		ppb v/v		105	70 - 130
1,2-Dichloropropane	10.0	9.98		ppb v/v		100	67 - 127
1,4-Dioxane	10.0	10.6		ppb v/v		106	66 - 132
Bromodichloromethane	10.0	9.65		ppb v/v		96	69 - 129
cis-1,3-Dichloropropene	10.0	10.5		ppb v/v		105	70 - 130
methyl isobutyl ketone	10.0	10.9		ppb v/v		109	62 - 130
Toluene	10.0	10.1		ppb v/v		101	67 - 127
trans-1,3-Dichloropropene	10.0	10.4		ppb v/v		104	69 - 129
1,1,2-Trichloroethane	10.0	10.4		ppb v/v		104	69 - 129
Tetrachloroethene	10.0	9.67		ppb v/v		97	70 - 130
Methyl Butyl Ketone (2-Hexanone)	10.0	10.9		ppb v/v		109	61 - 127
Dibromochloromethane	10.0	9.77		ppb v/v		98	66 - 130
1,2-Dibromoethane	10.0	10.2		ppb v/v		102	70 - 130
Chlorobenzene	10.0	10.2		ppb v/v		102	68 - 128
Ethylbenzene	10.0	10.1		ppb v/v		101	68 - 128
m,p-Xylene	20.0	18.6		ppb v/v		93	68 - 128
Xylene, o-	10.0	9.10		ppb v/v		91	67 - 127
Styrene	10.0	9.12		ppb v/v		91	68 - 128
Bromoform	10.0	9.05		ppb v/v		91	34 - 170
Cumene	10.0	8.19		ppb v/v		82	67 - 127
1,1,2,2-Tetrachloroethane	10.0	9.08		ppb v/v		91	69 - 129
n-Propylbenzene	10.0	8.88		ppb v/v		89	67 - 127
4-Ethyltoluene	10.0	8.43		ppb v/v		84	69 - 129
1,3,5-Trimethylbenzene	10.0	7.77		ppb v/v		78	65 - 125
2-Chlorotoluene	10.0	8.15		ppb v/v		82	67 - 127
tert-Butylbenzene	10.0	8.68		ppb v/v		87	63 - 125
1,2,4-Trimethylbenzene	10.0	8.67		ppb v/v		87	65 - 125
sec-Butylbenzene	10.0	8.52		ppb v/v		85	66 - 126
4-Isopropyltoluene	10.0	8.86		ppb v/v		89	67 - 129
1,3-Dichlorobenzene	10.0	9.05		ppb v/v		91	67 - 127
1,4-Dichlorobenzene	10.0	8.33		ppb v/v		83	66 - 126
Benzyl chloride	10.0	7.22		ppb v/v		72	54 - 135
n-Butylbenzene	10.0	7.84		ppb v/v		78	67 - 127
1,2-Dichlorobenzene	10.0	8.29		ppb v/v		83	67 - 127
1,2,4-Trichlorobenzene	10.0	8.44		ppb v/v		84	59 - 126
Hexachlorobutadiene	10.0	9.09		ppb v/v		91	62 - 130
Naphthalene	10.0	6.63		ppb v/v		66	50 - 121
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	49	45.3		ug/m3		92	68 - 128
Freon 22	35	32.9		ug/m3		93	64 - 128
1,2-Dichlorotetrafluoroethane	70	72.2		ug/m3		103	78 - 138
Chloromethane	21	19.2		ug/m3		93	57 - 126
n-Butane	24	22.4		ug/m3		94	56 - 130
Vinyl chloride	26	23.7		ug/m3		93	62 - 125

TestAmerica Burlington

QC Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-119644/3

Matrix: Air

Analysis Batch: 119644

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Butadiene	22	20.2		ug/m3		91	59 - 125
Bromomethane	39	37.4		ug/m3		96	68 - 128
Chloroethane	26	23.6		ug/m3		89	65 - 125
Bromoethene(Vinyl Bromide)	44	40.4		ug/m3		92	67 - 127
Trichlorofluoromethane	56	48.4		ug/m3		86	67 - 127
Freon TF	77	62.2		ug/m3		81	68 - 128
1,1-Dichloroethene	40	32.0		ug/m3		81	67 - 127
Acetone	24	19.0		ug/m3		80	64 - 136
Isopropyl alcohol	25	16.7		ug/m3		68	55 - 124
Carbon disulfide	31	27.8		ug/m3		89	81 - 141
3-Chloropropene	31	20.8		ug/m3		66	53 - 133
Methylene Chloride	35	24.1		ug/m3		69	62 - 122
tert-Butyl alcohol	30	25.0		ug/m3		83	64 - 124
Methyl tert-butyl ether	36	32.2		ug/m3		89	67 - 127
trans-1,2-Dichloroethene	40	37.6		ug/m3		95	72 - 132
n-Hexane	35	38.9		ug/m3		110	71 - 131
1,1-Dichloroethane	40	41.5		ug/m3		102	66 - 126
Methyl Ethyl Ketone	29	30.6		ug/m3		104	62 - 122
cis-1,2-Dichloroethene	40	40.2		ug/m3		101	67 - 127
Chloroform	49	49.1		ug/m3		101	69 - 129
Tetrahydrofuran	29	30.5		ug/m3		103	61 - 136
1,1,1-Trichloroethane	55	53.9		ug/m3		99	70 - 130
Cyclohexane	34	35.9		ug/m3		104	69 - 129
Carbon tetrachloride	63	64.5		ug/m3		103	62 - 143
2,2,4-Trimethylpentane	47	47.7		ug/m3		102	67 - 127
Benzene	32	32.2		ug/m3		101	67 - 127
1,2-Dichloroethane	40	39.5		ug/m3		98	67 - 132
n-Heptane	41	40.8		ug/m3		100	62 - 130
Trichloroethene	54	50.8		ug/m3		94	68 - 128
Methyl methacrylate	41	42.9		ug/m3		105	70 - 130
1,2-Dichloropropane	46	46.1		ug/m3		100	67 - 127
1,4-Dioxane	36	38.3		ug/m3		106	66 - 132
Bromodichloromethane	67	64.6		ug/m3		96	69 - 129
cis-1,3-Dichloropropene	45	47.6		ug/m3		105	70 - 130
methyl isobutyl ketone	41	44.7		ug/m3		109	62 - 130
Toluene	38	38.1		ug/m3		101	67 - 127
trans-1,3-Dichloropropene	45	47.4		ug/m3		104	69 - 129
1,1,2-Trichloroethane	55	56.5		ug/m3		104	69 - 129
Tetrachloroethene	68	65.6		ug/m3		97	70 - 130
Methyl Butyl Ketone (2-Hexanone)	41	44.8		ug/m3		109	61 - 127
Dibromochloromethane	85	83.3		ug/m3		98	66 - 130
1,2-Dibromoethane	77	78.5		ug/m3		102	70 - 130
Chlorobenzene	46	46.8		ug/m3		102	68 - 128
Ethylbenzene	43	43.9		ug/m3		101	68 - 128
m,p-Xylene	87	81.0		ug/m3		93	68 - 128
Xylene, o-	43	39.5		ug/m3		91	67 - 127
Styrene	43	38.8		ug/m3		91	68 - 128

TestAmerica Burlington

QC Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-119644/3

Matrix: Air

Analysis Batch: 119644

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromoform	100	93.5		ug/m3		91	34 - 170
Cumene	49	40.3		ug/m3		82	67 - 127
1,1,2,2-Tetrachloroethane	69	62.3		ug/m3		91	69 - 129
n-Propylbenzene	49	43.6		ug/m3		89	67 - 127
4-Ethyltoluene	49	41.4		ug/m3		84	69 - 129
1,3,5-Trimethylbenzene	49	38.2		ug/m3		78	65 - 125
2-Chlorotoluene	52	42.2		ug/m3		82	67 - 127
tert-Butylbenzene	55	47.6		ug/m3		87	63 - 125
1,2,4-Trimethylbenzene	49	42.6		ug/m3		87	65 - 125
sec-Butylbenzene	55	46.8		ug/m3		85	66 - 126
4-Isopropyltoluene	55	48.6		ug/m3		89	67 - 129
1,3-Dichlorobenzene	60	54.4		ug/m3		91	67 - 127
1,4-Dichlorobenzene	60	50.1		ug/m3		83	66 - 126
Benzyl chloride	52	37.4		ug/m3		72	54 - 135
n-Butylbenzene	55	43.0		ug/m3		78	67 - 127
1,2-Dichlorobenzene	60	49.8		ug/m3		83	67 - 127
1,2,4-Trichlorobenzene	74	62.7		ug/m3		84	59 - 126
Hexachlorobutadiene	110	96.9		ug/m3		91	62 - 130
Naphthalene	52	34.7		ug/m3		66	50 - 121

Lab Sample ID: MB 200-119704/5

Matrix: Air

Analysis Batch: 119704

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.50	U	0.50		ppb v/v			08/14/17 12:34	1
Freon 22	0.50	U	0.50		ppb v/v			08/14/17 12:34	1
1,2-Dichlorotetrafluoroethane	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
Chloromethane	0.50	U	0.50		ppb v/v			08/14/17 12:34	1
n-Butane	0.50	U	0.50		ppb v/v			08/14/17 12:34	1
Vinyl chloride	0.040	U	0.040		ppb v/v			08/14/17 12:34	1
1,3-Butadiene	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
Bromomethane	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
Chloroethane	0.50	U	0.50		ppb v/v			08/14/17 12:34	1
Bromoethene(Vinyl Bromide)	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
Trichlorofluoromethane	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
Freon TF	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
1,1-Dichloroethene	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
Acetone	5.0	U	5.0		ppb v/v			08/14/17 12:34	1
Isopropyl alcohol	5.0	U	5.0		ppb v/v			08/14/17 12:34	1
Carbon disulfide	0.50	U	0.50		ppb v/v			08/14/17 12:34	1
3-Chloropropene	0.50	U	0.50		ppb v/v			08/14/17 12:34	1
Methylene Chloride	0.50	U	0.50		ppb v/v			08/14/17 12:34	1
tert-Butyl alcohol	5.0	U	5.0		ppb v/v			08/14/17 12:34	1
Methyl tert-butyl ether	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
trans-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
n-Hexane	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
1,1-Dichloroethane	0.20	U	0.20		ppb v/v			08/14/17 12:34	1

TestAmerica Burlington

QC Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-119704/5

Matrix: Air

Analysis Batch: 119704

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Ethyl Ketone	0.50	U	0.50		ppb v/v			08/14/17 12:34	1
cis-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
1,2-Dichloroethene, Total	0.40	U	0.40		ppb v/v			08/14/17 12:34	1
Chloroform	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
Tetrahydrofuran	5.0	U	5.0		ppb v/v			08/14/17 12:34	1
1,1,1-Trichloroethane	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
Cyclohexane	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
Carbon tetrachloride	0.040	U	0.040		ppb v/v			08/14/17 12:34	1
2,2,4-Trimethylpentane	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
Benzene	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
1,2-Dichloroethane	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
n-Heptane	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
Trichloroethene	0.040	U	0.040		ppb v/v			08/14/17 12:34	1
Methyl methacrylate	0.50	U	0.50		ppb v/v			08/14/17 12:34	1
1,2-Dichloropropane	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
1,4-Dioxane	5.0	U	5.0		ppb v/v			08/14/17 12:34	1
Bromodichloromethane	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
cis-1,3-Dichloropropene	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
methyl isobutyl ketone	0.50	U	0.50		ppb v/v			08/14/17 12:34	1
Toluene	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
trans-1,3-Dichloropropene	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
1,1,2-Trichloroethane	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
Tetrachloroethene	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50		ppb v/v			08/14/17 12:34	1
Dibromochloromethane	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
1,2-Dibromoethane	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
Chlorobenzene	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
Ethylbenzene	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
m,p-Xylene	0.50	U	0.50		ppb v/v			08/14/17 12:34	1
Xylene, o-	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
Xylene (total)	0.70	U	0.70		ppb v/v			08/14/17 12:34	1
Styrene	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
Bromoform	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
Cumene	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
1,1,2,2-Tetrachloroethane	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
n-Propylbenzene	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
4-Ethyltoluene	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
1,3,5-Trimethylbenzene	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
2-Chlorotoluene	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
tert-Butylbenzene	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
1,2,4-Trimethylbenzene	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
sec-Butylbenzene	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
4-Isopropyltoluene	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
1,3-Dichlorobenzene	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
1,4-Dichlorobenzene	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
Benzyl chloride	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
n-Butylbenzene	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
1,2-Dichlorobenzene	0.20	U	0.20		ppb v/v			08/14/17 12:34	1

TestAmerica Burlington

QC Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-119704/5

Matrix: Air

Analysis Batch: 119704

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	0.50	U	0.50		ppb v/v			08/14/17 12:34	1
Hexachlorobutadiene	0.20	U	0.20		ppb v/v			08/14/17 12:34	1
Naphthalene	0.50	U	0.50		ppb v/v			08/14/17 12:34	1
Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	2.5	U	2.5		ug/m3			08/14/17 12:34	1
Freon 22	1.8	U	1.8		ug/m3			08/14/17 12:34	1
1,2-Dichlorotetrafluoroethane	1.4	U	1.4		ug/m3			08/14/17 12:34	1
Chloromethane	1.0	U	1.0		ug/m3			08/14/17 12:34	1
n-Butane	1.2	U	1.2		ug/m3			08/14/17 12:34	1
Vinyl chloride	0.10	U	0.10		ug/m3			08/14/17 12:34	1
1,3-Butadiene	0.44	U	0.44		ug/m3			08/14/17 12:34	1
Bromomethane	0.78	U	0.78		ug/m3			08/14/17 12:34	1
Chloroethane	1.3	U	1.3		ug/m3			08/14/17 12:34	1
Bromoethene(Vinyl Bromide)	0.87	U	0.87		ug/m3			08/14/17 12:34	1
Trichlorofluoromethane	1.1	U	1.1		ug/m3			08/14/17 12:34	1
Freon TF	1.5	U	1.5		ug/m3			08/14/17 12:34	1
1,1-Dichloroethene	0.79	U	0.79		ug/m3			08/14/17 12:34	1
Acetone	12	U	12		ug/m3			08/14/17 12:34	1
Isopropyl alcohol	12	U	12		ug/m3			08/14/17 12:34	1
Carbon disulfide	1.6	U	1.6		ug/m3			08/14/17 12:34	1
3-Chloropropene	1.6	U	1.6		ug/m3			08/14/17 12:34	1
Methylene Chloride	1.7	U	1.7		ug/m3			08/14/17 12:34	1
tert-Butyl alcohol	15	U	15		ug/m3			08/14/17 12:34	1
Methyl tert-butyl ether	0.72	U	0.72		ug/m3			08/14/17 12:34	1
trans-1,2-Dichloroethene	0.79	U	0.79		ug/m3			08/14/17 12:34	1
n-Hexane	0.70	U	0.70		ug/m3			08/14/17 12:34	1
1,1-Dichloroethane	0.81	U	0.81		ug/m3			08/14/17 12:34	1
Methyl Ethyl Ketone	1.5	U	1.5		ug/m3			08/14/17 12:34	1
cis-1,2-Dichloroethene	0.79	U	0.79		ug/m3			08/14/17 12:34	1
1,2-Dichloroethene, Total	1.6	U	1.6		ug/m3			08/14/17 12:34	1
Chloroform	0.98	U	0.98		ug/m3			08/14/17 12:34	1
Tetrahydrofuran	15	U	15		ug/m3			08/14/17 12:34	1
1,1,1-Trichloroethane	1.1	U	1.1		ug/m3			08/14/17 12:34	1
Cyclohexane	0.69	U	0.69		ug/m3			08/14/17 12:34	1
Carbon tetrachloride	0.25	U	0.25		ug/m3			08/14/17 12:34	1
2,2,4-Trimethylpentane	0.93	U	0.93		ug/m3			08/14/17 12:34	1
Benzene	0.64	U	0.64		ug/m3			08/14/17 12:34	1
1,2-Dichloroethane	0.81	U	0.81		ug/m3			08/14/17 12:34	1
n-Heptane	0.82	U	0.82		ug/m3			08/14/17 12:34	1
Trichloroethene	0.21	U	0.21		ug/m3			08/14/17 12:34	1
Methyl methacrylate	2.0	U	2.0		ug/m3			08/14/17 12:34	1
1,2-Dichloropropane	0.92	U	0.92		ug/m3			08/14/17 12:34	1
1,4-Dioxane	18	U	18		ug/m3			08/14/17 12:34	1
Bromodichloromethane	1.3	U	1.3		ug/m3			08/14/17 12:34	1
cis-1,3-Dichloropropene	0.91	U	0.91		ug/m3			08/14/17 12:34	1
methyl isobutyl ketone	2.0	U	2.0		ug/m3			08/14/17 12:34	1
Toluene	0.75	U	0.75		ug/m3			08/14/17 12:34	1

TestAmerica Burlington

QC Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-119704/5

Matrix: Air

Analysis Batch: 119704

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	0.91	U	0.91		ug/m3			08/14/17 12:34	1
1,1,2-Trichloroethane	1.1	U	1.1		ug/m3			08/14/17 12:34	1
Tetrachloroethene	1.4	U	1.4		ug/m3			08/14/17 12:34	1
Methyl Butyl Ketone (2-Hexanone)	2.0	U	2.0		ug/m3			08/14/17 12:34	1
Dibromochloromethane	1.7	U	1.7		ug/m3			08/14/17 12:34	1
1,2-Dibromoethane	1.5	U	1.5		ug/m3			08/14/17 12:34	1
Chlorobenzene	0.92	U	0.92		ug/m3			08/14/17 12:34	1
Ethylbenzene	0.87	U	0.87		ug/m3			08/14/17 12:34	1
m,p-Xylene	2.2	U	2.2		ug/m3			08/14/17 12:34	1
Xylene, o-	0.87	U	0.87		ug/m3			08/14/17 12:34	1
Xylene (total)	3.0	U	3.0		ug/m3			08/14/17 12:34	1
Styrene	0.85	U	0.85		ug/m3			08/14/17 12:34	1
Bromoform	2.1	U	2.1		ug/m3			08/14/17 12:34	1
Cumene	0.98	U	0.98		ug/m3			08/14/17 12:34	1
1,1,2,2-Tetrachloroethane	1.4	U	1.4		ug/m3			08/14/17 12:34	1
n-Propylbenzene	0.98	U	0.98		ug/m3			08/14/17 12:34	1
4-Ethyltoluene	0.98	U	0.98		ug/m3			08/14/17 12:34	1
1,3,5-Trimethylbenzene	0.98	U	0.98		ug/m3			08/14/17 12:34	1
2-Chlorotoluene	1.0	U	1.0		ug/m3			08/14/17 12:34	1
tert-Butylbenzene	1.1	U	1.1		ug/m3			08/14/17 12:34	1
1,2,4-Trimethylbenzene	0.98	U	0.98		ug/m3			08/14/17 12:34	1
sec-Butylbenzene	1.1	U	1.1		ug/m3			08/14/17 12:34	1
4-Isopropyltoluene	1.1	U	1.1		ug/m3			08/14/17 12:34	1
1,3-Dichlorobenzene	1.2	U	1.2		ug/m3			08/14/17 12:34	1
1,4-Dichlorobenzene	1.2	U	1.2		ug/m3			08/14/17 12:34	1
Benzyl chloride	1.0	U	1.0		ug/m3			08/14/17 12:34	1
n-Butylbenzene	1.1	U	1.1		ug/m3			08/14/17 12:34	1
1,2-Dichlorobenzene	1.2	U	1.2		ug/m3			08/14/17 12:34	1
1,2,4-Trichlorobenzene	3.7	U	3.7		ug/m3			08/14/17 12:34	1
Hexachlorobutadiene	2.1	U	2.1		ug/m3			08/14/17 12:34	1
Naphthalene	2.6	U	2.6		ug/m3			08/14/17 12:34	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ppb v/v					08/14/17 12:34	1

Lab Sample ID: LCS 200-119704/4

Matrix: Air

Analysis Batch: 119704

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	10.0	10.1		ppb v/v		101	68 - 128
Freon 22	10.0	10.7		ppb v/v		107	64 - 128
1,2-Dichlorotetrafluoroethane	10.0	9.45		ppb v/v		95	78 - 138
Chloromethane	10.0	9.75		ppb v/v		97	57 - 126
n-Butane	10.0	10.1		ppb v/v		101	56 - 130
Vinyl chloride	10.0	9.39		ppb v/v		94	62 - 125
1,3-Butadiene	10.0	9.72		ppb v/v		97	59 - 125
Bromomethane	10.0	8.92		ppb v/v		89	68 - 128

TestAmerica Burlington

QC Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-119704/4

Matrix: Air

Analysis Batch: 119704

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroethane	10.0	10.2		ppb v/v		102	65 - 125
Bromoethene(Vinyl Bromide)	10.0	8.86		ppb v/v		89	67 - 127
Trichlorofluoromethane	10.0	9.22		ppb v/v		92	67 - 127
Freon TF	10.0	9.01		ppb v/v		90	68 - 128
1,1-Dichloroethene	10.0	8.78		ppb v/v		88	67 - 127
Acetone	10.0	11.1		ppb v/v		112	64 - 136
Isopropyl alcohol	10.0	10.6		ppb v/v		106	55 - 124
Carbon disulfide	10.0	9.61		ppb v/v		96	81 - 141
3-Chloropropene	10.0	11.0		ppb v/v		110	53 - 133
Methylene Chloride	10.0	10.2		ppb v/v		102	62 - 122
tert-Butyl alcohol	10.0	10.6		ppb v/v		106	64 - 124
Methyl tert-butyl ether	10.0	10.3		ppb v/v		103	67 - 127
trans-1,2-Dichloroethene	10.0	10.1		ppb v/v		101	72 - 132
n-Hexane	10.0	10.2		ppb v/v		102	71 - 131
1,1-Dichloroethane	10.0	9.76		ppb v/v		98	66 - 126
Methyl Ethyl Ketone	10.0	9.37		ppb v/v		94	62 - 122
cis-1,2-Dichloroethene	10.0	9.26		ppb v/v		93	67 - 127
Chloroform	10.0	8.32		ppb v/v		83	69 - 129
Tetrahydrofuran	10.0	9.25		ppb v/v		92	61 - 136
1,1,1-Trichloroethane	10.0	8.22		ppb v/v		82	70 - 130
Cyclohexane	10.0	8.39		ppb v/v		84	69 - 129
Carbon tetrachloride	10.0	8.74		ppb v/v		87	62 - 143
2,2,4-Trimethylpentane	10.0	7.89		ppb v/v		79	67 - 127
Benzene	10.0	8.04		ppb v/v		80	67 - 127
1,2-Dichloroethane	10.0	8.54		ppb v/v		85	67 - 132
n-Heptane	10.0	7.40		ppb v/v		74	62 - 130
Trichloroethene	10.0	7.41		ppb v/v		74	68 - 128
Methyl methacrylate	10.0	8.24		ppb v/v		82	70 - 130
1,2-Dichloropropane	10.0	7.53		ppb v/v		75	67 - 127
1,4-Dioxane	10.0	8.17		ppb v/v		82	66 - 132
Bromodichloromethane	10.0	8.66		ppb v/v		87	69 - 129
cis-1,3-Dichloropropene	10.0	8.49		ppb v/v		85	70 - 130
methyl isobutyl ketone	10.0	7.60		ppb v/v		76	62 - 130
Toluene	10.0	8.49		ppb v/v		85	67 - 127
trans-1,3-Dichloropropene	10.0	8.37		ppb v/v		84	69 - 129
1,1,2-Trichloroethane	10.0	8.12		ppb v/v		81	69 - 129
Tetrachloroethene	10.0	7.94		ppb v/v		79	70 - 130
Methyl Butyl Ketone (2-Hexanone)	10.0	7.77		ppb v/v		78	61 - 127
Dibromochloromethane	10.0	9.43		ppb v/v		94	66 - 130
1,2-Dibromoethane	10.0	8.54		ppb v/v		85	70 - 130
Chlorobenzene	10.0	8.62		ppb v/v		86	68 - 128
Ethylbenzene	10.0	8.83		ppb v/v		88	68 - 128
m,p-Xylene	20.0	17.6		ppb v/v		88	68 - 128
Xylene, o-	10.0	8.84		ppb v/v		88	67 - 127
Styrene	10.0	9.40		ppb v/v		94	68 - 128
Bromoform	10.0	10.2		ppb v/v		102	34 - 170
Cumene	10.0	9.09		ppb v/v		91	67 - 127

TestAmerica Burlington

QC Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-119704/4

Matrix: Air

Analysis Batch: 119704

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2,2-Tetrachloroethane	10.0	8.29		ppb v/v		83	69 - 129
n-Propylbenzene	10.0	9.06		ppb v/v		91	67 - 127
4-Ethyltoluene	10.0	9.43		ppb v/v		94	69 - 129
1,3,5-Trimethylbenzene	10.0	9.14		ppb v/v		91	65 - 125
2-Chlorotoluene	10.0	9.11		ppb v/v		91	67 - 127
tert-Butylbenzene	10.0	9.01		ppb v/v		90	63 - 125
1,2,4-Trimethylbenzene	10.0	9.30		ppb v/v		93	65 - 125
sec-Butylbenzene	10.0	9.06		ppb v/v		91	66 - 126
4-Isopropyltoluene	10.0	9.45		ppb v/v		95	67 - 129
1,3-Dichlorobenzene	10.0	8.88		ppb v/v		89	67 - 127
1,4-Dichlorobenzene	10.0	9.05		ppb v/v		90	66 - 126
Benzyl chloride	10.0	9.93		ppb v/v		99	54 - 135
n-Butylbenzene	10.0	9.40		ppb v/v		94	67 - 127
1,2-Dichlorobenzene	10.0	8.83		ppb v/v		88	67 - 127
1,2,4-Trichlorobenzene	10.0	8.57		ppb v/v		86	59 - 126
Hexachlorobutadiene	10.0	8.20		ppb v/v		82	62 - 130
Naphthalene	10.0	9.21		ppb v/v		92	50 - 121

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	49	49.7		ug/m3		101	68 - 128
Freon 22	35	37.9		ug/m3		107	64 - 128
1,2-Dichlorotetrafluoroethane	70	66.1		ug/m3		95	78 - 138
Chloromethane	21	20.1		ug/m3		97	57 - 126
n-Butane	24	24.1		ug/m3		101	56 - 130
Vinyl chloride	26	24.0		ug/m3		94	62 - 125
1,3-Butadiene	22	21.5		ug/m3		97	59 - 125
Bromomethane	39	34.6		ug/m3		89	68 - 128
Chloroethane	26	27.0		ug/m3		102	65 - 125
Bromoethene(Vinyl Bromide)	44	38.7		ug/m3		89	67 - 127
Trichlorofluoromethane	56	51.8		ug/m3		92	67 - 127
Freon TF	77	69.1		ug/m3		90	68 - 128
1,1-Dichloroethene	40	34.8		ug/m3		88	67 - 127
Acetone	24	26.5		ug/m3		112	64 - 136
Isopropyl alcohol	25	26.0		ug/m3		106	55 - 124
Carbon disulfide	31	29.9		ug/m3		96	81 - 141
3-Chloropropene	31	34.4		ug/m3		110	53 - 133
Methylene Chloride	35	35.6		ug/m3		102	62 - 122
tert-Butyl alcohol	30	32.1		ug/m3		106	64 - 124
Methyl tert-butyl ether	36	37.1		ug/m3		103	67 - 127
trans-1,2-Dichloroethene	40	39.9		ug/m3		101	72 - 132
n-Hexane	35	36.0		ug/m3		102	71 - 131
1,1-Dichloroethane	40	39.5		ug/m3		98	66 - 126
Methyl Ethyl Ketone	29	27.6		ug/m3		94	62 - 122
cis-1,2-Dichloroethene	40	36.7		ug/m3		93	67 - 127
Chloroform	49	40.6		ug/m3		83	69 - 129
Tetrahydrofuran	29	27.3		ug/m3		92	61 - 136
1,1,1-Trichloroethane	55	44.9		ug/m3		82	70 - 130
Cyclohexane	34	28.9		ug/m3		84	69 - 129

TestAmerica Burlington

QC Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-119704/4

Matrix: Air

Analysis Batch: 119704

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon tetrachloride	63	55.0		ug/m3		87	62 - 143
2,2,4-Trimethylpentane	47	36.9		ug/m3		79	67 - 127
Benzene	32	25.7		ug/m3		80	67 - 127
1,2-Dichloroethane	40	34.6		ug/m3		85	67 - 132
n-Heptane	41	30.3		ug/m3		74	62 - 130
Trichloroethene	54	39.8		ug/m3		74	68 - 128
Methyl methacrylate	41	33.7		ug/m3		82	70 - 130
1,2-Dichloropropane	46	34.8		ug/m3		75	67 - 127
1,4-Dioxane	36	29.4		ug/m3		82	66 - 132
Bromodichloromethane	67	58.0		ug/m3		87	69 - 129
cis-1,3-Dichloropropene	45	38.5		ug/m3		85	70 - 130
methyl isobutyl ketone	41	31.1		ug/m3		76	62 - 130
Toluene	38	32.0		ug/m3		85	67 - 127
trans-1,3-Dichloropropene	45	38.0		ug/m3		84	69 - 129
1,1,2-Trichloroethane	55	44.3		ug/m3		81	69 - 129
Tetrachloroethene	68	53.9		ug/m3		79	70 - 130
Methyl Butyl Ketone (2-Hexanone)	41	31.8		ug/m3		78	61 - 127
Dibromochloromethane	85	80.4		ug/m3		94	66 - 130
1,2-Dibromoethane	77	65.6		ug/m3		85	70 - 130
Chlorobenzene	46	39.7		ug/m3		86	68 - 128
Ethylbenzene	43	38.3		ug/m3		88	68 - 128
m,p-Xylene	87	76.5		ug/m3		88	68 - 128
Xylene, o-	43	38.4		ug/m3		88	67 - 127
Styrene	43	40.0		ug/m3		94	68 - 128
Bromoform	100	105		ug/m3		102	34 - 170
Cumene	49	44.7		ug/m3		91	67 - 127
1,1,2,2-Tetrachloroethane	69	56.9		ug/m3		83	69 - 129
n-Propylbenzene	49	44.5		ug/m3		91	67 - 127
4-Ethyltoluene	49	46.4		ug/m3		94	69 - 129
1,3,5-Trimethylbenzene	49	44.9		ug/m3		91	65 - 125
2-Chlorotoluene	52	47.1		ug/m3		91	67 - 127
tert-Butylbenzene	55	49.5		ug/m3		90	63 - 125
1,2,4-Trimethylbenzene	49	45.7		ug/m3		93	65 - 125
sec-Butylbenzene	55	49.7		ug/m3		91	66 - 126
4-Isopropyltoluene	55	51.9		ug/m3		95	67 - 129
1,3-Dichlorobenzene	60	53.4		ug/m3		89	67 - 127
1,4-Dichlorobenzene	60	54.4		ug/m3		90	66 - 126
Benzyl chloride	52	51.4		ug/m3		99	54 - 135
n-Butylbenzene	55	51.6		ug/m3		94	67 - 127
1,2-Dichlorobenzene	60	53.1		ug/m3		88	67 - 127
1,2,4-Trichlorobenzene	74	63.6		ug/m3		86	59 - 126
Hexachlorobutadiene	110	87.5		ug/m3		82	62 - 130
Naphthalene	52	48.3		ug/m3		92	50 - 121

TestAmerica Burlington

QC Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-119760/7

Matrix: Air

Analysis Batch: 119760

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.50	U	0.50		ppb v/v			08/15/17 15:20	1
Freon 22	0.50	U	0.50		ppb v/v			08/15/17 15:20	1
1,2-Dichlorotetrafluoroethane	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
Chloromethane	0.50	U	0.50		ppb v/v			08/15/17 15:20	1
n-Butane	0.50	U	0.50		ppb v/v			08/15/17 15:20	1
Vinyl chloride	0.040	U	0.040		ppb v/v			08/15/17 15:20	1
1,3-Butadiene	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
Bromomethane	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
Chloroethane	0.50	U	0.50		ppb v/v			08/15/17 15:20	1
Bromoethene(Vinyl Bromide)	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
Trichlorofluoromethane	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
Freon TF	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
1,1-Dichloroethene	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
Acetone	5.0	U	5.0		ppb v/v			08/15/17 15:20	1
Isopropyl alcohol	5.0	U	5.0		ppb v/v			08/15/17 15:20	1
Carbon disulfide	0.50	U	0.50		ppb v/v			08/15/17 15:20	1
3-Chloropropene	0.50	U	0.50		ppb v/v			08/15/17 15:20	1
Methylene Chloride	0.50	U	0.50		ppb v/v			08/15/17 15:20	1
tert-Butyl alcohol	5.0	U	5.0		ppb v/v			08/15/17 15:20	1
Methyl tert-butyl ether	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
trans-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
n-Hexane	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
1,1-Dichloroethane	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
Methyl Ethyl Ketone	0.50	U	0.50		ppb v/v			08/15/17 15:20	1
cis-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
1,2-Dichloroethene, Total	0.40	U	0.40		ppb v/v			08/15/17 15:20	1
Chloroform	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
Tetrahydrofuran	5.0	U	5.0		ppb v/v			08/15/17 15:20	1
1,1,1-Trichloroethane	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
Cyclohexane	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
Carbon tetrachloride	0.040	U	0.040		ppb v/v			08/15/17 15:20	1
2,2,4-Trimethylpentane	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
Benzene	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
1,2-Dichloroethane	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
n-Heptane	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
Trichloroethene	0.040	U	0.040		ppb v/v			08/15/17 15:20	1
Methyl methacrylate	0.50	U	0.50		ppb v/v			08/15/17 15:20	1
1,2-Dichloropropane	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
1,4-Dioxane	5.0	U	5.0		ppb v/v			08/15/17 15:20	1
Bromodichloromethane	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
cis-1,3-Dichloropropene	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
methyl isobutyl ketone	0.50	U	0.50		ppb v/v			08/15/17 15:20	1
Toluene	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
trans-1,3-Dichloropropene	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
1,1,2-Trichloroethane	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
Tetrachloroethene	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50		ppb v/v			08/15/17 15:20	1
Dibromochloromethane	0.20	U	0.20		ppb v/v			08/15/17 15:20	1

TestAmerica Burlington

QC Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-119760/7

Matrix: Air

Analysis Batch: 119760

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
Chlorobenzene	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
Ethylbenzene	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
m,p-Xylene	0.50	U	0.50		ppb v/v			08/15/17 15:20	1
Xylene, o-	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
Xylene (total)	0.70	U	0.70		ppb v/v			08/15/17 15:20	1
Styrene	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
Bromoform	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
Cumene	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
1,1,2,2-Tetrachloroethane	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
n-Propylbenzene	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
4-Ethyltoluene	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
1,3,5-Trimethylbenzene	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
2-Chlorotoluene	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
tert-Butylbenzene	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
1,2,4-Trimethylbenzene	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
sec-Butylbenzene	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
4-Isopropyltoluene	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
1,3-Dichlorobenzene	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
1,4-Dichlorobenzene	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
Benzyl chloride	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
n-Butylbenzene	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
1,2-Dichlorobenzene	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
1,2,4-Trichlorobenzene	0.50	U	0.50		ppb v/v			08/15/17 15:20	1
Hexachlorobutadiene	0.20	U	0.20		ppb v/v			08/15/17 15:20	1
Naphthalene	0.50	U	0.50		ppb v/v			08/15/17 15:20	1

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	2.5	U	2.5		ug/m3			08/15/17 15:20	1
Freon 22	1.8	U	1.8		ug/m3			08/15/17 15:20	1
1,2-Dichlorotetrafluoroethane	1.4	U	1.4		ug/m3			08/15/17 15:20	1
Chloromethane	1.0	U	1.0		ug/m3			08/15/17 15:20	1
n-Butane	1.2	U	1.2		ug/m3			08/15/17 15:20	1
Vinyl chloride	0.10	U	0.10		ug/m3			08/15/17 15:20	1
1,3-Butadiene	0.44	U	0.44		ug/m3			08/15/17 15:20	1
Bromomethane	0.78	U	0.78		ug/m3			08/15/17 15:20	1
Chloroethane	1.3	U	1.3		ug/m3			08/15/17 15:20	1
Bromoethene(Vinyl Bromide)	0.87	U	0.87		ug/m3			08/15/17 15:20	1
Trichlorofluoromethane	1.1	U	1.1		ug/m3			08/15/17 15:20	1
Freon TF	1.5	U	1.5		ug/m3			08/15/17 15:20	1
1,1-Dichloroethene	0.79	U	0.79		ug/m3			08/15/17 15:20	1
Acetone	12	U	12		ug/m3			08/15/17 15:20	1
Isopropyl alcohol	12	U	12		ug/m3			08/15/17 15:20	1
Carbon disulfide	1.6	U	1.6		ug/m3			08/15/17 15:20	1
3-Chloropropene	1.6	U	1.6		ug/m3			08/15/17 15:20	1
Methylene Chloride	1.7	U	1.7		ug/m3			08/15/17 15:20	1
tert-Butyl alcohol	15	U	15		ug/m3			08/15/17 15:20	1
Methyl tert-butyl ether	0.72	U	0.72		ug/m3			08/15/17 15:20	1

TestAmerica Burlington

QC Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-119760/7

Matrix: Air

Analysis Batch: 119760

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.79	U	0.79		ug/m3			08/15/17 15:20	1
n-Hexane	0.70	U	0.70		ug/m3			08/15/17 15:20	1
1,1-Dichloroethane	0.81	U	0.81		ug/m3			08/15/17 15:20	1
Methyl Ethyl Ketone	1.5	U	1.5		ug/m3			08/15/17 15:20	1
cis-1,2-Dichloroethene	0.79	U	0.79		ug/m3			08/15/17 15:20	1
1,2-Dichloroethene, Total	1.6	U	1.6		ug/m3			08/15/17 15:20	1
Chloroform	0.98	U	0.98		ug/m3			08/15/17 15:20	1
Tetrahydrofuran	15	U	15		ug/m3			08/15/17 15:20	1
1,1,1-Trichloroethane	1.1	U	1.1		ug/m3			08/15/17 15:20	1
Cyclohexane	0.69	U	0.69		ug/m3			08/15/17 15:20	1
Carbon tetrachloride	0.25	U	0.25		ug/m3			08/15/17 15:20	1
2,2,4-Trimethylpentane	0.93	U	0.93		ug/m3			08/15/17 15:20	1
Benzene	0.64	U	0.64		ug/m3			08/15/17 15:20	1
1,2-Dichloroethane	0.81	U	0.81		ug/m3			08/15/17 15:20	1
n-Heptane	0.82	U	0.82		ug/m3			08/15/17 15:20	1
Trichloroethene	0.21	U	0.21		ug/m3			08/15/17 15:20	1
Methyl methacrylate	2.0	U	2.0		ug/m3			08/15/17 15:20	1
1,2-Dichloropropane	0.92	U	0.92		ug/m3			08/15/17 15:20	1
1,4-Dioxane	18	U	18		ug/m3			08/15/17 15:20	1
Bromodichloromethane	1.3	U	1.3		ug/m3			08/15/17 15:20	1
cis-1,3-Dichloropropene	0.91	U	0.91		ug/m3			08/15/17 15:20	1
methyl isobutyl ketone	2.0	U	2.0		ug/m3			08/15/17 15:20	1
Toluene	0.75	U	0.75		ug/m3			08/15/17 15:20	1
trans-1,3-Dichloropropene	0.91	U	0.91		ug/m3			08/15/17 15:20	1
1,1,2-Trichloroethane	1.1	U	1.1		ug/m3			08/15/17 15:20	1
Tetrachloroethene	1.4	U	1.4		ug/m3			08/15/17 15:20	1
Methyl Butyl Ketone (2-Hexanone)	2.0	U	2.0		ug/m3			08/15/17 15:20	1
Dibromochloromethane	1.7	U	1.7		ug/m3			08/15/17 15:20	1
1,2-Dibromoethane	1.5	U	1.5		ug/m3			08/15/17 15:20	1
Chlorobenzene	0.92	U	0.92		ug/m3			08/15/17 15:20	1
Ethylbenzene	0.87	U	0.87		ug/m3			08/15/17 15:20	1
m,p-Xylene	2.2	U	2.2		ug/m3			08/15/17 15:20	1
Xylene, o-	0.87	U	0.87		ug/m3			08/15/17 15:20	1
Xylene (total)	3.0	U	3.0		ug/m3			08/15/17 15:20	1
Styrene	0.85	U	0.85		ug/m3			08/15/17 15:20	1
Bromoform	2.1	U	2.1		ug/m3			08/15/17 15:20	1
Cumene	0.98	U	0.98		ug/m3			08/15/17 15:20	1
1,1,2,2-Tetrachloroethane	1.4	U	1.4		ug/m3			08/15/17 15:20	1
n-Propylbenzene	0.98	U	0.98		ug/m3			08/15/17 15:20	1
4-Ethyltoluene	0.98	U	0.98		ug/m3			08/15/17 15:20	1
1,3,5-Trimethylbenzene	0.98	U	0.98		ug/m3			08/15/17 15:20	1
2-Chlorotoluene	1.0	U	1.0		ug/m3			08/15/17 15:20	1
tert-Butylbenzene	1.1	U	1.1		ug/m3			08/15/17 15:20	1
1,2,4-Trimethylbenzene	0.98	U	0.98		ug/m3			08/15/17 15:20	1
sec-Butylbenzene	1.1	U	1.1		ug/m3			08/15/17 15:20	1
4-Isopropyltoluene	1.1	U	1.1		ug/m3			08/15/17 15:20	1
1,3-Dichlorobenzene	1.2	U	1.2		ug/m3			08/15/17 15:20	1
1,4-Dichlorobenzene	1.2	U	1.2		ug/m3			08/15/17 15:20	1

TestAmerica Burlington

QC Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-119760/7

Matrix: Air

Analysis Batch: 119760

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzyl chloride	1.0	U	1.0		ug/m3			08/15/17 15:20	1
n-Butylbenzene	1.1	U	1.1		ug/m3			08/15/17 15:20	1
1,2-Dichlorobenzene	1.2	U	1.2		ug/m3			08/15/17 15:20	1
1,2,4-Trichlorobenzene	3.7	U	3.7		ug/m3			08/15/17 15:20	1
Hexachlorobutadiene	2.1	U	2.1		ug/m3			08/15/17 15:20	1
Naphthalene	2.6	U	2.6		ug/m3			08/15/17 15:20	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ppb v/v					08/15/17 15:20	1

Lab Sample ID: LCS 200-119760/6

Matrix: Air

Analysis Batch: 119760

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	10.0	9.66		ppb v/v		97	68 - 128
Freon 22	10.0	9.50		ppb v/v		95	64 - 128
1,2-Dichlorotetrafluoroethane	10.0	10.8		ppb v/v		108	78 - 138
Chloromethane	10.0	9.20		ppb v/v		92	57 - 126
n-Butane	10.0	9.38		ppb v/v		94	56 - 130
Vinyl chloride	10.0	9.45		ppb v/v		95	62 - 125
1,3-Butadiene	10.0	9.22		ppb v/v		92	59 - 125
Bromomethane	10.0	9.02		ppb v/v		90	68 - 128
Chloroethane	10.0	9.17		ppb v/v		92	65 - 125
Bromoethene(Vinyl Bromide)	10.0	9.90		ppb v/v		99	67 - 127
Trichlorofluoromethane	10.0	9.37		ppb v/v		94	67 - 127
Freon TF	10.0	9.32		ppb v/v		93	68 - 128
1,1-Dichloroethene	10.0	9.38		ppb v/v		94	67 - 127
Acetone	10.0	10.0		ppb v/v		100	64 - 136
Isopropyl alcohol	10.0	9.37		ppb v/v		94	55 - 124
Carbon disulfide	10.0	11.7		ppb v/v		117	81 - 141
3-Chloropropene	10.0	9.37		ppb v/v		94	53 - 133
Methylene Chloride	10.0	7.68		ppb v/v		77	62 - 122
tert-Butyl alcohol	10.0	8.96		ppb v/v		90	64 - 124
Methyl tert-butyl ether	10.0	9.25		ppb v/v		92	67 - 127
trans-1,2-Dichloroethene	10.0	8.96		ppb v/v		90	72 - 132
n-Hexane	10.0	8.77		ppb v/v		88	71 - 131
1,1-Dichloroethane	10.0	9.26		ppb v/v		93	66 - 126
Methyl Ethyl Ketone	10.0	8.84		ppb v/v		88	62 - 122
cis-1,2-Dichloroethene	10.0	9.14		ppb v/v		91	67 - 127
Chloroform	10.0	9.28		ppb v/v		93	69 - 129
Tetrahydrofuran	10.0	7.77		ppb v/v		78	61 - 136
1,1,1-Trichloroethane	10.0	9.81		ppb v/v		98	70 - 130
Cyclohexane	10.0	10.2		ppb v/v		102	69 - 129
Carbon tetrachloride	10.0	10.3		ppb v/v		103	62 - 143
2,2,4-Trimethylpentane	10.0	9.61		ppb v/v		96	67 - 127
Benzene	10.0	9.74		ppb v/v		97	67 - 127
1,2-Dichloroethane	10.0	9.48		ppb v/v		95	67 - 132

TestAmerica Burlington

QC Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-119760/6

Matrix: Air

Analysis Batch: 119760

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
n-Heptane	10.0	9.23		ppb v/v		92	62 - 130
Trichloroethene	10.0	9.35		ppb v/v		94	68 - 128
Methyl methacrylate	10.0	10.0		ppb v/v		100	70 - 130
1,2-Dichloropropane	10.0	9.40		ppb v/v		94	67 - 127
1,4-Dioxane	10.0	10.3		ppb v/v		103	66 - 132
Bromodichloromethane	10.0	9.51		ppb v/v		95	69 - 129
cis-1,3-Dichloropropene	10.0	10.1		ppb v/v		101	70 - 130
methyl isobutyl ketone	10.0	10.1		ppb v/v		102	62 - 130
Toluene	10.0	9.67		ppb v/v		97	67 - 127
trans-1,3-Dichloropropene	10.0	10.0		ppb v/v		100	69 - 129
1,1,2-Trichloroethane	10.0	9.82		ppb v/v		98	69 - 129
Tetrachloroethene	10.0	9.71		ppb v/v		97	70 - 130
Methyl Butyl Ketone (2-Hexanone)	10.0	9.93		ppb v/v		99	61 - 127
Dibromochloromethane	10.0	9.59		ppb v/v		96	66 - 130
1,2-Dibromoethane	10.0	9.94		ppb v/v		99	70 - 130
Chlorobenzene	10.0	9.81		ppb v/v		98	68 - 128
Ethylbenzene	10.0	9.76		ppb v/v		98	68 - 128
m,p-Xylene	20.0	19.6		ppb v/v		98	68 - 128
Xylene, o-	10.0	8.90		ppb v/v		89	67 - 127
Styrene	10.0	9.05		ppb v/v		91	68 - 128
Bromoform	10.0	9.49		ppb v/v		95	34 - 170
Cumene	10.0	8.57		ppb v/v		86	67 - 127
1,1,2,2-Tetrachloroethane	10.0	8.37		ppb v/v		84	69 - 129
n-Propylbenzene	10.0	8.41		ppb v/v		84	67 - 127
4-Ethyltoluene	10.0	8.92		ppb v/v		89	69 - 129
1,3,5-Trimethylbenzene	10.0	8.02		ppb v/v		80	65 - 125
2-Chlorotoluene	10.0	8.27		ppb v/v		83	67 - 127
tert-Butylbenzene	10.0	7.76		ppb v/v		78	63 - 125
1,2,4-Trimethylbenzene	10.0	7.54		ppb v/v		75	65 - 125
sec-Butylbenzene	10.0	7.53		ppb v/v		75	66 - 126
4-Isopropyltoluene	10.0	8.06		ppb v/v		81	67 - 129
1,3-Dichlorobenzene	10.0	8.37		ppb v/v		84	67 - 127
1,4-Dichlorobenzene	10.0	8.44		ppb v/v		84	66 - 126
Benzyl chloride	10.0	7.26		ppb v/v		73	54 - 135
n-Butylbenzene	10.0	8.06		ppb v/v		81	67 - 127
1,2-Dichlorobenzene	10.0	8.54		ppb v/v		85	67 - 127
1,2,4-Trichlorobenzene	10.0	8.52		ppb v/v		85	59 - 126
Hexachlorobutadiene	10.0	9.28		ppb v/v		93	62 - 130
Naphthalene	10.0	7.09		ppb v/v		71	50 - 121
Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	49	47.8		ug/m3		97	68 - 128
Freon 22	35	33.6		ug/m3		95	64 - 128
1,2-Dichlorotetrafluoroethane	70	75.8		ug/m3		108	78 - 138
Chloromethane	21	19.0		ug/m3		92	57 - 126
n-Butane	24	22.3		ug/m3		94	56 - 130
Vinyl chloride	26	24.2		ug/m3		95	62 - 125

TestAmerica Burlington

QC Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-119760/6

Matrix: Air

Analysis Batch: 119760

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3-Butadiene	22	20.4		ug/m3		92	59 - 125
Bromomethane	39	35.0		ug/m3		90	68 - 128
Chloroethane	26	24.2		ug/m3		92	65 - 125
Bromoethene(Vinyl Bromide)	44	43.3		ug/m3		99	67 - 127
Trichlorofluoromethane	56	52.7		ug/m3		94	67 - 127
Freon TF	77	71.5		ug/m3		93	68 - 128
1,1-Dichloroethene	40	37.2		ug/m3		94	67 - 127
Acetone	24	23.8		ug/m3		100	64 - 136
Isopropyl alcohol	25	23.0		ug/m3		94	55 - 124
Carbon disulfide	31	36.3		ug/m3		117	81 - 141
3-Chloropropene	31	29.3		ug/m3		94	53 - 133
Methylene Chloride	35	26.7		ug/m3		77	62 - 122
tert-Butyl alcohol	30	27.2		ug/m3		90	64 - 124
Methyl tert-butyl ether	36	33.3		ug/m3		92	67 - 127
trans-1,2-Dichloroethene	40	35.5		ug/m3		90	72 - 132
n-Hexane	35	30.9		ug/m3		88	71 - 131
1,1-Dichloroethane	40	37.5		ug/m3		93	66 - 126
Methyl Ethyl Ketone	29	26.1		ug/m3		88	62 - 122
cis-1,2-Dichloroethene	40	36.2		ug/m3		91	67 - 127
Chloroform	49	45.3		ug/m3		93	69 - 129
Tetrahydrofuran	29	22.9		ug/m3		78	61 - 136
1,1,1-Trichloroethane	55	53.5		ug/m3		98	70 - 130
Cyclohexane	34	35.2		ug/m3		102	69 - 129
Carbon tetrachloride	63	64.6		ug/m3		103	62 - 143
2,2,4-Trimethylpentane	47	44.9		ug/m3		96	67 - 127
Benzene	32	31.1		ug/m3		97	67 - 127
1,2-Dichloroethane	40	38.4		ug/m3		95	67 - 132
n-Heptane	41	37.8		ug/m3		92	62 - 130
Trichloroethene	54	50.3		ug/m3		94	68 - 128
Methyl methacrylate	41	41.1		ug/m3		100	70 - 130
1,2-Dichloropropane	46	43.4		ug/m3		94	67 - 127
1,4-Dioxane	36	37.3		ug/m3		103	66 - 132
Bromodichloromethane	67	63.7		ug/m3		95	69 - 129
cis-1,3-Dichloropropene	45	45.8		ug/m3		101	70 - 130
methyl isobutyl ketone	41	41.6		ug/m3		102	62 - 130
Toluene	38	36.4		ug/m3		97	67 - 127
trans-1,3-Dichloropropene	45	45.5		ug/m3		100	69 - 129
1,1,2-Trichloroethane	55	53.6		ug/m3		98	69 - 129
Tetrachloroethene	68	65.9		ug/m3		97	70 - 130
Methyl Butyl Ketone (2-Hexanone)	41	40.7		ug/m3		99	61 - 127
Dibromochloromethane	85	81.7		ug/m3		96	66 - 130
1,2-Dibromoethane	77	76.4		ug/m3		99	70 - 130
Chlorobenzene	46	45.2		ug/m3		98	68 - 128
Ethylbenzene	43	42.4		ug/m3		98	68 - 128
m,p-Xylene	87	85.1		ug/m3		98	68 - 128
Xylene, o-	43	38.6		ug/m3		89	67 - 127
Styrene	43	38.6		ug/m3		91	68 - 128

TestAmerica Burlington

QC Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-119760/6

Matrix: Air

Analysis Batch: 119760

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromoform	100	98.1		ug/m3		95	34 - 170
Cumene	49	42.1		ug/m3		86	67 - 127
1,1,2,2-Tetrachloroethane	69	57.5		ug/m3		84	69 - 129
n-Propylbenzene	49	41.3		ug/m3		84	67 - 127
4-Ethyltoluene	49	43.8		ug/m3		89	69 - 129
1,3,5-Trimethylbenzene	49	39.4		ug/m3		80	65 - 125
2-Chlorotoluene	52	42.8		ug/m3		83	67 - 127
tert-Butylbenzene	55	42.6		ug/m3		78	63 - 125
1,2,4-Trimethylbenzene	49	37.1		ug/m3		75	65 - 125
sec-Butylbenzene	55	41.3		ug/m3		75	66 - 126
4-Isopropyltoluene	55	44.2		ug/m3		81	67 - 129
1,3-Dichlorobenzene	60	50.3		ug/m3		84	67 - 127
1,4-Dichlorobenzene	60	50.8		ug/m3		84	66 - 126
Benzyl chloride	52	37.6		ug/m3		73	54 - 135
n-Butylbenzene	55	44.3		ug/m3		81	67 - 127
1,2-Dichlorobenzene	60	51.3		ug/m3		85	67 - 127
1,2,4-Trichlorobenzene	74	63.2		ug/m3		85	59 - 126
Hexachlorobutadiene	110	99.0		ug/m3		93	62 - 130
Naphthalene	52	37.2		ug/m3		71	50 - 121

Lab Sample ID: MB 200-119837/4

Matrix: Air

Analysis Batch: 119837

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.50	U	0.50		ppb v/v			08/16/17 13:37	1
Freon 22	0.50	U	0.50		ppb v/v			08/16/17 13:37	1
1,2-Dichlorotetrafluoroethane	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
Chloromethane	0.50	U	0.50		ppb v/v			08/16/17 13:37	1
n-Butane	0.50	U	0.50		ppb v/v			08/16/17 13:37	1
Vinyl chloride	0.040	U	0.040		ppb v/v			08/16/17 13:37	1
1,3-Butadiene	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
Bromomethane	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
Chloroethane	0.50	U	0.50		ppb v/v			08/16/17 13:37	1
Bromoethene(Vinyl Bromide)	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
Trichlorofluoromethane	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
Freon TF	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
1,1-Dichloroethene	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
Acetone	5.0	U	5.0		ppb v/v			08/16/17 13:37	1
Isopropyl alcohol	5.0	U	5.0		ppb v/v			08/16/17 13:37	1
Carbon disulfide	0.50	U	0.50		ppb v/v			08/16/17 13:37	1
3-Chloropropene	0.50	U	0.50		ppb v/v			08/16/17 13:37	1
Methylene Chloride	0.50	U	0.50		ppb v/v			08/16/17 13:37	1
tert-Butyl alcohol	5.0	U	5.0		ppb v/v			08/16/17 13:37	1
Methyl tert-butyl ether	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
trans-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
n-Hexane	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
1,1-Dichloroethane	0.20	U	0.20		ppb v/v			08/16/17 13:37	1

TestAmerica Burlington

QC Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-119837/4

Matrix: Air

Analysis Batch: 119837

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl Ethyl Ketone	0.50	U	0.50		ppb v/v			08/16/17 13:37	1
cis-1,2-Dichloroethene	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
1,2-Dichloroethene, Total	0.40	U	0.40		ppb v/v			08/16/17 13:37	1
Chloroform	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
Tetrahydrofuran	5.0	U	5.0		ppb v/v			08/16/17 13:37	1
1,1,1-Trichloroethane	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
Cyclohexane	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
Carbon tetrachloride	0.040	U	0.040		ppb v/v			08/16/17 13:37	1
2,2,4-Trimethylpentane	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
Benzene	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
1,2-Dichloroethane	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
n-Heptane	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
Trichloroethene	0.040	U	0.040		ppb v/v			08/16/17 13:37	1
Methyl methacrylate	0.50	U	0.50		ppb v/v			08/16/17 13:37	1
1,2-Dichloropropane	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
1,4-Dioxane	5.0	U	5.0		ppb v/v			08/16/17 13:37	1
Bromodichloromethane	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
cis-1,3-Dichloropropene	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
methyl isobutyl ketone	0.50	U	0.50		ppb v/v			08/16/17 13:37	1
Toluene	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
trans-1,3-Dichloropropene	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
1,1,2-Trichloroethane	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
Tetrachloroethene	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
Methyl Butyl Ketone (2-Hexanone)	0.50	U	0.50		ppb v/v			08/16/17 13:37	1
Dibromochloromethane	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
1,2-Dibromoethane	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
Chlorobenzene	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
Ethylbenzene	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
m,p-Xylene	0.50	U	0.50		ppb v/v			08/16/17 13:37	1
Xylene, o-	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
Xylene (total)	0.70	U	0.70		ppb v/v			08/16/17 13:37	1
Styrene	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
Bromoform	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
Cumene	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
1,1,2,2-Tetrachloroethane	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
n-Propylbenzene	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
4-Ethyltoluene	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
1,3,5-Trimethylbenzene	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
2-Chlorotoluene	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
tert-Butylbenzene	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
1,2,4-Trimethylbenzene	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
sec-Butylbenzene	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
4-Isopropyltoluene	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
1,3-Dichlorobenzene	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
1,4-Dichlorobenzene	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
Benzyl chloride	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
n-Butylbenzene	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
1,2-Dichlorobenzene	0.20	U	0.20		ppb v/v			08/16/17 13:37	1

TestAmerica Burlington

QC Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-119837/4

Matrix: Air

Analysis Batch: 119837

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	0.50	U	0.50		ppb v/v			08/16/17 13:37	1
Hexachlorobutadiene	0.20	U	0.20		ppb v/v			08/16/17 13:37	1
Naphthalene	0.50	U	0.50		ppb v/v			08/16/17 13:37	1
Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	2.5	U	2.5		ug/m3			08/16/17 13:37	1
Freon 22	1.8	U	1.8		ug/m3			08/16/17 13:37	1
1,2-Dichlorotetrafluoroethane	1.4	U	1.4		ug/m3			08/16/17 13:37	1
Chloromethane	1.0	U	1.0		ug/m3			08/16/17 13:37	1
n-Butane	1.2	U	1.2		ug/m3			08/16/17 13:37	1
Vinyl chloride	0.10	U	0.10		ug/m3			08/16/17 13:37	1
1,3-Butadiene	0.44	U	0.44		ug/m3			08/16/17 13:37	1
Bromomethane	0.78	U	0.78		ug/m3			08/16/17 13:37	1
Chloroethane	1.3	U	1.3		ug/m3			08/16/17 13:37	1
Bromoethene(Vinyl Bromide)	0.87	U	0.87		ug/m3			08/16/17 13:37	1
Trichlorofluoromethane	1.1	U	1.1		ug/m3			08/16/17 13:37	1
Freon TF	1.5	U	1.5		ug/m3			08/16/17 13:37	1
1,1-Dichloroethene	0.79	U	0.79		ug/m3			08/16/17 13:37	1
Acetone	12	U	12		ug/m3			08/16/17 13:37	1
Isopropyl alcohol	12	U	12		ug/m3			08/16/17 13:37	1
Carbon disulfide	1.6	U	1.6		ug/m3			08/16/17 13:37	1
3-Chloropropene	1.6	U	1.6		ug/m3			08/16/17 13:37	1
Methylene Chloride	1.7	U	1.7		ug/m3			08/16/17 13:37	1
tert-Butyl alcohol	15	U	15		ug/m3			08/16/17 13:37	1
Methyl tert-butyl ether	0.72	U	0.72		ug/m3			08/16/17 13:37	1
trans-1,2-Dichloroethene	0.79	U	0.79		ug/m3			08/16/17 13:37	1
n-Hexane	0.70	U	0.70		ug/m3			08/16/17 13:37	1
1,1-Dichloroethane	0.81	U	0.81		ug/m3			08/16/17 13:37	1
Methyl Ethyl Ketone	1.5	U	1.5		ug/m3			08/16/17 13:37	1
cis-1,2-Dichloroethene	0.79	U	0.79		ug/m3			08/16/17 13:37	1
1,2-Dichloroethene, Total	1.6	U	1.6		ug/m3			08/16/17 13:37	1
Chloroform	0.98	U	0.98		ug/m3			08/16/17 13:37	1
Tetrahydrofuran	15	U	15		ug/m3			08/16/17 13:37	1
1,1,1-Trichloroethane	1.1	U	1.1		ug/m3			08/16/17 13:37	1
Cyclohexane	0.69	U	0.69		ug/m3			08/16/17 13:37	1
Carbon tetrachloride	0.25	U	0.25		ug/m3			08/16/17 13:37	1
2,2,4-Trimethylpentane	0.93	U	0.93		ug/m3			08/16/17 13:37	1
Benzene	0.64	U	0.64		ug/m3			08/16/17 13:37	1
1,2-Dichloroethane	0.81	U	0.81		ug/m3			08/16/17 13:37	1
n-Heptane	0.82	U	0.82		ug/m3			08/16/17 13:37	1
Trichloroethene	0.21	U	0.21		ug/m3			08/16/17 13:37	1
Methyl methacrylate	2.0	U	2.0		ug/m3			08/16/17 13:37	1
1,2-Dichloropropane	0.92	U	0.92		ug/m3			08/16/17 13:37	1
1,4-Dioxane	18	U	18		ug/m3			08/16/17 13:37	1
Bromodichloromethane	1.3	U	1.3		ug/m3			08/16/17 13:37	1
cis-1,3-Dichloropropene	0.91	U	0.91		ug/m3			08/16/17 13:37	1
methyl isobutyl ketone	2.0	U	2.0		ug/m3			08/16/17 13:37	1
Toluene	0.75	U	0.75		ug/m3			08/16/17 13:37	1

TestAmerica Burlington

QC Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: MB 200-119837/4

Matrix: Air

Analysis Batch: 119837

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	0.91	U	0.91		ug/m3			08/16/17 13:37	1
1,1,2-Trichloroethane	1.1	U	1.1		ug/m3			08/16/17 13:37	1
Tetrachloroethene	1.4	U	1.4		ug/m3			08/16/17 13:37	1
Methyl Butyl Ketone (2-Hexanone)	2.0	U	2.0		ug/m3			08/16/17 13:37	1
Dibromochloromethane	1.7	U	1.7		ug/m3			08/16/17 13:37	1
1,2-Dibromoethane	1.5	U	1.5		ug/m3			08/16/17 13:37	1
Chlorobenzene	0.92	U	0.92		ug/m3			08/16/17 13:37	1
Ethylbenzene	0.87	U	0.87		ug/m3			08/16/17 13:37	1
m,p-Xylene	2.2	U	2.2		ug/m3			08/16/17 13:37	1
Xylene, o-	0.87	U	0.87		ug/m3			08/16/17 13:37	1
Xylene (total)	3.0	U	3.0		ug/m3			08/16/17 13:37	1
Styrene	0.85	U	0.85		ug/m3			08/16/17 13:37	1
Bromoform	2.1	U	2.1		ug/m3			08/16/17 13:37	1
Cumene	0.98	U	0.98		ug/m3			08/16/17 13:37	1
1,1,2,2-Tetrachloroethane	1.4	U	1.4		ug/m3			08/16/17 13:37	1
n-Propylbenzene	0.98	U	0.98		ug/m3			08/16/17 13:37	1
4-Ethyltoluene	0.98	U	0.98		ug/m3			08/16/17 13:37	1
1,3,5-Trimethylbenzene	0.98	U	0.98		ug/m3			08/16/17 13:37	1
2-Chlorotoluene	1.0	U	1.0		ug/m3			08/16/17 13:37	1
tert-Butylbenzene	1.1	U	1.1		ug/m3			08/16/17 13:37	1
1,2,4-Trimethylbenzene	0.98	U	0.98		ug/m3			08/16/17 13:37	1
sec-Butylbenzene	1.1	U	1.1		ug/m3			08/16/17 13:37	1
4-Isopropyltoluene	1.1	U	1.1		ug/m3			08/16/17 13:37	1
1,3-Dichlorobenzene	1.2	U	1.2		ug/m3			08/16/17 13:37	1
1,4-Dichlorobenzene	1.2	U	1.2		ug/m3			08/16/17 13:37	1
Benzyl chloride	1.0	U	1.0		ug/m3			08/16/17 13:37	1
n-Butylbenzene	1.1	U	1.1		ug/m3			08/16/17 13:37	1
1,2-Dichlorobenzene	1.2	U	1.2		ug/m3			08/16/17 13:37	1
1,2,4-Trichlorobenzene	3.7	U	3.7		ug/m3			08/16/17 13:37	1
Hexachlorobutadiene	2.1	U	2.1		ug/m3			08/16/17 13:37	1
Naphthalene	2.6	U	2.6		ug/m3			08/16/17 13:37	1

Tentatively Identified Compound	MB Est. Result	MB Qualifier	Unit	D	RT	CAS No.	Prepared	Analyzed	Dil Fac
Tentatively Identified Compound	None		ppb v/v					08/16/17 13:37	1

Lab Sample ID: LCS 200-119837/5

Matrix: Air

Analysis Batch: 119837

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	10.0	10.0		ppb v/v		100	68 - 128
Freon 22	10.0	9.18		ppb v/v		92	64 - 128
1,2-Dichlorotetrafluoroethane	10.0	10.7		ppb v/v		107	78 - 138
Chloromethane	10.0	8.31		ppb v/v		83	57 - 126
n-Butane	10.0	8.68		ppb v/v		87	56 - 130
Vinyl chloride	10.0	8.39		ppb v/v		84	62 - 125
1,3-Butadiene	10.0	8.17		ppb v/v		82	59 - 125
Bromomethane	10.0	9.40		ppb v/v		94	68 - 128

TestAmerica Burlington

QC Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-119837/5

Matrix: Air

Analysis Batch: 119837

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroethane	10.0	8.88		ppb v/v		89	65 - 125
Bromoethene(Vinyl Bromide)	10.0	9.44		ppb v/v		94	67 - 127
Trichlorofluoromethane	10.0	9.62		ppb v/v		96	67 - 127
Freon TF	10.0	9.51		ppb v/v		95	68 - 128
1,1-Dichloroethene	10.0	9.09		ppb v/v		91	67 - 127
Acetone	10.0	9.29		ppb v/v		93	64 - 136
Isopropyl alcohol	10.0	8.53		ppb v/v		85	55 - 124
Carbon disulfide	10.0	10.6		ppb v/v		106	81 - 141
3-Chloropropene	10.0	8.31		ppb v/v		83	53 - 133
Methylene Chloride	10.0	8.61		ppb v/v		86	62 - 122
tert-Butyl alcohol	10.0	9.83		ppb v/v		98	64 - 124
Methyl tert-butyl ether	10.0	9.59		ppb v/v		96	67 - 127
trans-1,2-Dichloroethene	10.0	9.60		ppb v/v		96	72 - 132
n-Hexane	10.0	9.97		ppb v/v		100	71 - 131
1,1-Dichloroethane	10.0	8.80		ppb v/v		88	66 - 126
Methyl Ethyl Ketone	10.0	8.88		ppb v/v		89	62 - 122
cis-1,2-Dichloroethene	10.0	9.37		ppb v/v		94	67 - 127
Chloroform	10.0	8.27		ppb v/v		83	69 - 129
Tetrahydrofuran	10.0	8.98		ppb v/v		90	61 - 136
1,1,1-Trichloroethane	10.0	10.2		ppb v/v		102	70 - 130
Cyclohexane	10.0	10.1		ppb v/v		101	69 - 129
Carbon tetrachloride	10.0	11.3		ppb v/v		113	62 - 143
2,2,4-Trimethylpentane	10.0	8.38		ppb v/v		84	67 - 127
Benzene	10.0	8.65		ppb v/v		86	67 - 127
1,2-Dichloroethane	10.0	8.88		ppb v/v		89	67 - 132
n-Heptane	10.0	7.35		ppb v/v		74	62 - 130
Trichloroethene	10.0	9.61		ppb v/v		96	68 - 128
Methyl methacrylate	10.0	9.70		ppb v/v		97	70 - 130
1,2-Dichloropropane	10.0	7.94		ppb v/v		79	67 - 127
1,4-Dioxane	10.0	10.6		ppb v/v		106	66 - 132
Bromodichloromethane	10.0	10.2		ppb v/v		102	69 - 129
cis-1,3-Dichloropropene	10.0	9.68		ppb v/v		97	70 - 130
methyl isobutyl ketone	10.0	8.49		ppb v/v		85	62 - 130
Toluene	10.0	9.36		ppb v/v		94	67 - 127
trans-1,3-Dichloropropene	10.0	9.79		ppb v/v		98	69 - 129
1,1,2-Trichloroethane	10.0	8.80		ppb v/v		88	69 - 129
Tetrachloroethene	10.0	11.0		ppb v/v		110	70 - 130
Methyl Butyl Ketone (2-Hexanone)	10.0	8.27		ppb v/v		83	61 - 127
Dibromochloromethane	10.0	11.0		ppb v/v		110	66 - 130
1,2-Dibromoethane	10.0	10.1		ppb v/v		101	70 - 130
Chlorobenzene	10.0	10.2		ppb v/v		102	68 - 128
Ethylbenzene	10.0	9.61		ppb v/v		96	68 - 128
m,p-Xylene	20.0	19.9		ppb v/v		100	68 - 128
Xylene, o-	10.0	9.93		ppb v/v		99	67 - 127
Styrene	10.0	10.6		ppb v/v		106	68 - 128
Bromoform	10.0	13.0		ppb v/v		130	34 - 170
Cumene	10.0	10.2		ppb v/v		102	67 - 127

TestAmerica Burlington

QC Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-119837/5

Matrix: Air

Analysis Batch: 119837

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2,2-Tetrachloroethane	10.0	9.18		ppb v/v		92	69 - 129
n-Propylbenzene	10.0	9.76		ppb v/v		98	67 - 127
4-Ethyltoluene	10.0	10.9		ppb v/v		109	69 - 129
1,3,5-Trimethylbenzene	10.0	10.4		ppb v/v		104	65 - 125
2-Chlorotoluene	10.0	9.81		ppb v/v		98	67 - 127
tert-Butylbenzene	10.0	10.7		ppb v/v		107	63 - 125
1,2,4-Trimethylbenzene	10.0	10.6		ppb v/v		106	65 - 125
sec-Butylbenzene	10.0	10.3		ppb v/v		103	66 - 126
4-Isopropyltoluene	10.0	11.3		ppb v/v		113	67 - 129
1,3-Dichlorobenzene	10.0	11.2		ppb v/v		112	67 - 127
1,4-Dichlorobenzene	10.0	11.4		ppb v/v		115	66 - 126
Benzyl chloride	10.0	10.2		ppb v/v		102	54 - 135
n-Butylbenzene	10.0	10.4		ppb v/v		104	67 - 127
1,2-Dichlorobenzene	10.0	11.2		ppb v/v		112	67 - 127
1,2,4-Trichlorobenzene	10.0	11.5		ppb v/v		115	59 - 126
Hexachlorobutadiene	10.0	11.3		ppb v/v		113	62 - 130
Naphthalene	10.0	9.77		ppb v/v		98	50 - 121

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	49	49.5		ug/m3		100	68 - 128
Freon 22	35	32.5		ug/m3		92	64 - 128
1,2-Dichlorotetrafluoroethane	70	74.7		ug/m3		107	78 - 138
Chloromethane	21	17.2		ug/m3		83	57 - 126
n-Butane	24	20.6		ug/m3		87	56 - 130
Vinyl chloride	26	21.5		ug/m3		84	62 - 125
1,3-Butadiene	22	18.1		ug/m3		82	59 - 125
Bromomethane	39	36.5		ug/m3		94	68 - 128
Chloroethane	26	23.4		ug/m3		89	65 - 125
Bromoethene(Vinyl Bromide)	44	41.3		ug/m3		94	67 - 127
Trichlorofluoromethane	56	54.0		ug/m3		96	67 - 127
Freon TF	77	72.9		ug/m3		95	68 - 128
1,1-Dichloroethene	40	36.0		ug/m3		91	67 - 127
Acetone	24	22.1		ug/m3		93	64 - 136
Isopropyl alcohol	25	21.0		ug/m3		85	55 - 124
Carbon disulfide	31	33.1		ug/m3		106	81 - 141
3-Chloropropene	31	26.0		ug/m3		83	53 - 133
Methylene Chloride	35	29.9		ug/m3		86	62 - 122
tert-Butyl alcohol	30	29.8		ug/m3		98	64 - 124
Methyl tert-butyl ether	36	34.6		ug/m3		96	67 - 127
trans-1,2-Dichloroethene	40	38.0		ug/m3		96	72 - 132
n-Hexane	35	35.1		ug/m3		100	71 - 131
1,1-Dichloroethane	40	35.6		ug/m3		88	66 - 126
Methyl Ethyl Ketone	29	26.2		ug/m3		89	62 - 122
cis-1,2-Dichloroethene	40	37.1		ug/m3		94	67 - 127
Chloroform	49	40.4		ug/m3		83	69 - 129
Tetrahydrofuran	29	26.5		ug/m3		90	61 - 136
1,1,1-Trichloroethane	55	55.9		ug/m3		102	70 - 130
Cyclohexane	34	34.8		ug/m3		101	69 - 129

TestAmerica Burlington

QC Sample Results

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Method: TO-15 - Volatile Organic Compounds in Ambient Air (Continued)

Lab Sample ID: LCS 200-119837/5

Matrix: Air

Analysis Batch: 119837

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Carbon tetrachloride	63	71.3		ug/m3		113	62 - 143
2,2,4-Trimethylpentane	47	39.1		ug/m3		84	67 - 127
Benzene	32	27.6		ug/m3		86	67 - 127
1,2-Dichloroethane	40	35.9		ug/m3		89	67 - 132
n-Heptane	41	30.1		ug/m3		74	62 - 130
Trichloroethene	54	51.6		ug/m3		96	68 - 128
Methyl methacrylate	41	39.7		ug/m3		97	70 - 130
1,2-Dichloropropane	46	36.7		ug/m3		79	67 - 127
1,4-Dioxane	36	38.3		ug/m3		106	66 - 132
Bromodichloromethane	67	68.4		ug/m3		102	69 - 129
cis-1,3-Dichloropropene	45	43.9		ug/m3		97	70 - 130
methyl isobutyl ketone	41	34.8		ug/m3		85	62 - 130
Toluene	38	35.3		ug/m3		94	67 - 127
trans-1,3-Dichloropropene	45	44.4		ug/m3		98	69 - 129
1,1,2-Trichloroethane	55	48.0		ug/m3		88	69 - 129
Tetrachloroethene	68	74.3		ug/m3		110	70 - 130
Methyl Butyl Ketone (2-Hexanone)	41	33.9		ug/m3		83	61 - 127
Dibromochloromethane	85	93.3		ug/m3		110	66 - 130
1,2-Dibromoethane	77	77.6		ug/m3		101	70 - 130
Chlorobenzene	46	47.0		ug/m3		102	68 - 128
Ethylbenzene	43	41.7		ug/m3		96	68 - 128
m,p-Xylene	87	86.4		ug/m3		100	68 - 128
Xylene, o-	43	43.1		ug/m3		99	67 - 127
Styrene	43	45.1		ug/m3		106	68 - 128
Bromoform	100	135		ug/m3		130	34 - 170
Cumene	49	50.1		ug/m3		102	67 - 127
1,1,2,2-Tetrachloroethane	69	63.0		ug/m3		92	69 - 129
n-Propylbenzene	49	48.0		ug/m3		98	67 - 127
4-Ethyltoluene	49	53.6		ug/m3		109	69 - 129
1,3,5-Trimethylbenzene	49	51.1		ug/m3		104	65 - 125
2-Chlorotoluene	52	50.8		ug/m3		98	67 - 127
tert-Butylbenzene	55	58.8		ug/m3		107	63 - 125
1,2,4-Trimethylbenzene	49	52.2		ug/m3		106	65 - 125
sec-Butylbenzene	55	56.4		ug/m3		103	66 - 126
4-Isopropyltoluene	55	61.8		ug/m3		113	67 - 129
1,3-Dichlorobenzene	60	67.5		ug/m3		112	67 - 127
1,4-Dichlorobenzene	60	68.8		ug/m3		115	66 - 126
Benzyl chloride	52	52.8		ug/m3		102	54 - 135
n-Butylbenzene	55	57.0		ug/m3		104	67 - 127
1,2-Dichlorobenzene	60	67.5		ug/m3		112	67 - 127
1,2,4-Trichlorobenzene	74	85.6		ug/m3		115	59 - 126
Hexachlorobutadiene	110	121		ug/m3		113	62 - 130
Naphthalene	52	51.2		ug/m3		98	50 - 121

TestAmerica Burlington

QC Association Summary

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Air - GC/MS VOA

Analysis Batch: 119644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-39689-6	AA-1	Total/NA	Air	TO-15	
MB 200-119644/4	Method Blank	Total/NA	Air	TO-15	
LCS 200-119644/3	Lab Control Sample	Total/NA	Air	TO-15	

Analysis Batch: 119704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-39689-4	SV-4	Total/NA	Air	TO-15	
200-39689-5	SV-5	Total/NA	Air	TO-15	
MB 200-119704/5	Method Blank	Total/NA	Air	TO-15	
LCS 200-119704/4	Lab Control Sample	Total/NA	Air	TO-15	

Analysis Batch: 119760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-39689-1	SV-1	Total/NA	Air	TO-15	
200-39689-3	SV-3	Total/NA	Air	TO-15	
MB 200-119760/7	Method Blank	Total/NA	Air	TO-15	
LCS 200-119760/6	Lab Control Sample	Total/NA	Air	TO-15	

Analysis Batch: 119837

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
200-39689-2	SV-2	Total/NA	Air	TO-15	
MB 200-119837/4	Method Blank	Total/NA	Air	TO-15	
LCS 200-119837/5	Lab Control Sample	Total/NA	Air	TO-15	

Lab Chronicle

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Client Sample ID: SV-1

Date Collected: 08/08/17 14:26

Date Received: 08/11/17 10:30

Lab Sample ID: 200-39689-1

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		8	119760	08/15/17 17:08	K1P	TAL BUR

Client Sample ID: SV-2

Date Collected: 08/08/17 15:00

Date Received: 08/11/17 10:30

Lab Sample ID: 200-39689-2

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		13.1	119837	08/16/17 23:55	K1P	TAL BUR

Client Sample ID: SV-3

Date Collected: 08/09/17 12:20

Date Received: 08/11/17 10:30

Lab Sample ID: 200-39689-3

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		6	119760	08/15/17 18:01	K1P	TAL BUR

Client Sample ID: SV-4

Date Collected: 08/09/17 13:15

Date Received: 08/11/17 10:30

Lab Sample ID: 200-39689-4

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	119704	08/14/17 21:06	ERT	TAL BUR

Client Sample ID: SV-5

Date Collected: 08/09/17 12:30

Date Received: 08/11/17 10:30

Lab Sample ID: 200-39689-5

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		10	119704	08/14/17 21:57	ERT	TAL BUR

Client Sample ID: AA-1

Date Collected: 08/09/17 13:30

Date Received: 08/11/17 10:30

Lab Sample ID: 200-39689-6

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO-15		1	119644	08/12/17 06:18	K1P	TAL BUR

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

TestAmerica Burlington

Accreditation/Certification Summary

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Laboratory: TestAmerica Burlington

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New Jersey	NELAP	2	VT972	06-30-18

The following analytes are included in this report, but are not accredited/certified under this accreditation/certification:

Analysis Method	Prep Method	Matrix	Analyte
TO-15		Air	1,2-Dichloroethene, Total
TO-15		Air	4-Isopropyltoluene
TO-15		Air	Cumene
TO-15		Air	Freon 22
TO-15		Air	n-Butane
TO-15		Air	n-Butylbenzene
TO-15		Air	n-Propylbenzene
TO-15		Air	sec-Butylbenzene
TO-15		Air	tert-Butylbenzene

Method Summary

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Method	Method Description	Protocol	Laboratory
TO-15	Volatile Organic Compounds in Ambient Air	EPA	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL BUR = TestAmerica Burlington, 30 Community Drive, Suite 11, South Burlington, VT 05403, TEL (802)660-1990

Sample Summary

Client: AKRF Inc
Project/Site: 200 Hamilton

TestAmerica Job ID: 200-39689-1
SDG: 200-39689-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
200-39689-1	SV-1	Air	08/08/17 14:26	08/11/17 10:30
200-39689-2	SV-2	Air	08/08/17 15:00	08/11/17 10:30
200-39689-3	SV-3	Air	08/09/17 12:20	08/11/17 10:30
200-39689-4	SV-4	Air	08/09/17 13:15	08/11/17 10:30
200-39689-5	SV-5	Air	08/09/17 12:30	08/11/17 10:30
200-39689-6	AA-1	Air	08/09/17 13:30	08/11/17 10:30

TestAmerica Burlington

30 Community Drive
Suite 11

South Burlington, VT 05403


phone 802-660-1990 fax 802-660-1919

Canister Samples Chain of Custody Record

TestAmerica Analytical Testing Corp. assumes no liability with respect to the collection and shipment of these samples.

Client Contact Information		Project Manager: <u>DELY KANN</u>		Samples Collected By: <u>E. Matthews / S. Sullivan</u>		1 of 1 COCs	
Company: <u>AKRF</u>		Phone: <u>914-922-2362</u>					
Address: <u>34 South Broadway #401</u>		Email: <u>CKind@akrf.com</u>					
City/State/Zip: <u>WHITE PLAINS, NY, 10601</u>		Site Contact: <u>ELIZABETH MATTHEWS</u>					
Phone: <u>914-922-2362</u>		TA Contact:					
FAX:		Analysis Turnaround Time					
Project Name: <u>200 HANSTON</u>		Standard (Specify) <u>X</u>					
Site:		Rush (Specify)					
PO # <u>170029</u>							

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	ASTM D-1946					Other (Please specify in notes section)				
								MA-APH	EPA 3C	EPA 25C	Sample Type	Indoor Air		Ambient Air	Soil Gas	Landfill Gas	
SU-1	8/8/17	1225	1426	-30	-6	3575	4166	X									
SU-2	8/8/17	1300	1500	-29	-6	3125	2843	X									
SU-3	8/9/17	1025	1220	-27	-6	5188	4363	X									
SU-4	8/9/17	1120	1315	-29	-5	2522	2644	X									
SU-5	8/9/17	1234	1230	-30	-8	4187	5609	X									
AA-1	8/9/17	1140	1330	-28	-5	5145	4929	X									



200-39589 Chain of Custody

Temperature (Fahrenheit)	
Interior	Ambient
Start	
Stop	

Pressure (Inches of Hg)	
Interior	Ambient
Start	
Stop	

Special Instructions/QC Requirements & Comments:

Samples Shipped by: <u>[Signature]</u>	Date/Time: <u>8/10/2017 0930</u>	Samples Received by: <u>V. Mary Matthews A Couriers</u>
Samples Relinquished by: <u>V. Mary Matthews A Couriers</u>	Date/Time: <u>8/10/2017 1115</u>	Received by: <u>[Signature]</u>
Relinquished by: <u>CC</u>	Date/Time: <u>8/10/17 1800</u>	Received by: <u>[Signature]</u>

ORIGIN ID: DUA (732) 549-3900
SHIP DATE: 10AUG17
ACTWGT: 33.60 LB
CAD: 0358159/CAFE3011
BILL RECIPIENT

TO SAMPLE CUSTODY
TEST AMERICA BURLINGTON
30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403

REF: (802) 655-1203
PG1

DEPT:

FedEx
Express



FRI - 11 AUG 3:00P
STANDARD OVERNIGHT

1 of 2
TRK# 6116 6280 6226
0201
MASTER

NC BTVA

05403
VT-US BTV



ORIGIN ID: DUA (732) 549-3900
SHIP DATE: 10AUG17
ACTWGT: 33.60 LB
CAD: 0358159/CAFE3011
BILL RECIPIENT

TO SAMPLE CUSTODY
TEST AMERICA BURLINGTON
30 COMMUNITY DRIVE
SUITE 11
SOUTH BURLINGTON VT 05403

REF: (802) 655-1203
PG1

DEPT:

FedEx
Express

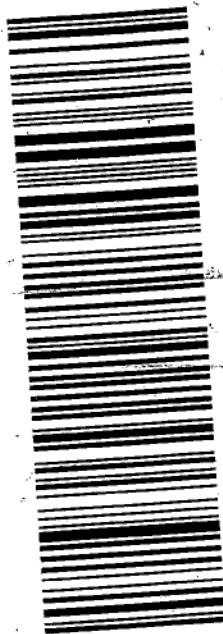


FRI - 11 AUG 3:00P
STANDARD OVERNIGHT

2 of 2
MPS# 6116 6280 6237
0263
Mstr# 6116 6280 6226

NC BTVA

05403
VT-US BTV



RT 77
FZ 77
NJ LB
CAFE3011

156297-455 RHTZ EXP 06/18

Login Sample Receipt Checklist

Client: AKRF Inc

Job Number: 200-39689-1

SDG Number: 200-39689-1

Login Number: 39689

List Number: 1

Creator: Lavigne, Scott M

List Source: TestAmerica Burlington

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	Not present
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.	N/A	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	N/A	Thermal preservation not required.
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.	N/A	
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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Canister Cleaning & Pre-Shipment Leak Test

¹ Batch Certification: The reading is taken on the "batch" canister and this value is used as the initial pressure for all canisters in the batch.

¹ Batch Certification: The reading is taken on the "batch" canister and

² Adjusted Initial Pressure = Initial Pressure + (Initial BP - Final BP).

³ Difference = Final Pressure - Adjusted Initial Pressure. Acceptance Criteria: (1) The difference must be less than or equal to + 0.5. (2) Pressure readings must be at least 24 hours apart.

If time frame was not met, the PM must authorize shipment of canister

Clean Callister Certification Analysis & Authorization of Release to Inventory	
Test Method: <input checked="" type="checkbox"/> T015 Routine - T015 II - NIDEP-II T015	Inventory: <input type="checkbox"/> cvo

Can ID	Date	Sequence
--------	------	----------

200-37617-A-1
4717

Bottle: Summa Canister 6L
Sampled: 3/3/2017 12:00 AM 200-1020289

Loc: 200

37617

#1

A

Comments:

Inventory Level 1: Individual Canister Certification (TO15LL 0.01):

Inventory Level 2: Individual or Batch Certification (TO15 0.04 ppbv).

Inventory Level 3: Individual or Batch Certification (TO15 0.2 ppbv).

Inventory Level 4: Individual or Batch Certification (TO15LLNJ 0.08 ppbv).

Inventory Level Limited: Canisters may only be used for certain projects.

FAI023:04.13.16:9
TestAmerica Burling

Canister Cleaning & Pre-Shipment Leak Test														
System ID			# Cycles		Cleaning Date			Technician		Canister Sizes			Certification Type	
Top Rack			20		7/13/2017			EJE		1L (6L)			Individual	
Port	Can ID	Initial ¹ (psia)	Final (psia)	Diff. ³	Final (¹ Hg)	Initial Reading			Final Reading			Tech:	Temp:	
						Gauge:	Date:	Time:	Gauge:	Date:	Time:			
1	2883	104	105	.01	-29.3	625	7/11.17	12:00	625	7/22.17	12:00	SL	23	
2	5159	107	108	.04	-29.5	625	7/14.17	12:30	625	7/22.17	11:00	CE	22	
3	4550		119	.15	-29.5									
4	4283		106	.02	-29.4									
5	4829		104	.02	-29.4									
6	2644		105	.01	-29.4									
7	2843		111	.17	-29.4									
8	2632		105	.01	-29.5									
9	4564		104	.02	-29.4									
10	5035		104	.02	-29.4									
11	2784		104	.02	-29.4									
12	4166		107	.03	-29.4									

³ Difference = Final Pressure - Initial Pressure . Acceptance Criteria: (1) The difference must be less than or equal to + 0.25psi. (2) Pressure readings must be at least 24 hours apart.

Date:

Authorization of Release to Inventory

Secondary Review

[illegible]

Comments:

1

1

1

200
295
5

FAI023:04.26.17:10
TestAmerica Burlington

200-39295-A-5
2883
Location: Air-Storage
Bottle: Summa Canister 6L
Sampled: 7/13/2017 12:00 AM 200-1053060



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Burlington</u>	Job No.: <u>200-37617-1</u>
SDG No.: _____	
Client Sample ID: <u>4717</u>	Lab Sample ID: <u>200-37617-1</u>
Matrix: <u>Air</u>	Lab File ID: <u>24194_13.d</u>
Analysis Method: <u>TO-15</u>	Date Collected: <u>03/03/2017 00:00</u>
Sample wt/vol: <u>1000 (mL)</u>	Date Analyzed: <u>03/06/2017 23:53</u>
Soil Aliquot Vol: _____	Dilution Factor: <u>0.2</u>
Soil Extract Vol.: _____	GC Column: <u>RTX-624</u> ID: <u>0.32 (mm)</u>
% Moisture: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>114642</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
115-07-1	Propylene	1.0	U	1.0	1.0
75-71-8	Dichlorodifluoromethane	0.10	U	0.10	0.10
75-45-6	Freon 22	0.10	U	0.10	0.10
76-14-2	1,2-Dichlorotetrafluoroethane	0.040	U	0.040	0.040
74-87-3	Chloromethane	0.10	U	0.10	0.10
106-97-8	n-Butane	0.10	U	0.10	0.10
75-01-4	Vinyl chloride	0.040	U	0.040	0.040
106-99-0	1,3-Butadiene	0.040	U	0.040	0.040
74-83-9	Bromomethane	0.040	U	0.040	0.040
75-00-3	Chloroethane	0.10	U	0.10	0.10
593-60-2	Bromoethene (Vinyl Bromide)	0.040	U	0.040	0.040
75-69-4	Trichlorofluoromethane	0.040	U	0.040	0.040
64-17-5	Ethanol	1.0	U	1.0	1.0
76-13-1	Freon TF	0.040	U	0.040	0.040
75-35-4	1,1-Dichloroethene	0.040	U	0.040	0.040
67-64-1	Acetone	1.0	U	1.0	1.0
67-63-0	Isopropyl alcohol	1.0	U	1.0	1.0
75-15-0	Carbon disulfide	0.10	U	0.10	0.10
107-05-1	3-Chloropropene	0.10	U	0.10	0.10
75-09-2	Methylene Chloride	0.10	U	0.10	0.10
75-65-0	tert-Butyl alcohol	1.0	U	1.0	1.0
1634-04-4	Methyl tert-butyl ether	0.040	U	0.040	0.040
156-60-5	trans-1,2-Dichloroethene	0.040	U	0.040	0.040
110-54-3	n-Hexane	0.040	U	0.040	0.040
75-34-3	1,1-Dichloroethane	0.040	U	0.040	0.040
108-05-4	Vinyl acetate	1.0	U	1.0	1.0
141-78-6	Ethyl acetate	1.0	U	1.0	1.0
78-93-3	Methyl Ethyl Ketone	0.10	U	0.10	0.10
156-59-2	cis-1,2-Dichloroethene	0.040	U	0.040	0.040
540-59-0	1,2-Dichloroethene, Total	0.080	U	0.080	0.080
67-66-3	Chloroform	0.040	U	0.040	0.040
109-99-9	Tetrahydrofuran	1.0	U	1.0	1.0
71-55-6	1,1,1-Trichloroethane	0.040	U	0.040	0.040
110-82-7	Cyclohexane	0.040	U	0.040	0.040
56-23-5	Carbon tetrachloride	0.040	U	0.040	0.040
540-84-1	2,2,4-Trimethylpentane	0.040	U	0.040	0.040

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-37617-1
 SDG No.: _____
 Client Sample ID: 4717 Lab Sample ID: 200-37617-1
 Matrix: Air Lab File ID: 24194_13.d
 Analysis Method: TO-15 Date Collected: 03/03/2017 00:00
 Sample wt/vol: 1000 (mL) Date Analyzed: 03/06/2017 23:53
 Soil Aliquot Vol: _____ Dilution Factor: 0.2
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 114642 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
71-43-2	Benzene	0.040	U	0.040	0.040
107-06-2	1,2-Dichloroethane	0.040	U	0.040	0.040
142-82-5	n-Heptane	0.040	U	0.040	0.040
79-01-6	Trichloroethene	0.040	U	0.040	0.040
80-62-6	Methyl methacrylate	0.10	U	0.10	0.10
78-87-5	1,2-Dichloropropane	0.040	U	0.040	0.040
123-91-1	1,4-Dioxane	1.0	U	1.0	1.0
75-27-4	Bromodichloromethane	0.040	U	0.040	0.040
10061-01-5	cis-1,3-Dichloropropene	0.040	U	0.040	0.040
108-10-1	methyl isobutyl ketone	0.10	U	0.10	0.10
108-88-3	Toluene	0.040	U	0.040	0.040
10061-02-6	trans-1,3-Dichloropropene	0.040	U	0.040	0.040
79-00-5	1,1,2-Trichloroethane	0.040	U	0.040	0.040
127-18-4	Tetrachloroethene	0.040	U	0.040	0.040
591-78-6	Methyl Butyl Ketone (2-Hexanone)	0.10	U	0.10	0.10
124-48-1	Dibromochloromethane	0.040	U	0.040	0.040
106-93-4	1,2-Dibromoethane	0.040	U	0.040	0.040
108-90-7	Chlorobenzene	0.040	U	0.040	0.040
100-41-4	Ethylbenzene	0.040	U	0.040	0.040
179601-23-1	m,p-Xylene	0.10	U	0.10	0.10
95-47-6	Xylene, o-	0.040	U	0.040	0.040
1330-20-7	Xylene (total)	0.14	U	0.14	0.14
100-42-5	Styrene	0.040	U	0.040	0.040
75-25-2	Bromoform	0.040	U	0.040	0.040
98-82-8	Cumene	0.040	U	0.040	0.040
79-34-5	1,1,2,2-Tetrachloroethane	0.040	U	0.040	0.040
103-65-1	n-Propylbenzene	0.040	U	0.040	0.040
622-96-8	4-Ethyltoluene	0.040	U	0.040	0.040
108-67-8	1,3,5-Trimethylbenzene	0.040	U	0.040	0.040
95-49-8	2-Chlorotoluene	0.040	U	0.040	0.040
98-06-6	tert-Butylbenzene	0.040	U	0.040	0.040
95-63-6	1,2,4-Trimethylbenzene	0.040	U	0.040	0.040
135-98-8	sec-Butylbenzene	0.040	U	0.040	0.040
99-87-6	4-Isopropyltoluene	0.040	U	0.040	0.040
541-73-1	1,3-Dichlorobenzene	0.040	U	0.040	0.040
106-46-7	1,4-Dichlorobenzene	0.040	U	0.040	0.040

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-37617-1
 SDG No.: _____
 Client Sample ID: 4717 Lab Sample ID: 200-37617-1
 Matrix: Air Lab File ID: 24194_13.d
 Analysis Method: TO-15 Date Collected: 03/03/2017 00:00
 Sample wt/vol: 1000 (mL) Date Analyzed: 03/06/2017 23:53
 Soil Aliquot Vol: _____ Dilution Factor: 0.2
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 114642 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
100-44-7	Benzyl chloride	0.040	U	0.040	0.040
104-51-8	n-Butylbenzene	0.040	U	0.040	0.040
95-50-1	1,2-Dichlorobenzene	0.040	U	0.040	0.040
120-82-1	1,2,4-Trichlorobenzene	0.10	U	0.10	0.10
87-68-3	Hexachlorobutadiene	0.040	U	0.040	0.040
91-20-3	Naphthalene	0.10	U	0.10	0.10

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\ChromNA\Burlington\ChromData\CHW.i\20170306-24194.b\24194_13.d
 Lims ID: 200-37617-A-1
 Client ID: 4717
 Sample Type: Client
 Inject. Date: 06-Mar-2017 23:53:30 ALS Bottle#: 11 Worklist Smp#: 11
 Purge Vol: 200.000 mL Dil. Factor: 0.2000
 Sample Info: 200-0024194-011
 Misc. Info.: 37633-01
 Operator ID: pad Instrument ID: CHW.i
 Method: \\ChromNA\Burlington\ChromData\CHW.i\20170306-24194.b\TO15_MasterMethod_(v1).m
 Limit Group: AI_TO15_ICAL
 Last Update: 07-Mar-2017 11:51:39 Calib Date: 18-Feb-2017 22:37:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Burlington\ChromData\CHW.i\20170218-23991.b\23991_13.d
 Column 1 : RTX-624 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK004

First Level Reviewer: guazzonig

Date: 07-Mar-2017 11:43:18

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
1 Propene	41		5.281				ND	
2 Dichlorodifluoromethane	85		5.393				ND	
3 Chlorodifluoromethane	51		5.474				ND	
4 1,2-Dichloro-1,1,2,2-tetra	85		5.800				ND	
5 Chloromethane	50		5.993				ND	
6 Butane	43		6.265				ND	
7 Vinyl chloride	62		6.319				ND	
8 Butadiene	54		6.415				ND	
10 Bromomethane	94		7.212				ND	
11 Chloroethane	64		7.458				ND	
13 Vinyl bromide	106		7.870				ND	
14 Trichlorofluoromethane	101		7.967				ND	
17 Ethanol	45		8.464				ND	
20 1,1,2-Trichloro-1,2,2-trif	101		8.967				ND	
21 1,1-Dichloroethene	96		9.037				ND	
22 Acetone	43		9.229				ND	
24 Isopropyl alcohol	45		9.427				ND	
23 Carbon disulfide	76		9.432				ND	
25 3-Chloro-1-propene	41		9.737				ND	
27 Methylene Chloride	49		9.994				ND	
28 2-Methyl-2-propanol	59		10.112				ND	
S 30 1,2-Dichloroethene, Total	61		10.200				ND	
29 Methyl tert-butyl ether	73		10.337				ND	
31 trans-1,2-Dichloroethene	61		10.395				ND	
33 Hexane	57		10.727				ND	
34 1,1-Dichloroethane	63		11.198				ND	
35 Vinyl acetate	43		11.225				ND	
37 cis-1,2-Dichloroethene	96		12.209				ND	
38 2-Butanone (MEK)	72		12.225				ND	
39 Ethyl acetate	88		12.230				ND	
41 Tetrahydrofuran	42		12.632				ND	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 40 Chlorobromomethane	128	12.632	12.637	-0.005	77	250614	10.0	
42 Chloroform	83		12.728				ND	
43 Cyclohexane	84		12.995				ND	
44 1,1,1-Trichloroethane	97		13.006				ND	
45 Carbon tetrachloride	117		13.236				ND	
46 Isooctane	57		13.589				ND	
47 Benzene	78		13.653				ND	
48 1,2-Dichloroethane	62		13.798				ND	
49 n-Heptane	43		13.905				ND	
* 50 1,4-Difluorobenzene	114	14.343	14.349	-0.006	92	1154601	10.0	
53 Trichloroethene	95		14.777				ND	
54 1,2-Dichloropropane	63		15.274				ND	
55 Methyl methacrylate	69		15.349				ND	
56 1,4-Dioxane	88		15.440				ND	
57 Dibromomethane	174		15.504				ND	
58 Dichlorobromomethane	83		15.734				ND	
60 cis-1,3-Dichloropropene	75		16.564				ND	
61 4-Methyl-2-pentanone (MIBK)	43		16.794				ND	
65 Toluene	92		17.115				ND	
66 trans-1,3-Dichloropropene	75		17.634				ND	
67 1,1,2-Trichloroethane	83		17.992				ND	
68 Tetrachloroethene	166		18.110				ND	
69 2-Hexanone	43		18.377				ND	
71 Chlorodibromomethane	129		18.720				ND	
72 Ethylene Dibromide	107		18.998				ND	
* 74 Chlorobenzene-d5	117	19.838	19.838	0.000	82	997265	10.0	
75 Chlorobenzene	112		19.896				ND	
76 Ethylbenzene	91		20.020				ND	
S 73 Xylenes, Total	106		20.100				ND	
78 m-Xylene & p-Xylene	106		20.255				ND	
79 o-Xylene	106		20.999				ND	
80 Styrene	104		21.041				ND	
81 Bromoform	173		21.426				ND	
82 Isopropylbenzene	105		21.587				ND	
84 1,1,2,2-Tetrachloroethane	83		22.175				ND	
85 N-Propylbenzene	91		22.250				ND	
88 4-Ethyltoluene	105		22.422				ND	
89 2-Chlorotoluene	91		22.448				ND	
90 1,3,5-Trimethylbenzene	105		22.523				ND	
92 tert-Butylbenzene	119		22.989				ND	
93 1,2,4-Trimethylbenzene	105		23.080				ND	
94 sec-Butylbenzene	105		23.310				ND	
95 4-Isopropyltoluene	119		23.508				ND	
96 1,3-Dichlorobenzene	146		23.556				ND	
97 1,4-Dichlorobenzene	146		23.700				ND	
98 Benzyl chloride	91		23.903				ND	
100 n-Butylbenzene	91		24.117				ND	
101 1,2-Dichlorobenzene	146		24.278				ND	
103 1,2,4-Trichlorobenzene	180		27.022				ND	
104 Hexachlorobutadiene	225		27.220				ND	
105 Naphthalene	128		27.579				ND	

Reagents:

ATTO15WISs_00004

Amount Added: 20.00

Units: mL

Run Reagent

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

TestAmerica Burlington

Data File: \\ChromNA\Burlington\ChromData\CHW.i\20170306-24194.b\24194_13.d

Injection Date: 06-Mar-2017 23:53:30

Instrument ID: CHW.i

Operator ID: pad

Lims ID: 200-37617-A-1

Lab Sample ID: 200-37617-1

Worklist Smp#: 11

Client ID: 4717

Purge Vol: 200.000 mL

Dil. Factor: 0.2000

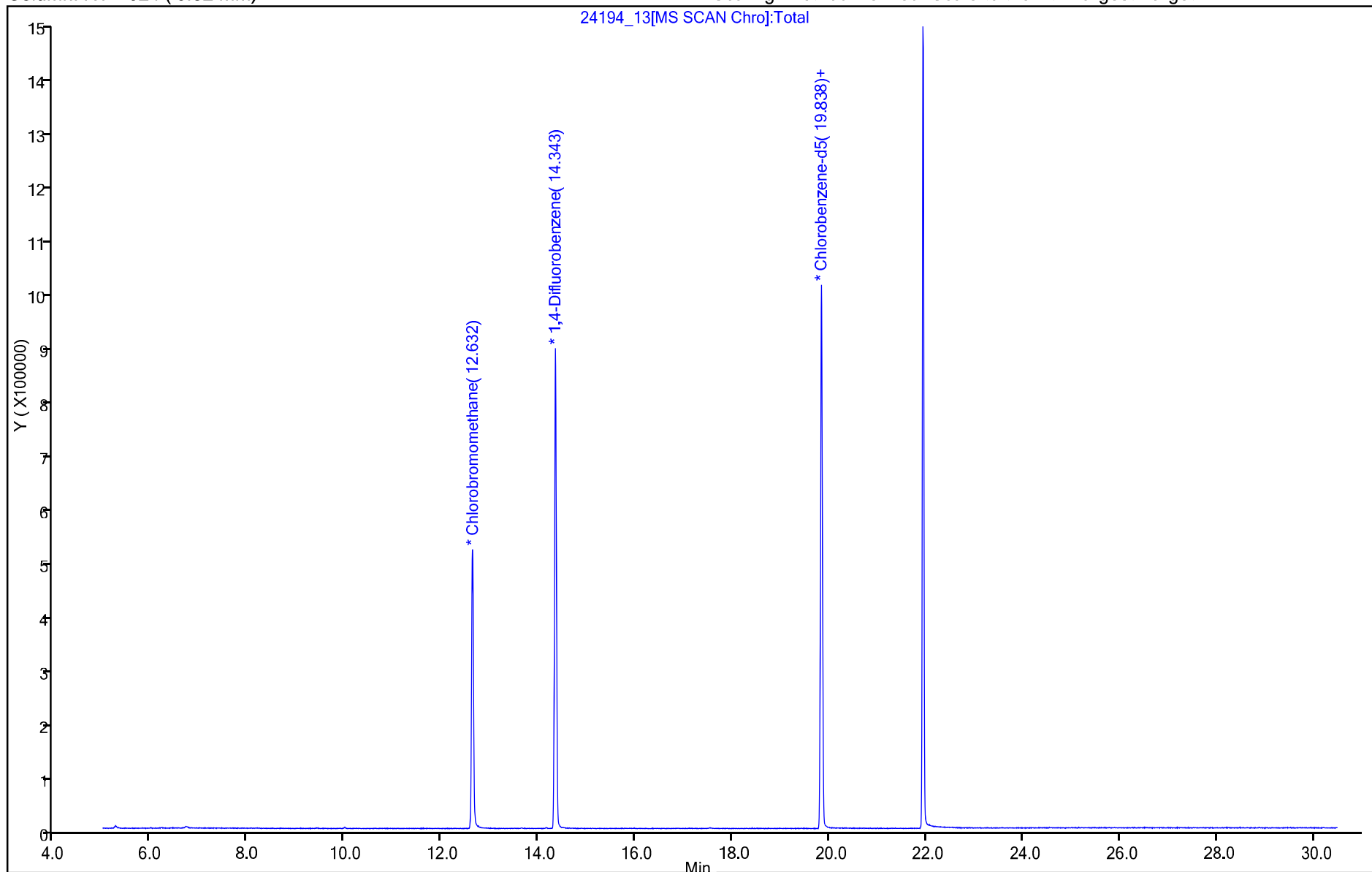
ALS Bottle#: 11

Method: TO15_MasterMethod_(v1)

Limit Group: AI_TO15_ICAL

Column: RTX-624 (0.32 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Burlington</u>	Job No.: <u>200-37637-1</u>
SDG No.: _____	
Client Sample ID: <u>3614</u>	Lab Sample ID: <u>200-37637-1</u>
Matrix: <u>Air</u>	Lab File ID: <u>24212_05.D</u>
Analysis Method: <u>TO-15</u>	Date Collected: <u>03/06/2017 00:00</u>
Sample wt/vol: <u>1000 (mL)</u>	Date Analyzed: <u>03/07/2017 15:37</u>
Soil Aliquot Vol: _____	Dilution Factor: <u>0.2</u>
Soil Extract Vol.: _____	GC Column: <u>RTX-624</u> ID: <u>0.32 (mm)</u>
% Moisture: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>114688</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
115-07-1	Propylene	1.0	U	1.0	1.0
75-71-8	Dichlorodifluoromethane	0.10	U	0.10	0.10
75-45-6	Freon 22	0.10	U	0.10	0.10
76-14-2	1,2-Dichlorotetrafluoroethane	0.040	U	0.040	0.040
74-87-3	Chloromethane	0.10	U	0.10	0.10
106-97-8	n-Butane	0.10	U	0.10	0.10
75-01-4	Vinyl chloride	0.040	U	0.040	0.040
106-99-0	1,3-Butadiene	0.040	U	0.040	0.040
74-83-9	Bromomethane	0.040	U	0.040	0.040
75-00-3	Chloroethane	0.10	U	0.10	0.10
593-60-2	Bromoethene (Vinyl Bromide)	0.040	U	0.040	0.040
75-69-4	Trichlorofluoromethane	0.040	U	0.040	0.040
64-17-5	Ethanol	1.0	U	1.0	1.0
76-13-1	Freon TF	0.040	U	0.040	0.040
75-35-4	1,1-Dichloroethene	0.040	U	0.040	0.040
67-64-1	Acetone	1.0	U	1.0	1.0
67-63-0	Isopropyl alcohol	1.0	U	1.0	1.0
75-15-0	Carbon disulfide	0.10	U	0.10	0.10
107-05-1	3-Chloropropene	0.10	U	0.10	0.10
75-09-2	Methylene Chloride	0.10	U	0.10	0.10
75-65-0	tert-Butyl alcohol	1.0	U	1.0	1.0
1634-04-4	Methyl tert-butyl ether	0.040	U	0.040	0.040
156-60-5	trans-1,2-Dichloroethene	0.040	U	0.040	0.040
110-54-3	n-Hexane	0.040	U	0.040	0.040
75-34-3	1,1-Dichloroethane	0.040	U	0.040	0.040
108-05-4	Vinyl acetate	1.0	U	1.0	1.0
141-78-6	Ethyl acetate	1.0	U	1.0	1.0
78-93-3	Methyl Ethyl Ketone	0.10	U	0.10	0.10
156-59-2	cis-1,2-Dichloroethene	0.040	U	0.040	0.040
540-59-0	1,2-Dichloroethene, Total	0.080	U	0.080	0.080
67-66-3	Chloroform	0.040	U	0.040	0.040
109-99-9	Tetrahydrofuran	1.0	U	1.0	1.0
71-55-6	1,1,1-Trichloroethane	0.040	U	0.040	0.040
110-82-7	Cyclohexane	0.040	U	0.040	0.040
56-23-5	Carbon tetrachloride	0.040	U	0.040	0.040
540-84-1	2,2,4-Trimethylpentane	0.040	U	0.040	0.040

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Burlington</u>	Job No.: <u>200-37637-1</u>
SDG No.: _____	
Client Sample ID: <u>3614</u>	Lab Sample ID: <u>200-37637-1</u>
Matrix: <u>Air</u>	Lab File ID: <u>24212_05.D</u>
Analysis Method: <u>TO-15</u>	Date Collected: <u>03/06/2017 00:00</u>
Sample wt/vol: <u>1000 (mL)</u>	Date Analyzed: <u>03/07/2017 15:37</u>
Soil Aliquot Vol: _____	Dilution Factor: <u>0.2</u>
Soil Extract Vol.: _____	GC Column: <u>RTX-624</u> ID: <u>0.32 (mm)</u>
% Moisture: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>114688</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
71-43-2	Benzene	0.040	U	0.040	0.040
107-06-2	1,2-Dichloroethane	0.040	U	0.040	0.040
142-82-5	n-Heptane	0.040	U	0.040	0.040
79-01-6	Trichloroethene	0.040	U	0.040	0.040
80-62-6	Methyl methacrylate	0.10	U	0.10	0.10
78-87-5	1,2-Dichloropropane	0.040	U	0.040	0.040
123-91-1	1,4-Dioxane	1.0	U	1.0	1.0
75-27-4	Bromodichloromethane	0.040	U	0.040	0.040
10061-01-5	cis-1,3-Dichloropropene	0.040	U	0.040	0.040
108-10-1	methyl isobutyl ketone	0.10	U	0.10	0.10
108-88-3	Toluene	0.040	U	0.040	0.040
10061-02-6	trans-1,3-Dichloropropene	0.040	U	0.040	0.040
79-00-5	1,1,2-Trichloroethane	0.040	U	0.040	0.040
127-18-4	Tetrachloroethene	0.040	U	0.040	0.040
591-78-6	Methyl Butyl Ketone (2-Hexanone)	0.10	U	0.10	0.10
124-48-1	Dibromochloromethane	0.040	U	0.040	0.040
106-93-4	1,2-Dibromoethane	0.040	U	0.040	0.040
108-90-7	Chlorobenzene	0.040	U	0.040	0.040
100-41-4	Ethylbenzene	0.040	U	0.040	0.040
179601-23-1	m,p-Xylene	0.10	U	0.10	0.10
95-47-6	Xylene, o-	0.040	U	0.040	0.040
1330-20-7	Xylene (total)	0.14	U	0.14	0.14
100-42-5	Styrene	0.040	U	0.040	0.040
75-25-2	Bromoform	0.040	U	0.040	0.040
98-82-8	Cumene	0.040	U	0.040	0.040
79-34-5	1,1,2,2-Tetrachloroethane	0.040	U	0.040	0.040
103-65-1	n-Propylbenzene	0.040	U	0.040	0.040
622-96-8	4-Ethyltoluene	0.040	U	0.040	0.040
108-67-8	1,3,5-Trimethylbenzene	0.040	U	0.040	0.040
95-49-8	2-Chlorotoluene	0.040	U	0.040	0.040
98-06-6	tert-Butylbenzene	0.040	U	0.040	0.040
95-63-6	1,2,4-Trimethylbenzene	0.040	U	0.040	0.040
135-98-8	sec-Butylbenzene	0.040	U	0.040	0.040
99-87-6	4-Isopropyltoluene	0.040	U	0.040	0.040
541-73-1	1,3-Dichlorobenzene	0.040	U	0.040	0.040
106-46-7	1,4-Dichlorobenzene	0.040	U	0.040	0.040

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-37637-1
 SDG No.: _____
 Client Sample ID: 3614 Lab Sample ID: 200-37637-1
 Matrix: Air Lab File ID: 24212_05.D
 Analysis Method: TO-15 Date Collected: 03/06/2017 00:00
 Sample wt/vol: 1000 (mL) Date Analyzed: 03/07/2017 15:37
 Soil Aliquot Vol: _____ Dilution Factor: 0.2
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 114688 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
100-44-7	Benzyl chloride	0.040	U	0.040	0.040
104-51-8	n-Butylbenzene	0.040	U	0.040	0.040
95-50-1	1,2-Dichlorobenzene	0.040	U	0.040	0.040
120-82-1	1,2,4-Trichlorobenzene	0.10	U	0.10	0.10
87-68-3	Hexachlorobutadiene	0.040	U	0.040	0.040
91-20-3	Naphthalene	0.10	U	0.10	0.10

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\ChromNA\Burlington\ChromData\CHX.i\20170307-24212.b\24212_05.D
 Lims ID: 200-37637-A-1
 Client ID: 3614
 Sample Type: Client
 Inject. Date: 07-Mar-2017 15:37:30 ALS Bottle#: 4 Worklist Smp#: 5
 Purge Vol: 200.000 mL Dil. Factor: 0.2000
 Sample Info: 200-0024212-005
 Misc. Info.: 37637-01
 Operator ID: ggg Instrument ID: CHX.i
 Method: \\ChromNA\Burlington\ChromData\CHX.i\20170307-24212.b\TO15_MasterMethod_X.m.m
 Limit Group: AI_TO15_ICAL
 Last Update: 08-Mar-2017 14:02:00 Calib Date: 19-Feb-2017 19:03:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Burlington\ChromData\CHX.i\20170219-23993.b\23993_11.D
 Column 1 : RTX-624 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK016

First Level Reviewer: daiglep

Date: 09-Mar-2017 10:23:16

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
1 Propene	41		3.065				ND	
2 Dichlorodifluoromethane	85		3.135				ND	
3 Chlorodifluoromethane	51		3.183				ND	
4 1,2-Dichloro-1,1,2,2-tetra	85		3.386				ND	
5 Chloromethane	50		3.520				ND	
6 Butane	43		3.707				ND	
7 Vinyl chloride	62		3.750				ND	
8 Butadiene	54		3.820				ND	
10 Bromomethane	94		4.472				ND	
11 Chloroethane	64		4.692				ND	
13 Vinyl bromide	106		5.066				ND	
14 Trichlorofluoromethane	101		5.152				ND	
17 Ethanol	45	5.804	5.762	0.042	94	1097	0.1524	
20 1,1,2-Trichloro-1,2,2-trif	101		6.184				ND	
21 1,1-Dichloroethene	96		6.243				ND	
22 Acetone	43		6.516				ND	
23 Carbon disulfide	76		6.628				ND	
24 Isopropyl alcohol	45	6.890	6.826	0.064	97	1922	0.0764	
25 3-Chloro-1-propene	41		7.019				ND	
27 Methylene Chloride	49		7.318				ND	
28 2-Methyl-2-propanol	59		7.607				ND	
29 Methyl tert-butyl ether	73		7.746				ND	
31 trans-1,2-Dichloroethene	61		7.752				ND	
33 Hexane	57		8.121				ND	
34 1,1-Dichloroethane	63		8.645				ND	
35 Vinyl acetate	43		8.731				ND	
S 30 1,2-Dichloroethene, Total	61		9.665				ND	
37 cis-1,2-Dichloroethene	96		9.785				ND	
38 2-Butanone (MEK)	72		9.886				ND	
39 Ethyl acetate	88		9.913				ND	
* 40 Chlorobromomethane	128	10.271	10.277	-0.006	90	188297	10.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
41 Tetrahydrofuran	42		10.325				ND	
42 Chloroform	83		10.410				ND	
43 Cyclohexane	84		10.646				ND	
44 1,1,1-Trichloroethane	97		10.694				ND	
45 Carbon tetrachloride	117		10.951				ND	
46 Isooctane	57		11.400				ND	
47 Benzene	78		11.459				ND	
48 1,2-Dichloroethane	62		11.668				ND	
49 n-Heptane	43		11.817				ND	
* 50 1,4-Difluorobenzene	114	12.363	12.368	-0.005	94	1043006	10.0	
53 Trichloroethene	95		12.855				ND	
54 1,2-Dichloropropane	63		13.465				ND	
55 Methyl methacrylate	69		13.658				ND	
57 Dibromomethane	174		13.733				ND	
56 1,4-Dioxane	88		13.738				ND	
58 Dichlorobromomethane	83		14.038				ND	
60 cis-1,3-Dichloropropene	75		15.022				ND	
61 4-Methyl-2-pentanone (MIBK)	43		15.364				ND	
65 Toluene	92		15.632				ND	
66 trans-1,3-Dichloropropene	75		16.279				ND	
67 1,1,2-Trichloroethane	83		16.675				ND	
68 Tetrachloroethene	166		16.755				ND	
69 2-Hexanone	43		17.183				ND	
71 Chlorodibromomethane	129		17.467				ND	
72 Ethylene Dibromide	107		17.756				ND	
* 74 Chlorobenzene-d5	117	18.697	18.697	0.000	86	935896	10.0	
75 Chlorobenzene	112		18.756				ND	
76 Ethylbenzene	91		18.922				ND	
78 m-Xylene & p-Xylene	106		19.189				ND	
S 73 Xylenes, Total	106		19.600				ND	
79 o-Xylene	106		20.088				ND	
80 Styrene	104		20.147				ND	
81 Bromoform	173		20.607				ND	
82 Isopropylbenzene	105		20.832				ND	
84 1,1,2,2-Tetrachloroethane	83		21.549				ND	
85 N-Propylbenzene	91		21.607				ND	
88 4-Ethyltoluene	105		21.811				ND	
89 2-Chlorotoluene	91		21.816				ND	
90 1,3,5-Trimethylbenzene	105		21.928				ND	
92 tert-Butylbenzene	119		22.442				ND	
93 1,2,4-Trimethylbenzene	105		22.544				ND	
94 sec-Butylbenzene	105		22.784				ND	
95 4-Isopropyltoluene	119		22.998				ND	
96 1,3-Dichlorobenzene	146		23.020				ND	
97 1,4-Dichlorobenzene	146		23.164				ND	
98 Benzyl chloride	91		23.378				ND	
100 n-Butylbenzene	91		23.592				ND	
101 1,2-Dichlorobenzene	146		23.715				ND	
103 1,2,4-Trichlorobenzene	180		26.310				ND	
104 Hexachlorobutadiene	225		26.497				ND	
105 Naphthalene	128		26.818				ND	

Reagents:

ATTO15XISs_00002

Amount Added: 20.00

Units: mL

Run Reagent

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

TestAmerica Burlington

Data File: \\ChromNA\Burlington\ChromData\CHX.i\20170307-24212.b\24212_05.D

Injection Date: 07-Mar-2017 15:37:30

Instrument ID: CHX.i

Operator ID: ggg

Lims ID: 200-37637-A-1

Lab Sample ID: 200-37637-1

Worklist Smp#: 5

Client ID: 3614

Purge Vol: 200.000 mL

Dil. Factor: 0.2000

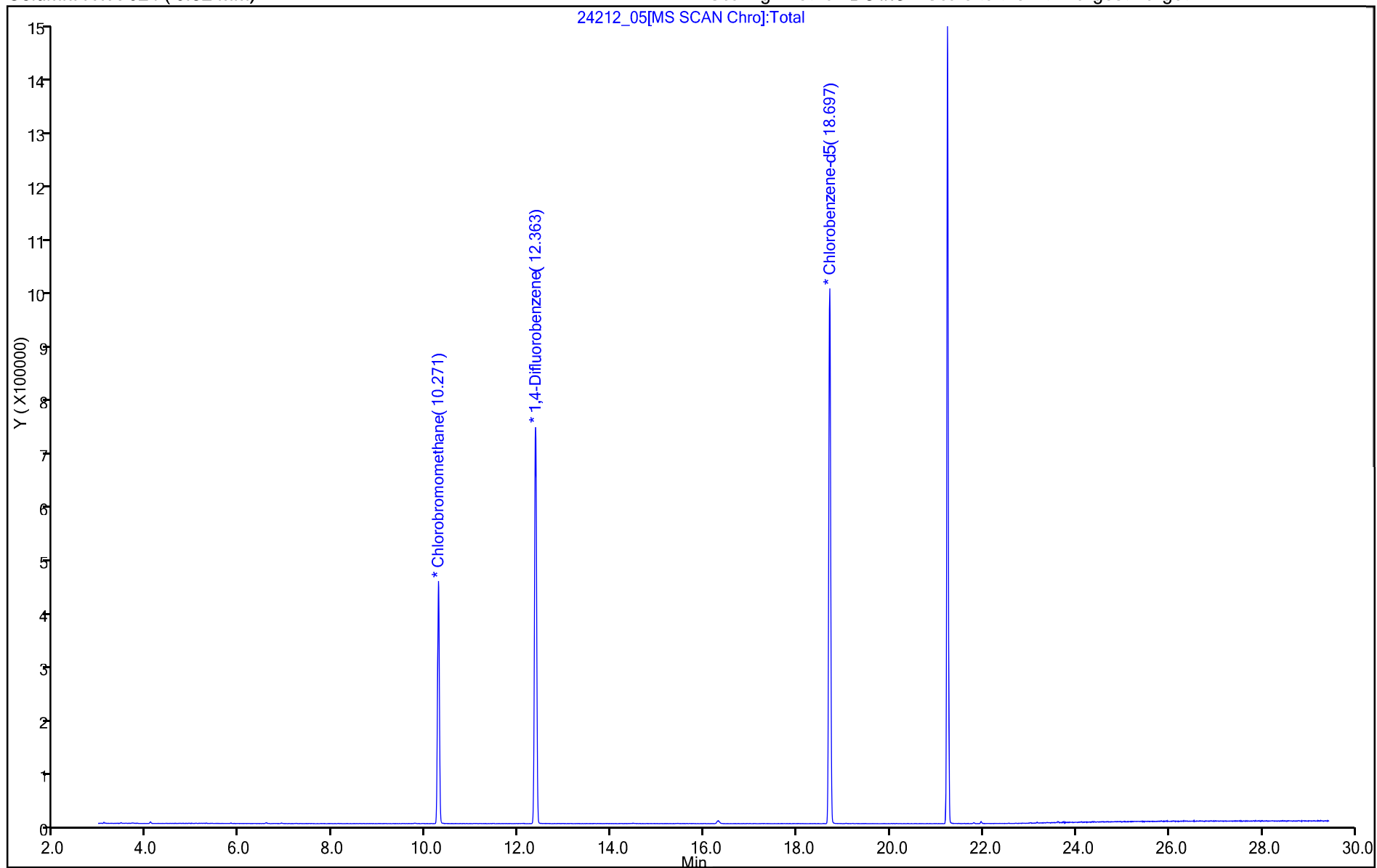
ALS Bottle#: 4

Method: TO15_MasterMethod_X.m

Limit Group: AI_TO15_ICAL

Column: RTX-624 (0.32 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-39295-1
 SDG No.: _____
 Client Sample ID: 2883 Lab Sample ID: 200-39295-5
 Matrix: Air Lab File ID: 25955-06.d
 Analysis Method: TO-15 Date Collected: 07/13/2017 00:00
 Sample wt/vol: 1000 (mL) Date Analyzed: 07/18/2017 18:49
 Soil Aliquot Vol: _____ Dilution Factor: 0.2
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 118667 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
115-07-1	Propylene	1.0	U	1.0	1.0
75-71-8	Dichlorodifluoromethane	0.10	U	0.10	0.10
75-45-6	Freon 22	0.10	U	0.10	0.10
76-14-2	1,2-Dichlorotetrafluoroethane	0.040	U	0.040	0.040
74-87-3	Chloromethane	0.10	U	0.10	0.10
106-97-8	n-Butane	0.10	U	0.10	0.10
75-01-4	Vinyl chloride	0.040	U	0.040	0.040
106-99-0	1,3-Butadiene	0.040	U	0.040	0.040
74-83-9	Bromomethane	0.040	U	0.040	0.040
75-00-3	Chloroethane	0.10	U	0.10	0.10
593-60-2	Bromoethene (Vinyl Bromide)	0.040	U	0.040	0.040
75-69-4	Trichlorofluoromethane	0.040	U	0.040	0.040
64-17-5	Ethanol	1.0	U	1.0	1.0
76-13-1	Freon TF	0.040	U	0.040	0.040
75-35-4	1,1-Dichloroethene	0.040	U	0.040	0.040
67-64-1	Acetone	1.0	U	1.0	1.0
67-63-0	Isopropyl alcohol	1.0	U	1.0	1.0
75-15-0	Carbon disulfide	0.10	U	0.10	0.10
107-05-1	3-Chloropropene	0.10	U	0.10	0.10
75-09-2	Methylene Chloride	0.10	U	0.10	0.10
75-65-0	tert-Butyl alcohol	1.0	U	1.0	1.0
1634-04-4	Methyl tert-butyl ether	0.040	U	0.040	0.040
156-60-5	trans-1,2-Dichloroethene	0.040	U	0.040	0.040
110-54-3	n-Hexane	0.040	U *	0.040	0.040
75-34-3	1,1-Dichloroethane	0.040	U	0.040	0.040
108-05-4	Vinyl acetate	1.0	U *	1.0	1.0
141-78-6	Ethyl acetate	1.0	U	1.0	1.0
78-93-3	Methyl Ethyl Ketone	0.10	U	0.10	0.10
156-59-2	cis-1,2-Dichloroethene	0.040	U	0.040	0.040
540-59-0	1,2-Dichloroethene, Total	0.080	U	0.080	0.080
67-66-3	Chloroform	0.040	U	0.040	0.040
109-99-9	Tetrahydrofuran	1.0	U	1.0	1.0
71-55-6	1,1,1-Trichloroethane	0.040	U	0.040	0.040
110-82-7	Cyclohexane	0.040	U	0.040	0.040
56-23-5	Carbon tetrachloride	0.040	U	0.040	0.040
540-84-1	2,2,4-Trimethylpentane	0.040	U	0.040	0.040

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-39295-1
 SDG No.: _____
 Client Sample ID: 2883 Lab Sample ID: 200-39295-5
 Matrix: Air Lab File ID: 25955-06.d
 Analysis Method: TO-15 Date Collected: 07/13/2017 00:00
 Sample wt/vol: 1000 (mL) Date Analyzed: 07/18/2017 18:49
 Soil Aliquot Vol: _____ Dilution Factor: 0.2
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 118667 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
71-43-2	Benzene	0.040	U	0.040	0.040
107-06-2	1,2-Dichloroethane	0.040	U	0.040	0.040
142-82-5	n-Heptane	0.040	U	0.040	0.040
79-01-6	Trichloroethene	0.040	U	0.040	0.040
80-62-6	Methyl methacrylate	0.10	U	0.10	0.10
78-87-5	1,2-Dichloropropane	0.040	U	0.040	0.040
123-91-1	1,4-Dioxane	1.0	U	1.0	1.0
75-27-4	Bromodichloromethane	0.040	U	0.040	0.040
10061-01-5	cis-1,3-Dichloropropene	0.040	U	0.040	0.040
108-10-1	methyl isobutyl ketone	0.10	U	0.10	0.10
108-88-3	Toluene	0.040	U	0.040	0.040
10061-02-6	trans-1,3-Dichloropropene	0.040	U	0.040	0.040
79-00-5	1,1,2-Trichloroethane	0.040	U	0.040	0.040
127-18-4	Tetrachloroethene	0.040	U	0.040	0.040
591-78-6	Methyl Butyl Ketone (2-Hexanone)	0.10	U	0.10	0.10
124-48-1	Dibromochloromethane	0.040	U	0.040	0.040
106-93-4	1,2-Dibromoethane	0.040	U	0.040	0.040
108-90-7	Chlorobenzene	0.040	U	0.040	0.040
100-41-4	Ethylbenzene	0.040	U	0.040	0.040
179601-23-1	m,p-Xylene	0.10	U	0.10	0.10
95-47-6	Xylene, o-	0.040	U	0.040	0.040
1330-20-7	Xylene (total)	0.14	U	0.14	0.14
100-42-5	Styrene	0.040	U	0.040	0.040
75-25-2	Bromoform	0.040	U	0.040	0.040
98-82-8	Cumene	0.040	U	0.040	0.040
79-34-5	1,1,2,2-Tetrachloroethane	0.040	U	0.040	0.040
103-65-1	n-Propylbenzene	0.040	U	0.040	0.040
622-96-8	4-Ethyltoluene	0.040	U	0.040	0.040
108-67-8	1,3,5-Trimethylbenzene	0.040	U	0.040	0.040
95-49-8	2-Chlorotoluene	0.040	U	0.040	0.040
98-06-6	tert-Butylbenzene	0.040	U	0.040	0.040
95-63-6	1,2,4-Trimethylbenzene	0.040	U	0.040	0.040
135-98-8	sec-Butylbenzene	0.040	U	0.040	0.040
99-87-6	4-Isopropyltoluene	0.040	U	0.040	0.040
541-73-1	1,3-Dichlorobenzene	0.040	U	0.040	0.040
106-46-7	1,4-Dichlorobenzene	0.040	U	0.040	0.040

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-39295-1
 SDG No.: _____
 Client Sample ID: 2883 Lab Sample ID: 200-39295-5
 Matrix: Air Lab File ID: 25955-06.d
 Analysis Method: TO-15 Date Collected: 07/13/2017 00:00
 Sample wt/vol: 1000 (mL) Date Analyzed: 07/18/2017 18:49
 Soil Aliquot Vol: _____ Dilution Factor: 0.2
 Soil Extract Vol.: _____ GC Column: RTX-624 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 118667 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	RL
100-44-7	Benzyl chloride	0.040	U	0.040	0.040
104-51-8	n-Butylbenzene	0.040	U	0.040	0.040
95-50-1	1,2-Dichlorobenzene	0.040	U	0.040	0.040
120-82-1	1,2,4-Trichlorobenzene	0.10	U	0.10	0.10
87-68-3	Hexachlorobutadiene	0.040	U	0.040	0.040
91-20-3	Naphthalene	0.10	U	0.10	0.10

TestAmerica Burlington
Target Compound Quantitation Report

Data File: \\ChromNA\Burlington\ChromData\CHW.i\20170718-25955.b\25955-06.d
 Lims ID: 200-39295-A-5
 Client ID: 2883
 Sample Type: Client
 Inject. Date: 18-Jul-2017 18:49:30 ALS Bottle#: 5 Worklist Smp#: 6
 Purge Vol: 200.000 mL Dil. Factor: 0.2000
 Sample Info: 200-0025955-06
 Operator ID: ert Instrument ID: CHW.i
 Method: \\ChromNA\Burlington\ChromData\CHW.i\20170718-25955.b\TO15_MasterMethod_(v1).m
 Limit Group: AI_TO15_ICAL
 Last Update: 20-Jul-2017 13:29:54 Calib Date: 19-Jun-2017 20:48:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Burlington\ChromData\CHW.i\20170619-25526.b\25526-10.d
 Column 1 : RTX-624 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK023

First Level Reviewer: puangmaleek

Date: 19-Jul-2017 13:40:29

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
1 Propene	41		5.249				ND	
2 Dichlorodifluoromethane	85		5.367				ND	
3 Chlorodifluoromethane	51		5.447				ND	
4 1,2-Dichloro-1,1,2,2-tetra	85		5.779				ND	
5 Chloromethane	50		5.971				ND	
6 Butane	43		6.244				ND	
7 Vinyl chloride	62		6.303				ND	
8 Butadiene	54		6.399				ND	
10 Bromomethane	94		7.196				ND	
11 Chloroethane	64		7.453				ND	
13 Vinyl bromide	106		7.860				ND	
14 Trichlorofluoromethane	101		7.956				ND	
17 Ethanol	45		8.459				ND	
20 1,1,2-Trichloro-1,2,2-trif	101		8.962				ND	
21 1,1-Dichloroethene	96		9.026				ND	
22 Acetone	43	9.234	9.219	0.015	96	14475	0.3517	
23 Carbon disulfide	76		9.422				ND	
24 Isopropyl alcohol	45	9.438	9.427	0.011	98	10812	0.2304	
25 3-Chloro-1-propene	41		9.727				ND	
27 Methylene Chloride	49	9.994	9.989	0.005	91	2624	0.0789	
28 2-Methyl-2-propanol	59		10.112				ND	
S 30 1,2-Dichloroethene, Total	61		10.200				ND	
29 Methyl tert-butyl ether	73		10.331				ND	
31 trans-1,2-Dichloroethene	61		10.390				ND	
33 Hexane	57		10.717				ND	
34 1,1-Dichloroethane	63		11.193				ND	
35 Vinyl acetate	43		11.219				ND	
37 cis-1,2-Dichloroethene	96		12.204				ND	
38 2-Butanone (MEK)	72		12.220				ND	
39 Ethyl acetate	88		12.231				ND	
41 Tetrahydrofuran	42		12.632				ND	
* 40 Chlorobromomethane	128	12.626	12.637	-0.011	96	160684	10.0	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
42 Chloroform	83		12.723				ND	
43 Cyclohexane	84		12.990				ND	
44 1,1,1-Trichloroethane	97		13.006				ND	
45 Carbon tetrachloride	117		13.236				ND	
46 Isooctane	57		13.584				ND	
47 Benzene	78		13.654				ND	
48 1,2-Dichloroethane	62		13.798				ND	
49 n-Heptane	43		13.900				ND	
* 50 1,4-Difluorobenzene	114	14.343	14.344	-0.001	96	830904	10.0	
53 Trichloroethene	95		14.777				ND	
54 1,2-Dichloropropane	63		15.274				ND	
55 Methyl methacrylate	69		15.349				ND	
56 1,4-Dioxane	88		15.435				ND	
57 Dibromomethane	174		15.505				ND	
58 Dichlorobromomethane	83		15.729				ND	
60 cis-1,3-Dichloropropene	75		16.558				ND	
61 4-Methyl-2-pentanone (MIBK)	43		16.788				ND	
65 Toluene	92		17.109				ND	
66 trans-1,3-Dichloropropene	75		17.628				ND	
67 1,1,2-Trichloroethane	83		17.987				ND	
68 Tetrachloroethene	166		18.110				ND	
69 2-Hexanone	43		18.372				ND	
71 Chlorodibromomethane	129		18.714				ND	
72 Ethylene Dibromide	107		18.993				ND	
* 74 Chlorobenzene-d5	117	19.837	19.832	0.005	90	721578	10.0	
75 Chlorobenzene	112		19.891				ND	
76 Ethylbenzene	91		20.020				ND	
S 73 Xylenes, Total	106		20.100				ND	
78 m-Xylene & p-Xylene	106		20.250				ND	
79 o-Xylene	106		20.999				ND	
80 Styrene	104		21.041				ND	
81 Bromoform	173		21.427				ND	
82 Isopropylbenzene	105		21.587				ND	
84 1,1,2,2-Tetrachloroethane	83		22.176				ND	
85 N-Propylbenzene	91		22.245				ND	
88 4-Ethyltoluene	105		22.422				ND	
89 2-Chlorotoluene	91		22.443				ND	
90 1,3,5-Trimethylbenzene	105		22.518				ND	
92 tert-Butylbenzene	119		22.989				ND	
93 1,2,4-Trimethylbenzene	105		23.074				ND	
94 sec-Butylbenzene	105		23.304				ND	
95 4-Isopropyltoluene	119		23.502				ND	
96 1,3-Dichlorobenzene	146	23.550	23.556	-0.006	83	997	0.0121	
97 1,4-Dichlorobenzene	146	23.695	23.695	0.000	92	1107	0.0142	
98 Benzyl chloride	91		23.904				ND	
100 n-Butylbenzene	91		24.112				ND	
101 1,2-Dichlorobenzene	146	24.278	24.273	0.005	92	1012	0.0131	
103 1,2,4-Trichlorobenzene	180		27.017				ND	
104 Hexachlorobutadiene	225		27.210				ND	
105 Naphthalene	128		27.568				ND	

Reagents:

ATTO15WISs_00004

Amount Added: 20.00

Units: mL

Run Reagent

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

TestAmerica Burlington

Data File: \\ChromNA\Burlington\ChromData\CHW.i\20170718-25955.b\25955-06.d

Injection Date: 18-Jul-2017 18:49:30

Instrument ID: CHW.i

Operator ID: ert

Lims ID: 200-39295-A-5

Lab Sample ID: 200-39295-5

Worklist Smp#: 6

Client ID: 2883

Purge Vol: 200.000 mL

Dil. Factor: 0.2000

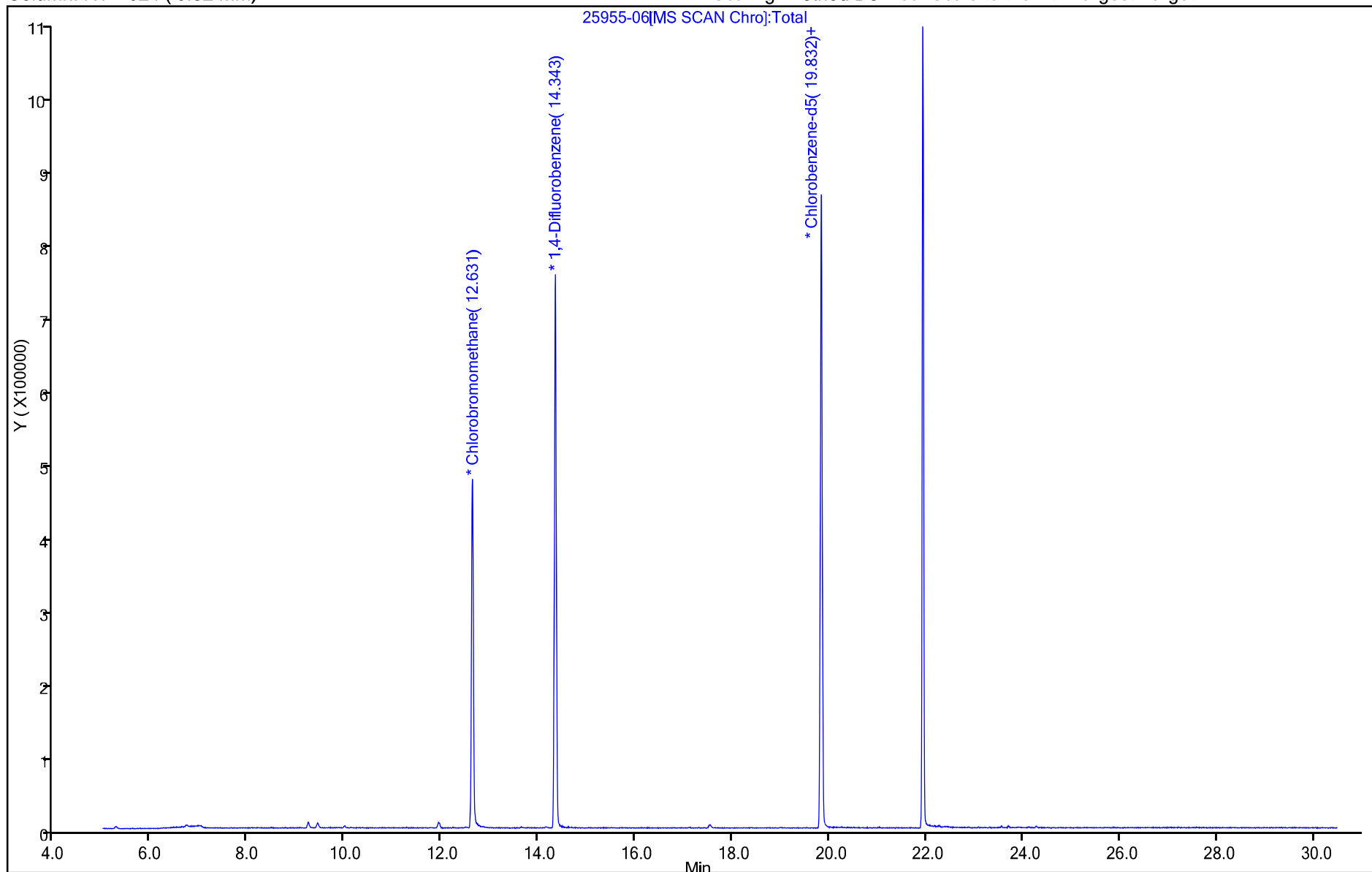
ALS Bottle#: 5

Method: TO15_MasterMethod_(v1)

Limit Group: AI_TO15_ICAL

Column: RTX-624 (0.32 mm)

Y Scaling: Method Defined: Scale to the Nth Largest Target: 1



White Plains Mall

200 HAMILTON AVENUE, WHITE PLAINS, NEW YORK

Spill Investigation

NYSDEC Spill Number 1706297

AKRF Project Number: 170029

Prepared for:

SWD II, LLC dba Street-Works Development
168-A Irving Avenue, Suite 200K
Port Chester, NY 10573

Prepared by:



34 South Broadway, Suite 401
White Plains, New York 10601
914-949-7336

APRIL 2018

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APPENDICES

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1.0 INTRODUCTION

AKRF, Inc. (AKRF) was retained by SWD II, LLC dba Street-Works Development to perform a Spill Investigation (SI) at the property located at 200 Hamilton Avenue in the City of White Plains, Westchester County, New York (the “Site”). The 3.86-acre Site, as shown on Figure 1, includes the two-story White Plains Mall and associated asphalt-paved parking lot, and is identified as Tax Map ID Section 125.67, Block 5, Lot 1 on the City of White Plains tax map. The Site is bounded by Barker Avenue to the north followed by offices, a hotel, and commercial development; Cottage Place to the east followed by a Gulf service station and commercial buildings; Hamilton Avenue to the south followed by commercial and government buildings; and Dr. Martin Luther King Jr. Boulevard to the west followed by commercial development. The fieldwork associated with the SI was completed between February 6 and 26, 2018.

The purpose of the SI was to further assess petroleum-related contamination identified in the southeastern and southern portions of the Site during a Subsurface (Phase II) Investigation. As reported in the *Subsurface (Phase II) Investigation Report* (dated October 2017), field observations and laboratory results indicated evidence of a historic petroleum release or releases, resulting in the presence of petroleum-related volatile organic compounds (VOCs) detected in groundwater at concentrations above the New York State Department of Environmental Conservation (NYSDEC) Ambient Water Quality Standards and Guidance Values (AWQSVs). The petroleum-related groundwater contamination was reported to the NYSDEC Spills division, and Spill Number 1706297 was assigned to the Site. This SI was designed to further delineate the extent of the petroleum-related contamination and to evaluate potential source(s).

The SI scope included a geophysical survey, the advancement of 10 soil borings, installation of three permanent groundwater monitoring wells, and the collection of soil and groundwater samples for field-screening and laboratory analysis. In addition, four of the six groundwater monitoring wells previously installed at the Site by others were sampled for laboratory analysis. All nine on-site wells (three newly installed and six previously installed) were surveyed and gauged, and groundwater contour maps were prepared. This report describes the methods and results of the SI conducted by AKRF, and provides recommendations and a conceptual remedial plan to address the residual petroleum-related contamination that was identified. The locations of the soil borings and monitoring wells (including the locations from the 2017 Phase II) are depicted on Figure 2. A photographic log documenting the field activities is provided as Appendix A.

2.0 SITE DESCRIPTION

The Site consists of a two-story shopping mall and an east-adjacent asphalt-paved parking lot, with additional parking on the building roof, accessed by a ramp on the northern side of the building. Based on a May 4, 2017 topographic survey prepared by Insite Engineering, Surveying & Landscape Architecture, P.C. (Insite), the topography surrounding the Site slopes downward to the west from approximately 200 feet along Cottage Place to approximately 190 feet along Martin Luther King Jr. Boulevard. Due to this change in elevation, the upper floor of the mall is at street level on the eastern side of the building, and the lower level is at street level on the western side. A retaining wall is present along the southeastern portion of the Site, where the Hamilton Avenue sidewalk is situated approximately 6 to 8 feet lower than the parking lot. The soil sampling depths and depths to groundwater referenced in this report are reported relative to existing ground surface at the corresponding boring and monitoring well locations.

3.0 PREVIOUS INVESTIGATIONS

Subsurface Exploration and Geotechnical Engineering Report, White Plains Mall, White Plains, New York; prepared by GZA GeoEnvironmental of New York, prepare for Exclusive Management, LLC - November 20, 2015.

GZA GeoEnvironmental of New York (GZA) conducted a geotechnical investigation at the Site to develop preliminary engineering recommendations for potential redevelopment. The investigation included the advancement of four soil borings around the Site perimeter to termination depths between 25 and 26 feet below ground surface (bgs), installation of an observation well at each boring, and collection of water level measurements from the wells. Based on logging of soil samples from the borings, GZA identified a fill layer present to depths of 6 to 8 feet bgs, consisting of sand with gravel, silt, and occasional construction debris (brick, crushed stone fragments). The fill layer was underlain by clay, silt, and sand. Groundwater was encountered in the observation wells at varying depths, generally between approximately 10 and 18 feet bgs. The observation wells installed by GZA were sampled during AKRF's 2017 Phase II investigation, and were designated as GT-1 through GT-4 (these wells have subsequently been re-designated as MW-1 through MW-4, respectively, as shown on Figure 2).

Phase I Environmental Site Assessment (ESA), 200 Hamilton Avenue, AKRF, Inc. – May 2017

AKRF conducted a Phase I ESA that was detailed in a May 2017 report. The objective of the Phase I ESA was to evaluate the Site for Recognized Environmental Conditions (RECs) and environmental concerns resulting from past or current uses of the Site and neighboring properties. The Phase I ESA identified the following RECs:

On-Site Recognized Environmental Conditions

- Based on review of historic records, two gasoline service stations were located on the Site prior to construction of the White Plains Mall. Historic Sanborn (fire insurance) maps depicted a gasoline station with three gas tanks on the 1930 through 1950 maps at the corner of Hamilton Avenue and William Street (230 Hamilton Avenue), and a second gasoline station with greasing operations and four gasoline tanks at the corner of Hamilton Avenue and Cottage Place (250 Hamilton Avenue). These gasoline stations may have been present until construction of the current building in approximately 1970. Over 20 private dwellings were shown within the current building footprint on historic Sanborn maps from 1894 to 1950. Based on these findings, the Phase I ESA identified the potential for abandoned underground storage tanks (USTs) and/or associated petroleum contamination in the Site subsurface associated with the gasoline service stations and/or heating oil for the residential dwellings.
- The Site was identified in the EDR Historic Cleaners database from 2004 to 2011 and potential dry cleaners ("Mall Cleaners" and "White Plains Mall Cleaners") were listed in the City Directories at 200 Hamilton Avenue in 1992, 1995, 1999, and 2008. The Site was not listed on the Resource Conservation and Recovery Act (RCRA) generator report or any other database.

Off-Site Recognized Environmental Conditions

- The regulatory database, historic city directories, site reconnaissance, and Sanborn maps identified an east-adjacent operating gasoline filling station with an open NYSDEC Spill (Spill No. 97-07887), and also listed on the petroleum bulk storage (PBS), RCRA, and Historic Auto databases.
- The regulatory database and Sanborn maps identified facilities in the surrounding area with some potential to have affected the Site subsurface, including: RCRA generators, Spills, PBS facilities, an NYSDEC Brownfield Cleanup (BCP) site and a NYSDEC Voluntary Cleanup (VCP) site.

In addition to the on-site and off-site REC's described above, the Phase I assessment identified on-site environmental concerns for consideration ahead of future redevelopment work, including: the presence of a historic fill layer identified during the 2015 geotechnical investigation; the presence of electric and hydraulic equipment that may contain polychlorinated biphenyl (PCB)- or mercury-containing components or oils; and suspect asbestos-containing materials (ACM) and lead-based paint (LBP) associated with the on-site structure.

Preliminary Geotechnical Engineering Report, 200 Hamilton Avenue, AKRF, Inc. – August 27, 2017

AKRF completed a preliminary geotechnical investigation in the parking lot in the eastern portion of the Site to evaluate subsurface conditions for the proposed redevelopment work. This geotechnical investigation was conducted concurrently with AKRF's 2017 Phase II investigation, described below. The geotechnical investigation included the advancement of four soil borings to depths between 24 and 55 feet below existing surface grade, including rock coring to confirm the presence of bedrock. Results of the investigation indicated that the Site is underlain by a layer of uncontrolled fill consisting mainly of brown, fine to coarse sand and gravel with varying amounts of silt and other miscellaneous fill including wood and asphalt fragments. A layer of brown, fine to coarse sand with varying amounts of silt and gravel was encountered below the uncontrolled fill material in all borings. Bedrock was encountered beneath the sand at depths ranging from approximately 13 feet below existing grade in the northeastern portion of the parking lot to approximately 37 feet below existing grade in the central portion of the parking lot. The AKRF geotechnical engineer gauged groundwater levels in the previously installed GZA monitoring wells and in the temporary wells installed as part of the Phase II investigation. Depth to groundwater measurements ranging from 9.9 feet bgs at B-03 (GT-3, re-designated MW-3), located at the lower elevation area along Martin Luther King Boulevard, to 23 feet bgs at TW-1, located in the higher elevation area in the asphalt-paved parking lot, were reported.

Subsurface (Phase II) Investigation, 200 Hamilton Avenue, AKRF, Inc. – October 2017

AKRF conducted a Phase II investigation at the Site that was detailed in the Phase II Report (dated October 2017). The objectives of the Phase II investigation were to further assess the RECs and other environmental concerns identified during AKRF's May 2017 Phase I ESA of the Site. The scope of the Phase II investigation included a soil boring and groundwater sampling program to characterize soil, soil vapor, and groundwater in the area of RECs and areas that would be disturbed during the proposed future redevelopment activities at the Site. Based on the field observations and laboratory analytical results, the following conclusions were presented:

- A historical petroleum release or releases was identified that affected groundwater beneath the Site, resulting in the presence of petroleum-related VOCs above the NYSDEC AWQSSs. Although no obvious on-site source area (e.g., separate phase oil on the water table, grossly contaminated soil at the anticipated depth of potential former underground storage tanks) was identified, the observed groundwater contamination was attributed to the former on-site gasoline stations. The presence of MTBE in groundwater suggested that an off-site source (e.g., the existing gas station across Cottage Place) also contributed to the contamination, since the on-site gasoline stations closed before 1970 (before MTBE was used in New York State). Field evidence of petroleum contamination observed in the "smear zone" in soil borings SB-4 and SB-5, and petroleum-related VOCs detected above New York State Department of Health (NYSDOH) background levels in soil vapor were attributed to the groundwater contamination and any residual soil contamination. AKRF reported the groundwater contamination to the NYSDEC Spills division and the case was assigned spill #1706297.
- The chlorinated solvent trichloroethene (TCE) was detected above the NYSDOH Air Guidance Value (AGV) in two sub-slab vapor samples, but was not detected above the regulatory standards or guidance values in any soil or groundwater samples collected during the Phase II. Although TCE

may have been used by one of the potential former on-site dry cleaners identified in the May 2017 Phase I ESA, the levels detected in soil vapor were not considered to be indicative of a widespread release or on-site source area.

- Based on the Phase II field observations, metals and semivolatile organic compounds (SVOCs) that were detected in soil at levels above their respective Part 375 Unrestricted and/or Restricted Residential Use Soil Cleanup Objectives were attributable to likely contaminants in the shallow fill layer observed in the Site subsurface or to background conditions, and not likely to an on-site release or other source area.

The Phase II Report concluded with a recommendation to conduct a Spill Investigation (SI) to assess the extent of the petroleum-related contamination in groundwater and to further investigate potential on-site source area(s).

4.0 FIELD ACTIVITIES

4.1 Geophysical Survey and Utility Mark-Outs

On February 13, 2018, a geophysical survey was conducted across accessible indoor and outdoor areas of the Site to clear the proposed soil boring locations for subsurface utilities and/or structures. During the survey, accessible areas around the proposed borings were scanned for potential buried storage tanks to the extent feasible. The geophysical survey included electromagnetic (EM), radio-detection (RD), and ground penetrating radar (GPR) methods. The Geophysical Investigation Report is attached as Appendix B.

In addition to the geophysical survey, Cascade Drilling, Inc. (Cascade), the drilling contractor, notified Dig Safely New York prior to the start of the intrusive investigation work.

4.2 Soil Sampling

A total of 10 soil borings (SB-10 through SB-18, and MW-9) were advanced at the Site between February 6 and 9, 2018 by Cascade at the locations shown on Figure 2. Soil borings SB-10 through SB-14, and SB-18 were advanced in the southeastern portion of the Site, in and adjacent to the footprint of the former gasoline station in this area. Soil borings SB-15 through SB-17 were advanced in the southern portion of the Site, in and adjacent to the footprint of the former gasoline station in this area. It should be noted that due to access restrictions (an active fitness center exists in this area), soil borings SB-16 and SB-17 were advanced outside of the Site building, along the southern edge of the footprint of the former gasoline station, and SB-15 was advanced in a main corridor inside of the Site building to the west (downgradient). Soil boring MW-9 was advanced in the southwestern corner of the Site, downgradient of the former on-site gasoline stations. Soil borings SB-10 through SB-14, SB-18, and MW-9 were advanced with a track-mounted Geoprobe® 6620DT direct push probe (DPP) unit. Due to limited access, SB-15 through SB-17 were advanced with a bobcat-mounted Geoprobe® 540MT DPP unit. The soil borings were advanced to depths ranging from 12 to 30 feet bgs. The locations and depths of the soil borings are summarized in the following table:

Soil Boring Locations and Depths

Soil Boring	Soil Boring Depth (feet bgs)	Soil Boring Location
SB-10 to SB-14, and SB-18	12-30	Southeastern portion of the Site, within footprint of a former gas station at 250 Hamilton Avenue
SB-15	16	Inside southern portion of the mall building, west of former gas station footprint at 230 Hamilton Avenue
SB-16 and SB-17	20	In concrete walkway south-adjacent to the mall building, within footprint of a former gas station at 230 Hamilton Avenue
MW-9	15	Southwestern (presumed downgradient) corner of the Site

Notes:

bgs – below ground surface

Continuous soil samples were collected from the soil borings using 2-inch diameter macrocore piston rod samplers fitted with dedicated acetate liners. The soil samples at soil borings SB-10 through SB-14, SB-18, and MW-9 were collected with 5-foot long samplers and the samples at soil borings SB-15 through SB-17 were collected using 4-foot long samplers.

Each macrocore sample liner was split lengthwise and all samples were logged by AKRF field personnel. Logging consisted of describing the soil according to the modified Burmister Classification System; describing any evidence of contamination (e.g., staining, sheens, odors); and field-screening the soil for organic vapors using a photoionization detector (PID) in 6-inch intervals. Soil boring logs are provided in Appendix C. The PID was calibrated each day prior to on-site use using isobutylene gas in accordance with the manufacturer's specifications.

In general, two soil samples were selected for laboratory analysis from each boring: one from a 2-foot interval from between 0 to 10 feet below ground surface; and one from the 2-foot interval exhibiting the greatest evidence of contamination (or from the groundwater interface if no evidence of contamination was observed). Only one sample was selected for laboratory analysis from SB-18, which was added to the field program based on field evidence of contamination observed in SB-13; and no laboratory samples were selected from MW-9, which was advanced only for the purposes of installing groundwater monitoring well MW-9.

Samples selected for laboratory analysis were placed in laboratory-supplied containers and a chilled cooler in accordance with EPA protocols and transported via courier with appropriate chain of custody (COC) documentation to Alpha Analytical, Inc., a NYSDOH Environmental Laboratory Approval Program (ELAP)-certified laboratory, in Westborough, Massachusetts. All soil samples were analyzed for the VOCs listed in Table 2 – Soil Cleanup Levels for Gasoline-Contaminated Soil presented in the NYSDEC Commissioner Policy, *CP-51: Soil Cleanup Guidance* by EPA Method 8260. In addition, the soil samples collected from the shallower suspected historic fill layer were also analyzed for the SVOCs listed in CP-51 Table 3 – Soil Cleanup Levels for Fuel Oil-Contaminated Soil by EPA Method 8270, and Resource Conservation and Recovery Act (RCRA) 8 Metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver) plus zinc by the EPA's 6000/7000 series Methods. A summary of soil sampling depths and corresponding laboratory analysis is presented in the following table:

Soil Sample Depths

Soil Boring	Sample Depths (feet bgs)	CP-51 VOCs	CP-51 SVOCs	RCRA 8 metals + Zn
SB-10	3-5	X	X	X
	20-22	X		
SB-11	5-7	X	X	X
	17-19	X		
SB-12	2-4	X	X	X
	15-16	X		
SB-13	3-5	X	X	X
	10-12	X		
SB-14	2-4	X	X	X
	15-16	X		
SB-15	2-4	X	X	X
	10-11	X		
SB-16	2-4	X	X	X
	12-13	X		
SB-17	5-7	X	X	X
	8-9	X		
SB-18	12-14	X		
MW-9	NA			

Notes:

bgs – below ground surface

NA –No samples collected

4.3 Monitoring Well Installation

Three permanent groundwater monitoring wells (MW-7 through MW-9) were installed in soil borings SB-14, SB-15, and MW-9, respectively, for the collection of groundwater samples for laboratory analysis. Monitoring wells MW-7 and MW-8 were constructed with 10 feet of pre-packed wells screen and MW-9 was constructed with 15 feet of pre-packed well screen. The pre-packed well screen consisted of standard, slotted PVC well screen surrounded by stainless steel mesh, with sand packed between the slotted PVC well screen and the stainless steel mesh. Solid PVC well riser pipe was used to bring each monitoring well to grade surface. The exterior monitoring wells (MW-7 and MW-9) were installed by advancing 3.75-inch O.D. hollow casing into the corresponding open bore hole using the track-mounted Geoprobe® 6620DT DPP unit to install 2-inch diameter wells. The interior monitoring well (MW-8) was installed by advancing 3.25-inch O.D. hollow casing into the corresponding bore hole using the bobcat-mounted Geoprobe® 540MT DPP unit to install a 1-inch diameter well. Once the target depth was achieved, the pre-packed well screen was lowered into the hollow casing with threaded PVC well riser pipe, and the casing was removed. Morie #2 sand was used to extend the sand pack to approximately 1 foot above the well screen, followed by a 1-foot bentonite well seal, and cement grout to the surface. The monitoring wells were completed with a locking well cap, and a bolt-down, flush-with-grade gate box set in concrete.

Following installation, the monitoring wells were developed by pumping and surging with a whale pump (MW-7 and MW-9) and a peristaltic pump (MW-8) to ensure that sedimentation/turbidity was reduced, to the extent practical, in each well. Turbidity was monitored during the development utilizing a LaMotte 2020we Turbidity Meter. Development continued until turbidity was less than 10 nephelometric turbidity units (NTU) at MW-8 and MW-9, with approximately 4 gallons and 12 gallons removed, respectively. Due to slow recharge, development at MW-7 occurred over the course of two days with turbidity reaching 98.3 NTU after removing a total of approximately 4.5 gallons. The development water was containerized in DOT-approved 55-gallon labeled drums staged in the loading dock area pending transportation and disposal at a licensed off-site disposal facility.

4.4 Groundwater Sampling

AKRF returned to the Site on February 16, 2018 to collect groundwater samples from seven of the nine on-site monitoring wells, including the following:

- Two of the four monitoring wells installed during the 2015 GZA geotechnical investigation. These monitoring wells were referred to as GT-1 and GT-2 in previous reports, but have been re-designated MW-1 and MW-2 for the purposes of this SI. Monitoring wells MW-3 (previously GT-3) and MW-4 (previously GT-4) were not sampled as part of this SI;
- Two monitoring wells located near the eastern property boundary, which are suspected to be associated with the investigation of NYSDEC Spill Number 9707887 at the existing gasoline station across Cottage Place from the Site. These monitoring wells were referred to as GW-3 and GW-4 in AKRF's 2017 Phase II report, but have been re-designated as MW-5 and MW-6, respectively, for the purpose of this investigation.
- The three newly installed monitoring wells, MW-7, MW-8, and MW-9.

The locations of the groundwater monitoring wells are shown on Figure 2.

Prior to collecting the samples, the headspace at each monitoring well was screened for the presence of VOCs using a calibrated PID after removing the well cap. The depth to groundwater and the total well depth were then measured in each well using an oil-water interface probe attached to a measuring tape accurate to 0.01 feet.

Low-flow sampling techniques and dedicated tubing were utilized to purge the monitoring wells prior to sample collection. The purged water was monitored for turbidity and water quality indicators (i.e., pH, temperature, dissolved oxygen, oxidation-reduction potential, and specific conductivity) with measurements collected approximately every five minutes. Purging of the wells continued until the turbidity was less than 50 NTU for three successive readings and water quality indicators had stabilized to the extent practicable (MW-1, MW-6, MW-8, and MW-9). If turbidity and/or water quality indicators did not stabilize after two hours, purging was discontinued and samples were collected (MW-2, MW-5, and MW-7). Groundwater sampling logs are provided in Appendix C.

Groundwater samples were collected in laboratory-supplied glassware and placed in a chilled cooler in accordance with EPA protocols. The samples were transported via courier with appropriate COC documentation to Alpha Analytical, Inc. The groundwater samples were analyzed for the VOCs listed in CP-51, Table 2 by EPA Method 8260.

Purge water generated during monitoring well sampling was containerized in the DOT-approved 55-gallon labeled drums staged in the loading dock area pending transportation and disposal at a licensed off-site disposal facility.

4.5 Monitoring Well Surveying and Fluid Level Gauging

Insite Engineering, Surveying & Landscape Architecture, P.C. (Insite), a New York State-licensed surveyor, met with AKRF staff during the groundwater sampling activities on February 16, 2018 to survey the nine on-site monitoring wells. Elevation measurements were taken at three points for each well location: the ground surface beside the well; the rim of the gate box; and the top of the PVC well casing. The elevations were referenced to the North American Vertical Datum of 1988 (NAVD 88).

Gauging of the nine wells was conducted on February 16, 2018 during the groundwater sampling activities and again on February 26, 2018 to determine the groundwater elevations and to check for the presence of light non-aqueous phase liquid (LNAPL). AKRF recorded the depth to groundwater and the total well depth in each well using an oil-water interface probe attached to a measuring tape accurate to 0.01 feet. Results from the well survey and water level gauging are described in Section 5.5.

5.0 INVESTIGATION RESULTS

5.1 Geophysical Survey and Utility Mark Outs

During the geophysical survey, linear anomalies consistent with subsurface utilities were marked out with spray paint prior to drilling and soil boring locations were adjusted accordingly. No evidence of buried tanks was identified in the areas that were scanned during the geophysical survey. The Geophysical Investigation Report is attached as Appendix B.

5.2 Field Observations

Soils encountered during this investigation included historic fill extending from just below ground surface to depths ranging from 5 to 12 feet bgs. This fill layer included sand, silt, organics (wood/grass), brick, asphalt, gravel, and rubber. Apparent native soils composed of varying amounts of sand, silt, and gravel were identified underlying the fill layer extending to approximately 30 feet bgs (the maximum boring depth). Evidence of petroleum contamination was noted in seven of the 10 soil borings advanced during the investigation (SB-11, and SB-13 through SB-18), as summarized in the following table:

Evidence of Petroleum Contamination

Soil Boring	Depth (ft bgs)	Moisture	Field Observations	PID Readings (PPM)
SB-11	12-22	Dry	Petroleum-like odors	0.5 – 53.2
SB-13	8-15	Dry	Petroleum-like odors	3.1 – 881.4
SB-14	0-5	Dry	Septic-like odors	0.2 – 4.5
	5-16	Dry	Petroleum- and Septic-like odors	1.0 – 1370
	16-30	Wet	Petroleum-like odors	4.2 – 1264
SB-15	10.5-11.5	Moist	Petroleum-like odors	10.2 – 895
	11.5-16	Wet	Petroleum-like odors	12.8 – 1101
SB-16	12-13	Moist	Petroleum-like odors	2.8 – 5.5
	13-19	Wet	Petroleum-like odors	0.1 – 5.8
SB-17	8-9	Dry	Petroleum-like odors	24.3 – 298
	9-19	Wet	Petroleum-like odors	0.5 – 15.7
SB-18	11-19	Dry	Petroleum-like odors	6.1 – 752

Notes:

ft bgs = feet below ground surface

PPM = parts per million

No evidence of petroleum-like contamination or elevated PID readings were detected in the remaining soil borings. Soil descriptions, observations, and PID readings are detailed in the soil boring logs provided in Appendix C.

The depths to groundwater measured in the on-site monitoring wells were shallower in the southern and western portions of the Site (along Hamilton Avenue and Martin Luther King Boulevard) and deeper in the eastern portion of the Site (along Cottage Place), consistent with the elevation changes across the Site. No LNAPL was detected during sampling or fluid level gauging of the monitoring wells; however, petroleum-like odors were noted on purge water during sampling at MW-2, MW-6, MW-7, and MW-8. Results from the well survey and corresponding groundwater elevation calculations are described in Section 5.5.

5.3 Soil Analytical Results

The analytical results from the 17 soil samples that were submitted to the laboratory from this investigation were compared to the Unrestricted Use Soil Cleanup Objectives (UUSCOs) and the Restricted Residential Soil Cleanup Objectives (RRSCOs) listed in Sections 6.8(a) and 6.8(b) of 6 NYCRR Part 375. In addition, the VOC and SVOC results were compared to the Soil Cleanup Levels (SCLs) for gasoline- and fuel oil-contaminated soil listed in Table 2 and Table 3 of the NYSDEC Commissioner Policy, *CP-51: Soil Cleanup Guidance*. Soil analytical results are summarized in Tables 1 through 3. The complete laboratory analytical report is provided as Appendix D. Exceedances of the NYSDEC SCOs and SCLs are summarized on Figure 5. The analytical results from the soil sampling are discussed below:

Volatile Organic Compounds (VOCs)

All 16 petroleum-related VOCs analyzed for were detected in one or more of the soil samples at concentrations ranging from 0.00018 to 100 milligrams per kilogram (mg/kg). As summarized in the following table, eight VOCs (1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, benzene, ethylbenzene, isopropylbenzene, n-propylbenzene, toluene, and total xylenes) were detected at concentrations exceeding the UUSCOs and CP-51 SCLs, and one VOC (1,2,4-trimethylbenzene) was detected at a concentration above its RRSCO.

Volatile Organic Compounds Detected in Soil Above the Part 375 SCOs and CP-51 SCLs

Boring ID Depth (ft bgs) Date Sampled Dilution Factor Units = mg/kg	Part 375 UUSCO/ CP-51 SCL	Part 375 RRSCO	SB-11 (17-19) 2/6/2018 10	SB-13 (10-12) 2/6/2018 10	SB-14 (15-16) 2/6/2018 10	SB-18 (12-14) 2/6/2018 20
1,2,4-Trimethylbenzene	3.6	52	60	69	19	100
1,3,5-Trimethylbenzene	8.4	52	17	22	11	34
Benzene	0.06	4.8	0.1 U	0.11 U	0.12 J	0.18 U
Ethylbenzene	1	41	11	14	4.9	11
Isopropylbenzene	2.3	NS	4.1	3.1	2.5	2.4
n-Propylbenzene	3.9	100	15	12	4.1	7.2
Toluene	0.7	100	0.11 U	0.87	0.12 U	0.28 J
Xylenes, Total	0.26	100	18	68	17 J	78

Notes:

Bold = Exceeds Unrestricted Use Soil Cleanup Objective (UUSCO)/CP-51 Table 2 Soil Cleanup Level (SCL)

Highlighted = Exceeds Restricted Residential Soil Cleanup Objective (RRSCO)

ft bgs = feet below ground surface

mg/kg = milligram per kilogram

U = The analyte was not detected at the indicated concentration

J = The concentration given is an estimated value

Based on the field observations and the historic presence of a gasoline station at the Site in the vicinity of these soil sampling locations, the VOC detections in unsaturated soil are likely attributable to a historic release or releases from USTs associated with the former gasoline station. The complete analytical results for VOCs in soil are summarized in Table 1.

Semivolatile Organic Compounds (SVOCs)

All 16 petroleum-related SVOCs analyzed for were detected in one or more of the soil samples at concentrations ranging from 0.018 to 3.3 mg/kg. As summarized in the following table, seven SVOCs [benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene] were detected in one sample [SB-17 (5'-7')] at concentrations exceeding their respective UUSCOs/CP-51 SCLs and/or RRSCOs:

Semi-Volatile Organic Compounds Detected in Soil Above the Part 375 SCOs and CP-51 SCLs

Boring ID Depth (ft bgs) Date Sampled Dilution Factor Units = mg/kg	Part 375 UUSCO/ CP-51 SCL	Part 375 RRSCO	SB-17 (5-7) 2/9/2018 1
Benzo(a)anthracene	1	1	2.8
Benzo(a)pyrene	1	1	2.4
Benzo(b)fluoranthene	1	1	3.3
Benzo(k)fluoranthene	0.8	3.9	0.85
Chrysene	1	3.9	2.2
Dibenzo(a,h)anthracene	0.33	0.33	0.41
Indeno(1,2,3-cd)pyrene	0.5	0.5	1.8

Notes:

Bold = Exceeds Unrestricted Use Soil Cleanup Objective (UUSCO)/CP-51 Table 3 Soil Cleanup Level (SCL)

Highlighted = Exceeds Restricted Residential Soil Cleanup Objective (RRSCO)

ft bgs = feet below ground surface

mg/kg = milligram per kilogram

Based on the field observations and the Site history, the SVOC detections are likely attributable to the historic fill material observed in the soil borings, and not to a release or other source area. The complete analytical results for SVOCs in soil are summarized in Table 2.

Metals

Eight of the nine metals analyzed for were detected in one or more of the soil samples at concentrations ranging from 0.03 to 292 mg/kg. The detected metals included arsenic, barium, cadmium, chromium, lead, mercury, selenium, and zinc. As summarized in the following table, chromium lead, and mercury were detected at concentrations above their respective UUSCOs, but below their RRSCOs.

Metals Detected in Soil Above the Part 375 SCOs

Boring ID Depth (ft bgs) Date Sampled Dilution Factor Units = mg/kg	Part 375 UUSCO	Part 375 RRSCO	SB-10 (3-5) 2/7/2018 1	SB-12 (2-4) 2/6/2018 1	SB-14 (2-4) 2/6/2018 1	SB-15 (2-4) 2/9/2018 1
Chromium	30*	180*	39.5	113	19.9	14.7
Lead	63	400	10.2	6.66	140	40.9
Mercury	0.18	0.81	0.01 U	0.02 U	0.09	0.4

Notes:

Bold = Exceeds Unrestricted Use Soil Cleanup Objective (UUSCO); ft bgs = feet below ground surface
mg/kg = milligram per kilogram; * = Standard reflects trivalent chromium, not total chromium

U = The analyte was not detected at the indicated concentration

Based on the field observations and the Site history, the metal detections are likely attributable to the historic fill material observed in the borings and/or background conditions, and not to a release or other source area. The complete analytical results for metals in soil are summarized in Table 3.

5.4 Groundwater Analytical Results

The analytical results from the seven groundwater samples and the associated trip blank were compared to the NYSDEC Class GA Ambient Water Quality Standards and Guidance Values (AWQSs) as listed in the NYSDEC Division of Water Technical Operational and Guidance Series (TOGS)1.1.1. The groundwater analytical results are summarized in Table 4. The complete laboratory analytical report is provided as Appendix D. Exceedances of the NYSDEC AWQSs are summarized on Figure 6. The analytical results from the groundwater sampling are discussed below:

VOCs

Fifteen (15) of the 16 petroleum-related VOCs analyzed for were detected in one or more of the groundwater samples at concentrations ranging from 0.67 to 1,800 micrograms per liter (µg/L). As summarized in the following table, 12 VOCs (1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, ethylbenzene, isopropylbenzene, MTBE, n-butylbenzene, n-propylbenzene, naphthalene, o-xylene, p-m-xylene, p-isopropyltoluene, and sec-butylbenzene) were detected at concentrations exceeding the AWQSs.

Volatile Organic Compounds Detected in Groundwater
Above the Class GA AWQSs

Sample ID Date Sampled Dilution Factor Units = µg/L	Class GA AWQS	MW-2 2/16/2018 10	MW-7 2/16/2018 2	MW-8 2/16/2018 2	MW-9 2/16/2018 1
1,2,4-Trimethylbenzene	5	7 U	110	4.8 J	0.7 U
1,3,5-Trimethylbenzene	5	7 U	56	57	0.7 U
Ethylbenzene	5	7 U	92	33	0.7 U
Isopropylbenzene	5	7 U	14	44	0.7 U
MTBE	10	1,800	15	20	34
Naphthalene	10	7 U	14	23	0.7 U
n-Butylbenzene	5	7 U	1.9 J	36	0.7 U
n-Propylbenzene	5	7 U	14	130	0.7 U
o-Xylene	5	7 U	28	1.4 U	0.7 U
p/m-Xylene	5	7 U	290	22	0.7 U

Sample ID Date Sampled Dilution Factor Units = µg/L	Class GA AWQS	MW-2 2/16/2018 10	MW-7 2/16/2018 2	MW-8 2/16/2018 2	MW-9 2/16/2018 1
p-Isopropyltoluene	5	7 U	4.5 J	8.3	0.7 U
sec-Butylbenzene	5	7 U	2.7 J	25	0.7 U

Notes:**Bold** = Exceeds the Class GA AWQS

µg/L = microgram per liter

U = The analyte was not detected at the indicated concentration

J = The concentration given is an estimated value

Monitoring wells MW-2, MW-7, and MW-8 are located within or immediately downgradient of the footprints of the former on-site gasoline stations in the southeastern and southern portions of the Site, while MW-9 is located near the downgradient boundary of the Site. All four of these monitoring wells are located downgradient of the existing off-site gasoline station located east of the Site, on the corner of Cottage Place and Hamilton Avenue. As discussed further in Section 6.0, the identified groundwater contamination is likely attributable to a combination of historic petroleum releases from both the on-site and off-site facilities. The complete analytical results for VOCs in groundwater are summarized in Table 4.

5.5 Fluid Level Gauging Results

The water table was measured in the nine on-site groundwater monitoring wells at depths ranging from 9.93 to 23.90 feet bgs on February 16, 2018 and from 9.58 to 22.51 feet bgs on February 26, 2018. The shallower groundwater depths were noted in those wells in the southern and western portions of the Site (along Hamilton Avenue and Martin Luther King Boulevard) and at deeper depths in the eastern portion of the Site (along Cottage Place), consistent with the elevation changes across the Site. The surveyed monitoring well elevations and the corresponding depth to water measurements were used to calculate the groundwater elevations in each well, as summarized in Table 5. Contour maps of the groundwater elevations measured for each event are provided as Figures 3 and 4. The contour maps indicate that groundwater flows in a southwesterly direction across the Site, with groundwater elevations ranging from 178.70 to 181.89 feet above mean sea level (referenced to NAVD 88).

6.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

AKRF performed a Spill Investigation (SI) at the property located at 200 Hamilton Avenue in the City of White Plains, Westchester County, New York, as shown on Figure 1, between February 6 and 26, 2018. The purpose of the SI was to further assess petroleum-related contamination identified in the southeastern and southern portions of the Site during a Subsurface (Phase II) investigation. As reported in the *Subsurface (Phase II) Investigation Report* (dated October 2017), field observations and laboratory results indicated evidence of a historic petroleum release or releases, resulting in the presence of petroleum-related volatile organic compounds (VOCs) in groundwater at concentrations above the New York State Department of Environmental Conservation (NYSDEC) Ambient Water Quality Standards and Guidance Values (AWQSS). The SI scope included a soil boring and groundwater sampling program to further delineate the extent of the petroleum-related contamination associated with NYSDEC Spill Number 1706297 and to evaluate potential source(s).

The SI scope included a geophysical survey, the advancement of 10 soil borings, installation of three permanent groundwater monitoring wells, and the collection of soil and groundwater samples for field-screening and laboratory analysis. In addition, four of the six groundwater monitoring wells previously installed at the Site by others were sampled for laboratory analysis. The locations of the soil borings and monitoring wells (including the locations from the 2017 Phase II) are depicted on Figure 2. All nine on-site wells (three newly installed and six previously installed) were surveyed and gauged, and groundwater contour maps were prepared.

Consistent with the findings from the 2017 Phase II, a shallow fill layer was encountered in the 10 soil borings to depths ranging from approximately 5 to 12 feet below ground surface (bgs). The fill material was generally underlain by apparent native sand and silt to approximately 30 feet bgs (the maximum soil boring depth).

Evidence of petroleum contamination (petroleum-like odors and staining) and elevated photoionization detector (PID) readings as high as 1,370 parts per million (ppm) were noted above the saturated zone, as shallow as 8 feet bgs, in soil borings advanced within the footprint of the former gasoline station in the southeastern portion of the Site (SB-11, SB-13, SB-14, and SB-18). Refusal was encountered prior to reaching groundwater at soil borings SB-11, SB-13, and SB-18; however, contamination was observed to extend into the saturated zone below the observed groundwater interface at soil boring SB-14.

Evidence of contamination and elevated PID readings as high as 1,101 ppm were observed just above and within the saturated zone in soil borings advanced within the footprint of the former gasoline station in the southern portion of the Site (SB-15, SB-16, and SB-17).

Analytical results for the soil samples identified petroleum-related VOCs at concentrations above the New York State Department of Environmental Conservation (NYSDEC) Unrestricted Use Soil Cleanup Objectives (UUSCOs) and the Restricted Residential Soil Cleanup Objectives (RRSCOs) listed in Sections 6.8(a) and 6.8(b) of 6 NYCRR Part 375, and the Soil Cleanup Levels (SCLs) for gasoline-contaminated soil listed in Table 2 of the NYSDEC Commissioner Policy, *CP-51: Soil Cleanup Guidance*. The VOC exceedances were in samples collected from above the water table from soil borings SB-11, SB-13, SB-14, and SB-18, advanced in the footprint of the former gasoline station in the southeastern portion of the Site. Semivolatile organic compounds (SVOCs) above the NYSDEC UUSCOs and RRSCOs, and the CP-51 SCLs were noted in the samples collected from above the water table in soil boring SB-17. Three metals (chromium, lead, and mercury) were detected above the NYSDEC UUSCOs in samples collected from the shallow fill layer in SB-10, SB-12, SB-14, and SB-15. Soil analytical results are summarized in Tables 1 through 3. Exceedances of the NYSDEC SCOs and SCLs are summarized on Figure 5.

The water table was measured in the nine on-site groundwater monitoring wells at depths ranging from 9.58 to 23.90 feet bgs during two gauging events. Groundwater was noted to be shallower in the southern and western portions of the Site (along Hamilton Avenue and Martin Luther King Boulevard), and deeper in the eastern portion of the Site (along Cottage Place), consistent with the elevation changes across the Site. Groundwater elevations ranged from 181.89 to 179.70 feet above mean sea level [referenced to the North American Vertical Datum of 1988 (NAVD 88)] during the two gauging events, and groundwater elevation contours maps indicate that groundwater at the Site flows in a southwesterly direction. The elevations of each of the monitoring wells and the corresponding groundwater elevations from gauging events are summarized in Table 5, and the groundwater contours and flow directions are shown on Figures 3 and 4. No separate phase product was detected in the on-site monitoring wells; however, evidence of petroleum-like odors was noted on groundwater during sampling at MW-2, MW-6, MW-7, and MW-8.

Analytical results identified petroleum-related VOCs, including trimethylbenzenes, ethylbenzene, propylbenzenes, butylbenzenes, naphthalene, xylenes, and p-isopropyltoluene, above their respective NYSDEC Class GA Ambient Water Quality Standards and Guidance Values (AWQSVs) in the groundwater samples from monitoring wells MW-7 (installed at soil boring SB-14) and MW-8 (installed at soil boring SB-15). Methyl tert-butyl ether (MTBE), an oxygenate that was used as a gasoline additive in New York State between 1979 and 2004, was detected above its AWQSV of 10 micrograms per liter ($\mu\text{g/L}$) in four groundwater samples, MW-2 (1,800 $\mu\text{g/L}$), MW-7 (14 $\mu\text{g/L}$), MW-8 (20 $\mu\text{g/L}$), and MW-9 (34 $\mu\text{g/L}$). The groundwater analytical results are summarized in Table 4. Exceedances of the NYSDEC AWQSVs are summarized on Figure 6.

6.1 Conclusions

Based on the findings of the SI, AKRF concludes the following:

- Petroleum-contaminated soil is present in the unsaturated zone and extending below the water table within the footprint of the former gasoline station in the southeastern portion of the Site. The evidence of contamination included field observations of staining and odors as shallow as 5 feet bgs, and detection of petroleum-related VOCs exceeding the NYSDEC CP-51 Soil Cleanup Levels in samples as shallow as 10 feet bgs from soil borings in this area. This contamination is likely the result of a historic petroleum release or releases from the former gasoline station in this area and represents an on-site source of the documented groundwater contamination at the Site.
- Field evidence of petroleum-contamination was noted just above and extending into the saturated zone in soil borings located within the footprint and immediately downgradient of former on-site gasoline station in the southern portion of the site; however, VOCs were not detected above the NYSDEC CP-51 SCLs in soil samples collected from this area. The contamination observed in this area, which was primarily in the “smear zone” (i.e., the zone just above the water table that is intermittently saturate during periods of higher groundwater levels) is likely associated with groundwater contamination identified at the Site. It is inconclusive whether this contamination is indicative of a second on-site release area. However, a source of petroleum contamination may be present in areas of the former gas station footprint that were not accessible during this investigation.
- The presence of MTBE in groundwater suggests that an off-site source (e.g., the existing gas station across Cottage Place) has contributed to the documented on-site groundwater contamination. MTBE is an oxygenate that was used as a gasoline additive in New York State between 1979 and 2004, and since the on-site gasoline stations were closed prior to 1970, the source of the MTBE contamination could not have originated on-site. Therefore, it is likely that the groundwater contamination at the Site represents a comingled plume from historic releases from both the former on-site and existing off-site

gasoline stations. It appears that the original source of the MTBE contamination is no longer present, since the highest levels were detected over 300 feet downgradient of the off-site gasoline station.

- Based on the SI field observations, the metals and SVOCs detected in soil at levels above their respective Part 375 UUSCOs and RRSCOs, and CP-51 SCLs are likely attributable to contaminants in the shallow fill layer observed in the Site subsurface or to background conditions, and not likely to an on-site release or other source area.

6.2 Recommendations

AKRF understands that SWD II, LLC is proposing to redevelop the entire Site footprint with a mixed use development that includes four high-rise residential buildings set on a “Public Platform” that will include specialty retail, restaurant and office space, and dynamic programmed public open space.

Based on the conclusions presented above in conjunction with the scope of the proposed redevelopment work, AKRF recommends applying to enroll in the NYSDEC Brownfield Cleanup Program (BCP). If the Site is accepted into the BCP, the open Spill case could be addressed and closed under the program, and qualified remediation costs and a portion of the redevelopment costs could be eligible for New York State tax credits. The NYSDEC BCP includes multiple phases including the Application and Agreement Phase, a Remedial Investigation Phase to delineate the nature and extent of contamination, and a Remediation Phase to select a remedy and complete the cleanup of the Site.

A full-scale remedial investigation phase may not be required for the Site based on the data generated from the Phase II and SI; however, some level of remedial investigation to further delineate the extent of contamination, and to provide additional data to integrate the designs for the proposed remediation and redevelopment is recommended. After completing the Remedial Investigation (RI), a Remedial Action Work Plan (RAWP) would be prepared to outline measures for addressing the Site contamination in conjunction with the proposed Site redevelopment. It is anticipated that the RAWP would include the following elements:

- Installation of a “cut-off wall” (e.g., steel sheeting with water-proofed joints) along the southeastern Site boundary to prevent migration of groundwater contamination onto the Site from the documented petroleum spill at the east-adjacent gasoline station. This wall could also serve as support-of-excavation for remedial excavations and any excavation required for Site redevelopment in this area.
- Excavation and off-site disposal of petroleum-contaminated soil from the southeastern and southern portions of the Site to remove “hot-spot” areas of contamination, with collection of post-excavation endpoint samples to demonstrate that the remedial action objectives have been achieved. The estimated extent of hot-spot remediation would be determined during the remedial investigation phase.
- Injection or application of a chemical oxidation and/or oxygen releasing product directly to groundwater in the open excavation areas to address residual groundwater contamination.
- Proper characterization, management, and off-site disposal of all soil excavated during site redevelopment, including the shallow fill layer observed at the Site and potential residual petroleum-contaminated soil near the groundwater interface in deeper excavations.
- Pre-treatment and appropriate discharge of any dewatering fluids pumped from the hot-spot excavations and other deeper excavations required for building foundations. Dewatering may also assist in remediating the groundwater contamination at the Site. It is anticipated that discharge of dewatering fluids to the municipal storm-water sewer system will require approval by the NYSDEC Division of Water under the BCP, which may take up to 4 or 5 months to obtain.

- Appropriate testing of any required backfill and top soil to ensure that it meets the import criteria specified in the RAWP.
- Implementation of appropriate Health and Safety and air monitoring measures during all excavation activities to ensure the protection of on-site workers and the surrounding community.
- Protection of existing and/or installation of new permanent groundwater monitoring wells for the collection of post-remedial groundwater samples to demonstrate that remedial action objectives have been achieved.
- Contingency measures for addressing any underground storage tanks and/or unexpected contaminated soil that may be encountered during excavation for Site redevelopment.

In addition to the remedial measures described above, the New York State Department of Health (NYSDOH) may also require installation of vapor mitigation measures under the new buildings. It is anticipated that these measures would not be required for the majority of the area under the public platform, which will consist of separately ventilated loading area/parking garage and storage areas. However, installation of a sub-slab depressurization system (e.g., slotted PVC piping installed in a permeable gravel layer under the building slab connected to vertical risers that vent to the building roof) may be required for some of the retail spaces that are not underlain by the garage/storage areas.

Alternatively, to the extent that the new foundations approach and/or extend into the water table, a waterproofing membrane (e.g., Grace Preprufe) may satisfy any vapor mitigation requirements. To the extent that waterproofing will be installed as part of the development activities, such costs may not be classified by the NYSDEC as “remediation costs” eligible for tax credits under the BCP.

7.0 LIMITATIONS

The findings set forth in this report are strictly limited in scope and time to the date of the evaluation described herein. The conclusions and recommendations presented in the report are based solely on the services and any limitations described in this report.

This report may contain conclusions that are based on the analysis of data collected at the time and locations noted in the report through intrusive or non-intrusive sampling. However, further investigation might reveal additional data or variations of the current data, which may differ from our understanding of the conditions presented in this report and require the enclosed recommendations to be reevaluated or modified.

Chemical analyses may have been performed for specific parameters during the course of this investigation, as summarized in the text and tables. It should be noted that additional chemical constituents, not searched for during this investigation, may be present at the site. Due to the nature of the investigation and the limited data available, no warranty, expressed or implied, shall be construed with respect to undiscovered liabilities. The presence of biological hazards, radioactive materials, lead-based paint and asbestos-containing materials was not investigated, unless specified in the report.

Interpretations of the data, including comparison to regulatory standards, guidelines or background values, are not opinions that these comparisons are legally applicable. Furthermore, any conclusions or recommendations should not be construed as legal advice. For such advice, the client is recommended to seek appropriate legal counsel. Disturbance, handling, transportation, storage and disposal of known or potentially contaminated materials is subject to all applicable laws, which may or may not be fully described as part of this report.

The analytical data, conclusions, and/or recommendations provided in this report should not be construed in any way as a classification of waste that may be generated during future disturbance of the project site. Waste(s) generated at the site including excess fill may be considered regulated solid waste and potentially hazardous waste. Requirements for intended disposal facilities should be determined beforehand as the data provided in this report may be insufficient and could vary following additional sampling.

This report may be based solely or partially on data collected, conducted, and provided by, AKRF and/or others. No warranty is expressed or implied by usage of such data. Such data may be included in other investigation reports or documentation. In addition, these reports may have been based upon available previous reports, historical records, documentation from federal, state and local government agencies, personal interviews, and geological mapping. This report is subject, at a minimum, to the limitations of the previous reports, historical documents, availability and accuracy of collected documentation, and personal recollection of those persons interviewed. In certain instances, AKRF has been required to assume that the information provided is accurate with limited or no corroboratory evidence.

This report is intended for the use solely by SWD II, LLC. Reliance by third parties on the information and opinions contained herein is strictly prohibited and requires the written consent of AKRF. AKRF accepts no responsibility for damages incurred by third parties for any decisions or actions taken based on this report. This report must be used, interpreted, and presented in its entirety.

8.0 SOIL DISPOSAL ISSUES

In addition to the discussions in the Conclusions, Recommendations, and Limitations Sections (Sections 6.0 and 7.0), the issue of appropriate management of off-site disposal of soil warrants careful consideration. Any material being disposed of off-site is a regulated waste, and disposal must be in accordance with:

- Requirements of the specific receiving facility;
- Requirements of any agencies overseeing the cleanup/excavation; and
- Federal and state requirements (sometimes in both the state where the soil is generated and where disposal will occur).

For hazardous wastes and petroleum-contaminated soil (and other ‘clearly contaminated’ materials), the requirements are usually fairly well defined. It is in the situation where contamination is not readily apparent (e.g., so called “historic or urban fill” or “construction and demolition debris” or material that may have been formerly identified as “clean fill”) that present the greatest potential for problems and cost overruns. Even on sites where no contamination requiring remediation is identified, it is common that most of the excavated material is considered “contaminated” for purposes of waste disposal. Concentrations of the various contaminants in historic fill can be highly variable, and upon further testing, the material could contain higher contaminant concentrations than outlined in this investigation. Portions of this material could be classified as hazardous waste.

It is important that the intended disposal facility (or facilities) be identified in advance of off-site disposal. Agency approval is sometimes required for disposal, and the facility will frequently require additional testing prior to (and sometimes at the time of) accepting material. Material must conform to a lengthy list of requirements based on both chemical composition and sometimes numerous other parameters (related to size, percentage of liquids, presence of odors, etc.) for acceptance at the facility. Assuming (or allowing a contractor to assume) that all, or even most, of the soil from a site can be disposed of at minimal cost may result in unanticipated and expensive change orders.

For these reasons, we recommend that professional advice be sought prior to preparing bid documents and contracts incorporating soil disposal.

TABLES

Table 1
200 Hamilton Avenue
White Plains, NY
 Spill Investigation Soil Analytical Results
Volatile Organic Compounds

Client ID	CP-51	NYSDEC	NYSDEC	SB-10 (20-22)	SB-10 (3-5)	SB-11 (17-19)	SB-11 (5-7)	SB-12 (2-4)	SB-12 (15-16)
Lab Sample ID	Soil Cleanup	Part 375	Part 375	L1804131-10	L1804131-11	L1804131-01	L1804131-02	L1804131-08	L1804131-09
Date Sampled	Level	Unrestricted	Restricted	2/7/2018	2/7/2018	2/6/2018	2/6/2018	2/6/2018	2/6/2018
Dilution	SCL	SCO	Residential SCO	1	1	10	1	1	1
Analyte	mg/kg	mg/kg	mg/kg						
1,2,4-Trimethylbenzene	3.6	3.6	52	0.00018 U	0.00017 U	60	0.0002 U	0.00031 J	0.00017 U
1,3,5-Trimethylbenzene	8.4	8.4	52	0.00016 U	0.00015 U	17	0.00017 U	0.00016 U	0.00015 U
Benzene	0.06	0.06	4.8	0.00019 U	0.00018 U	0.1 U	0.0002 U	0.0002 U	0.00018 U
Ethylbenzene	1	1	41	0.00016 U	0.00016 U	11	0.00018 U	0.00019 J	0.00016 U
Isopropylbenzene	2.3	NS	NS	0.00019 U	0.00018 U	4.1	0.00021 U	0.0002 U	0.00018 U
Methyl tert butyl ether	0.93	0.93	100	0.00015 U	0.00014 U	0.084 U	0.00016 U	0.00016 U	0.00014 U
Naphthalene	12	12	100	0.00013 U	0.00013 U	3.4	0.00015 U	0.00032 J	0.00013 U
n-Butylbenzene	12	12	100	0.00022 U	0.00021 U	4	0.00024 U	0.00023 U	0.00021 U
n-Propylbenzene	3.9	3.9	100	0.00021 U	0.0002 U	15	0.00023 U	0.00022 U	0.0002 U
o-Xylene	0.26 TS	0.26 TS	100 TS	0.00033 U	0.00031 U	1.4	0.00036 U	0.00035 U	0.00031 U
p/m-Xylene	0.26 TS	0.26 TS	100 TS	0.00034 U	0.00033 U	17	0.00037 U	0.00049 J	0.00033 U
p-Isopropyltoluene	10	NS	NS	0.0002 U	0.00019 U	1	0.00022 U	0.00021 U	0.00019 U
sec-Butylbenzene	11	11	100	0.00021 U	0.0002 U	2.3	0.00023 U	0.00022 U	0.0002 U
tert-Butylbenzene	5.9	5.9	100	0.00024 U	0.00023 U	0.14 U	0.00026 U	0.00025 U	0.00023 U
Toluene	0.7	0.7	100	0.00019 U	0.00018 U	0.11 U	0.00021 U	0.0002 U	0.00018 U
Xylenes, Total	0.26	0.26	100	0.00033 U	0.00031 U	18	0.00036 U	0.00049 J	0.00031 U

Table 1
200 Hamilton Avenue
White Plains, NY
 Spill Investigation Soil Analytical Results
Volatile Organic Compounds

Client ID	CP-51	NYSDEC	NYSDEC	SB-13 (10-12)	SB-13 (3-5)	SB-14 (2-4)	SB-14 (15-16)	SB-15 (10-11)	SB-15 (2-4)
Lab Sample ID	Soil Cleanup	Part 375	Part 375	L1804131-03	L1804131-04	L1804131-06	L1804131-07	L1804131-12	L1804131-13
Date Sampled	Level	Unrestricted	Restricted	2/6/2018	2/6/2018	2/6/2018	2/6/2018	2/9/2018	2/9/2018
Dilution	SCL	SCO	Residential SCO	10	1	1	10	1	1
Analyte	mg/kg	mg/kg	mg/kg						
1,2,4-Trimethylbenzene	3.6	3.6	52	69	0.00032 J	0.0008 J	19	0.00054 J	0.00022 U
1,3,5-Trimethylbenzene	8.4	8.4	52	22	0.00016 U	0.0003 J	11	0.0011 J	0.00019 U
Benzene	0.06	0.06	4.8	0.11 U	0.00019 U	0.00018 U	0.12 J	0.00023 U	0.00023 U
Ethylbenzene	1	1	41	14	0.00017 U	0.00018 J	4.9	0.00036 J	0.0002 U
Isopropylbenzene	2.3	NS	NS	3.1	0.00019 U	0.00018 U	2.5	0.0014	0.00023 U
Methyl tert butyl ether	0.93	0.93	100	0.085 U	0.00015 U	0.00014 U	0.094 U	0.0024	0.00018 U
Naphthalene	12	12	100	5.8	0.00014 U	0.00085 J	2.8 J	0.0019 J	0.00016 U
n-Butylbenzene	12	12	100	4.1	0.00022 U	0.00021 U	1.4	0.0064	0.00027 U
n-Propylbenzene	3.9	3.9	100	12	0.00021 U	0.0002 U	4.1	0.0048	0.00025 U
o-Xylene	0.26 TS	0.26 TS	100 TS	14	0.00033 U	0.00031 U	0.54 J	0.0004 U	0.0004 U
p/m-Xylene	0.26 TS	0.26 TS	100 TS	54	0.00035 U	0.00066 J	16	0.00041 U	0.00041 U
p-Isopropyltoluene	10	NS	NS	0.95	0.0002 U	0.00019 U	1.3	0.00091 J	0.00024 U
sec-Butylbenzene	11	11	100	2.1	0.00021 U	0.00022 J	0.99	0.0037	0.00026 U
tert-Butylbenzene	5.9	5.9	100	0.14 U	0.00024 U	0.00058 J	0.19 J	0.00031 J	0.00029 U
Toluene	0.7	0.7	100	0.87	0.00019 U	0.00018 U	0.12 U	0.00023 U	0.00027 J
Xylenes, Total	0.26	0.26	100	68	0.00033 U	0.00066 J	17	0.0004 U	0.0004 U

Table 1
200 Hamilton Avenue
White Plains, NY
 Spill Investigation Soil Analytical Results
Volatile Organic Compounds

Client ID Lab Sample ID Date Sampled Dilution Analyte	CP-51 Soil Cleanup Level SCL mg/kg	NYSDEC Part 375 Unrestricted SCO mg/kg	NYSDEC Part 375 Restricted Residential SCO mg/kg	SB-16 (12-13) L1804131-14 2/9/2018 1	SB-16 (2-4) L1804131-15 2/9/2018 1	SB-17 (8-9) L1804131-16 2/9/2018 1	SB-17 (5-7) L1804131-17 2/9/2018 1	SB-18 (12-14) L1804131-05 2/6/2018 20
1,2,4-Trimethylbenzene	3.6	3.6	52	0.0002 U	0.0005 J	0.00056 J	0.00033 J	100
1,3,5-Trimethylbenzene	8.4	8.4	52	0.00017 U	0.00069 J	0.00024 J	0.0002 J	34
Benzene	0.06	0.06	4.8	0.00021 U	0.00023 U	0.00023 U	0.0002 U	0.18 U
Ethylbenzene	1	1	41	0.00018 U	0.0002 U	0.0002 U	0.00018 U	11
Isopropylbenzene	2.3	NS	NS	0.00021 U	0.00023 U	0.0011 J	0.0002 U	2.4
Methyl tert butyl ether	0.93	0.93	100	0.037	0.00018 U	0.00018 U	0.00016 U	0.14 U
Naphthalene	12	12	100	0.00015 U	0.00025 J	0.0028 J	0.00014 U	6.6
n-Butylbenzene	12	12	100	0.00024 U	0.00028 U	0.00027 U	0.00024 U	5.2
n-Propylbenzene	3.9	3.9	100	0.00023 U	0.00026 U	0.0007 J	0.00022 U	7.2
o-Xylene	0.26 TS	0.26 TS	100 TS	0.00036 U	0.00041 U	0.0004 U	0.00035 U	2.3
p/m-Xylene	0.26 TS	0.26 TS	100 TS	0.00038 U	0.00042 U	0.00041 U	0.00037 U	76
p-Isopropyltoluene	10	NS	NS	0.00022 U	0.00024 U	0.00024 U	0.00021 U	1.4
sec-Butylbenzene	11	11	100	0.00025 J	0.00026 U	0.00026 U	0.00023 U	2.9
tert-Butylbenzene	5.9	5.9	100	0.00026 U	0.0003 U	0.00034 J	0.00026 U	0.23 U
Toluene	0.7	0.7	100	0.0003 J	0.00026 J	0.00023 U	0.00047 J	0.28 J
Xylenes, Total	0.26	0.26	100	0.00036 U	0.00041 U	0.0004 U	0.00035 U	78

Table 2
200 Hamilton Avenue
White Plains, NY
 Spill Investigation Soil Analytical Results
 Semivolatile Organic Compounds

Client ID Lab Sample ID Date Sampled	CP-51 Soil Cleanup Level SCL	NYSDEC Part 375 Unrestricted SCO	NYSDEC Part 375 Restricted Residential SCO	SB-10 (3-5) L1804131-11 2/7/2018	SB-11 (5-7) L1804131-02 2/6/2018	SB-12 (2-4) L1804131-08 2/6/2018	SB-13 (3-5) L1804131-04 2/6/2018	SB-14 (2-4) L1804131-06 2/6/2018	SB-15 (2-4) L1804131-13 2/9/2018	SB-16 (2-4) L1804131-15 2/9/2018	SB-17 (5-7) L1804131-17 2/9/2018
Analyte	mg/kg	mg/kg	mg/kg								
Acenaphthene	20	20	100	0.018 U	0.019 U	0.019 U	0.02 U	0.035 J	0.019 U	0.02 U	0.088 J
Acenaphthylene	100	100	100	0.028 U	0.029 U	0.028 U	0.029 U	0.047 J	0.028 U	0.089 J	0.43
Anthracene	100	100	100	0.035 U	0.036 U	0.036 U	0.037 U	0.088 J	0.036 U	0.068 J	0.96
Benzo(a)anthracene	1	1	1	0.02 U	0.021 U	0.02 U	0.021 U	0.24	0.036 J	0.24	2.8
Benzo(a)pyrene	1	1	1	0.044 U	0.046 U	0.045 U	0.046 U	0.24	0.045 U	0.23	2.4
Benzo(b)fluoranthene	1	1	1	0.03 U	0.032 U	0.031 U	0.032 U	0.33	0.05 J	0.32	3.3
Benzo(ghi)perylene	100	100	100	0.021 U	0.022 U	0.022 U	0.022 U	0.19	0.028 J	0.16	1.5
Benzo(k)fluoranthene	0.8	0.8	3.9	0.028 U	0.03 U	0.029 U	0.03 U	0.095 J	0.029 U	0.12	0.85
Chrysene	1	1	3.9	0.018 U	0.019 U	0.019 U	0.02 U	0.21	0.03 J	0.21	2.2
Dibenzo(a,h)anthracene	0.33	0.33	0.33	0.021 U	0.022 U	0.021 U	0.022 U	0.051 J	0.021 U	0.048 J	0.41
Fluoranthene	100	100	100	0.02 U	0.022 U	0.024 J	0.022 U	0.55	0.038 J	0.44	5.3
Fluorene	30	30	100	0.017 U	0.018 U	0.018 U	0.018 U	0.018 J	0.018 U	0.03 J	0.19
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.5	0.025 U	0.026 U	0.025 U	0.026 U	0.2	0.03 J	0.19	1.8
Naphthalene	12	12	100	0.022 U	0.023 U	0.022 U	0.023 U	0.03 J	0.022 U	0.023 U	0.05 J
Phenanthrene	100	100	100	0.022 U	0.023 U	0.022 U	0.023 U	0.12	0.022 U	0.24	2.7
Pyrene	100	100	100	0.018 U	0.019 U	0.024 J	0.019 U	0.44	0.039 J	0.37	4.2

Table 3
200 Hamilton Avenue
White Plains, NY
 Spill Investigation Soil Analytical Results
Metals

Client ID	NYSDEC	NYSDEC	SB-10 (3-5)	SB-11 (5-7)	SB-12 (2-4)	SB-13 (3-5)	SB-14 (2-4)	SB-15 (2-4)	SB-16 (2-4)	SB-17 (5-7)
Lab Sample ID	Part 375	Part 375	L1804131-11	L1804131-02	L1804131-08	L1804131-04	L1804131-06	L1804131-13	L1804131-15	L1804131-17
Date Sampled	Unrestricted	Restricted	2/7/2018	2/6/2018	2/6/2018	2/6/2018	2/6/2018	2/9/2018	2/9/2018	2/9/2018
	SCO	Residential								
Analyte	mg/kg	SCO								
		mg/kg								
Arsenic, Total	13	16	2.05	1.3	1.77	1.73	2.04	1.46	1.69	1.92
Barium, Total	350	400	158	80.5	292	95.6	92.7	55.3	59.8	56.6
Cadmium, Total	2.5	4.3	0.041 U	0.043 U	0.041 U	0.044 U	0.042 U	0.439	0.526	0.574
Chromium, Total	30*	180*	39.5	18.5	113	21	19.9	14.7	12.8	12
Lead, Total	63	400	10.2	4.32	6.66	14.1	140	40.9	8.19	16.5
Mercury, Total	0.18	0.81	0.01 U	0.02 U	0.02 U	0.04 J	0.09	0.4	0.03 J	0.05 J
Selenium, Total	3.9	180	0.116 J	0.113 U	0.108 U	0.117 U	0.111 U	0.11 U	0.117 U	0.108 J
Silver, Total	2	180	0.117 U	0.124 U	0.119 U	0.128 U	0.122 U	0.121 U	0.128 U	0.114 U
Zinc, Total	109	10,000	56.1	32.3	59.2	42	66.5	41.4	26.9	38.8

Table 4
200 Hamilton Avenue
White Plains, NY

Spill Investigation Groundwater Analytical Results
Volatile Organic Compounds

Client ID	NYSDEC	MW-1	MW-2	MW-5	MW-6	MW-7	MW-8	MW-9	TB-1
Lab Sample ID	Class GA	L1805675-01	L1805675-05	L1805675-02	L1805675-03	L1805675-04	L1805675-08	L1805675-06	L1805675-07
Date Sampled	Ambient	2/16/2018	2/16/2018	2/16/2018	2/16/2018	2/16/2018	2/16/2018	2/16/2018	2/16/2018
Units	Standard	1	10	2.5	1	2	2	1	1
Analyte	µg/L								
1,2,4-Trimethylbenzene	5	0.7 U	7 U	1.8 U	0.7 U	110	4.8 J	0.7 U	0.7 U
1,3,5-Trimethylbenzene	5	0.7 U	7 U	1.8 U	0.7 U	56	57	0.7 U	0.7 U
Benzene	1	0.16 U	1.6 U	0.4 U	0.67	0.94 J	0.32 U	0.16 U	0.16 U
Ethylbenzene	5	0.7 U	7 U	1.8 U	0.7 U	92	33	0.7 U	0.7 U
Isopropylbenzene	5	0.7 U	7 U	1.8 U	0.7 U	14	44	0.7 U	0.7 U
Methyl tert butyl ether	10	0.7 U	1,800	1.8 U	1.2 J	15	20	34	0.7 U
Naphthalene	10	0.7 U	7 U	1.8 U	0.7 U	14	23	0.7 U	0.7 U
n-Butylbenzene	5	0.7 U	7 U	1.8 U	0.7 U	1.9 J	36	0.7 U	0.7 U
n-Propylbenzene	5	0.7 U	7 U	1.8 U	0.7 U	14	130	0.7 U	0.7 U
o-Xylene	5	0.7 U	7 U	1.8 U	0.7 U	28	1.4 U	0.7 U	0.7 U
p/m-Xylene	5	0.7 U	7 U	1.8 U	0.7 U	290	22	0.7 U	0.7 U
p-Isopropyltoluene	5	0.7 U	7 U	1.8 U	0.7 U	4.5 J	8.3	0.7 U	0.7 U
sec-Butylbenzene	5	0.7 U	7 U	1.8 U	0.7 U	2.7 J	25	0.7 U	0.7 U
tert-Butylbenzene	5	0.7 U	7 U	1.8 U	0.7 U	1.4 U	1.4 U	0.7 U	0.7 U
Toluene	5	0.7 U	7 U	1.8 U	0.7 U	2.3 J	1.4 U	0.7 U	0.7 U
Xylenes, Total	NS	0.7 U	7 U	1.8 U	0.7 U	320	22	0.7 U	0.7 U

Tables 1-4
200 Hamilton Avenue
White Plains, NY
Spill Investigation Analytical Results
Notes

GENERAL

NS : No standard.

U : The analyte was not detected at the indicated concentration.

J : The concentration given is an estimated value.

TS : Value represents a sum total standard.

SOIL

Part 375 Soil Cleanup Objectives : Soil Cleanup Objectives listed in NYSDEC (New York State Department of Environmental Conservation) "Part 375" Regulations (6 NYCRR Part 375).

CP-51 Soil Cleanup Levels : Soil Cleanup Levels for Gasoline Contaminated Soils listed in Table 2 of NYSDEC "CP-51/Soil Cleanup Guidance."

mg/kg : milligrams per kilogram = parts per million (ppm)

Metals

* : Standard reflects trivalent, not total, Chromium.

Exceedances of Part 375 Unrestricted Soil Cleanup Objectives (UUSCO) and CP-51 Soil Cleanup Levels (SCL) are highlighted in bold font.

Exceedances of Part 375 Restricted Residential Soil Cleanup Objectives (RRSCO) are highlighted in gray.

GROUNDWATER

NYSDEC

Class GA Ambient Standard : New York State Department of Environmental Conservation Technical and Operational Guidance Series (1.1.1): Class GA Ambient Water Quality Standards and Guidance Values.

µg/L : micrograms per Liter = parts per billion (ppb)

Exceedances of NYSDEC Class GA Ambient Standards are highlighted in bold font.

Table 5
200 Hamilton Avenue
200 Hamilton Avenue, White Plains, New York
Groundwater Elevations

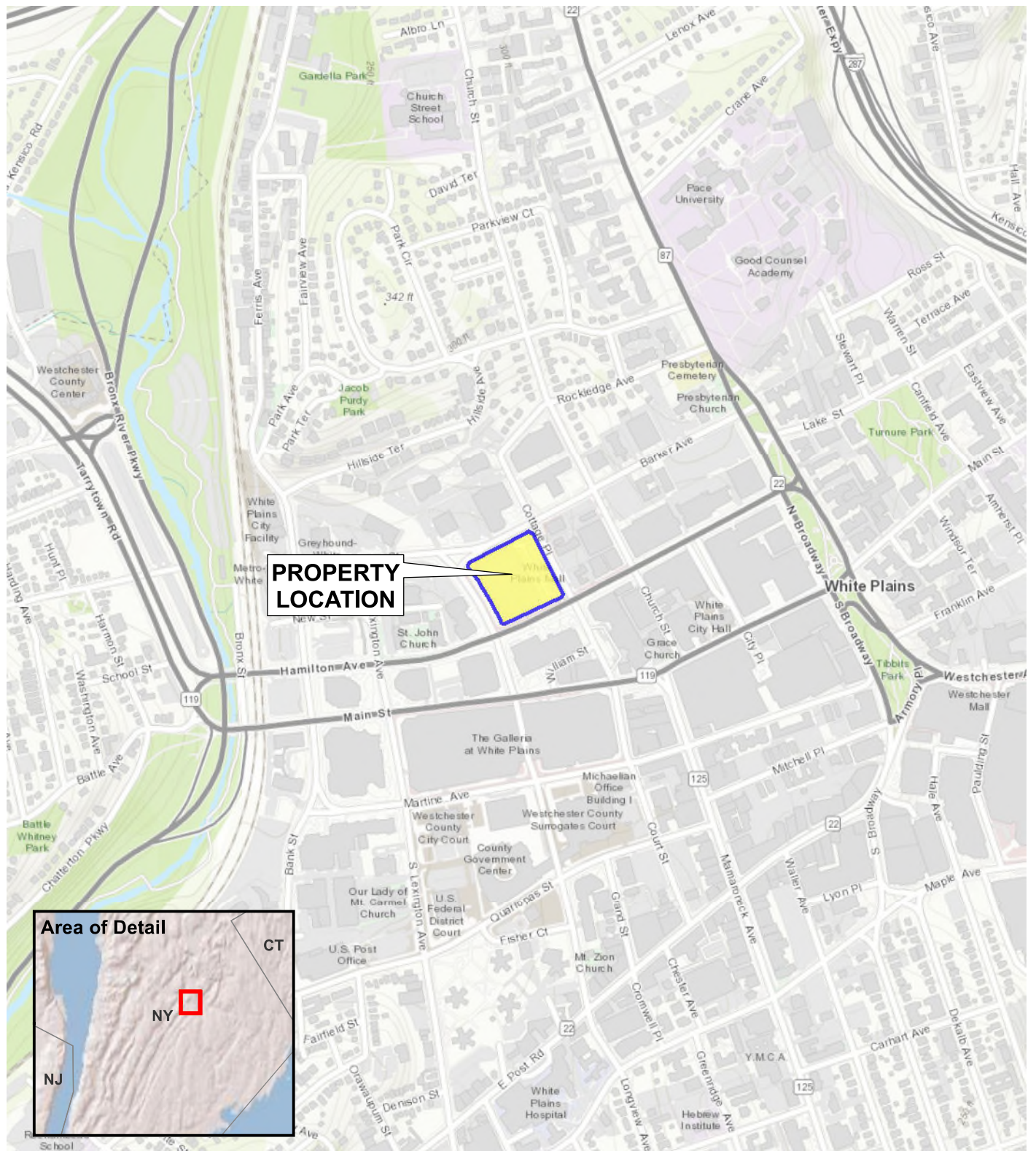
Monitor Well ID	Top of Well Casing Elevation (feet NAVD)	2/16/2018		2/26/2018	
		DTW (feet)	Groundwater Elevation (feet NAVD)	DTW (feet)	Groundwater Elevation (feet NAVD)
MW-1	199.58	18.38	181.20	17.69	181.89
MW-2	192.02	12.42	179.60	12.06	179.96
MW-3	189.92	10.09	179.83	9.71	180.21
MW-4	191.25	10.53	180.72	10.26	180.99
MW-5	201.36	21.41	179.95	20.80	180.56
MW-6	202.21	23.12	179.09	22.51	179.70
MW-7	202.60	23.90	178.70	22.39	180.21
MW-8	189.58	9.93	179.65	9.58	180.00
MW-9	191.35	11.82	179.53	11.45	179.90

Notes:

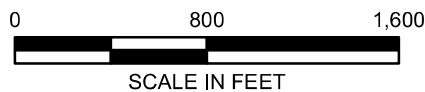
All elevations relative to North American Vertical Datum of 1988 (NAVD 88).
DTW - Depth to Water

FIGURES

© 2018 AKRF Q:\Projects\170029 - 200 HAMILTON AVENUE\Technical\GIS and Graphics\hazmat\170029 Fig 1 Prop loc map.mxd 2/14/2018 9:16:50 AM mvelleux



Map Source: World Topo base map service from ESRI



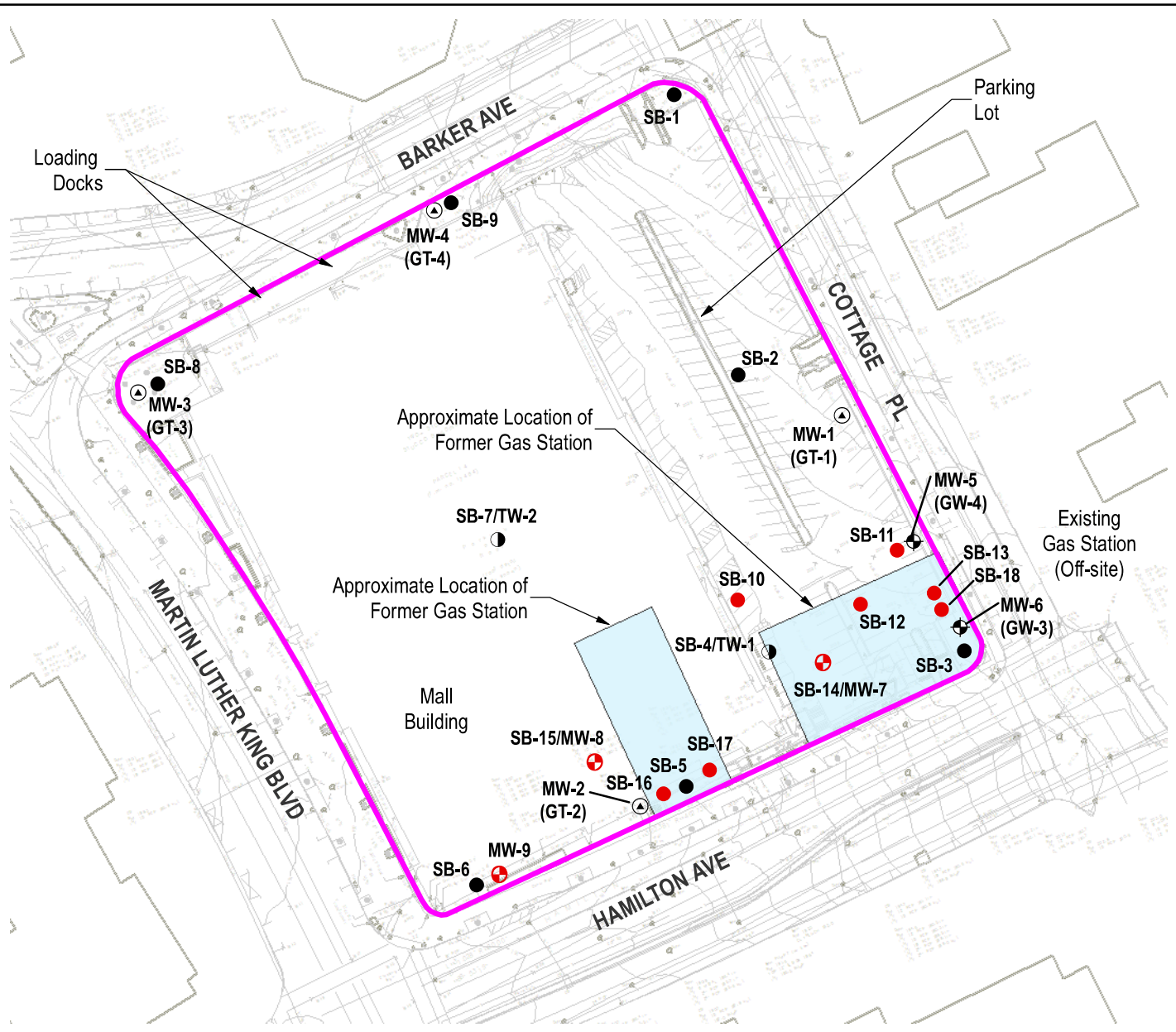
440 Park Avenue South, New York, NY 10016

200 Hamilton Avenue
White Plains, New York

PROPERTY LOCATION








DATE	2/14/2018
PROJECT NO.	170029
FIGURE	1

© 2018 AKRF Q:\Projects\170029 - 200 HAMILTON AVENUE\Technical\GIS and Graphics\hazmat\170029 Fig 2 Site Map with Sample Locations.mxd 3/20/2018 10:19:51 AM mvelleux



Map Source:
Insite Engineering, Surveying & Landscape Architecture, P.C.
May 4, 2017.

LEGEND

-  PROPERTY BOUNDARY
-  EXISTING MONITORING WELL LOCATION (FROM 2015 GEOTECHNICAL INVESTIGATION)
-  EXISTING MONITORING WELL (UNKNOWN)
-  SOIL BORING/TEMPORARY WELL (FROM 2017 PHASE II INVESTIGATION)
-  SOIL BORING LOCATION (FROM 2017 PHASE II INVESTIGATION)
-  SOIL BORING/MONITORING WELL LOCATION
-  SOIL BORING LOCATION

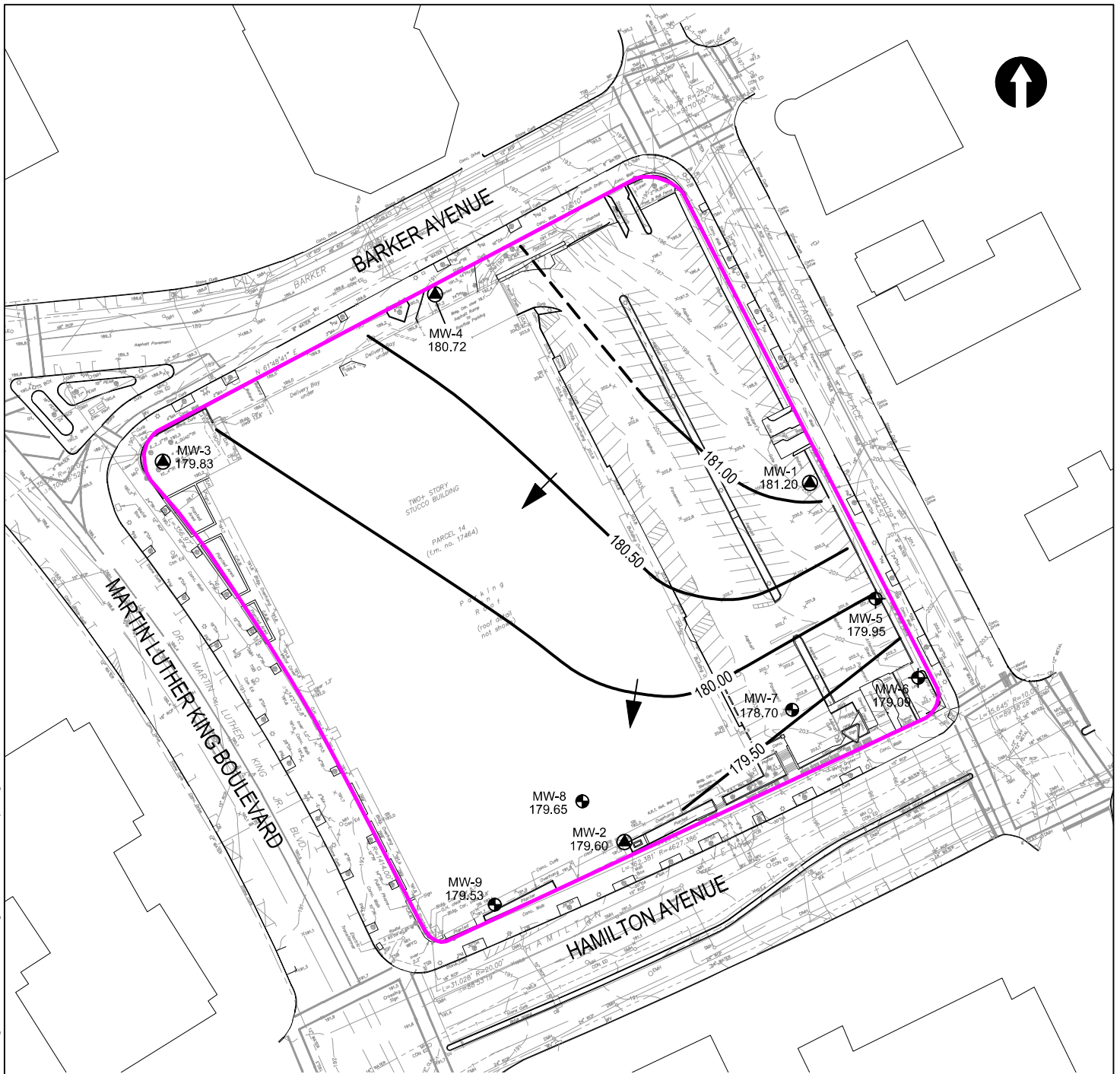


440 Park Avenue South, New York, NY 10016

200 Hamilton Avenue
White Plains, New York

SITE MAP WITH SAMPLE LOCATIONS

DATE	3/20/2018
PROJECT NO.	170029
FIGURE	2



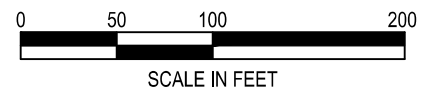
LEGEND

- PROPERTY BOUNDARY
- EXISTING MONITORING WELL LOCATION (FROM 2015 GEOTECHNICAL INVESTIGATION)
- ⊕ EXISTING MONITORING WELL (UNKNOWN)
- ⊙ MONITORING WELL (2018 SPILL INVESTIGATION)

180.00 ——— CONTOUR IN FEET
(DASHED WHERE INFERRED)

→ GROUNDWATER FLOW DIRECTION

NOTE: ELEVATION DATA FROM MW-7 NOT USED IN CREATING CONTOURS DUE TO SLOW RECHARGE IN THIS WELL.



GROUNDWATER ELEVATION



440 Park Avenue South, New York, NY 10016

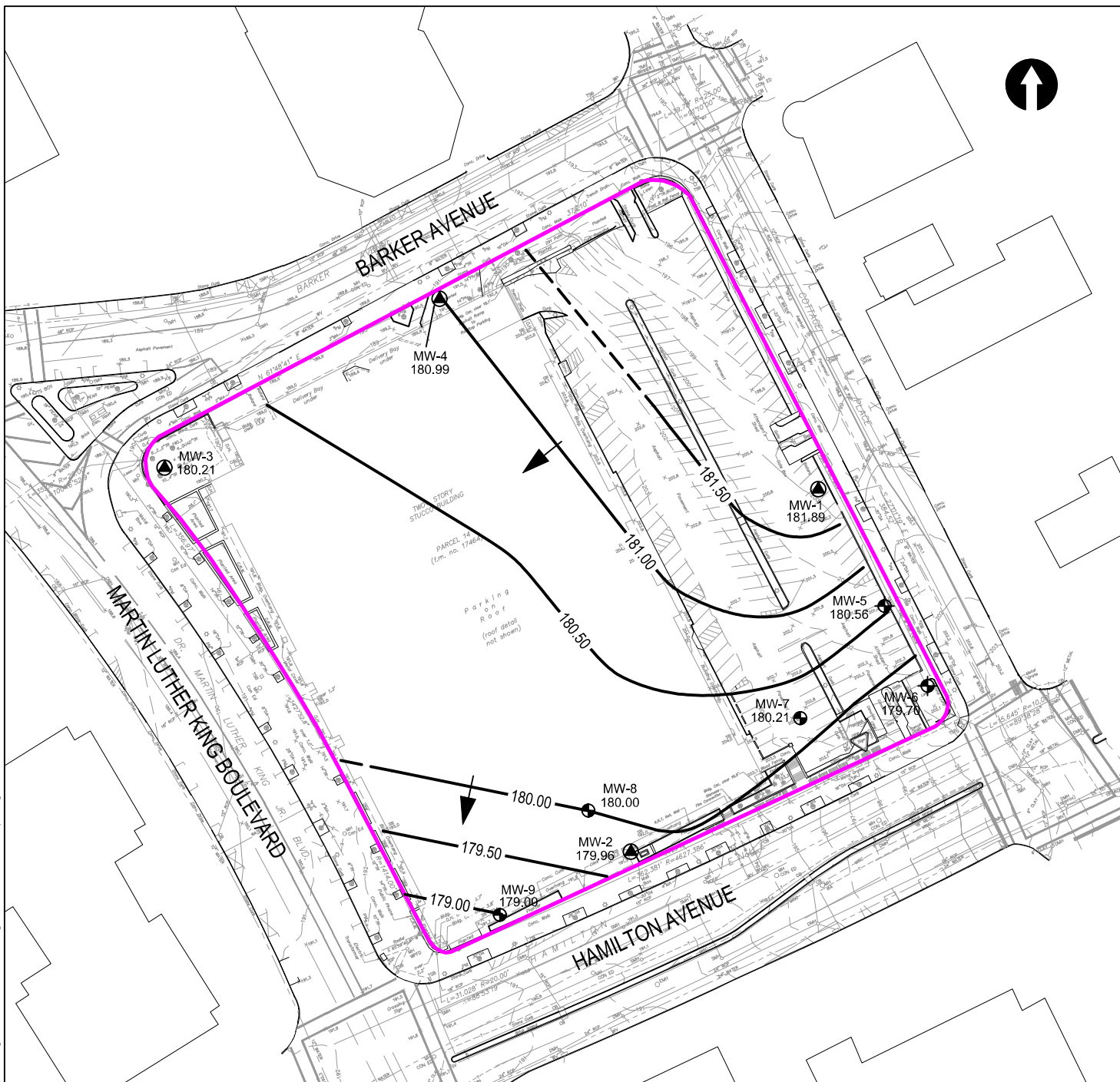
200 Hamilton Avenue
White Plains, New York

GROUNDWATER CONTOUR MAP
FEBRUARY 16, 2018

DATE
4/13/2018

PROJECT NO.
170029

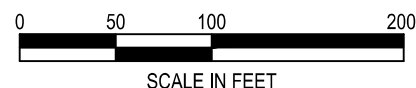
FIGURE
3



Map Source: Insite Engineering, Surveying & Landscaping Architecture, P.C. May 4, 2017.

LEGEND

- PROPERTY BOUNDARY
- EXISTING MONITORING WELL LOCATION (FROM 2015 GEOTECHNICAL INVESTIGATION)
- ⊕ EXISTING MONITORING WELL (UNKNOWN)
- ⊙ MONITORING WELL (2018 SPILL INVESTIGATION)
- 180.00 — GROUNDWATER ELEVATION CONTOUR IN FEET (DASHED WHERE INFERRED)
- GROUNDWATER FLOW DIRECTION



440 Park Avenue South, New York, NY 10016

200 Hamilton Avenue
White Plains, New York

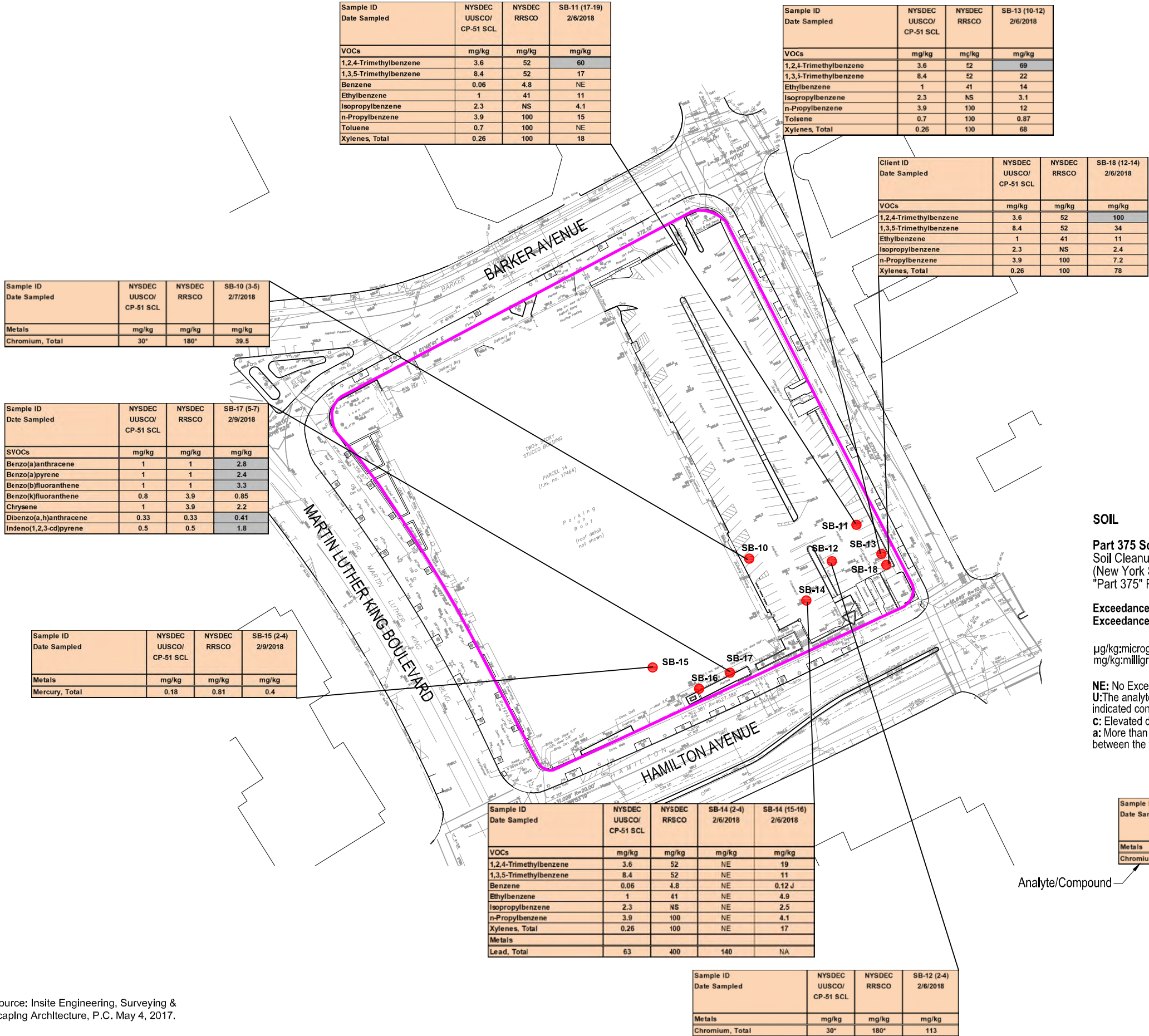
GROUNDWATER CONTOUR MAP
FEBRUARY 26, 2018

DATE
4/13/2018

PROJECT NO.
170029

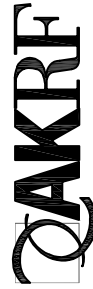
FIGURE
4

Map Source: Insite Engineering, Surveying & Landscaping Architecture, P.C. May 4, 2017.



200 Hamilton Avenue
White Plains, New York

SOIL SAMPLE CONCENTRATIONS ABOVE NYSDEC SCOS



440 Park Avenue South, New York, NY 10016

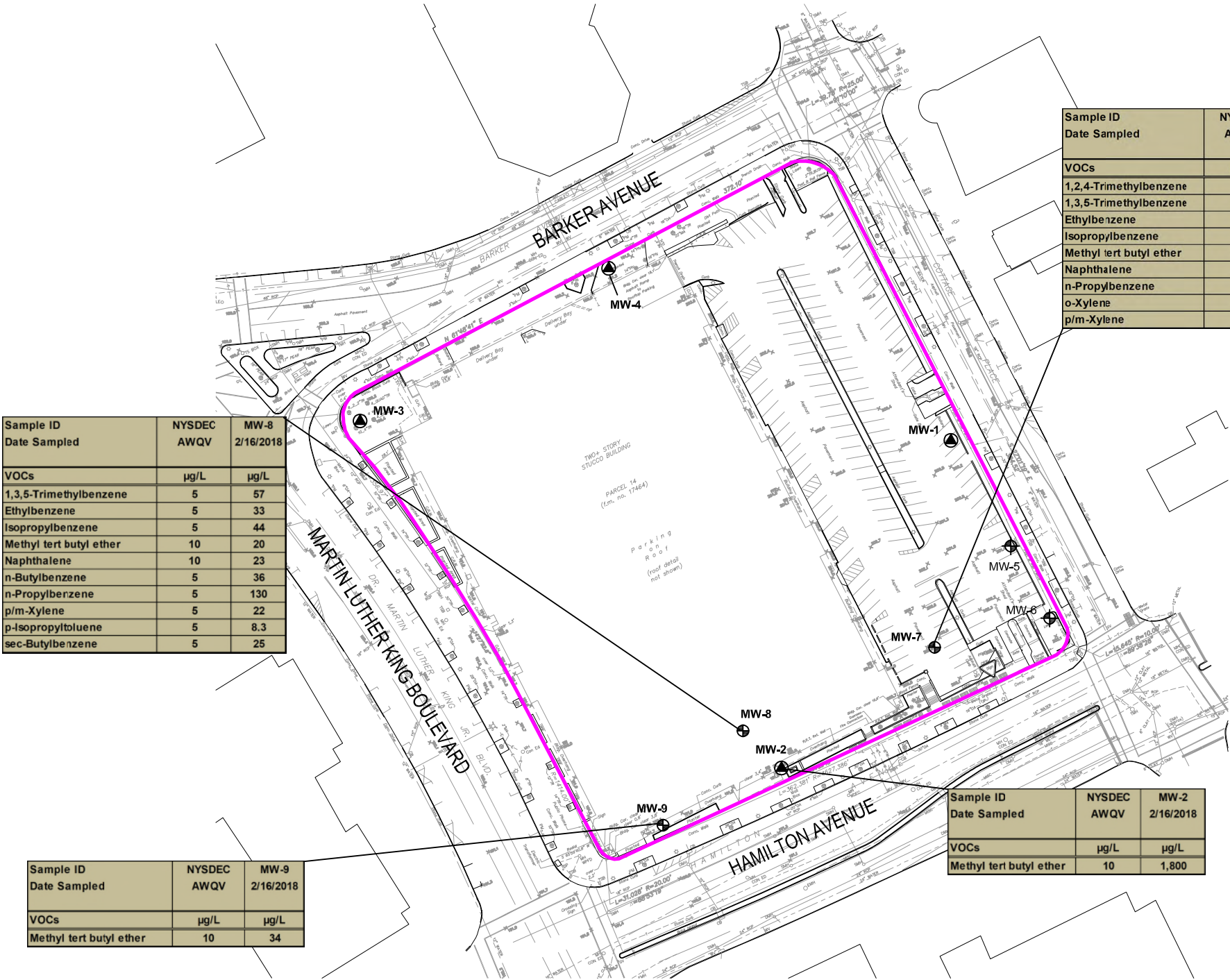
DATE
3/19/2018

PROJECT NO.
170029

FIGURE
5

©2018 AKRF, Inc. Q:\Projects\170029 - 200 HAMILTON AVENUE\Technical\Hazmat\Spill Investigation\CAD\170029 Fig 6 GW Concs.dwg last save: mvelieux 4/13/2018 4:09 PM

Map Source: Insite Engineering, Surveying & Landscaping Architecture, P.C. May 4, 2017.



LEGEND

- PROPERTY BOUNDARY
- EXISTING MONITORING WELL LOCATION (FROM 2015 GEOTECHNICAL INVESTIGATION)
- MONITORING WELL (2018 SPILL INVESTIGATION)
- EXISTING MONITORING WELL (UNKNOWN)

GROUNDWATER

NYSDEC Class GA Ambient Standard:
New York State Department of Environmental Conservation Technical and Operational Guidance Series (1.1.1): Class GA Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. (AWQS)

Exceedances of NYSDEC Class GA Ambient Standards are highlighted in bold font.

(µg/L) - micrograms per Liter = parts per billion (ppb)

Sample ID	NYSDEC	MW-2
Date Sampled	AWQV	2/16/2018
VOCs	µg/L	µg/L
Methyl tert butyl ether	10	1,800

Sample ID
Sample Date
Concentration
Analyte/Compound



200 Hamilton Avenue
White Plains, New York



440 Park Avenue South, New York, NY 10016

GROUNDWATER SAMPLE CONCENTRATIONS ABOVE NYSDEC AWQS

DATE
4/13/2018
PROJECT NO.
170029
FIGURE
6

APPENDIX A
PHOTOGRAPHIC DOCUMENTATION



Photograph 1: Installation of soil boring SB-10 with track-mounted Geoprobe 6620DT.



Photograph 2: Soil cores from soil boring SB-10 staged for field screening and sample collection.



Photograph 3: Installation of 3.75-inch O.D. hollow casing at SB-14 for the installation of MW-7.



Photograph 4: Development of MW-7.



Photograph 5: Installation of soil boring SB-15 with bobcat-mounted Geoprobe 540MT.



Photograph 6: Soil cores from soil boring SB-15 staged for field screening and sample collection.



Photograph 7: Development of MW-15.



Photograph 8: Low-flow groundwater sampling equipment set up at MW-5.