SAMPLE DATA

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	TW-4-DEP	SDG No.:	H3936
Lab Sample ID:	H3936-08	Matrix:	Water
Analytical Method:	E624	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group2
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VH058958.D	1		07/11/16 19:14	VH071116

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
1634-04-4	Methyl tert-Butyl Ether	2.5	U	0.41	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	2.5	U	0.57	2.5	5	ug/L
67-66-3	Chloroform	2.5	U	0.19	2.5	5	ug/L
71-55-6	1,1,1-Trichloroethane	2.5	U	0.3	2.5	5	ug/L
71-43-2	Benzene	2.5	U	0.26	2.5	5	ug/L
108-88-3	Toluene	2.5	U	0.17	2.5	5	ug/L
127-18-4	Tetrachloroethene	2.5	U	0.86	2.5	5	ug/L
100-41-4	Ethyl Benzene	2.5	U	0.26	2.5	5	ug/L
1330-20-7	Total Xylenes	7.5	U	0.57	7.5	15	ug/L
106-46-7	1,4-Dichlorobenzene	2.5	U	0.22	2.5	5	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	29.3		50 - 169		98%	SPK: 30
2037-26-5	Toluene-d8	30		66 - 137		100%	SPK: 30
460-00-4	4-Bromofluorobenzene	29.7		56 - 143		99%	SPK: 30
INTERNAL STANDARDS							
74-97-5	Bromochloromethane	42162	3.69				
540-36-3	1,4-Difluorobenzene	185008	5.56				
3114-55-4	Chlorobenzene-d5	141104	9.72				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

QC SUMMARY

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Surrogate Summary

SDG No.: H3936

Client: AKRF Engineering, P.C.

Analytical Method: SW624

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
H3936-08	TW-4-DEP	1,2-Dichloroethane-d4	30	29.27	98	50	169
		Toluene-d8	30	30	100	66	137
		4-Bromofluorobenzene	30	29.7	99	56	143
VH0711WBL01	VH0711WBL01	1,2-Dichloroethane-d4	30	30.41	101	50	169
		Toluene-d8	30	30.36	101	66	137
		4-Bromofluorobenzene	30	27.68	92	56	143
VH0711WBS02	VH0711WBS02	1,2-Dichloroethane-d4	30	33.98	113	50	169
		Toluene-d8	30	28.96	97	66	137
		4-Bromofluorobenzene	30	30.74	102	56	143
VH0711WBSD0	VH0711WBSD02	1,2-Dichloroethane-d4	30	22.2	74	50	169
		Toluene-d8	30	29.71	99	66	137
		4-Bromofluorobenzene	30	31.27	104	56	143

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: H3936

Client: AKRF Engineering, P.C.

Analytical Method: SW624 **Datafile :** VH058960.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VH0711WBS02	Methyl tert-butyl Ether	20	22.4	ug/L	112			73	136	
	Carbon Tetrachloride	20	18.3	ug/L	92			70	140	
	Chloroform	20	21	ug/L	105			51	138	
	1,1,1-Trichloroethane	20	18	ug/L	90			52	162	
	Benzene	20	19	ug/L	95			37	151	
	Toluene	20	19.6	ug/L	98			47	150	
	Tetrachloroethene	20	19.1	ug/L	96			64	148	
	Ethyl Benzene	20	20.5	ug/L	103			37	162	
	m/p-Xylenes	40	39.4	ug/L	99			70	130	
	o-Xylene	20	20	ug/L	100			70	129	
	1,4-Dichlorobenzene	20	19.9	ug/L	100			18	190	

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: H3936

Client: AKRF Engineering, P.C.

Analytical Method: SW624 **Datafile :** VH058961.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VH0711WBSD02	Methyl tert-butyl Ether	20	14.8	ug/L	74	41	*	73	136	20
	Carbon Tetrachloride	20	22.9	ug/L	115	22	*	70	140	20
	Chloroform	20	18.5	ug/L	93	12		51	138	20
	1,1,1-Trichloroethane	20	24.4	ug/L	122	30	*	52	162	20
	Benzene	20	27.1	ug/L	136	35	*	37	151	20
	Toluene	20	20.3	ug/L	102	4		47	150	20
	Tetrachloroethene	20	18.9	ug/L	95	1		64	148	20
	Ethyl Benzene	20	20	ug/L	100	3		37	162	20
	m/p-Xylenes	40	40.1	ug/L	100	1		70	130	20
	o-Xylene	20	20.5	ug/L	103	3		70	129	20
	1,4-Dichlorobenzene	20	20.4	ug/L	102	2		18	190	20

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VH0711WBL01

Lab Name: CHEMTECH

Contract: AKRF02

Lab Code: CHEM

Case No.: H3936

SAS No.: H3936

SDG NO.: H3936

Lab File ID: VH058955.D

Lab Sample ID: VH0711WBL01

Date Analyzed: 07/11/2016

Time Analyzed: 17:52

GC Column: RTX-VMS

ID: 0.18 (mm)

Heated Purge: (Y/N) N

Instrument ID: MSVOA_H

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
TW-4-DEP	H3936-08	VH058958.D	07/11/2016
VH0711WBS02	VH0711WBS02	VH058960.D	07/11/2016
VH0711WBSD02	VH0711WBSD02	VH058961.D	07/11/2016

COMMENTS:

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH
Contract: AKRF02
Lab Code: CHEM
Case No.: H3936
SAS No.: H3936
SDG NO.: H3936
Lab File ID: VH058948.D
BFB Injection Date: 07/11/2016
Instrument ID: MSVOA_H
BFB Injection Time: 12:11
GC Column: RTX-VMS ID: 0.18 (mm)
Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.4
75	30.0 - 60.0% of mass 95	42.8
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	8.4
173	Less than 2.0% of mass 174	0.0 (0.0) 1
174	50.0 - 100.0% of mass 95	91.1
175	5.0 - 9.0% of mass 174	6 (6.6) 1
176	95.0 - 101.0% of mass 174	91.3 (100.2) 1
177	5.0 - 9.0% of mass 176	6.4 (7.1) 2

1-Value is % mass 174
2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC005	VSTDICC005	VH058949.D	07/11/2016	12:54
VSTDICC010	VSTDICC010	VH058950.D	07/11/2016	13:21
VSTDICCC020	VSTDICCC020	VH058951.D	07/11/2016	13:48
VSTDICC050	VSTDICC050	VH058952.D	07/11/2016	14:15
VSTDICC100	VSTDICC100	VH058953.D	07/11/2016	14:43
VH0711WBL01	VH0711WBL01	VH058955.D	07/11/2016	17:52
TW-4-DEP	H3936-08	VH058958.D	07/11/2016	19:14
VH0711WBS02	VH0711WBS02	VH058960.D	07/11/2016	20:09
VH0711WBSD02	VH0711WBSD02	VH058961.D	07/11/2016	20:37

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG NO.: H3936

Lab File ID: VH058951.D Date Analyzed: 07/11/2016

Instrument ID: MSVOA_H Time Analyzed: 13:48

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	43730	3.69	182572	5.57	146972	9.71
UPPER LIMIT	87460	4.19	365144	6.07	293944	10.21
LOWER LIMIT	21865	3.19	91286	5.07	73486	9.21
EPA SAMPLE NO.						
TW-4-DEP	42162	3.69	185008	5.56	141104	9.72
VH0711WBL01	42832	3.68	185088	5.56	143984	9.71
VH0711WBS02	39119	3.69	193165	5.57	146331	9.71
VH0711WBSD02	64989	3.69	197392	5.57	149050	9.71

IS1 = Bromochloromethane
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

QC SAMPLE DATA

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	
Project:	NYCSCA - PS 97X Addition	Date Received:	
Client Sample ID:	VH0711WBL01	SDG No.:	H3936
Lab Sample ID:	VH0711WBL01	Matrix:	Water
Analytical Method:	E624	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group2
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VH058955.D	1		07/11/16 17:52	VH071116

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
1634-04-4	Methyl tert-Butyl Ether	2.5	U	0.41	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	2.5	U	0.57	2.5	5	ug/L
67-66-3	Chloroform	2.5	U	0.19	2.5	5	ug/L
71-55-6	1,1,1-Trichloroethane	2.5	U	0.3	2.5	5	ug/L
71-43-2	Benzene	2.5	U	0.26	2.5	5	ug/L
108-88-3	Toluene	2.5	U	0.17	2.5	5	ug/L
127-18-4	Tetrachloroethene	2.5	U	0.86	2.5	5	ug/L
100-41-4	Ethyl Benzene	2.5	U	0.26	2.5	5	ug/L
1330-20-7	Total Xylenes	7.5	U	0.57	7.5	15	ug/L
106-46-7	1,4-Dichlorobenzene	2.5	U	0.22	2.5	5	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	30.4		50 - 169		101%	SPK: 30
2037-26-5	Toluene-d8	30.4		66 - 137		101%	SPK: 30
460-00-4	4-Bromofluorobenzene	27.7		56 - 143		92%	SPK: 30
INTERNAL STANDARDS							
74-97-5	Bromochloromethane	42832	3.68				
540-36-3	1,4-Difluorobenzene	185088	5.56				
3114-55-4	Chlorobenzene-d5	143984	9.71				

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	
Project:	NYCSCA - PS 97X Addition	Date Received:	
Client Sample ID:	VH0711WBS02	SDG No.:	H3936
Lab Sample ID:	VH0711WBS02	Matrix:	Water
Analytical Method:	E624	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group2
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VH058960.D	1		07/11/16 20:09	VH071116

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
1634-04-4	Methyl tert-Butyl Ether	22.4		0.41	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	18.3		0.57	2.5	5	ug/L
67-66-3	Chloroform	21		0.19	2.5	5	ug/L
71-55-6	1,1,1-Trichloroethane	18		0.3	2.5	5	ug/L
71-43-2	Benzene	19		0.26	2.5	5	ug/L
108-88-3	Toluene	19.6		0.17	2.5	5	ug/L
127-18-4	Tetrachloroethene	19.1		0.86	2.5	5	ug/L
100-41-4	Ethyl Benzene	20.5		0.26	2.5	5	ug/L
1330-20-7	Total Xylenes	59.4		0.57	7.5	15	ug/L
106-46-7	1,4-Dichlorobenzene	19.9		0.22	2.5	5	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	34		50 - 169		113%	SPK: 30
2037-26-5	Toluene-d8	29		66 - 137		97%	SPK: 30
460-00-4	4-Bromofluorobenzene	30.7		56 - 143		102%	SPK: 30
INTERNAL STANDARDS							
74-97-5	Bromochloromethane	39119	3.69				
540-36-3	1,4-Difluorobenzene	193165	5.57				
3114-55-4	Chlorobenzene-d5	146331	9.71				

U = Not Detected
LOQ = Limit of Quantitation
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CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	
Project:	NYCSCA - PS 97X Addition	Date Received:	
Client Sample ID:	VH0711WBSD02	SDG No.:	H3936
Lab Sample ID:	VH0711WBSD02	Matrix:	Water
Analytical Method:	E624	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group2
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VH058961.D	1		07/11/16 20:37	VH071116

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
1634-04-4	Methyl tert-Butyl Ether	14.8		0.41	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	22.9		0.57	2.5	5	ug/L
67-66-3	Chloroform	18.5		0.19	2.5	5	ug/L
71-55-6	1,1,1-Trichloroethane	24.4		0.3	2.5	5	ug/L
71-43-2	Benzene	27.1		0.26	2.5	5	ug/L
108-88-3	Toluene	20.3		0.17	2.5	5	ug/L
127-18-4	Tetrachloroethene	18.9		0.86	2.5	5	ug/L
100-41-4	Ethyl Benzene	20		0.26	2.5	5	ug/L
1330-20-7	Total Xylenes	60.6		0.57	7.5	15	ug/L
106-46-7	1,4-Dichlorobenzene	20.4		0.22	2.5	5	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	22.2		50 - 169		74%	SPK: 30
2037-26-5	Toluene-d8	29.7		66 - 137		99%	SPK: 30
460-00-4	4-Bromofluorobenzene	31.3		56 - 143		104%	SPK: 30
INTERNAL STANDARDS							
74-97-5	Bromochloromethane	64989	3.69				
540-36-3	1,4-Difluorobenzene	197392	5.57				
3114-55-4	Chlorobenzene-d5	149050	9.71				

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	
Project:	NYCSCA - PS 97X Addition	Date Received:	
Client Sample ID:	VH0711WBSD02	SDG No.:	H3936
Lab Sample ID:	VH0711WBSD02	Matrix:	Water
Analytical Method:	E624	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOCMS Group2
GC Column:	RTX-VMS ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VH058961.D	1		07/11/16 20:37	VH071116

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
1634-04-4	Methyl tert-Butyl Ether	14.8		0.41	2.5	5	ug/L
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67-66-3	Chloroform	18.5		0.19	2.5	5	ug/L
71-55-6	1,1,1-Trichloroethane	24.4		0.3	2.5	5	ug/L
71-43-2	Benzene	27.1		0.26	2.5	5	ug/L
108-88-3	Toluene	20.3		0.17	2.5	5	ug/L
127-18-4	Tetrachloroethene	18.9		0.86	2.5	5	ug/L
100-41-4	Ethyl Benzene	20		0.26	2.5	5	ug/L
1330-20-7	Total Xylenes	60.6		0.57	7.5	15	ug/L
106-46-7	1,4-Dichlorobenzene	20.4		0.22	2.5	5	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	22.2		50 - 169		74%	SPK: 30
2037-26-5	Toluene-d8	29.7		66 - 137		99%	SPK: 30
460-00-4	4-Bromofluorobenzene	31.3		56 - 143		104%	SPK: 30
INTERNAL STANDARDS							
74-97-5	Bromochloromethane	64989	3.69				
540-36-3	1,4-Difluorobenzene	197392	5.57				
3114-55-4	Chlorobenzene-d5	149050	9.71				

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CALIBRATION SUMMARY

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG No.: H3936

Instrument ID: MSVOA_H Calibration Date(s): 07/11/2016 07/11/2016

Heated Purge: (Y/N) N Calibration Time(s): 12:54 14:43

GC Column: RTX-VMS ID: 0.18 (mm)

LAB FILE ID: RRF005 = VH058949.D RRF010 = VH058950.D RRF020 = VH058951.D
RRF050 = VH058952.D RRF100 = VH058953.D RRF =

COMPOUND	RRF005	RRF010	RRF020	RRF050	RRF100	RRF	$\overline{RRF}$	% RSD
Methyl tert-Butyl Ether	8.758	8.288	8.052	7.558	5.027		7.537	19.5
Carbon Tetrachloride	0.490	0.530	0.533	0.520	0.587		0.532	6.6
Chloroform	3.398	3.781	3.276	3.793	3.119		3.474	8.7
1,1,1-Trichloroethane	0.486	0.566	0.603	0.528	0.690		0.574	13.5
Benzene	1.065	1.124	1.180	1.096	1.028		1.099	5.3
Toluene	1.439	1.607	1.538	1.532	1.470		1.518	4.3
Tetrachloroethene	0.322	0.365	0.391	0.371	0.349		0.359	7.2
Ethyl Benzene	1.424	1.681	1.664	1.687	1.595		1.610	6.9
m/p-Xylenes	0.542	0.583	0.597	0.611	0.572		0.581	4.5
o-Xylene	0.547	0.546	0.593	0.606	0.562		0.571	4.8
1,4-Dichlorobenzene	0.574	0.651	0.608	0.674	0.605		0.622	6.4
1,2-Dichloroethane-d4	2.402	2.391	2.175	2.334	1.432		2.147	19.1
Toluene-d8	1.288	1.304	1.246	1.290	1.246		1.275	2.1
4-Bromofluorobenzene	0.454	0.469	0.504	0.476	0.481		0.477	3.8

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

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LAB CHRONICLE

OrderID:	H3936	**OrderDate:**	7/6/2016 5:13:22 PM
Client:	AKRF Engineering, P.C.	**Project:**	NYCSCA - PS 97X Addition
Contact:	Rebecca Kinal, PE	**Location:**	P63

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
H3936-01	**SB-1(9-10)**	**SOIL**			**07/06/16**			**07/06/16**
			Diesel Range Organics	8015B		07/11/16	07/12/16	
			Gasoline Range Organics	8015B			07/13/16	
			PCB	8082A		07/11/16	07/13/16	
H3936-02	**SB-2(9-10)**	**SOIL**			**07/06/16**			**07/06/16**
			Diesel Range Organics	8015B		07/11/16	07/12/16	
			Gasoline Range Organics	8015B			07/13/16	
			PCB	8082A		07/11/16	07/13/16	
H3936-03	**SB-3(5-6)**	**SOIL**			**07/06/16**			**07/06/16**
			Diesel Range Organics	8015B		07/11/16	07/12/16	
			Gasoline Range Organics	8015B			07/13/16	
			PCB	8082A		07/11/16	07/13/16	
H3936-04	**SB-4(4-5)**	**SOIL**			**07/06/16**			**07/06/16**
			Diesel Range Organics	8015B		07/11/16	07/13/16	
			Gasoline Range Organics	8015B			07/13/16	
			PCB	8082A		07/11/16	07/13/16	
H3936-05	**SB-5(1-2)**	**SOIL**			**07/06/16**			**07/06/16**
			Diesel Range Organics	8015B		07/11/16	07/13/16	
			Gasoline Range Organics	8015B			07/13/16	
			PCB	8082A		07/11/16	07/13/16	
H3936-06	**SB-5(4-5)**	**SOIL**			**07/06/16**			**07/06/16**
			Diesel Range Organics	8015B		07/11/16	07/13/16	
			Gasoline Range Organics	8015B			07/13/16	
			PCB	8082A		07/11/16	07/13/16	
H3936-07	**TW-4**	**Water**			**07/06/16**			**07/06/16**
			PCB	8082A		07/08/16	07/13/16	
H3936-08	**TW-4-DEP**	**Water**			**07/06/16**			**07/06/16**

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LAB CHRONICLE

			PCB Group2	608		07/08/16	07/12/16	
H3936-09	**SB-6(11-12)**	**SOIL**			**07/06/16**			**07/06/16**
			Diesel Range Organics	8015B		07/11/16	07/13/16	
			Gasoline Range Organics	8015B			07/13/16	
			PCB	8082A		07/11/16	07/13/16	

SAMPLE DATA

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-1(9-10)	SDG No.:	H3936
Lab Sample ID:	H3936-01	Matrix:	SOIL
Analytical Method:	8015B GRO	% Moisture:	5 Decanted:
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5 mL
Soil Aliquot Vol:	uL	Test:	Gasoline Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB007393.D	1	07/13/16 16:17	FB071316

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
GRO	GRO	23.5	U	13	23.5	47	ug/kg
SURROGATES							
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	15.2		50 - 150		76%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-2(9-10)	SDG No.:	H3936
Lab Sample ID:	H3936-02	Matrix:	SOIL
Analytical Method:	8015B GRO	% Moisture:	12.6 Decanted:
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5 mL
Soil Aliquot Vol:	uL	Test:	Gasoline Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB007394.D	1	07/13/16 16:48	FB071316

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
GRO	GRO	25.5	U	14	25.5	51	ug/kg
SURROGATES							
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	15.3		50 - 150		76%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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M = MS/MSD acceptance criteria did not meet requirements

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* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-3(5-6)	SDG No.:	H3936
Lab Sample ID:	H3936-03	Matrix:	SOIL
Analytical Method:	8015B GRO	% Moisture:	10.8 Decanted:
Sample Wt/Vol:	5.04 Units: g	Final Vol:	5 mL
Soil Aliquot Vol:	uL	Test:	Gasoline Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB007388.D	1	07/13/16 13:41	FB071316

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
GRO	GRO	25	U	13	25	50	ug/kg
SURROGATES							
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	13.7		50 - 150		68%	SPK: 20

Comments:

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LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-4(4-5)	SDG No.:	H3936
Lab Sample ID:	H3936-04	Matrix:	SOIL
Analytical Method:	8015B GRO	% Moisture:	9.1 Decanted:
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5 mL
Soil Aliquot Vol:	uL	Test:	Gasoline Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB007389.D	1	07/13/16 14:12	FB071316

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
GRO	GRO	24.5	U	13	24.5	49	ug/kg
SURROGATES							
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	12.8		50 - 150		64%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-5(1-2)	SDG No.:	H3936
Lab Sample ID:	H3936-05	Matrix:	SOIL
Analytical Method:	8015B GRO	% Moisture:	7.6 Decanted:
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5 mL
Soil Aliquot Vol:	uL	Test:	Gasoline Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB007390.D	1	07/13/16 14:44	FB071316

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
GRO	GRO	24	U	13	24	48	ug/kg
SURROGATES							
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	12.3		50 - 150		61%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-5(4-5)	SDG No.:	H3936
Lab Sample ID:	H3936-06	Matrix:	SOIL
Analytical Method:	8015B GRO	% Moisture:	12.6 Decanted:
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5 mL
Soil Aliquot Vol:	uL	Test:	Gasoline Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB007395.D	1	07/13/16 17:20	FB071316

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
GRO	GRO	25.5	U	14	25.5	51	ug/kg
SURROGATES							
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	17.4		50 - 150		87%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-6(11-12)	SDG No.:	H3936
Lab Sample ID:	H3936-09	Matrix:	SOIL
Analytical Method:	8015B GRO	% Moisture:	19.4 Decanted:
Sample Wt/Vol:	5.02 Units: g	Final Vol:	5 mL
Soil Aliquot Vol:	uL	Test:	Gasoline Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB007392.D	1	07/13/16 15:46	FB071316

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
GRO	GRO	28	U	15	28	56	ug/kg
SURROGATES							
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	16.7		50 - 150		84%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
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QC SUMMARY

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

SOIL GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: Chemtech Client: AKRF Engineering, P.C.

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG No.: H3936

EPA SAMPLE NO.	S1 AAA-TFT	S2	S3	S4	TOT OUT
VBF0713S1	92				0
BSF0713S1	78				0
SB-3(5-6)	68				0
SB-4(4-5)	64				0
SB-5(1-2)	61				0
SB-6(11-12)	84				0
SB-1(9-10)	76				0
SB-2(9-10)	76				0
SB-5(4-5)	87				0
SB-5(1-2)MS	95				0
SB-5(1-2)MSD	79				0

	QC LIMITS
AAA-TFT	For Water : 50-150 For Soil : 50-150

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate Diluted Out

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

SOIL GASOLINE RANGE ORGANICS MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** AKRF Engineering, P.C.

Lab Code: CHEM **Cas No:** H3936 **SAS No :** H3936 **SDG No:** H3936

Client SampleID : SB-5(1-2)MS **Datafile:** FB007396.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS
GRO	193	0	188	97.4%		50-150

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SOIL GASOLINE RANGE ORGANICS MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** AKRF Engineering, P.C.

Lab Code: CHEM **Cas No:** H3936 **SAS No :** H3936 **SDG No:** H3936

Client SampleID : SB-5(1-2)MSD **Datafile:** FB007397.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS
GRO	194	0	145	74.7%		50-150

MS/MSD % Recovery RPD : 26.4

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SOIL GASOLINE RANGE ORGANICS LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICAT

Lab Name: Chemtech **Client:** AKRF Engineering, P.C.

Lab Code: CHEM **Cas No:** H3936 **SAS No :** H3936 **SDG No:** H3936

Matrix Spike - EPA Sample No : BSF0713S1 **Datafile:** FB007385.D

COMPOUND	SPIKE ADDED ug/kg	CONCENTRATION ug/kg	LCS/LCSD CONCENTRATION ug/kg	% REC	QC LIMITS
GRO	179	18.32	153	75.2	50-150

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBF0713S1

Lab Name: CHEMTECH

Contract: AKRF02

Lab Code: CHEM

Case No.: H3936

SAS No.: H3936

SDG NO.: H3936

Lab File ID: FB007384.D

Lab Sample ID: VBF0713S1

Date Analyzed: 07/13/16

Time Analyzed: 10:19

GC Column: RTX-502.2

ID: 0.53 (mm)

Heated Purge: (Y/N) Y

Instrument ID: FB

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
BSF0713S1	BSF0713S1	FB007385.D	07/13/16
SB-3(5-6)	H3936-03	FB007388.D	07/13/16
SB-4(4-5)	H3936-04	FB007389.D	07/13/16
SB-5(1-2)	H3936-05	FB007390.D	07/13/16
SB-6(11-12)	H3936-09	FB007392.D	07/13/16
SB-1(9-10)	H3936-01	FB007393.D	07/13/16
SB-2(9-10)	H3936-02	FB007394.D	07/13/16
SB-5(4-5)	H3936-06	FB007395.D	07/13/16
SB-5(1-2)MS	H3936-05MS	FB007396.D	07/13/16
SB-5(1-2)MSD	H3936-05MSD	FB007397.D	07/13/16

COMMENTS:

QC SAMPLE DATA

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	
Project:	NYCSCA - PS 97X Addition	Date Received:	
Client Sample ID:	VBF0713S1	SDG No.:	H3936
Lab Sample ID:	VBF0713S1	Matrix:	SOIL
Analytical Method:	8015B GRO	% Moisture:	0 Decanted:
Sample Wt/Vol:	5.01 Units: g	Final Vol:	5 mL
Soil Aliquot Vol:	uL	Test:	Gasoline Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB007384.D	1	07/13/16 10:19	FB071316

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
GRO	GRO	22.5	U	12	22.5	45	ug/kg
SURROGATES							
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	18.3		50 - 150		92%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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M = MS/MSD acceptance criteria did not meet requirements

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S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	
Project:	NYCSCA - PS 97X Addition	Date Received:	
Client Sample ID:	BSF0713S1	SDG No.:	H3936
Lab Sample ID:	BSF0713S1	Matrix:	SOIL
Analytical Method:	8015B GRO	% Moisture:	0 Decanted:
Sample Wt/Vol:	5.02 Units: g	Final Vol:	5 mL
Soil Aliquot Vol:	uL	Test:	Gasoline Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB007385.D	1	07/13/16 10:50	FB071316

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
GRO	GRO	153		12	22.5	45	ug/kg
SURROGATES							
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	15.6		50 - 150		78%	SPK: 20

Comments:

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MDL = Method Detection Limit
LOD = Limit of Detection
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M = MS/MSD acceptance criteria did not meet requirements

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B = Analyte Found in Associated Method Blank
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() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-5(1-2)MS	SDG No.:	H3936
Lab Sample ID:	H3936-05MS	Matrix:	SOIL
Analytical Method:	8015B GRO	% Moisture:	7.6 Decanted:
Sample Wt/Vol:	5.04 Units: g	Final Vol:	5 mL
Soil Aliquot Vol:	uL	Test:	Gasoline Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB007396.D	1	07/13/16 17:51	FB071316

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
GRO	GRO	188		13	24	48	ug/kg
SURROGATES							
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	18.9		50 - 150		95%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-5(1-2)MSD	SDG No.:	H3936
Lab Sample ID:	H3936-05MSD	Matrix:	SOIL
Analytical Method:	8015B GRO	% Moisture:	7.6 Decanted:
Sample Wt/Vol:	5.03 Units: g	Final Vol:	5 mL
Soil Aliquot Vol:	uL	Test:	Gasoline Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB007397.D	1	07/13/16 18:22	FB071316

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
GRO	GRO	145		13	24	48	ug/kg
SURROGATES							
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	15.7		50 - 150		79%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

CALIBRATION SUMMARY

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GASOLINE RANGE ORGANICS INITIAL CALIBRATION SUMMARY

Lab Name: Chemtech Contract: AKRF02

ProjectID: NYCSCA - PS 97X Addition

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG No.: H3936

Calibration Sequence : FB070116		Test : Gasoline Range Organics	
Concentration (PPB)	Area Count	Reference Factor	File ID
45	687147	15270	FB007263.D
90	1345644	14952	FB007264.D
180	2771236	15396	FB007265.D
450	7007250	15572	FB007266.D
900	13599610	15111	FB007267.D
AVG RF : 15260	% RSD : 1.582		AVG RT : 9.1622

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GASOLINE RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

20 PPB GRO STD

Lab Name: Chemtech Contract: AKRF02

ProjectID: NYCSCA - PS 97X Addition

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG No.: H3936

DataFile: FB007383.D Analyst Name: UA/NP Analyst Date: 07-13-2016

Conc. (PPB)	Area Count	RF	Average RF	%D
180	2787918	15488	15260	1.494

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GASOLINE RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

20 PPB GRO STD

Lab Name: Chemtech Contract: AKRF02

ProjectID: NYCSCA - PS 97X Addition

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG No.: H3936

DataFile: FB007398.D Analyst Name: UA/NP Analyst Date: 07-13-2016

Conc. (PPB)	Area Count	RF	Average RF	%D
180	2607468	14486	15260	5.072

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Analytical Sequence

Client: AKRF Engineering, P.C. **SDG No.:** H3936

Project: NYCSCA - PS 97X Addition **Instrument ID:** FID_B

GC Column: RTX-502.2 **ID:** 0.53 **(mm)**

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SUROGATE RT FROM INITIAL CALIBRATION 9.1622

EPA SAMPLE NO.	LAB SAMPLE ID	DATE AND TIME ANALYZED	DATAFILE	RT	#
20 PPB GRO STD	20 PPB GRO STD	13 Jul 2016 9:40	FB007383.D	9.159	
VBF0713S1	VBF0713S1	13 Jul 2016 10:19	FB007384.D	9.161	
BSF0713S1	BSF0713S1	13 Jul 2016 10:50	FB007385.D	9.161	
SB-3(5-6)	H3936-03	13 Jul 2016 13:41	FB007388.D	9.160	
SB-4(4-5)	H3936-04	13 Jul 2016 14:12	FB007389.D	9.161	
SB-5(1-2)	H3936-05	13 Jul 2016 14:44	FB007390.D	9.161	
SB-6(11-12)	H3936-09	13 Jul 2016 15:46	FB007392.D	9.162	
SB-1(9-10)	H3936-01	13 Jul 2016 16:17	FB007393.D	9.161	
SB-2(9-10)	H3936-02	13 Jul 2016 16:48	FB007394.D	9.160	
SB-5(4-5)	H3936-06	13 Jul 2016 17:20	FB007395.D	9.160	
SB-5(1-2)MS	H3936-05MS	13 Jul 2016 17:51	FB007396.D	9.160	
SB-5(1-2)MSD	H3936-05MSD	13 Jul 2016 18:22	FB007397.D	9.160	
20 PPB GRO STD	20 PPB GRO STD	13 Jul 2016 19:53	FB007398.D	9.162	

Column used to flag RT values with an * values outside of QC limits

QC Limits (± 0.10 minutes)	Lower Limit	Upper Limits
	9.0622	9.2622

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LAB CHRONICLE

OrderID:	H3936	**OrderDate:**	7/6/2016 5:13:22 PM
Client:	AKRF Engineering, P.C.	**Project:**	NYCSCA - PS 97X Addition
Contact:	Rebecca Kinal, PE	**Location:**	P63

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
H3936-01	**SB-1(9-10)**	**SOIL**			**07/06/16**			**07/06/16**
			SVOCMS Group1	8270D		07/11/16	07/12/16	
H3936-02	**SB-2(9-10)**	**SOIL**			**07/06/16**			**07/06/16**
			SVOCMS Group1	8270D		07/11/16	07/12/16	
H3936-03	**SB-3(5-6)**	**SOIL**			**07/06/16**			**07/06/16**
			SVOCMS Group1	8270D		07/11/16	07/13/16	
H3936-04	**SB-4(4-5)**	**SOIL**			**07/06/16**			**07/06/16**
			SVOCMS Group1	8270D		07/11/16	07/13/16	
H3936-05	**SB-5(1-2)**	**SOIL**			**07/06/16**			**07/06/16**
			SVOCMS Group1	8270D		07/11/16	07/12/16	
H3936-06	**SB-5(4-5)**	**SOIL**			**07/06/16**			**07/06/16**
			SVOCMS Group1	8270D		07/11/16	07/12/16	
H3936-07	**TW-4**	**Water**			**07/06/16**			**07/06/16**
			SVOCMS Group1	8270D		07/08/16	07/09/16	
H3936-08	**TW-4-DEP**	**Water**			**07/06/16**			**07/06/16**
			SVOCMS Group2	625		07/08/16	07/09/16	
H3936-09	**SB-6(11-12)**	**SOIL**			**07/06/16**			**07/06/16**
			SVOCMS Group1	8270D		07/11/16	07/13/16	

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Hit Summary Sheet
SW-846

SDG No.: H3936

Client: AKRF Engineering, P.C.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID :	**SB-1(9-10)**								
H3936-01	SB-1(9-10)	SOIL	Dimethylphthalate	390.000		9.4	34.9	350	ug/Kg
			Total Svoc :	**390.00**					
			Total Concentration:	**390.00**					
Client ID :	**SB-2(9-10)**								
H3936-02	SB-2(9-10)	SOIL	Dimethylphthalate	560.000		10.3	38.1	380	ug/Kg
			Total Svoc :	**560.00**					
			Total Concentration:	**560.00**					
Client ID :	**SB-3(5-6)**								
H3936-03	SB-3(5-6)	SOIL	Dimethylphthalate	900.000		10.1	37.3	370	ug/Kg
			Total Svoc :	**900.00**					
			Total Concentration:	**900.00**					
Client ID :	**SB-4(4-5)**								
H3936-04	SB-4(4-5)	SOIL	Phenol	91.200	J	8.5	36.6	360	ug/Kg
H3936-04	SB-4(4-5)	SOIL	3+4-Methylphenols	75.400	J	19	36.6	360	ug/Kg
H3936-04	SB-4(4-5)	SOIL	Dimethylphthalate	360.000		9.9	36.6	360	ug/Kg
H3936-04	SB-4(4-5)	SOIL	Phenanthrene	410.000		9.9	36.6	360	ug/Kg
H3936-04	SB-4(4-5)	SOIL	Anthracene	120.000	J	7.5	36.6	360	ug/Kg
H3936-04	SB-4(4-5)	SOIL	Di-n-butylphthalate	180.000	J	28.8	36.6	360	ug/Kg
H3936-04	SB-4(4-5)	SOIL	Fluoranthene	630.000		7.4	36.6	360	ug/Kg
H3936-04	SB-4(4-5)	SOIL	Pyrene	400.000		8.8	36.6	360	ug/Kg
H3936-04	SB-4(4-5)	SOIL	Butylbenzylphthalate	130.000	J	17.6	36.6	360	ug/Kg
H3936-04	SB-4(4-5)	SOIL	Benzo(a)anthracene	350.000	J	17.5	36.6	360	ug/Kg
H3936-04	SB-4(4-5)	SOIL	Chrysene	400.000		16.6	36.6	360	ug/Kg
H3936-04	SB-4(4-5)	SOIL	Bis(2-ethylhexyl)phthalate	610.000		13	36.6	360	ug/Kg
H3936-04	SB-4(4-5)	SOIL	Di-n-octyl phthalate	190.000	J	4.2	36.6	360	ug/Kg
H3936-04	SB-4(4-5)	SOIL	Benzo(b)fluoranthene	510.000		12	36.6	360	ug/Kg
H3936-04	SB-4(4-5)	SOIL	Benzo(k)fluoranthene	340.000	J	17.2	36.6	360	ug/Kg
H3936-04	SB-4(4-5)	SOIL	Benzo(a)pyrene	360.000		7.9	36.6	360	ug/Kg
H3936-04	SB-4(4-5)	SOIL	Indeno(1,2,3-cd)pyrene	200.000	J	12.2	36.6	360	ug/Kg
H3936-04	SB-4(4-5)	SOIL	Dibenzo(a,h)anthracene	120.000	J	10.5	36.6	360	ug/Kg
H3936-04	SB-4(4-5)	SOIL	Benzo(g,h,i)perylene	220.000	J	14.8	36.6	360	ug/Kg
			Total Svoc :	**5,696.60**					
			Total Concentration:	**5,696.60**					
Client ID :	**SB-5(1-2)**								
H3936-05	SB-5(1-2)	SOIL	Dimethylphthalate	450.000		9.7	36	360	ug/Kg
			Total Svoc :	**450.00**					
			Total Concentration:	**450.00**					

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Hit Summary Sheet
SW-846

SDG No.: H3936

Client: AKRF Engineering, P.C.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID : SB-5(4-5)									
H3936-06	SB-5(4-5)	SOIL	Dimethylphthalate	850.000		10.3	38.1	380	ug/Kg
			Total Svoc :	**850.00**					
			Total Concentration:	**850.00**					
Client ID : SB-6(11-12)									
H3936-09	SB-6(11-12)	SOIL	Dimethylphthalate	340.000	J	11.1	41.3	410	ug/Kg
			Total Svoc :	**340.00**					
			Total Concentration:	**340.00**					

SAMPLE DATA

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-1(9-10)	SDG No.:	H3936
Lab Sample ID:	H3936-01	Matrix:	SOIL
Analytical Method:	SW8270	% Moisture:	5
Sample Wt/Vol:	30.12 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023027.D	1	07/11/16 08:58	07/12/16 08:37	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
100-52-7	Benzaldehyde	34.9	U	18.2	34.9	350	ug/Kg
108-95-2	Phenol	34.9	U	8.1	34.9	350	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	34.9	U	16.8	34.9	350	ug/Kg
95-57-8	2-Chlorophenol	34.9	U	18.5	34.9	350	ug/Kg
95-48-7	2-Methylphenol	34.9	U	19	34.9	350	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	34.9	U	14.5	34.9	350	ug/Kg
98-86-2	Acetophenone	34.9	U	10.7	34.9	350	ug/Kg
65794-96-9	3+4-Methylphenols	34.9	U	18.1	34.9	350	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	34.9	U	17.6	34.9	350	ug/Kg
67-72-1	Hexachloroethane	34.9	U	15.6	34.9	350	ug/Kg
98-95-3	Nitrobenzene	34.9	U	13.2	34.9	350	ug/Kg
78-59-1	Isophorone	34.9	U	11.5	34.9	350	ug/Kg
88-75-5	2-Nitrophenol	34.9	U	16.9	34.9	350	ug/Kg
105-67-9	2,4-Dimethylphenol	34.9	U	19.8	34.9	350	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	34.9	U	20.1	34.9	350	ug/Kg
120-83-2	2,4-Dichlorophenol	34.9	U	13.3	34.9	350	ug/Kg
91-20-3	Naphthalene	34.9	U	12.1	34.9	350	ug/Kg
106-47-8	4-Chloroaniline	34.9	U	24.6	34.9	350	ug/Kg
87-68-3	Hexachlorobutadiene	34.9	U	12.7	34.9	350	ug/Kg
105-60-2	Caprolactam	69.9	U	16.3	69.9	350	ug/Kg
59-50-7	4-Chloro-3-methylphenol	34.9	U	15.5	34.9	350	ug/Kg
91-57-6	2-Methylnaphthalene	34.9	U	8.8	34.9	350	ug/Kg
77-47-4	Hexachlorocyclopentadiene	34.9	U	8.5	34.9	350	ug/Kg
88-06-2	2,4,6-Trichlorophenol	34.9	U	10.7	34.9	350	ug/Kg
95-95-4	2,4,5-Trichlorophenol	34.9	U	24.5	34.9	350	ug/Kg
92-52-4	1,1-Biphenyl	34.9	U	13.2	34.9	350	ug/Kg
91-58-7	2-Chloronaphthalene	34.9	U	8	34.9	350	ug/Kg
88-74-4	2-Nitroaniline	34.9	U	15.5	34.9	350	ug/Kg
131-11-3	Dimethylphthalate	390		9.4	34.9	350	ug/Kg
208-96-8	Acenaphthylene	34.9	U	8.8	34.9	350	ug/Kg
606-20-2	2,6-Dinitrotoluene	34.9	U	14.3	34.9	350	ug/Kg

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-1(9-10)	SDG No.:	H3936
Lab Sample ID:	H3936-01	Matrix:	SOIL
Analytical Method:	SW8270	% Moisture:	5
Sample Wt/Vol:	30.12 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023027.D	1	07/11/16 08:58	07/12/16 08:37	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
99-09-2	3-Nitroaniline	69.9	U	22.4	69.9	350	ug/Kg
83-32-9	Acenaphthene	34.9	U	9.9	34.9	350	ug/Kg
51-28-5	2,4-Dinitrophenol	280	U	35.5	280	350	ug/Kg
100-02-7	4-Nitrophenol	170	U	64.9	170	350	ug/Kg
132-64-9	Dibenzofuran	34.9	U	13.6	34.9	350	ug/Kg
121-14-2	2,4-Dinitrotoluene	34.9	U	10.5	34.9	350	ug/Kg
84-66-2	Diethylphthalate	34.9	U	5.5	34.9	350	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	34.9	U	19	34.9	350	ug/Kg
86-73-7	Fluorene	34.9	U	13.2	34.9	350	ug/Kg
100-01-6	4-Nitroaniline	69.9	U	45.5	69.9	350	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	170	U	20	170	350	ug/Kg
86-30-6	n-Nitrosodiphenylamine	34.9	U	8.4	34.9	350	ug/Kg
101-55-3	4-Bromophenyl-phenylether	34.9	U	6.8	34.9	350	ug/Kg
118-74-1	Hexachlorobenzene	34.9	U	14.3	34.9	350	ug/Kg
1912-24-9	Atrazine	34.9	U	18.5	34.9	350	ug/Kg
87-86-5	Pentachlorophenol	34.9	U	23.9	34.9	350	ug/Kg
85-01-8	Phenanthrene	34.9	U	9.4	34.9	350	ug/Kg
120-12-7	Anthracene	34.9	U	7.1	34.9	350	ug/Kg
86-74-8	Carbazole	34.9	U	7.7	34.9	350	ug/Kg
84-74-2	Di-n-butylphthalate	34.9	U	27.5	34.9	350	ug/Kg
206-44-0	Fluoranthene	34.9	U	7	34.9	350	ug/Kg
129-00-0	Pyrene	34.9	U	8.4	34.9	350	ug/Kg
85-68-7	Butylbenzylphthalate	34.9	U	16.8	34.9	350	ug/Kg
91-94-1	3,3-Dichlorobenzidine	34.9	U	22.4	34.9	350	ug/Kg
56-55-3	Benzo(a)anthracene	34.9	U	16.7	34.9	350	ug/Kg
218-01-9	Chrysene	34.9	U	15.8	34.9	350	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	34.9	U	12.4	34.9	350	ug/Kg
117-84-0	Di-n-octyl phthalate	34.9	U	4	34.9	350	ug/Kg
205-99-2	Benzo(b)fluoranthene	34.9	U	11.4	34.9	350	ug/Kg
207-08-9	Benzo(k)fluoranthene	34.9	U	16.5	34.9	350	ug/Kg
50-32-8	Benzo(a)pyrene	34.9	U	7.5	34.9	350	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	34.9	U	11.6	34.9	350	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	34.9	U	10.1	34.9	350	ug/Kg

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-1(9-10)	SDG No.:	H3936
Lab Sample ID:	H3936-01	Matrix:	SOIL
Analytical Method:	SW8270	% Moisture:	5
Sample Wt/Vol:	30.12 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023027.D	1	07/11/16 08:58	07/12/16 08:37	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
191-24-2	Benzo(g,h,i)perylene	34.9	U	14.2	34.9	350	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	34.9	U	13.7	34.9	350	ug/Kg
123-91-1	1,4-Dioxane	69.9	U	13.7	69.9	350	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	34.9	U	13.7	34.9	350	ug/Kg
SURROGATES							
367-12-4	2-Fluorophenol	120		28 - 127		79%	SPK: 150
13127-88-3	Phenol-d6	120		34 - 127		83%	SPK: 150
4165-60-0	Nitrobenzene-d5	74.4		31 - 132		74%	SPK: 100
321-60-8	2-Fluorobiphenyl	75.1		39 - 123		75%	SPK: 100
118-79-6	2,4,6-Tribromophenol	95.4		30 - 133		64%	SPK: 150
1718-51-0	Terphenyl-d14	85.3		37 - 115		85%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	96462	8.15				
1146-65-2	Naphthalene-d8	476577	10.98				
15067-26-2	Acenaphthene-d10	365067	14.8				
1517-22-2	Phenanthrene-d10	852387	17.56				
1719-03-5	Chrysene-d12	938444	21.87				
1520-96-3	Perylene-d12	956090	25.25				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-2(9-10)	SDG No.:	H3936
Lab Sample ID:	H3936-02	Matrix:	SOIL
Analytical Method:	SW8270	% Moisture:	12.6
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023028.D	1	07/11/16 08:58	07/12/16 09:20	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
100-52-7	Benzaldehyde	38.1	U	19.9	38.1	380	ug/Kg
108-95-2	Phenol	38.1	U	8.8	38.1	380	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	38.1	U	18.3	38.1	380	ug/Kg
95-57-8	2-Chlorophenol	38.1	U	20.1	38.1	380	ug/Kg
95-48-7	2-Methylphenol	38.1	U	20.7	38.1	380	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	38.1	U	15.8	38.1	380	ug/Kg
98-86-2	Acetophenone	38.1	U	11.6	38.1	380	ug/Kg
65794-96-9	3+4-Methylphenols	38.1	U	19.7	38.1	380	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	38.1	U	19.2	38.1	380	ug/Kg
67-72-1	Hexachloroethane	38.1	U	17	38.1	380	ug/Kg
98-95-3	Nitrobenzene	38.1	U	14.4	38.1	380	ug/Kg
78-59-1	Isophorone	38.1	U	12.6	38.1	380	ug/Kg
88-75-5	2-Nitrophenol	38.1	U	18.4	38.1	380	ug/Kg
105-67-9	2,4-Dimethylphenol	38.1	U	21.6	38.1	380	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	38.1	U	21.9	38.1	380	ug/Kg
120-83-2	2,4-Dichlorophenol	38.1	U	14.5	38.1	380	ug/Kg
91-20-3	Naphthalene	38.1	U	13.1	38.1	380	ug/Kg
106-47-8	4-Chloroaniline	38.1	U	26.8	38.1	380	ug/Kg
87-68-3	Hexachlorobutadiene	38.1	U	13.8	38.1	380	ug/Kg
105-60-2	Caprolactam	76.1	U	17.7	76.1	380	ug/Kg
59-50-7	4-Chloro-3-methylphenol	38.1	U	16.9	38.1	380	ug/Kg
91-57-6	2-Methylnaphthalene	38.1	U	9.6	38.1	380	ug/Kg
77-47-4	Hexachlorocyclopentadiene	38.1	U	9.2	38.1	380	ug/Kg
88-06-2	2,4,6-Trichlorophenol	38.1	U	11.6	38.1	380	ug/Kg
95-95-4	2,4,5-Trichlorophenol	38.1	U	26.7	38.1	380	ug/Kg
92-52-4	1,1-Biphenyl	38	U	14.4	38	380	ug/Kg
91-58-7	2-Chloronaphthalene	38.1	U	8.7	38.1	380	ug/Kg
88-74-4	2-Nitroaniline	38.1	U	16.9	38.1	380	ug/Kg
131-11-3	Dimethylphthalate	560		10.3	38.1	380	ug/Kg
208-96-8	Acenaphthylene	38.1	U	9.6	38.1	380	ug/Kg
606-20-2	2,6-Dinitrotoluene	38.1	U	15.5	38.1	380	ug/Kg

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-2(9-10)	SDG No.:	H3936
Lab Sample ID:	H3936-02	Matrix:	SOIL
Analytical Method:	SW8270	% Moisture:	12.6
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023028.D	1	07/11/16 08:58	07/12/16 09:20	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
99-09-2	3-Nitroaniline	76.1	U	24.4	76.1	380	ug/Kg
83-32-9	Acenaphthene	38.1	U	10.7	38.1	380	ug/Kg
51-28-5	2,4-Dinitrophenol	300	U	38.7	300	380	ug/Kg
100-02-7	4-Nitrophenol	190	U	70.7	190	380	ug/Kg
132-64-9	Dibenzofuran	38.1	U	14.8	38.1	380	ug/Kg
121-14-2	2,4-Dinitrotoluene	38.1	U	11.4	38.1	380	ug/Kg
84-66-2	Diethylphthalate	38.1	U	5.9	38.1	380	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	38.1	U	20.7	38.1	380	ug/Kg
86-73-7	Fluorene	38.1	U	14.4	38.1	380	ug/Kg
100-01-6	4-Nitroaniline	76.1	U	49.5	76.1	380	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	190	U	21.8	190	380	ug/Kg
86-30-6	n-Nitrosodiphenylamine	38.1	U	9.1	38.1	380	ug/Kg
101-55-3	4-Bromophenyl-phenylether	38.1	U	7.4	38.1	380	ug/Kg
118-74-1	Hexachlorobenzene	38.1	U	15.5	38.1	380	ug/Kg
1912-24-9	Atrazine	38.1	U	20.1	38.1	380	ug/Kg
87-86-5	Pentachlorophenol	38.1	U	26	38.1	380	ug/Kg
85-01-8	Phenanthrene	38.1	U	10.3	38.1	380	ug/Kg
120-12-7	Anthracene	38.1	U	7.8	38.1	380	ug/Kg
86-74-8	Carbazole	38.1	U	8.3	38.1	380	ug/Kg
84-74-2	Di-n-butylphthalate	38.1	U	29.9	38.1	380	ug/Kg
206-44-0	Fluoranthene	38.1	U	7.6	38.1	380	ug/Kg
129-00-0	Pyrene	38.1	U	9.1	38.1	380	ug/Kg
85-68-7	Butylbenzylphthalate	38.1	U	18.3	38.1	380	ug/Kg
91-94-1	3,3-Dichlorobenzidine	38.1	U	24.4	38.1	380	ug/Kg
56-55-3	Benzo(a)anthracene	38.1	U	18.1	38.1	380	ug/Kg
218-01-9	Chrysene	38.1	U	17.2	38.1	380	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	38.1	U	13.5	38.1	380	ug/Kg
117-84-0	Di-n-octyl phthalate	38.1	U	4.3	38.1	380	ug/Kg
205-99-2	Benzo(b)fluoranthene	38.1	U	12.4	38.1	380	ug/Kg
207-08-9	Benzo(k)fluoranthene	38.1	U	17.9	38.1	380	ug/Kg
50-32-8	Benzo(a)pyrene	38.1	U	8.2	38.1	380	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	38.1	U	12.7	38.1	380	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	38.1	U	11	38.1	380	ug/Kg

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-2(9-10)	SDG No.:	H3936
Lab Sample ID:	H3936-02	Matrix:	SOIL
Analytical Method:	SW8270	% Moisture:	12.6
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023028.D	1	07/11/16 08:58	07/12/16 09:20	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
191-24-2	Benzo(g,h,i)perylene	38.1	U	15.4	38.1	380	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	38.1	U	15	38.1	380	ug/Kg
123-91-1	1,4-Dioxane	76.1	U	15	76.1	380	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	38.1	U	15	38.1	380	ug/Kg
SURROGATES							
367-12-4	2-Fluorophenol	140		28 - 127		93%	SPK: 150
13127-88-3	Phenol-d6	150		34 - 127		99%	SPK: 150
4165-60-0	Nitrobenzene-d5	91.7		31 - 132		92%	SPK: 100
321-60-8	2-Fluorobiphenyl	81.7		39 - 123		82%	SPK: 100
118-79-6	2,4,6-Tribromophenol	110		30 - 133		73%	SPK: 150
1718-51-0	Terphenyl-d14	91.2		37 - 115		91%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	92486	8.16				
1146-65-2	Naphthalene-d8	443739	10.99				
15067-26-2	Acenaphthene-d10	358603	14.8				
1517-22-2	Phenanthrene-d10	822404	17.56				
1719-03-5	Chrysene-d12	888227	21.87				
1520-96-3	Perylene-d12	902940	25.25				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-3(5-6)	SDG No.:	H3936
Lab Sample ID:	H3936-03	Matrix:	SOIL
Analytical Method:	SW8270	% Moisture:	10.8
Sample Wt/Vol:	30.09 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023064.D	1	07/11/16 08:58	07/13/16 10:08	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
100-52-7	Benzaldehyde	37.3	U	19.4	37.3	370	ug/Kg
108-95-2	Phenol	37.3	U	8.6	37.3	370	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	37.3	U	17.9	37.3	370	ug/Kg
95-57-8	2-Chlorophenol	37.3	U	19.7	37.3	370	ug/Kg
95-48-7	2-Methylphenol	37.3	U	20.2	37.3	370	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	37.3	U	15.4	37.3	370	ug/Kg
98-86-2	Acetophenone	37.3	U	11.4	37.3	370	ug/Kg
65794-96-9	3+4-Methylphenols	37.3	U	19.3	37.3	370	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	37.3	U	18.8	37.3	370	ug/Kg
67-72-1	Hexachloroethane	37.3	U	16.7	37.3	370	ug/Kg
98-95-3	Nitrobenzene	37.3	U	14.1	37.3	370	ug/Kg
78-59-1	Isophorone	37.3	U	12.3	37.3	370	ug/Kg
88-75-5	2-Nitrophenol	37.3	U	18	37.3	370	ug/Kg
105-67-9	2,4-Dimethylphenol	37.3	U	21.1	37.3	370	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	37.3	U	21.5	37.3	370	ug/Kg
120-83-2	2,4-Dichlorophenol	37.3	U	14.2	37.3	370	ug/Kg
91-20-3	Naphthalene	37.3	U	12.9	37.3	370	ug/Kg
106-47-8	4-Chloroaniline	37.3	U	26.3	37.3	370	ug/Kg
87-68-3	Hexachlorobutadiene	37.3	U	13.5	37.3	370	ug/Kg
105-60-2	Caprolactam	74.5	U	17.3	74.5	370	ug/Kg
59-50-7	4-Chloro-3-methylphenol	37.3	U	16.5	37.3	370	ug/Kg
91-57-6	2-Methylnaphthalene	37.3	U	9.4	37.3	370	ug/Kg
77-47-4	Hexachlorocyclopentadiene	37.3	U	9.1	37.3	370	ug/Kg
88-06-2	2,4,6-Trichlorophenol	37.3	U	11.4	37.3	370	ug/Kg
95-95-4	2,4,5-Trichlorophenol	37.3	U	26.2	37.3	370	ug/Kg
92-52-4	1,1-Biphenyl	37.3	U	14.1	37.3	370	ug/Kg
91-58-7	2-Chloronaphthalene	37.3	U	8.5	37.3	370	ug/Kg
88-74-4	2-Nitroaniline	37.3	U	16.5	37.3	370	ug/Kg
131-11-3	Dimethylphthalate	900		10.1	37.3	370	ug/Kg
208-96-8	Acenaphthylene	37.3	U	9.4	37.3	370	ug/Kg
606-20-2	2,6-Dinitrotoluene	37.3	U	15.2	37.3	370	ug/Kg

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-3(5-6)	SDG No.:	H3936
Lab Sample ID:	H3936-03	Matrix:	SOIL
Analytical Method:	SW8270	% Moisture:	10.8
Sample Wt/Vol:	30.09 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023064.D	1	07/11/16 08:58	07/13/16 10:08	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
99-09-2	3-Nitroaniline	74.5	U	23.9	74.5	370	ug/Kg
83-32-9	Acenaphthene	37.3	U	10.5	37.3	370	ug/Kg
51-28-5	2,4-Dinitrophenol	300	U	37.9	300	370	ug/Kg
100-02-7	4-Nitrophenol	190	U	69.2	190	370	ug/Kg
132-64-9	Dibenzofuran	37.3	U	14.5	37.3	370	ug/Kg
121-14-2	2,4-Dinitrotoluene	37.3	U	11.2	37.3	370	ug/Kg
84-66-2	Diethylphthalate	37.3	U	5.8	37.3	370	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	37.3	U	20.2	37.3	370	ug/Kg
86-73-7	Fluorene	37.3	U	14.1	37.3	370	ug/Kg
100-01-6	4-Nitroaniline	74.5	U	48.5	74.5	370	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	190	U	21.3	190	370	ug/Kg
86-30-6	n-Nitrosodiphenylamine	37.3	U	8.9	37.3	370	ug/Kg
101-55-3	4-Bromophenyl-phenylether	37.3	U	7.3	37.3	370	ug/Kg
118-74-1	Hexachlorobenzene	37.3	U	15.2	37.3	370	ug/Kg
1912-24-9	Atrazine	37.3	U	19.7	37.3	370	ug/Kg
87-86-5	Pentachlorophenol	37.3	U	25.5	37.3	370	ug/Kg
85-01-8	Phenanthrene	37.3	U	10.1	37.3	370	ug/Kg
120-12-7	Anthracene	37.3	U	7.6	37.3	370	ug/Kg
86-74-8	Carbazole	37.3	U	8.2	37.3	370	ug/Kg
84-74-2	Di-n-butylphthalate	37.3	U	29.3	37.3	370	ug/Kg
206-44-0	Fluoranthene	37.3	U	7.5	37.3	370	ug/Kg
129-00-0	Pyrene	37.3	U	8.9	37.3	370	ug/Kg
85-68-7	Butylbenzylphthalate	37.3	U	17.9	37.3	370	ug/Kg
91-94-1	3,3-Dichlorobenzidine	37.3	U	23.9	37.3	370	ug/Kg
56-55-3	Benzo(a)anthracene	37.3	U	17.8	37.3	370	ug/Kg
218-01-9	Chrysene	37.3	U	16.9	37.3	370	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	37.3	U	13.2	37.3	370	ug/Kg
117-84-0	Di-n-octyl phthalate	37.3	U	4.2	37.3	370	ug/Kg
205-99-2	Benzo(b)fluoranthene	37.3	U	12.2	37.3	370	ug/Kg
207-08-9	Benzo(k)fluoranthene	37.3	U	17.5	37.3	370	ug/Kg
50-32-8	Benzo(a)pyrene	37.3	U	8	37.3	370	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	37.3	U	12.4	37.3	370	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	37.3	U	10.7	37.3	370	ug/Kg

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-3(5-6)	SDG No.:	H3936
Lab Sample ID:	H3936-03	Matrix:	SOIL
Analytical Method:	SW8270	% Moisture:	10.8
Sample Wt/Vol:	30.09 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023064.D	1	07/11/16 08:58	07/13/16 10:08	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
191-24-2	Benzo(g,h,i)perylene	37.3	U	15.1	37.3	370	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	37.3	U	14.6	37.3	370	ug/Kg
123-91-1	1,4-Dioxane	74.5	U	14.6	74.5	370	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	37.3	U	14.6	37.3	370	ug/Kg
SURROGATES							
367-12-4	2-Fluorophenol	150		28 - 127		99%	SPK: 150
13127-88-3	Phenol-d6	160		34 - 127		105%	SPK: 150
4165-60-0	Nitrobenzene-d5	95.8		31 - 132		96%	SPK: 100
321-60-8	2-Fluorobiphenyl	82.4		39 - 123		82%	SPK: 100
118-79-6	2,4,6-Tribromophenol	110		30 - 133		76%	SPK: 150
1718-51-0	Terphenyl-d14	90.5		37 - 115		91%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	93606	8.15				
1146-65-2	Naphthalene-d8	460417	10.98				
15067-26-2	Acenaphthene-d10	383794	14.8				
1517-22-2	Phenanthrene-d10	867790	17.55				
1719-03-5	Chrysene-d12	942703	21.87				
1520-96-3	Perylene-d12	981789	25.25				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-4(4-5)	SDG No.:	H3936
Lab Sample ID:	H3936-04	Matrix:	SOIL
Analytical Method:	SW8270	% Moisture:	9.1
Sample Wt/Vol:	30.04 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023065.D	1	07/11/16 08:58	07/13/16 10:48	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
100-52-7	Benzaldehyde	36.6	U	19.1	36.6	360	ug/Kg
108-95-2	Phenol	91.2	J	8.5	36.6	360	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	36.6	U	17.6	36.6	360	ug/Kg
95-57-8	2-Chlorophenol	36.6	U	19.3	36.6	360	ug/Kg
95-48-7	2-Methylphenol	36.6	U	19.9	36.6	360	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	36.6	U	15.2	36.6	360	ug/Kg
98-86-2	Acetophenone	36.6	U	11.2	36.6	360	ug/Kg
65794-96-9	3+4-Methylphenols	75.4	J	19	36.6	360	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	36.6	U	18.5	36.6	360	ug/Kg
67-72-1	Hexachloroethane	36.6	U	16.4	36.6	360	ug/Kg
98-95-3	Nitrobenzene	36.6	U	13.8	36.6	360	ug/Kg
78-59-1	Isophorone	36.6	U	12.1	36.6	360	ug/Kg
88-75-5	2-Nitrophenol	36.6	U	17.7	36.6	360	ug/Kg
105-67-9	2,4-Dimethylphenol	36.6	U	20.8	36.6	360	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	36.6	U	21.1	36.6	360	ug/Kg
120-83-2	2,4-Dichlorophenol	36.6	U	14	36.6	360	ug/Kg
91-20-3	Naphthalene	36.6	U	12.6	36.6	360	ug/Kg
106-47-8	4-Chloroaniline	36.6	U	25.8	36.6	360	ug/Kg
87-68-3	Hexachlorobutadiene	36.6	U	13.3	36.6	360	ug/Kg
105-60-2	Caprolactam	73.2	U	17	73.2	360	ug/Kg
59-50-7	4-Chloro-3-methylphenol	36.6	U	16.3	36.6	360	ug/Kg
91-57-6	2-Methylnaphthalene	36.6	U	9.2	36.6	360	ug/Kg
77-47-4	Hexachlorocyclopentadiene	36.6	U	8.9	36.6	360	ug/Kg
88-06-2	2,4,6-Trichlorophenol	36.6	U	11.2	36.6	360	ug/Kg
95-95-4	2,4,5-Trichlorophenol	36.6	U	25.7	36.6	360	ug/Kg
92-52-4	1,1-Biphenyl	36.6	U	13.8	36.6	360	ug/Kg
91-58-7	2-Chloronaphthalene	36.6	U	8.3	36.6	360	ug/Kg
88-74-4	2-Nitroaniline	36.6	U	16.3	36.6	360	ug/Kg
131-11-3	Dimethylphthalate	360		9.9	36.6	360	ug/Kg
208-96-8	Acenaphthylene	36.6	U	9.2	36.6	360	ug/Kg
606-20-2	2,6-Dinitrotoluene	36.6	U	14.9	36.6	360	ug/Kg

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-4(4-5)	SDG No.:	H3936
Lab Sample ID:	H3936-04	Matrix:	SOIL
Analytical Method:	SW8270	% Moisture:	9.1
Sample Wt/Vol:	30.04 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023065.D	1	07/11/16 08:58	07/13/16 10:48	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
99-09-2	3-Nitroaniline	73.2	U	23.5	73.2	360	ug/Kg
83-32-9	Acenaphthene	36.6	U	10.3	36.6	360	ug/Kg
51-28-5	2,4-Dinitrophenol	290	U	37.2	290	360	ug/Kg
100-02-7	4-Nitrophenol	180	U	68	180	360	ug/Kg
132-64-9	Dibenzofuran	36.6	U	14.3	36.6	360	ug/Kg
121-14-2	2,4-Dinitrotoluene	36.6	U	11	36.6	360	ug/Kg
84-66-2	Diethylphthalate	36.6	U	5.7	36.6	360	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	36.6	U	19.9	36.6	360	ug/Kg
86-73-7	Fluorene	36.6	U	13.8	36.6	360	ug/Kg
100-01-6	4-Nitroaniline	73.2	U	47.7	73.2	360	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	180	U	21	180	360	ug/Kg
86-30-6	n-Nitrosodiphenylamine	36.6	U	8.8	36.6	360	ug/Kg
101-55-3	4-Bromophenyl-phenylether	36.6	U	7.1	36.6	360	ug/Kg
118-74-1	Hexachlorobenzene	36.6	U	14.9	36.6	360	ug/Kg
1912-24-9	Atrazine	36.6	U	19.3	36.6	360	ug/Kg
87-86-5	Pentachlorophenol	36.6	U	25	36.6	360	ug/Kg
85-01-8	Phenanthrene	410		9.9	36.6	360	ug/Kg
120-12-7	Anthracene	120	J	7.5	36.6	360	ug/Kg
86-74-8	Carbazole	36.6	U	8	36.6	360	ug/Kg
84-74-2	Di-n-butylphthalate	180	J	28.8	36.6	360	ug/Kg
206-44-0	Fluoranthene	630		7.4	36.6	360	ug/Kg
129-00-0	Pyrene	400		8.8	36.6	360	ug/Kg
85-68-7	Butylbenzylphthalate	130	J	17.6	36.6	360	ug/Kg
91-94-1	3,3-Dichlorobenzidine	36.6	U	23.5	36.6	360	ug/Kg
56-55-3	Benzo(a)anthracene	350	J	17.5	36.6	360	ug/Kg
218-01-9	Chrysene	400		16.6	36.6	360	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	610		13	36.6	360	ug/Kg
117-84-0	Di-n-octyl phthalate	190	J	4.2	36.6	360	ug/Kg
205-99-2	Benzo(b)fluoranthene	510		12	36.6	360	ug/Kg
207-08-9	Benzo(k)fluoranthene	340	J	17.2	36.6	360	ug/Kg
50-32-8	Benzo(a)pyrene	360		7.9	36.6	360	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	200	J	12.2	36.6	360	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	120	J	10.5	36.6	360	ug/Kg

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-4(4-5)	SDG No.:	H3936
Lab Sample ID:	H3936-04	Matrix:	SOIL
Analytical Method:	SW8270	% Moisture:	9.1
Sample Wt/Vol:	30.04 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023065.D	1	07/11/16 08:58	07/13/16 10:48	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
191-24-2	Benzo(g,h,i)perylene	220	J	14.8	36.6	360	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	36.6	U	14.4	36.6	360	ug/Kg
123-91-1	1,4-Dioxane	73.2	U	14.4	73.2	360	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	36.6	U	14.4	36.6	360	ug/Kg
SURROGATES							
367-12-4	2-Fluorophenol	67.8		28 - 127		45%	SPK: 150
13127-88-3	Phenol-d6	99.2		34 - 127		66%	SPK: 150
4165-60-0	Nitrobenzene-d5	65.7		31 - 132		66%	SPK: 100
321-60-8	2-Fluorobiphenyl	66.6		39 - 123		67%	SPK: 100
118-79-6	2,4,6-Tribromophenol	24.5	*	30 - 133		16%	SPK: 150
1718-51-0	Terphenyl-d14	55.1		37 - 115		55%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	127173	8.15				
1146-65-2	Naphthalene-d8	564593	10.98				
15067-26-2	Acenaphthene-d10	385060	14.8				
1517-22-2	Phenanthrene-d10	855654	17.56				
1719-03-5	Chrysene-d12	1402760	21.87				
1520-96-3	Perylene-d12	1289710	25.26				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-5(1-2)	SDG No.:	H3936
Lab Sample ID:	H3936-05	Matrix:	SOIL
Analytical Method:	SW8270	% Moisture:	7.6
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023029.D	1	07/11/16 08:58	07/12/16 09:59	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
100-52-7	Benzaldehyde	36	U	18.8	36	360	ug/Kg
108-95-2	Phenol	36	U	8.3	36	360	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	36	U	17.3	36	360	ug/Kg
95-57-8	2-Chlorophenol	36	U	19	36	360	ug/Kg
95-48-7	2-Methylphenol	36	U	19.5	36	360	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	36	U	14.9	36	360	ug/Kg
98-86-2	Acetophenone	36	U	11	36	360	ug/Kg
65794-96-9	3+4-Methylphenols	36	U	18.7	36	360	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	36	U	18.1	36	360	ug/Kg
67-72-1	Hexachloroethane	36	U	16.1	36	360	ug/Kg
98-95-3	Nitrobenzene	36	U	13.6	36	360	ug/Kg
78-59-1	Isophorone	36	U	11.9	36	360	ug/Kg
88-75-5	2-Nitrophenol	36	U	17.4	36	360	ug/Kg
105-67-9	2,4-Dimethylphenol	36	U	20.4	36	360	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	36	U	20.7	36	360	ug/Kg
120-83-2	2,4-Dichlorophenol	36	U	13.7	36	360	ug/Kg
91-20-3	Naphthalene	36	U	12.4	36	360	ug/Kg
106-47-8	4-Chloroaniline	36	U	25.4	36	360	ug/Kg
87-68-3	Hexachlorobutadiene	36	U	13.1	36	360	ug/Kg
105-60-2	Caprolactam	72	U	16.7	72	360	ug/Kg
59-50-7	4-Chloro-3-methylphenol	36	U	16	36	360	ug/Kg
91-57-6	2-Methylnaphthalene	36	U	9.1	36	360	ug/Kg
77-47-4	Hexachlorocyclopentadiene	36	U	8.7	36	360	ug/Kg
88-06-2	2,4,6-Trichlorophenol	36	U	11	36	360	ug/Kg
95-95-4	2,4,5-Trichlorophenol	36	U	25.3	36	360	ug/Kg
92-52-4	1,1-Biphenyl	36	U	13.6	36	360	ug/Kg
91-58-7	2-Chloronaphthalene	36	U	8.2	36	360	ug/Kg
88-74-4	2-Nitroaniline	36	U	16	36	360	ug/Kg
131-11-3	Dimethylphthalate	450		9.7	36	360	ug/Kg
208-96-8	Acenaphthylene	36	U	9.1	36	360	ug/Kg
606-20-2	2,6-Dinitrotoluene	36	U	14.7	36	360	ug/Kg

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-5(1-2)	SDG No.:	H3936
Lab Sample ID:	H3936-05	Matrix:	SOIL
Analytical Method:	SW8270	% Moisture:	7.6
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023029.D	1	07/11/16 08:58	07/12/16 09:59	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
99-09-2	3-Nitroaniline	72	U	23.1	72	360	ug/Kg
83-32-9	Acenaphthene	36	U	10.1	36	360	ug/Kg
51-28-5	2,4-Dinitrophenol	290	U	36.6	290	360	ug/Kg
100-02-7	4-Nitrophenol	180	U	66.8	180	360	ug/Kg
132-64-9	Dibenzofuran	36	U	14	36	360	ug/Kg
121-14-2	2,4-Dinitrotoluene	36	U	10.8	36	360	ug/Kg
84-66-2	Diethylphthalate	36	U	5.6	36	360	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	36	U	19.5	36	360	ug/Kg
86-73-7	Fluorene	36	U	13.6	36	360	ug/Kg
100-01-6	4-Nitroaniline	72	U	46.9	72	360	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	180	U	20.6	180	360	ug/Kg
86-30-6	n-Nitrosodiphenylamine	36	U	8.6	36	360	ug/Kg
101-55-3	4-Bromophenyl-phenylether	36	U	7	36	360	ug/Kg
118-74-1	Hexachlorobenzene	36	U	14.7	36	360	ug/Kg
1912-24-9	Atrazine	36	U	19	36	360	ug/Kg
87-86-5	Pentachlorophenol	36	U	24.6	36	360	ug/Kg
85-01-8	Phenanthrene	36	U	9.7	36	360	ug/Kg
120-12-7	Anthracene	36	U	7.3	36	360	ug/Kg
86-74-8	Carbazole	36	U	7.9	36	360	ug/Kg
84-74-2	Di-n-butylphthalate	36	U	28.3	36	360	ug/Kg
206-44-0	Fluoranthene	36	U	7.2	36	360	ug/Kg
129-00-0	Pyrene	36	U	8.6	36	360	ug/Kg
85-68-7	Butylbenzylphthalate	36	U	17.3	36	360	ug/Kg
91-94-1	3,3-Dichlorobenzidine	36	U	23.1	36	360	ug/Kg
56-55-3	Benzo(a)anthracene	36	U	17.2	36	360	ug/Kg
218-01-9	Chrysene	36	U	16.3	36	360	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	36	U	12.7	36	360	ug/Kg
117-84-0	Di-n-octyl phthalate	36	U	4.1	36	360	ug/Kg
205-99-2	Benzo(b)fluoranthene	36	U	11.8	36	360	ug/Kg
207-08-9	Benzo(k)fluoranthene	36	U	17	36	360	ug/Kg
50-32-8	Benzo(a)pyrene	36	U	7.8	36	360	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	36	U	12	36	360	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	36	U	10.4	36	360	ug/Kg

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-5(1-2)	SDG No.:	H3936
Lab Sample ID:	H3936-05	Matrix:	SOIL
Analytical Method:	SW8270	% Moisture:	7.6
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023029.D	1	07/11/16 08:58	07/12/16 09:59	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
191-24-2	Benzo(g,h,i)perylene	36	U	14.6	36	360	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	36	U	14.1	36	360	ug/Kg
123-91-1	1,4-Dioxane	72	U	14.1	72	360	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	36	U	14.1	36	360	ug/Kg
SURROGATES							
367-12-4	2-Fluorophenol	120		28 - 127		82%	SPK: 150
13127-88-3	Phenol-d6	130		34 - 127		85%	SPK: 150
4165-60-0	Nitrobenzene-d5	82.1		31 - 132		82%	SPK: 100
321-60-8	2-Fluorobiphenyl	81.6		39 - 123		82%	SPK: 100
118-79-6	2,4,6-Tribromophenol	98.9		30 - 133		66%	SPK: 150
1718-51-0	Terphenyl-d14	92.5		37 - 115		92%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	98661	8.15				
1146-65-2	Naphthalene-d8	463082	10.98				
15067-26-2	Acenaphthene-d10	352617	14.8				
1517-22-2	Phenanthrene-d10	834869	17.56				
1719-03-5	Chrysene-d12	893181	21.86				
1520-96-3	Perylene-d12	893252	25.25				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-5(4-5)	SDG No.:	H3936
Lab Sample ID:	H3936-06	Matrix:	SOIL
Analytical Method:	SW8270	% Moisture:	12.6
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023030.D	1	07/11/16 08:58	07/12/16 10:39	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
100-52-7	Benzaldehyde	38.1	U	19.9	38.1	380	ug/Kg
108-95-2	Phenol	38.1	U	8.8	38.1	380	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	38.1	U	18.3	38.1	380	ug/Kg
95-57-8	2-Chlorophenol	38.1	U	20.1	38.1	380	ug/Kg
95-48-7	2-Methylphenol	38.1	U	20.7	38.1	380	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	38.1	U	15.8	38.1	380	ug/Kg
98-86-2	Acetophenone	38.1	U	11.7	38.1	380	ug/Kg
65794-96-9	3+4-Methylphenols	38.1	U	19.8	38.1	380	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	38.1	U	19.2	38.1	380	ug/Kg
67-72-1	Hexachloroethane	38.1	U	17	38.1	380	ug/Kg
98-95-3	Nitrobenzene	38.1	U	14.4	38.1	380	ug/Kg
78-59-1	Isophorone	38.1	U	12.6	38.1	380	ug/Kg
88-75-5	2-Nitrophenol	38.1	U	18.4	38.1	380	ug/Kg
105-67-9	2,4-Dimethylphenol	38.1	U	21.6	38.1	380	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	38.1	U	21.9	38.1	380	ug/Kg
120-83-2	2,4-Dichlorophenol	38.1	U	14.5	38.1	380	ug/Kg
91-20-3	Naphthalene	38.1	U	13.1	38.1	380	ug/Kg
106-47-8	4-Chloroaniline	38.1	U	26.9	38.1	380	ug/Kg
87-68-3	Hexachlorobutadiene	38.1	U	13.8	38.1	380	ug/Kg
105-60-2	Caprolactam	76.2	U	17.7	76.2	380	ug/Kg
59-50-7	4-Chloro-3-methylphenol	38.1	U	16.9	38.1	380	ug/Kg
91-57-6	2-Methylnaphthalene	38.1	U	9.6	38.1	380	ug/Kg
77-47-4	Hexachlorocyclopentadiene	38.1	U	9.3	38.1	380	ug/Kg
88-06-2	2,4,6-Trichlorophenol	38.1	U	11.7	38.1	380	ug/Kg
95-95-4	2,4,5-Trichlorophenol	38.1	U	26.7	38.1	380	ug/Kg
92-52-4	1,1-Biphenyl	38.1	U	14.4	38.1	380	ug/Kg
91-58-7	2-Chloronaphthalene	38.1	U	8.7	38.1	380	ug/Kg
88-74-4	2-Nitroaniline	38.1	U	16.9	38.1	380	ug/Kg
131-11-3	Dimethylphthalate	850		10.3	38.1	380	ug/Kg
208-96-8	Acenaphthylene	38.1	U	9.6	38.1	380	ug/Kg
606-20-2	2,6-Dinitrotoluene	38.1	U	15.5	38.1	380	ug/Kg

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-5(4-5)	SDG No.:	H3936
Lab Sample ID:	H3936-06	Matrix:	SOIL
Analytical Method:	SW8270	% Moisture:	12.6
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023030.D	1	07/11/16 08:58	07/12/16 10:39	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
99-09-2	3-Nitroaniline	76.2	U	24.5	76.2	380	ug/Kg
83-32-9	Acenaphthene	38.1	U	10.7	38.1	380	ug/Kg
51-28-5	2,4-Dinitrophenol	300	U	38.7	300	380	ug/Kg
100-02-7	4-Nitrophenol	190	U	70.8	190	380	ug/Kg
132-64-9	Dibenzofuran	38.1	U	14.9	38.1	380	ug/Kg
121-14-2	2,4-Dinitrotoluene	38.1	U	11.4	38.1	380	ug/Kg
84-66-2	Diethylphthalate	38.1	U	5.9	38.1	380	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	38.1	U	20.7	38.1	380	ug/Kg
86-73-7	Fluorene	38.1	U	14.4	38.1	380	ug/Kg
100-01-6	4-Nitroaniline	76.2	U	49.6	76.2	380	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	190	U	21.8	190	380	ug/Kg
86-30-6	n-Nitrosodiphenylamine	38.1	U	9.1	38.1	380	ug/Kg
101-55-3	4-Bromophenyl-phenylether	38.1	U	7.4	38.1	380	ug/Kg
118-74-1	Hexachlorobenzene	38.1	U	15.5	38.1	380	ug/Kg
1912-24-9	Atrazine	38.1	U	20.1	38.1	380	ug/Kg
87-86-5	Pentachlorophenol	38.1	U	26.1	38.1	380	ug/Kg
85-01-8	Phenanthrene	38.1	U	10.3	38.1	380	ug/Kg
120-12-7	Anthracene	38.1	U	7.8	38.1	380	ug/Kg
86-74-8	Carbazole	38.1	U	8.3	38.1	380	ug/Kg
84-74-2	Di-n-butylphthalate	38.1	U	29.9	38.1	380	ug/Kg
206-44-0	Fluoranthene	38.1	U	7.7	38.1	380	ug/Kg
129-00-0	Pyrene	38.1	U	9.1	38.1	380	ug/Kg
85-68-7	Butylbenzylphthalate	38.1	U	18.3	38.1	380	ug/Kg
91-94-1	3,3-Dichlorobenzidine	38.1	U	24.5	38.1	380	ug/Kg
56-55-3	Benzo(a)anthracene	38.1	U	18.2	38.1	380	ug/Kg
218-01-9	Chrysene	38.1	U	17.3	38.1	380	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	38.1	U	13.5	38.1	380	ug/Kg
117-84-0	Di-n-octyl phthalate	38.1	U	4.3	38.1	380	ug/Kg
205-99-2	Benzo(b)fluoranthene	38.1	U	12.5	38.1	380	ug/Kg
207-08-9	Benzo(k)fluoranthene	38.1	U	17.9	38.1	380	ug/Kg
50-32-8	Benzo(a)pyrene	38.1	U	8.2	38.1	380	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	38.1	U	12.7	38.1	380	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	38.1	U	11	38.1	380	ug/Kg

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-5(4-5)	SDG No.:	H3936
Lab Sample ID:	H3936-06	Matrix:	SOIL
Analytical Method:	SW8270	% Moisture:	12.6
Sample Wt/Vol:	30.03 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023030.D	1	07/11/16 08:58	07/12/16 10:39	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
191-24-2	Benzo(g,h,i)perylene	38.1	U	15.4	38.1	380	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	38.1	U	15	38.1	380	ug/Kg
123-91-1	1,4-Dioxane	76.2	U	15	76.2	380	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	38.1	U	15	38.1	380	ug/Kg
SURROGATES							
367-12-4	2-Fluorophenol	130		28 - 127		83%	SPK: 150
13127-88-3	Phenol-d6	130		34 - 127		86%	SPK: 150
4165-60-0	Nitrobenzene-d5	82.5		31 - 132		82%	SPK: 100
321-60-8	2-Fluorobiphenyl	79.9		39 - 123		80%	SPK: 100
118-79-6	2,4,6-Tribromophenol	100		30 - 133		67%	SPK: 150
1718-51-0	Terphenyl-d14	89.7		37 - 115		90%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	92300	8.16				
1146-65-2	Naphthalene-d8	434009	10.98				
15067-26-2	Acenaphthene-d10	338509	14.8				
1517-22-2	Phenanthrene-d10	771354	17.56				
1719-03-5	Chrysene-d12	851211	21.86				
1520-96-3	Perylene-d12	863411	25.25				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	TW-4	SDG No.:	H3936
Lab Sample ID:	H3936-07	Matrix:	Water
Analytical Method:	SW8270	% Moisture:	100
Sample Wt/Vol:	700 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG022949.D	1	07/08/16 08:28	07/09/16 03:26	PB91977

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
100-52-7	Benzaldehyde	1.4	U	1.1	1.4	14.3	ug/L
108-95-2	Phenol	1.4	U	0.3	1.4	14.3	ug/L
111-44-4	bis(2-Chloroethyl)ether	1.4	U	0.79	1.4	14.3	ug/L
95-57-8	2-Chlorophenol	1.4	U	0.77	1.4	14.3	ug/L
95-48-7	2-Methylphenol	1.4	UQ	0.34	1.4	14.3	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	1.4	U	0.24	1.4	14.3	ug/L
98-86-2	Acetophenone	1.4	U	0.2	1.4	14.3	ug/L
65794-96-9	3+4-Methylphenols	1.4	UQ	0.54	1.4	14.3	ug/L
621-64-7	n-Nitroso-di-n-propylamine	1.4	U	0.29	1.4	14.3	ug/L
67-72-1	Hexachloroethane	1.4	U	0.36	1.4	14.3	ug/L
98-95-3	Nitrobenzene	1.4	U	0.97	1.4	14.3	ug/L
78-59-1	Isophorone	1.4	U	0.43	1.4	14.3	ug/L
88-75-5	2-Nitrophenol	1.4	U	0.74	1.4	14.3	ug/L
105-67-9	2,4-Dimethylphenol	1.4	U	1	1.4	14.3	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1.4	U	0.79	1.4	14.3	ug/L
120-83-2	2,4-Dichlorophenol	1.4	U	0.94	1.4	14.3	ug/L
91-20-3	Naphthalene	1.4	U	0.17	1.4	14.3	ug/L
106-47-8	4-Chloroaniline	1.4	U	1.4	1.4	14.3	ug/L
87-68-3	Hexachlorobutadiene	1.4	U	0.36	1.4	14.3	ug/L
105-60-2	Caprolactam	1.4	U	1.4	1.4	14.3	ug/L
59-50-7	4-Chloro-3-methylphenol	1.4	U	0.57	1.4	14.3	ug/L
91-57-6	2-Methylnaphthalene	1.4	U	0.46	1.4	14.3	ug/L
77-47-4	Hexachlorocyclopentadiene	1.4	U	0.34	1.4	14.3	ug/L
88-06-2	2,4,6-Trichlorophenol	1.4	U	0.8	1.4	14.3	ug/L
95-95-4	2,4,5-Trichlorophenol	1.4	U	0.57	1.4	14.3	ug/L
92-52-4	1,1-Biphenyl	1.4	U	0.21	1.4	14.3	ug/L
91-58-7	2-Chloronaphthalene	1.4	U	0.23	1.4	14.3	ug/L
88-74-4	2-Nitroaniline	1.4	U	0.7	1.4	14.3	ug/L
131-11-3	Dimethylphthalate	1.4	U	0.31	1.4	14.3	ug/L
208-96-8	Acenaphthylene	1.4	U	1	1.4	14.3	ug/L
606-20-2	2,6-Dinitrotoluene	1.4	U	0.46	1.4	14.3	ug/L

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	TW-4	SDG No.:	H3936
Lab Sample ID:	H3936-07	Matrix:	Water
Analytical Method:	SW8270	% Moisture:	100
Sample Wt/Vol:	700 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG022949.D	1	07/08/16 08:28	07/09/16 03:26	PB91977

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
99-09-2	3-Nitroaniline	1.4	U	1.4	1.4	14.3	ug/L
83-32-9	Acenaphthene	1.4	U	0.3	1.4	14.3	ug/L
51-28-5	2,4-Dinitrophenol	11.4	U	3	11.4	14.3	ug/L
100-02-7	4-Nitrophenol	7.1	U	2.9	7.1	14.3	ug/L
132-64-9	Dibenzofuran	1.4	U	0.34	1.4	14.3	ug/L
121-14-2	2,4-Dinitrotoluene	1.4	U	1.4	1.4	14.3	ug/L
84-66-2	Diethylphthalate	1.4	U	0.54	1.4	14.3	ug/L
7005-72-3	4-Chlorophenyl-phenylether	1.4	U	0.3	1.4	14.3	ug/L
86-73-7	Fluorene	1.4	U	0.44	1.4	14.3	ug/L
100-01-6	4-Nitroaniline	2.9	U	1.9	2.9	14.3	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	2.9	U	1.1	2.9	14.3	ug/L
86-30-6	n-Nitrosodiphenylamine	1.4	U	0.86	1.4	14.3	ug/L
101-55-3	4-Bromophenyl-phenylether	1.4	U	0.33	1.4	14.3	ug/L
118-74-1	Hexachlorobenzene	1.4	U	0.26	1.4	14.3	ug/L
1912-24-9	Atrazine	1.4	U	0.57	1.4	14.3	ug/L
87-86-5	Pentachlorophenol	1.4	U	1.4	1.4	14.3	ug/L
85-01-8	Phenanthrene	1.4	U	0.37	1.4	14.3	ug/L
120-12-7	Anthracene	1.4	U	0.23	1.4	14.3	ug/L
86-74-8	Carbazole	1.4	U	0.31	1.4	14.3	ug/L
84-74-2	Di-n-butylphthalate	1.4	U	1.4	1.4	14.3	ug/L
206-44-0	Fluoranthene	1.4	U	0.57	1.4	14.3	ug/L
129-00-0	Pyrene	1.4	U	0.29	1.4	14.3	ug/L
85-68-7	Butylbenzylphthalate	1.4	U	0.27	1.4	14.3	ug/L
91-94-1	3,3-Dichlorobenzidine	1.4	U	1.4	1.4	14.3	ug/L
56-55-3	Benzo(a)anthracene	1.4	U	0.23	1.4	14.3	ug/L
218-01-9	Chrysene	1.4	U	0.26	1.4	14.3	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	1.4	U	0.23	1.4	14.3	ug/L
117-84-0	Di-n-octyl phthalate	1.4	U	0.73	1.4	14.3	ug/L
205-99-2	Benzo(b)fluoranthene	1.4	U	0.41	1.4	14.3	ug/L
207-08-9	Benzo(k)fluoranthene	1.4	U	0.26	1.4	14.3	ug/L
50-32-8	Benzo(a)pyrene	1.4	U	0.2	1.4	14.3	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	1.4	U	0.21	1.4	14.3	ug/L
53-70-3	Dibenzo(a,h)anthracene	1.4	U	0.6	1.4	14.3	ug/L

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	TW-4	SDG No.:	H3936
Lab Sample ID:	H3936-07	Matrix:	Water
Analytical Method:	SW8270	% Moisture:	100
Sample Wt/Vol:	700 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG022949.D	1	07/08/16 08:28	07/09/16 03:26	PB91977

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
191-24-2	Benzo(g,h,i)perylene	1.4	U	0.41	1.4	14.3	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	1.4	U	0.29	1.4	14.3	ug/L
123-91-1	1,4-Dioxane	7.1	UQ	0.29	7.1	14.3	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	1.4	U	0.29	1.4	14.3	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	42.1		10 - 130		28%	SPK: 150
13127-88-3	Phenol-d6	27.7		10 - 130		18%	SPK: 150
4165-60-0	Nitrobenzene-d5	57.3		36 - 131		57%	SPK: 100
321-60-8	2-Fluorobiphenyl	63.7		39 - 131		64%	SPK: 100
118-79-6	2,4,6-Tribromophenol	83.9		25 - 155		56%	SPK: 150
1718-51-0	Terphenyl-d14	74		23 - 130		74%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	96877	8.15				
1146-65-2	Naphthalene-d8	458117	10.98				
15067-26-2	Acenaphthene-d10	360646	14.8				
1517-22-2	Phenanthrene-d10	869919	17.55				
1719-03-5	Chrysene-d12	936503	21.84				
1520-96-3	Perylene-d12	952245	25.21				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-6(11-12)	SDG No.:	H3936
Lab Sample ID:	H3936-09	Matrix:	SOIL
Analytical Method:	SW8270	% Moisture:	19.4
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023066.D	1	07/11/16 08:58	07/13/16 11:27	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
100-52-7	Benzaldehyde	41.3	U	21.5	41.3	410	ug/Kg
108-95-2	Phenol	41.3	U	9.5	41.3	410	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	41.3	U	19.8	41.3	410	ug/Kg
95-57-8	2-Chlorophenol	41.3	U	21.8	41.3	410	ug/Kg
95-48-7	2-Methylphenol	41.3	U	22.4	41.3	410	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	41.3	U	17.1	41.3	410	ug/Kg
98-86-2	Acetophenone	41.3	U	12.6	41.3	410	ug/Kg
65794-96-9	3+4-Methylphenols	41.3	U	21.4	41.3	410	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	41.3	U	20.8	41.3	410	ug/Kg
67-72-1	Hexachloroethane	41.3	U	18.4	41.3	410	ug/Kg
98-95-3	Nitrobenzene	41.3	U	15.6	41.3	410	ug/Kg
78-59-1	Isophorone	41.3	U	13.6	41.3	410	ug/Kg
88-75-5	2-Nitrophenol	41.3	U	19.9	41.3	410	ug/Kg
105-67-9	2,4-Dimethylphenol	41.3	U	23.4	41.3	410	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	41.3	U	23.8	41.3	410	ug/Kg
120-83-2	2,4-Dichlorophenol	41.3	U	15.7	41.3	410	ug/Kg
91-20-3	Naphthalene	41.3	U	14.2	41.3	410	ug/Kg
106-47-8	4-Chloroaniline	41.3	U	29.1	41.3	410	ug/Kg
87-68-3	Hexachlorobutadiene	41.3	U	15	41.3	410	ug/Kg
105-60-2	Caprolactam	82.5	U	19.2	82.5	410	ug/Kg
59-50-7	4-Chloro-3-methylphenol	41.3	U	18.3	41.3	410	ug/Kg
91-57-6	2-Methylnaphthalene	41.3	U	10.4	41.3	410	ug/Kg
77-47-4	Hexachlorocyclopentadiene	41.3	U	10	41.3	410	ug/Kg
88-06-2	2,4,6-Trichlorophenol	41.3	U	12.6	41.3	410	ug/Kg
95-95-4	2,4,5-Trichlorophenol	41.3	U	29	41.3	410	ug/Kg
92-52-4	1,1-Biphenyl	41.3	U	15.6	41.3	410	ug/Kg
91-58-7	2-Chloronaphthalene	41.3	U	9.4	41.3	410	ug/Kg
88-74-4	2-Nitroaniline	41.3	U	18.3	41.3	410	ug/Kg
131-11-3	Dimethylphthalate	340	J	11.1	41.3	410	ug/Kg
208-96-8	Acenaphthylene	41.3	U	10.4	41.3	410	ug/Kg
606-20-2	2,6-Dinitrotoluene	41.3	U	16.8	41.3	410	ug/Kg

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-6(11-12)	SDG No.:	H3936
Lab Sample ID:	H3936-09	Matrix:	SOIL
Analytical Method:	SW8270	% Moisture:	19.4
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023066.D	1	07/11/16 08:58	07/13/16 11:27	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
99-09-2	3-Nitroaniline	82.5	U	26.5	82.5	410	ug/Kg
83-32-9	Acenaphthene	41.3	U	11.6	41.3	410	ug/Kg
51-28-5	2,4-Dinitrophenol	330	U	42	330	410	ug/Kg
100-02-7	4-Nitrophenol	210	U	76.6	210	410	ug/Kg
132-64-9	Dibenzofuran	41.3	U	16.1	41.3	410	ug/Kg
121-14-2	2,4-Dinitrotoluene	41.3	U	12.4	41.3	410	ug/Kg
84-66-2	Diethylphthalate	41.3	U	6.4	41.3	410	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	41.3	U	22.4	41.3	410	ug/Kg
86-73-7	Fluorene	41.3	U	15.6	41.3	410	ug/Kg
100-01-6	4-Nitroaniline	82.5	U	53.7	82.5	410	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	210	U	23.6	210	410	ug/Kg
86-30-6	n-Nitrosodiphenylamine	41.3	U	9.9	41.3	410	ug/Kg
101-55-3	4-Bromophenyl-phenylether	41.3	U	8	41.3	410	ug/Kg
118-74-1	Hexachlorobenzene	41.3	U	16.8	41.3	410	ug/Kg
1912-24-9	Atrazine	41.3	U	21.8	41.3	410	ug/Kg
87-86-5	Pentachlorophenol	41.3	U	28.2	41.3	410	ug/Kg
85-01-8	Phenanthrene	41.3	U	11.1	41.3	410	ug/Kg
120-12-7	Anthracene	41.3	U	8.4	41.3	410	ug/Kg
86-74-8	Carbazole	41.3	U	9	41.3	410	ug/Kg
84-74-2	Di-n-butylphthalate	41.3	U	32.4	41.3	410	ug/Kg
206-44-0	Fluoranthene	41.3	U	8.3	41.3	410	ug/Kg
129-00-0	Pyrene	41.3	U	9.9	41.3	410	ug/Kg
85-68-7	Butylbenzylphthalate	41.3	U	19.8	41.3	410	ug/Kg
91-94-1	3,3-Dichlorobenzidine	41.3	U	26.5	41.3	410	ug/Kg
56-55-3	Benzo(a)anthracene	41.3	U	19.7	41.3	410	ug/Kg
218-01-9	Chrysene	41.3	U	18.7	41.3	410	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	41.3	U	14.6	41.3	410	ug/Kg
117-84-0	Di-n-octyl phthalate	41.3	U	4.7	41.3	410	ug/Kg
205-99-2	Benzo(b)fluoranthene	41.3	U	13.5	41.3	410	ug/Kg
207-08-9	Benzo(k)fluoranthene	41.3	U	19.4	41.3	410	ug/Kg
50-32-8	Benzo(a)pyrene	41.3	U	8.9	41.3	410	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	41.3	U	13.7	41.3	410	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	41.3	U	11.9	41.3	410	ug/Kg

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-6(11-12)	SDG No.:	H3936
Lab Sample ID:	H3936-09	Matrix:	SOIL
Analytical Method:	SW8270	% Moisture:	19.4
Sample Wt/Vol:	30.07 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023066.D	1	07/11/16 08:58	07/13/16 11:27	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
191-24-2	Benzo(g,h,i)perylene	41.3	U	16.7	41.3	410	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	41.3	U	16.2	41.3	410	ug/Kg
123-91-1	1,4-Dioxane	82.5	U	16.2	82.5	410	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	41.3	U	16.2	41.3	410	ug/Kg
SURROGATES							
367-12-4	2-Fluorophenol	96.1		28 - 127		64%	SPK: 150
13127-88-3	Phenol-d6	99.2		34 - 127		66%	SPK: 150
4165-60-0	Nitrobenzene-d5	65.2		31 - 132		65%	SPK: 100
321-60-8	2-Fluorobiphenyl	62.8		39 - 123		63%	SPK: 100
118-79-6	2,4,6-Tribromophenol	74.4		30 - 133		50%	SPK: 150
1718-51-0	Terphenyl-d14	61		37 - 115		61%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	127673	8.15				
1146-65-2	Naphthalene-d8	561873	10.98				
15067-26-2	Acenaphthene-d10	405165	14.8				
1517-22-2	Phenanthrene-d10	862164	17.56				
1719-03-5	Chrysene-d12	914239	21.86				
1520-96-3	Perylene-d12	940516	25.25				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

QC SUMMARY

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Surrogate Summary

SW-846

SDG No.: H3936

Client: AKRF Engineering, P.C.

Analytical Method: 8270D

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
H3936-07	TW-4	2-Fluorophenol	150	42.13	28		10	130
		Phenol-d6	150	27.71	18		10	130
		Nitrobenzene-d5	100	57.29	57		36	131
		2-Fluorobiphenyl	100	63.74	64		39	131
		2,4,6-Tribromophenol	150	83.94	56		25	155
		Terphenyl-d14	100	73.96	74		23	130
PB91977BL	PB91977BL	2-Fluorophenol	150	140.59	94		10	130
		Phenol-d6	150	140.57	94		10	130
		Nitrobenzene-d5	100	89.73	90		36	131
		2-Fluorobiphenyl	100	87.50	88		39	131
		2,4,6-Tribromophenol	150	119.07	79		25	155
		Terphenyl-d14	100	108.96	109		23	130
PB91977BS	PB91977BS	2-Fluorophenol	150	142.45	95		10	130
		Phenol-d6	150	138.77	93		10	130
		Nitrobenzene-d5	100	87.94	88		36	131
		2-Fluorobiphenyl	100	84.82	85		39	131
		2,4,6-Tribromophenol	150	120.46	80		25	155
		Terphenyl-d14	100	96.67	97		23	130
PB91977BSD	PB91977BSD	2-Fluorophenol	150	142.11	95		10	130
		Phenol-d6	150	137.64	92		10	130
		Nitrobenzene-d5	100	86.90	87		36	131
		2-Fluorobiphenyl	100	85.11	85		39	131
		2,4,6-Tribromophenol	150	121.35	81		25	155
		Terphenyl-d14	100	99.65	100		23	130

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Surrogate Summary

SW-846

SDG No.: H3936

Client: AKRF Engineering, P.C.

Analytical Method: 8270D

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
H3936-01	SB-1(9-10)	2-Fluorophenol	150	118.28	79		28	127
		Phenol-d6	150	124.48	83		34	127
		Nitrobenzene-d5	100	74.38	74		31	132
		2-Fluorobiphenyl	100	75.08	75		39	123
		2,4,6-Tribromophenol	150	95.36	64		30	133
		Terphenyl-d14	100	85.25	85		37	115
H3936-02	SB-2(9-10)	2-Fluorophenol	150	139.84	93		28	127
		Phenol-d6	150	148.04	99		34	127
		Nitrobenzene-d5	100	91.66	92		31	132
		2-Fluorobiphenyl	100	81.69	82		39	123
		2,4,6-Tribromophenol	150	109.07	73		30	133
		Terphenyl-d14	100	91.17	91		37	115
H3936-03	SB-3(5-6)	2-Fluorophenol	150	148.79	99		28	127
		Phenol-d6	150	157.76	105		34	127
		Nitrobenzene-d5	100	95.83	96		31	132
		2-Fluorobiphenyl	100	82.40	82		39	123
		2,4,6-Tribromophenol	150	114.66	76		30	133
		Terphenyl-d14	100	90.51	91		37	115
H3936-04	SB-4(4-5)	2-Fluorophenol	150	67.75	45		28	127
		Phenol-d6	150	99.15	66		34	127
		Nitrobenzene-d5	100	65.67	66		31	132
		2-Fluorobiphenyl	100	66.64	67		39	123
		2,4,6-Tribromophenol	150	24.47	16	*	30	133
		Terphenyl-d14	100	55.11	55		37	115
H3936-05	SB-5(1-2)	2-Fluorophenol	150	123.62	82		28	127
		Phenol-d6	150	127.04	85		34	127
		Nitrobenzene-d5	100	82.11	82		31	132
		2-Fluorobiphenyl	100	81.58	82		39	123
		2,4,6-Tribromophenol	150	98.92	66		30	133
		Terphenyl-d14	100	92.46	92		37	115
H3936-06	SB-5(4-5)	2-Fluorophenol	150	125.20	83		28	127
		Phenol-d6	150	128.63	86		34	127
		Nitrobenzene-d5	100	82.46	82		31	132
		2-Fluorobiphenyl	100	79.94	80		39	123
		2,4,6-Tribromophenol	150	100.33	67		30	133
		Terphenyl-d14	100	89.65	90		37	115
H3936-09	SB-6(11-12)	2-Fluorophenol	150	96.13	64		28	127
		Phenol-d6	150	99.18	66		34	127
		Nitrobenzene-d5	100	65.17	65		31	132
		2-Fluorobiphenyl	100	62.77	63		39	123
		2,4,6-Tribromophenol	150	74.39	50		30	133
		Terphenyl-d14	100	60.97	61		37	115
H3946-15MS	P7-B5(6-12)CMS	2-Fluorophenol	150	85.44	57		28	127
		Phenol-d6	150	88.86	59		34	127
		Nitrobenzene-d5	100	53.21	53		31	132
		2-Fluorobiphenyl	100	51.24	51		39	123
		2,4,6-Tribromophenol	150	70.35	47		30	133
		Terphenyl-d14	100	53.84	54		37	115
H3946-15MSD	P7-B5(6-12)CMSD	2-Fluorophenol	150	147.54	98		28	127
		Phenol-d6	150	148.73	99		34	127
		Nitrobenzene-d5	100	89.48	89		31	132
		2-Fluorobiphenyl	100	79.57	80		39	123

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Surrogate Summary

SW-846

SDG No.: H3936

Client: AKRF Engineering, P.C.

Analytical Method: 8270D

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
H3946-15MSD	P7-B5(6-12)CMSD	2,4,6-Tribromophenol	150	110.35	74		30	133
		Terphenyl-d14	100	97.79	98		37	115
PB92013BL	PB92013BL	2-Fluorophenol	150	136.78	91		28	127
		Phenol-d6	150	138.13	92		34	127
		Nitrobenzene-d5	100	85.15	85		31	132
		2-Fluorobiphenyl	100	82.91	83		39	123
		2,4,6-Tribromophenol	150	106.03	71		30	133
		Terphenyl-d14	100	95.59	96		37	115
PB92013BS	PB92013BS	2-Fluorophenol	150	133.59	89		28	127
		Phenol-d6	150	133.75	89		34	127
		Nitrobenzene-d5	100	76.72	77		31	132
		2-Fluorobiphenyl	100	74.74	75		39	123
		2,4,6-Tribromophenol	150	99.35	66		30	133
		Terphenyl-d14	100	84.49	84		37	115

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Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: H3936

Client: AKRF Engineering, P.C.

Analytical Method: SW8270D

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: H3946-15MS		**Client Sample ID: P7-B5(6-12)CMS**						**DataFile: BG023076.D**			
Benzaldehyde	2000	0	690	ug/Kg	35				10	105	
Phenol	2000	0	1300	ug/Kg	65				40	115	
bis(2-Chloroethyl)ether	2000	0	1100	ug/Kg	55				48	110	
2-Chlorophenol	2000	0	1200	ug/Kg	60				39	115	
2-Methylphenol	2000	0	1300	ug/Kg	65				48	111	
2,2-oxybis(1-Chloropropane)	2000	0	1100	ug/Kg	55				43	116	
Acetophenone	2000	0	980	ug/Kg	49				46	122	
3+4-Methylphenols	2000	0	1200	ug/Kg	60				46	115	
N-Nitroso-di-n-propylamine	2000	0	1100	ug/Kg	55				37	128	
Hexachloroethane	2000	0	970	ug/Kg	49				37	117	
Nitrobenzene	2000	0	1100	ug/Kg	55				45	117	
Isophorone	2000	0	1100	ug/Kg	55				44	121	
2-Nitrophenol	2000	0	1100	ug/Kg	55				32	123	
2,4-Dimethylphenol	2000	0	1000	ug/Kg	50				45	118	
bis(2-Chloroethoxy)methane	2000	0	1100	ug/Kg	55				47	117	
2,4-Dichlorophenol	2000	0	1200	ug/Kg	60				37	122	
Naphthalene	2000	0	1000	ug/Kg	50				42	121	
4-Chloroaniline	2000	0	610	ug/Kg	31				10	130	
Hexachlorobutadiene	2000	0	930	ug/Kg	47	*			49	111	
Caprolactam	2000	0	930	ug/Kg	47				26	133	
4-Chloro-3-methylphenol	2000	0	1100	ug/Kg	55				46	115	
2-Methylnaphthalene	2000	0	1100	ug/Kg	55				45	118	
Hexachlorocyclopentadiene	4000	0	1800	ug/Kg	45				10	127	
2,4,6-Trichlorophenol	2000	0	1100	ug/Kg	55				36	122	
2,4,5-Trichlorophenol	2000	0	1100	ug/Kg	55				33	125	
1,1-Biphenyl	2000	0	1100	ug/Kg	55				47	119	
2-Chloronaphthalene	2000	0	1100	ug/Kg	55				52	110	
2-Nitroaniline	2000	0	1100	ug/Kg	55				45	121	
Dimethylphthalate	2000	680	1600	ug/Kg	46				39	127	
Acenaphthylene	2000	0	1100	ug/Kg	55				45	117	
2,6-Dinitrotoluene	2000	0	1100	ug/Kg	55				50	114	
3-Nitroaniline	2000	0	850	ug/Kg	43				12	108	
Acenaphthene	2000	0	1100	ug/Kg	55				45	118	
2,4-Dinitrophenol	4000	0	410	ug/Kg	10				10	126	
4-Nitrophenol	4000	0	1900	ug/Kg	48				18	141	
Dibenzofuran	2000	0	1200	ug/Kg	60				45	118	
2,4-Dinitrotoluene	2000	0	1100	ug/Kg	55				44	120	
Diethylphthalate	2000	0	1200	ug/Kg	60				50	113	
4-Chlorophenyl-phenylether	2000	0	1100	ug/Kg	55				51	111	
Fluorene	2000	0	1100	ug/Kg	55				41	121	
4-Nitroaniline	2000	0	1000	ug/Kg	50				38	113	
4,6-Dinitro-2-methylphenol	2000	0	740	ug/Kg	37				10	142	
N-Nitrosodiphenylamine	2000	0	1100	ug/Kg	55				45	122	
4-Bromophenyl-phenylether	2000	0	1100	ug/Kg	55				51	114	
Hexachlorobenzene	2000	0	1000	ug/Kg	50				48	114	
Atrazine	2000	0	1100	ug/Kg	55				40	129	
Pentachlorophenol	4000	0	1800	ug/Kg	45				15	145	

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Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: H3936

Client: AKRF Engineering, P.C.

Analytical Method: SW8270D

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Phenanthrene	2000	0	1200	ug/Kg	60				29	138	
Anthracene	2000	0	1200	ug/Kg	60				45	120	
Carbazole	2000	0	1200	ug/Kg	60				43	122	
Di-n-butylphthalate	2000	0	1300	ug/Kg	65				51	115	
Fluoranthene	2000	0	1100	ug/Kg	55				33	133	
Pyrene	2000	0	1100	ug/Kg	55				31	135	
Butylbenzylphthalate	2000	0	1200	ug/Kg	60				49	121	
3,3-Dichlorobenzidine	2000	0	750	ug/Kg	38				10	105	
Benzo(a)anthracene	2000	0	1200	ug/Kg	60				35	132	
Chrysene	2000	0	1200	ug/Kg	60				34	131	
bis(2-Ethylhexyl)phthalate	2000	0	1200	ug/Kg	60				42	127	
Di-n-octyl phthalate	2000	0	1200	ug/Kg	60				50	123	
Benzo(b)fluoranthene	2000	0	1200	ug/Kg	60				35	128	
Benzo(k)fluoranthene	2000	0	1200	ug/Kg	60				39	117	
Benzo(a)pyrene	2000	0	1200	ug/Kg	60				35	129	
Indeno(1,2,3-cd)pyrene	2000	0	1000	ug/Kg	50				30	140	
Dibenz(a,h)anthracene	2000	0	1100	ug/Kg	55				18	147	
Benzo(g,h,i)perylene	2000	0	1000	ug/Kg	50				31	132	
1,2,4,5-Tetrachlorobenzene	2000	0	850	ug/Kg	43	*			52	122	
1,4-Dioxane	2000	0	1600	ug/Kg	80				26	104	
2,3,4,6-Tetrachlorophenol	2000	0	1100	ug/Kg	55				52	109	

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Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: H3936

Client: AKRF Engineering, P.C.

Analytical Method: SW8270D

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Lab Sample ID: H3946-15MSD		**Client Sample ID: P7-B5(6-12)CMSD**						**DataFile: BG023077.D**			
Benzaldehyde	2000	0	1200	ug/Kg	60		53	*	10	105	20
Phenol	2000	0	2200	ug/Kg	110		51	*	40	115	20
bis(2-Chloroethyl)ether	2000	0	1800	ug/Kg	90		48	*	48	110	20
2-Chlorophenol	2000	0	2100	ug/Kg	105		55	*	39	115	20
2-Methylphenol	2000	0	2200	ug/Kg	110		51	*	48	111	20
2,2-oxybis(1-Chloropropane)	2000	0	1800	ug/Kg	90		48	*	43	116	20
Acetophenone	2000	0	1700	ug/Kg	85		54	*	46	122	20
3+4-Methylphenols	2000	0	2200	ug/Kg	110		59	*	46	115	20
N-Nitroso-di-n-propylamine	2000	0	1800	ug/Kg	90		48	*	37	128	20
Hexachloroethane	2000	0	1700	ug/Kg	85		54	*	37	117	20
Nitrobenzene	2000	0	1900	ug/Kg	95		53	*	45	117	20
Isophorone	2000	0	1800	ug/Kg	90		48	*	44	121	20
2-Nitrophenol	2000	0	1900	ug/Kg	95		53	*	32	123	20
2,4-Dimethylphenol	2000	0	1900	ug/Kg	95		62	*	45	118	20
bis(2-Chloroethoxy)methane	2000	0	1800	ug/Kg	90		48	*	47	117	20
2,4-Dichlorophenol	2000	0	2100	ug/Kg	105		55	*	37	122	20
Naphthalene	2000	0	1800	ug/Kg	90		57	*	42	121	20
4-Chloroaniline	2000	0	470	ug/Kg	24		25	*	10	130	20
Hexachlorobutadiene	2000	0	1600	ug/Kg	80		52	*	49	111	20
Caprolactam	2000	0	1700	ug/Kg	85		58	*	26	133	20
4-Chloro-3-methylphenol	2000	0	1900	ug/Kg	95		53	*	46	115	20
2-Methylnaphthalene	2000	0	1800	ug/Kg	90		48	*	45	118	20
Hexachlorocyclopentadiene	4100	0	3000	ug/Kg	73		47	*	10	127	20
2,4,6-Trichlorophenol	2000	0	1800	ug/Kg	90		48	*	36	122	20
2,4,5-Trichlorophenol	2000	0	1900	ug/Kg	95		53	*	33	125	20
1,1-Biphenyl	2000	0	1700	ug/Kg	85		43	*	47	119	20
2-Chloronaphthalene	2000	0	1800	ug/Kg	90		48	*	52	110	20
2-Nitroaniline	2000	0	1800	ug/Kg	90		48	*	45	121	20
Dimethylphthalate	2000	680	2400	ug/Kg	86		61	*	39	127	20
Acenaphthylene	2000	0	1800	ug/Kg	90		48	*	45	117	20
2,6-Dinitrotoluene	2000	0	1800	ug/Kg	90		48	*	50	114	20
3-Nitroaniline	2000	0	930	ug/Kg	47		9		12	108	20
Acenaphthene	2000	0	1800	ug/Kg	90		48	*	45	118	20
2,4-Dinitrophenol	4100	0	1100	ug/Kg	27		92	*	10	126	20
4-Nitrophenol	4100	0	3300	ug/Kg	80		50	*	18	141	20
Dibenzofuran	2000	0	1900	ug/Kg	95		45	*	45	118	20
2,4-Dinitrotoluene	2000	0	1800	ug/Kg	90		48	*	44	120	20
Diethylphthalate	2000	0	1800	ug/Kg	90		40	*	50	113	20
4-Chlorophenyl-phenylether	2000	0	1700	ug/Kg	85		43	*	51	111	20
Fluorene	2000	0	1800	ug/Kg	90		48	*	41	121	20
4-Nitroaniline	2000	0	1600	ug/Kg	80		46	*	38	113	20
4,6-Dinitro-2-methylphenol	2000	0	1600	ug/Kg	80		74	*	10	142	20
N-Nitrosodiphenylamine	2000	0	1900	ug/Kg	95		53	*	45	122	20
4-Bromophenyl-phenylether	2000	0	1800	ug/Kg	90		48	*	51	114	20
Hexachlorobenzene	2000	0	1700	ug/Kg	85		52	*	48	114	20
Atrazine	2000	0	1800	ug/Kg	90		48	*	40	129	20
Pentachlorophenol	4100	0	3300	ug/Kg	80		56	*	15	145	20

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Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: H3936

Client: AKRF Engineering, P.C.

Analytical Method: SW8270D

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Phenanthrene	2000	0	1900	ug/Kg	95		45	*	29	138	20
Anthracene	2000	0	1900	ug/Kg	95		45	*	45	120	20
Carbazole	2000	0	1900	ug/Kg	95		45	*	43	122	20
Di-n-butylphthalate	2000	0	2000	ug/Kg	100		42	*	51	115	20
Fluoranthene	2000	0	1700	ug/Kg	85		43	*	33	133	20
Pyrene	2000	0	1800	ug/Kg	90		48	*	31	135	20
Butylbenzylphthalate	2000	0	2100	ug/Kg	105		55	*	49	121	20
3,3-Dichlorobenzidine	2000	0	970	ug/Kg	49		25	*	10	105	20
Benzo(a)anthracene	2000	0	1900	ug/Kg	95		45	*	35	132	20
Chrysene	2000	0	1900	ug/Kg	95		45	*	34	131	20
bis(2-Ethylhexyl)phthalate	2000	0	2000	ug/Kg	100		50	*	42	127	20
Di-n-octyl phthalate	2000	0	2000	ug/Kg	100		50	*	50	123	20
Benzo(b)fluoranthene	2000	0	1900	ug/Kg	95		45	*	35	128	20
Benzo(k)fluoranthene	2000	0	1900	ug/Kg	95		45	*	39	117	20
Benzo(a)pyrene	2000	0	1900	ug/Kg	95		45	*	35	129	20
Indeno(1,2,3-cd)pyrene	2000	0	1800	ug/Kg	90		57	*	30	140	20
Dibenz(a,h)anthracene	2000	0	1800	ug/Kg	90		48	*	18	147	20
Benzo(g,h,i)perylene	2000	0	1700	ug/Kg	85		52	*	31	132	20
1,2,4,5-Tetrachlorobenzene	2000	0	1400	ug/Kg	70		48	*	52	122	20
1,4-Dioxane	2000	0	1700	ug/Kg	85		6		26	104	20
2,3,4,6-Tetrachlorophenol	2000	0	1900	ug/Kg	95		53	*	52	109	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: H3936

Client: AKRF Engineering, P.C.

Analytical Method: 8270D **DataFile:** BG022953.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB91977BS	Benzaldehyde	50	37.1	ug/L	74				10	109	
	Phenol	50	49.4	ug/L	99				10	130	
	bis(2-Chloroethyl)ether	50	41	ug/L	82				46	116	
	2-Chlorophenol	50	48	ug/L	96				40	105	
	2-Methylphenol	50	48.3	ug/L	97		*		32	94	
	2,2-oxybis(1-Chloropropane)	50	40.6	ug/L	81				60	113	
	Acetophenone	50	40.3	ug/L	81				64	120	
	3+4-Methylphenols	50	47.5	ug/L	95		*		24	91	
	N-Nitroso-di-n-propylamine	50	39.1	ug/L	78				61	115	
	Hexachloroethane	50	39.6	ug/L	79				52	104	
	Nitrobenzene	50	44.3	ug/L	89				49	120	
	Isophorone	50	41	ug/L	82				65	114	
	2-Nitrophenol	50	44	ug/L	88				57	116	
	2,4-Dimethylphenol	50	44.4	ug/L	89				43	108	
	bis(2-Chloroethoxy)methane	50	40.7	ug/L	81				65	111	
	2,4-Dichlorophenol	50	47.8	ug/L	96				49	113	
	Naphthalene	50	41.9	ug/L	84				61	107	
	4-Chloroaniline	50	17.3	ug/L	35				10	93	
	Hexachlorobutadiene	50	39.1	ug/L	78				35	120	
	Caprolactam	50	39.6	ug/L	79				10	130	
	4-Chloro-3-methylphenol	50	42.7	ug/L	85				51	109	
	2-Methylnaphthalene	50	42.9	ug/L	86				63	110	
	Hexachlorocyclopentadiene	100	80.2	ug/L	80				42	121	
	2,4,6-Trichlorophenol	50	43.8	ug/L	88				62	114	
	2,4,5-Trichlorophenol	50	44.7	ug/L	89				58	116	
	1,1-Biphenyl	50	41.3	ug/L	83				65	117	
	2-Chloronaphthalene	50	41.6	ug/L	83				65	111	
	2-Nitroaniline	50	42.1	ug/L	84				63	119	
	Dimethylphthalate	50	42.6	ug/L	85				68	112	
	Acenaphthylene	50	42.4	ug/L	85				65	110	
	2,6-Dinitrotoluene	50	42.3	ug/L	85				68	115	
	3-Nitroaniline	50	28.6	ug/L	57				16	104	
	Acenaphthene	50	42.9	ug/L	86				66	114	
	2,4-Dinitrophenol	100	70.6	ug/L	71				35	129	
	4-Nitrophenol	100	83.1	ug/L	83				10	130	
	Dibenzofuran	50	46.3	ug/L	93				66	111	
	2,4-Dinitrotoluene	50	43.9	ug/L	88				65	119	
	Diethylphthalate	50	43.7	ug/L	87				66	116	
	4-Chlorophenyl-phenylether	50	43.6	ug/L	87				66	113	
	Fluorene	50	44	ug/L	88				66	112	
	4-Nitroaniline	50	39.9	ug/L	80				53	115	
	4,6-Dinitro-2-methylphenol	50	39.1	ug/L	78				47	137	
	N-Nitrosodiphenylamine	50	43.2	ug/L	86				65	116	
	4-Bromophenyl-phenylether	50	42.1	ug/L	84				66	119	
	Hexachlorobenzene	50	41.1	ug/L	82				57	121	
	Atrazine	50	43.7	ug/L	87				53	130	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: H3936

Client: AKRF Engineering, P.C.

Analytical Method: 8270D **DataFile:** BG022953.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB91977BS	Pentachlorophenol	100	80.1	ug/L	80				51	128	
	Phenanthrene	50	45.4	ug/L	91				68	112	
	Anthracene	50	44.7	ug/L	89				69	112	
	Carbazole	50	45.1	ug/L	90				65	115	
	Di-n-butylphthalate	50	48.4	ug/L	97				67	117	
	Fluoranthene	50	43	ug/L	86				67	115	
	Pyrene	50	41.2	ug/L	82				67	116	
	Butylbenzylphthalate	50	44.2	ug/L	88				66	121	
	3,3-Dichlorobenzidine	50	25.7	ug/L	51				13	119	
	Benzo(a)anthracene	50	43.9	ug/L	88				64	117	
	Chrysene	50	44	ug/L	88				65	116	
	bis(2-Ethylhexyl)phthalate	50	43.7	ug/L	87				61	123	
	Di-n-octyl phthalate	50	43.8	ug/L	88				63	123	
	Benzo(b)fluoranthene	50	44.8	ug/L	90				62	122	
	Benzo(k)fluoranthene	50	44.8	ug/L	90				60	123	
	Benzo(a)pyrene	50	44.8	ug/L	90				65	118	
	Indeno(1,2,3-cd)pyrene	50	43.9	ug/L	88				50	133	
	Dibenz(a,h)anthracene	50	43.8	ug/L	88				45	150	
	Benzo(g,h,i)perylene	50	43.9	ug/L	88				64	123	
	1,2,4,5-Tetrachlorobenzene	50	34.2	ug/L	68				60	105	
	1,4-Dioxane	50	0	ug/L	0		*		70	130	
	2,3,4,6-Tetrachlorophenol	50	46.7	ug/L	93				66	110	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: H3936

Client: AKRF Engineering, P.C.

Analytical Method: 8270D **DataFile:** BG022954.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB91977BSD	Benzaldehyde	50	35.8	ug/L	72	4			10	109	20
	Phenol	50	46	ug/L	92	7			10	130	20
	bis(2-Chloroethyl)ether	50	40.6	ug/L	81	1			46	116	20
	2-Chlorophenol	50	45.1	ug/L	90	6			40	105	20
	2-Methylphenol	50	46.2	ug/L	92	4			32	94	20
	2,2-oxybis(1-Chloropropane)	50	38.4	ug/L	77	6			60	113	20
	Acetophenone	50	38.3	ug/L	77	5			64	120	20
	3+4-Methylphenols	50	45.8	ug/L	92	4	*		24	91	20
	N-Nitroso-di-n-propylamine	50	36.9	ug/L	74	6			61	115	20
	Hexachloroethane	50	38.1	ug/L	76	4			52	104	20
	Nitrobenzene	50	43	ug/L	86	3			49	120	20
	Isophorone	50	39.4	ug/L	79	4			65	114	20
	2-Nitrophenol	50	43.7	ug/L	87	1			57	116	20
	2,4-Dimethylphenol	50	44.2	ug/L	88	0			43	108	20
	bis(2-Chloroethoxy)methane	50	39.3	ug/L	79	4			65	111	20
	2,4-Dichlorophenol	50	45.8	ug/L	92	4			49	113	20
	Naphthalene	50	40.8	ug/L	82	3			61	107	20
	4-Chloroaniline	50	13.1	ug/L	26	28		*	10	93	20
	Hexachlorobutadiene	50	37.2	ug/L	74	5			35	120	20
	Caprolactam	50	39.2	ug/L	78	1			10	130	20
	4-Chloro-3-methylphenol	50	41	ug/L	82	4			51	109	20
	2-Methylnaphthalene	50	40.7	ug/L	81	5			63	110	20
	Hexachlorocyclopentadiene	100	78.4	ug/L	78	2			42	121	20
	2,4,6-Trichlorophenol	50	41.7	ug/L	83	5			62	114	20
	2,4,5-Trichlorophenol	50	44.2	ug/L	88	1			58	116	20
	1,1-Biphenyl	50	40.2	ug/L	80	3			65	117	20
	2-Chloronaphthalene	50	40.6	ug/L	81	2			65	111	20
	2-Nitroaniline	50	40.1	ug/L	80	5			63	119	20
	Dimethylphthalate	50	40.9	ug/L	82	4			68	112	20
	Acenaphthylene	50	41	ug/L	82	3			65	110	20
	2,6-Dinitrotoluene	50	42.2	ug/L	84	0			68	115	20
	3-Nitroaniline	50	24.2	ug/L	48	17			16	104	20
	Acenaphthene	50	41.1	ug/L	82	4			66	114	20
	2,4-Dinitrophenol	100	69.3	ug/L	69	2			35	129	20
	4-Nitrophenol	100	82.3	ug/L	82	1			10	130	20
	Dibenzofuran	50	44.3	ug/L	89	4			66	111	20
	2,4-Dinitrotoluene	50	43.7	ug/L	87	0			65	119	20
	Diethylphthalate	50	42.7	ug/L	85	2			66	116	20
	4-Chlorophenyl-phenylether	50	41.2	ug/L	82	6			66	113	20
	Fluorene	50	42.7	ug/L	85	3			66	112	20
	4-Nitroaniline	50	38.7	ug/L	77	3			53	115	20
	4,6-Dinitro-2-methylphenol	50	37.5	ug/L	75	4			47	137	20
	N-Nitrosodiphenylamine	50	42.1	ug/L	84	3			65	116	20
	4-Bromophenyl-phenylether	50	40.1	ug/L	80	5			66	119	20
	Hexachlorobenzene	50	39.7	ug/L	79	3			57	121	20
	Atrazine	50	41.6	ug/L	83	5			53	130	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: H3936

Client: AKRF Engineering, P.C.

Analytical Method: 8270D **DataFile:** BG022954.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB91977BSD	Pentachlorophenol	100	79.6	ug/L	80	1			51	128	20
	Phenanthrene	50	43.2	ug/L	86	5			68	112	20
	Anthracene	50	43.1	ug/L	86	4			69	112	20
	Carbazole	50	43.5	ug/L	87	4			65	115	20
	Di-n-butylphthalate	50	46.7	ug/L	93	4			67	117	20
	Fluoranthene	50	41.9	ug/L	84	3			67	115	20
	Pyrene	50	40.7	ug/L	81	1			67	116	20
	Butylbenzylphthalate	50	44	ug/L	88	0			66	121	20
	3,3-Dichlorobenzidine	50	23.8	ug/L	48	8			13	119	20
	Benzo(a)anthracene	50	42.3	ug/L	85	4			64	117	20
	Chrysene	50	42.7	ug/L	85	3			65	116	20
	bis(2-Ethylhexyl)phthalate	50	43.1	ug/L	86	1			61	123	20
	Di-n-octyl phthalate	50	42.8	ug/L	86	2			63	123	20
	Benzo(b)fluoranthene	50	43.2	ug/L	86	4			62	122	20
	Benzo(k)fluoranthene	50	42	ug/L	84	6			60	123	20
	Benzo(a)pyrene	50	42.7	ug/L	85	5			65	118	20
	Indeno(1,2,3-cd)pyrene	50	42.7	ug/L	85	3			50	133	20
	Dibenz(a,h)anthracene	50	41.8	ug/L	84	5			45	150	20
	Benzo(g,h,i)perylene	50	41.4	ug/L	83	6			64	123	20
	1,2,4,5-Tetrachlorobenzene	50	32.8	ug/L	66	4			60	105	20
	1,4-Dioxane	50	0	ug/L	0	0	*		70	130	20
	2,3,4,6-Tetrachlorophenol	50	45	ug/L	90	4			66	110	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: H3936

Client: AKRF Engineering, P.C.

Analytical Method: 8270D **DataFile:** BG023084.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB92013BS	Benzaldehyde	1700	610	ug/Kg	36				10	95	
	Phenol	1700	1500	ug/Kg	88				51	101	
	bis(2-Chloroethyl)ether	1700	1300	ug/Kg	76				55	99	
	2-Chlorophenol	1700	1500	ug/Kg	88				53	100	
	2-Methylphenol	1700	1600	ug/Kg	94				49	105	
	2,2-oxybis(1-Chloropropane)	1700	1300	ug/Kg	76				52	104	
	Acetophenone	1700	1200	ug/Kg	71				50	111	
	3+4-Methylphenols	1700	1500	ug/Kg	88				52	102	
	N-Nitroso-di-n-propylamine	1700	1300	ug/Kg	76				51	104	
	Hexachloroethane	1700	1200	ug/Kg	71				54	97	
	Nitrobenzene	1700	1300	ug/Kg	76				51	104	
	Isophorone	1700	1200	ug/Kg	71				55	101	
	2-Nitrophenol	1700	1300	ug/Kg	76				52	105	
	2,4-Dimethylphenol	1700	1300	ug/Kg	76				53	103	
	bis(2-Chloroethoxy)methane	1700	1200	ug/Kg	71				55	101	
	2,4-Dichlorophenol	1700	1400	ug/Kg	82				54	103	
	Naphthalene	1700	1200	ug/Kg	71				53	103	
	4-Chloroaniline	1700	490	ug/Kg	29				10	130	
	Hexachlorobutadiene	1700	1100	ug/Kg	65				50	106	
	Caprolactam	1700	1200	ug/Kg	71				49	106	
	4-Chloro-3-methylphenol	1700	1300	ug/Kg	76				55	101	
	2-Methylnaphthalene	1700	1300	ug/Kg	76				55	102	
	Hexachlorocyclopentadiene	3300	2200	ug/Kg	67				38	122	
	2,4,6-Trichlorophenol	1700	1200	ug/Kg	71				56	103	
	2,4,5-Trichlorophenol	1700	1300	ug/Kg	76				56	103	
	1,1-Biphenyl	1700	1200	ug/Kg	71				56	107	
	2-Chloronaphthalene	1700	1200	ug/Kg	71				56	102	
	2-Nitroaniline	1700	1300	ug/Kg	76				54	103	
	Dimethylphthalate	1700	1200	ug/Kg	71				61	111	
	Acenaphthylene	1700	1200	ug/Kg	71				57	101	
	2,6-Dinitrotoluene	1700	1300	ug/Kg	76				59	100	
	3-Nitroaniline	1700	760	ug/Kg	45				10	130	
	Acenaphthene	1700	1300	ug/Kg	76				57	102	
	2,4-Dinitrophenol	3300	2400	ug/Kg	73				32	114	
	4-Nitrophenol	3300	2400	ug/Kg	73				48	114	
	Dibenzofuran	1700	1400	ug/Kg	82				57	100	
	2,4-Dinitrotoluene	1700	1300	ug/Kg	76				58	102	
	Diethylphthalate	1700	1300	ug/Kg	76				56	101	
	4-Chlorophenyl-phenylether	1700	1200	ug/Kg	71				57	101	
	Fluorene	1700	1300	ug/Kg	76				57	101	
	4-Nitroaniline	1700	1200	ug/Kg	71				49	99	
	4,6-Dinitro-2-methylphenol	1700	1200	ug/Kg	71				44	119	
	N-Nitrosodiphenylamine	1700	1300	ug/Kg	76				57	103	
	4-Bromophenyl-phenylether	1700	1200	ug/Kg	71				57	105	
	Hexachlorobenzene	1700	1200	ug/Kg	71				54	106	
	Atrazine	1700	1200	ug/Kg	71				50	113	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: H3936

Client: AKRF Engineering, P.C.

Analytical Method: 8270D **DataFile:** BG023084.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB92013BS	Pentachlorophenol	3300	2300	ug/Kg	70				49	116	
	Phenanthrene	1700	1300	ug/Kg	76				58	101	
	Anthracene	1700	1300	ug/Kg	76				57	102	
	Carbazole	1700	1300	ug/Kg	76				57	102	
	Di-n-butylphthalate	1700	1400	ug/Kg	82				57	103	
	Fluoranthene	1700	1200	ug/Kg	71				56	102	
	Pyrene	1700	1300	ug/Kg	76				56	106	
	Butylbenzylphthalate	1700	1400	ug/Kg	82				57	106	
	3,3-Dichlorobenzidine	1700	840	ug/Kg	49				10	92	
	Benzo(a)anthracene	1700	1300	ug/Kg	76				56	103	
	Chrysene	1700	1300	ug/Kg	76				58	102	
	bis(2-Ethylhexyl)phthalate	1700	1400	ug/Kg	82				57	106	
	Di-n-octyl phthalate	1700	1400	ug/Kg	82				56	107	
	Benzo(b)fluoranthene	1700	1300	ug/Kg	76				56	103	
	Benzo(k)fluoranthene	1700	1400	ug/Kg	82				55	102	
	Benzo(a)pyrene	1700	1400	ug/Kg	82				57	103	
	Indeno(1,2,3-cd)pyrene	1700	1200	ug/Kg	71				50	113	
	Dibenz(a,h)anthracene	1700	1200	ug/Kg	71				52	119	
	Benzo(g,h,i)perylene	1700	1200	ug/Kg	71				56	105	
	1,2,4,5-Tetrachlorobenzene	1700	970	ug/Kg	57				33	136	
	1,4-Dioxane	1700	1700	ug/Kg	100				15	117	
	2,3,4,6-Tetrachlorophenol	1700	1400	ug/Kg	82				47	120	

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4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB91977BL

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG NO.: H3936

Lab File ID: BG022952.D Lab Sample ID: PB91977BL

Instrument ID: BNA_G Date Extracted: 07/08/2016

Matrix: (soil/water) Water Date Analyzed: 07/09/2016

Level: (low/med) LOW Time Analyzed: 05:26

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB91977BS	PB91977BS	BG022953.D	07/09/2016
PB91977BSD	PB91977BSD	BG022954.D	07/09/2016
TW-4	H3936-07	BG022949.D	07/09/2016

COMMENTS:

Form IV SV

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4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB92013BL

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG NO.: H3936

Lab File ID: BG023038.D Lab Sample ID: PB92013BL

Instrument ID: BNA_G Date Extracted: 07/11/2016

Matrix: (soil/water) SOIL Date Analyzed: 07/12/2016

Level: (low/med) LOW Time Analyzed: 16:04

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
SB-3(5-6)	H3936-03	BG023064.D	07/13/2016
SB-4(4-5)	H3936-04	BG023065.D	07/13/2016
SB-6(11-12)	H3936-09	BG023066.D	07/13/2016
P7-B5(6-12)CMS	H3946-15MS	BG023076.D	07/13/2016
P7-B5(6-12)CMSD	H3946-15MSD	BG023077.D	07/13/2016
PB92013BS	PB92013BS	BG023084.D	07/14/2016
SB-1(9-10)	H3936-01	BG023027.D	07/12/2016
SB-2(9-10)	H3936-02	BG023028.D	07/12/2016
SB-5(1-2)	H3936-05	BG023029.D	07/12/2016
SB-5(4-5)	H3936-06	BG023030.D	07/12/2016

COMMENTS:

Form IV SV

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM SAS No.: H3936 SDG NO.: H3936

Lab File ID: BG022889.D DFTPP Injection Date: 07/07/2016

Instrument ID: BNA_G DFTPP Injection Time: 09:27

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	30.3
68	Less than 2.0% of mass 69	0.3 (0.8) 1
69	Mass 69 relative abundance	39.4
70	Less than 2.0% of mass 69	0.2 (0.5) 1
127	10.0 - 80.0% of mass 198	41.4
197	Less than 2.0% of mass 198	0.8
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	7.9
275	10.0 - 60.0% of mass 198	31.6
365	Greater than 1% of mass 198	4.1
441	Present, but less than mass 443	12.3
442	Greater than 50% of mass 198	78.7
443	15.0 - 24.0% of mass 442	15.6 (19.8) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDICC02.5	SSTDICC02.5	BG022891.D	07/07/2016	11:50
SSTDICC010	SSTDICC010	BG022892.D	07/07/2016	12:30
SSTDICC025	SSTDICC025	BG022893.D	07/07/2016	13:11
SSTDICCC040	SSTDICCC040	BG022894.D	07/07/2016	13:52
SSTDICC050	SSTDICC050	BG022895.D	07/07/2016	14:32
SSTDICC060	SSTDICC060	BG022896.D	07/07/2016	15:13
SSTDICC080	SSTDICC080	BG022897.D	07/07/2016	15:53

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM SAS No.: H3936 SDG NO.: H3936

Lab File ID: BG022934.D DFTPP Injection Date: 07/08/2016

Instrument ID: BNA_G DFTPP Injection Time: 17:24

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	32.6
68	Less than 2.0% of mass 69	0.6 (1.7) 1
69	Mass 69 relative abundance	36.9
70	Less than 2.0% of mass 69	0.1 (0.2) 1
127	10.0 - 80.0% of mass 198	39.5
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 60.0% of mass 198	29.2
365	Greater than 1% of mass 198	3.8
441	Present, but less than mass 443	12.6
442	Greater than 50% of mass 198	74.8
443	15.0 - 24.0% of mass 442	13.8 (18.4) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BG022935.D	07/08/2016	18:05
TW-4	H3936-07	BG022949.D	07/09/2016	03:26

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM SAS No.: H3936 SDG NO.: H3936

Lab File ID: BG022950.D DFTPP Injection Date: 07/09/2016

Instrument ID: BNA_G DFTPP Injection Time: 04:06

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	29.6
68	Less than 2.0% of mass 69	0.4 (1.1) 1
69	Mass 69 relative abundance	38.1
70	Less than 2.0% of mass 69	0.1 (0.3) 1
127	10.0 - 80.0% of mass 198	39.4
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	7.1
275	10.0 - 60.0% of mass 198	29.9
365	Greater than 1% of mass 198	3.8
441	Present, but less than mass 443	11
442	Greater than 50% of mass 198	72.1
443	15.0 - 24.0% of mass 442	12.7 (17.7) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BG022951.D	07/09/2016	04:46
PB91977BL	PB91977BL	BG022952.D	07/09/2016	05:26
PB91977BS	PB91977BS	BG022953.D	07/09/2016	06:06
PB91977BSD	PB91977BSD	BG022954.D	07/09/2016	06:46

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM SAS No.: H3936 SDG NO.: H3936

Lab File ID: BG023019.D DFTPP Injection Date: 07/12/2016

Instrument ID: BNA_G DFTPP Injection Time: 03:18

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	31.3
68	Less than 2.0% of mass 69	0.0 (0.0) 1
69	Mass 69 relative abundance	39.9
70	Less than 2.0% of mass 69	0.4 (0.9) 1
127	10.0 - 80.0% of mass 198	39.6
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	7.4
275	10.0 - 60.0% of mass 198	28.4
365	Greater than 1% of mass 198	3.6
441	Present, but less than mass 443	11.5
442	Greater than 50% of mass 198	68.4
443	15.0 - 24.0% of mass 442	13.7 (20) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BG023020.D	07/12/2016	03:58
SB-1(9-10)	H3936-01	BG023027.D	07/12/2016	08:37
SB-2(9-10)	H3936-02	BG023028.D	07/12/2016	09:20
SB-5(1-2)	H3936-05	BG023029.D	07/12/2016	09:59
SB-5(4-5)	H3936-06	BG023030.D	07/12/2016	10:39

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM SAS No.: H3936 SDG NO.: H3936

Lab File ID: BG023034.D DFTPP Injection Date: 07/12/2016

Instrument ID: BNA_G DFTPP Injection Time: 13:25

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	32.5
68	Less than 2.0% of mass 69	0.0 (0.0) 1
69	Mass 69 relative abundance	40.6
70	Less than 2.0% of mass 69	0.2 (0.6) 1
127	10.0 - 80.0% of mass 198	39.8
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	7.2
275	10.0 - 60.0% of mass 198	29.8
365	Greater than 1% of mass 198	3.5
441	Present, but less than mass 443	10.4
442	Greater than 50% of mass 198	66.2
443	15.0 - 24.0% of mass 442	12.6 (19.1) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BG023035.D	07/12/2016	14:04
PB92013BL	PB92013BL	BG023038.D	07/12/2016	16:04

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM SAS No.: H3936 SDG NO.: H3936

Lab File ID: BG023049.D DFTPP Injection Date: 07/13/2016

Instrument ID: BNA_G DFTPP Injection Time: 00:06

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	33
68	Less than 2.0% of mass 69	0.0 (0.0) 1
69	Mass 69 relative abundance	42.8
70	Less than 2.0% of mass 69	0.0 (0.1) 1
127	10.0 - 80.0% of mass 198	41.1
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 60.0% of mass 198	28.4
365	Greater than 1% of mass 198	4
441	Present, but less than mass 443	10.6
442	Greater than 50% of mass 198	66.9
443	15.0 - 24.0% of mass 442	14 (20.9) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BG023050.D	07/13/2016	00:47
SB-3(5-6)	H3936-03	BG023064.D	07/13/2016	10:08
SB-4(4-5)	H3936-04	BG023065.D	07/13/2016	10:48
SB-6(11-12)	H3936-09	BG023066.D	07/13/2016	11:27

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM SAS No.: H3936 SDG NO.: H3936

Lab File ID: BG023067.D DFTPP Injection Date: 07/13/2016

Instrument ID: BNA_G DFTPP Injection Time: 13:11

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	32.2
68	Less than 2.0% of mass 69	0.1 (0.3) 1
69	Mass 69 relative abundance	37.1
70	Less than 2.0% of mass 69	0.0 (0.0) 1
127	10.0 - 80.0% of mass 198	39
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 60.0% of mass 198	30.1
365	Greater than 1% of mass 198	4.1
441	Present, but less than mass 443	12.3
442	Greater than 50% of mass 198	77.6
443	15.0 - 24.0% of mass 442	14.8 (19.1) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BG023068.D	07/13/2016	13:51
P7-B5(6-12)CMS	H3946-15MS	BG023076.D	07/13/2016	19:10
P7-B5(6-12)CMSD	H3946-15MSD	BG023077.D	07/13/2016	19:50

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM SAS No.: H3936 SDG NO.: H3936

Lab File ID: BG023081.D DFTPP Injection Date: 07/13/2016

Instrument ID: BNA_G DFTPP Injection Time: 23:11

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	33.8
68	Less than 2.0% of mass 69	0.3 (0.8) 1
69	Mass 69 relative abundance	40.2
70	Less than 2.0% of mass 69	0.1 (0.4) 1
127	10.0 - 80.0% of mass 198	40.5
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	7.2
275	10.0 - 60.0% of mass 198	30.3
365	Greater than 1% of mass 198	4
441	Present, but less than mass 443	11.4
442	Greater than 50% of mass 198	67.7
443	15.0 - 24.0% of mass 442	13.7 (20.2) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BG023082.D	07/13/2016	23:51
PB92013BS	PB92013BS	BG023084.D	07/14/2016	01:52

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG NO.: H3936

EPA Sample No.: SSTDCCC040 Date Analyzed: 07/08/2016

Lab File ID: BG022935.D Time Analyzed: 18:05

Instrument ID: BNA_G GC Column: ZB-GR ID: 0.25 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	114888	8.15	539976	10.98	415841	14.79
	UPPER LIMIT	229776	8.65	1079950	11.48	831682	15.29
	LOWER LIMIT	57444	7.65	269988	10.48	207921	14.29
	EPA SAMPLE NO.						
01	TW-4	96877	8.15	458117	10.98	360646	14.80

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG NO.: H3936

EPA Sample No.: SSTDCCC040 Date Analyzed: 07/08/2016

Lab File ID: BG022935.D Time Analyzed: 18:05

Instrument ID: BNA_G GC Column: ZB-GR ID: 0.25 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	1001590	17.55	1152850	21.84	1199710	25.2
	UPPER LIMIT	2003180	18.05	2305700	22.34	2399420	25.7
	LOWER LIMIT	500795	17.05	576425	21.34	599855	24.7
	EPA SAMPLE NO.						
01	TW-4	869919	17.55	936503	21.84	952245	25.21

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG NO.: H3936

EPA Sample No.: SSTDCCC040 Date Analyzed: 07/09/2016

Lab File ID: BG022951.D Time Analyzed: 04:46

Instrument ID: BNA_G GC Column: ZB-GR ID: 0.25 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	134900	8.16	634546	10.98	441261	14.80
	UPPER LIMIT	269800	8.66	1269090	11.48	882522	15.3
	LOWER LIMIT	67450	7.66	317273	10.48	220631	14.3
	EPA SAMPLE NO.						
01	PB91977BL	86996	8.15	392873	10.98	323905	14.80
02	PB91977BS	91850	8.15	420751	10.98	327767	14.80
03	PB91977BSD	100549	8.16	445708	10.98	344664	14.80

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG NO.: H3936

EPA Sample No.: SSTDCCC040 Date Analyzed: 07/09/2016

Lab File ID: BG022951.D Time Analyzed: 04:46

Instrument ID: BNA_G GC Column: ZB-GR ID: 0.25 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	1053620	17.56	1170290	21.85	1185970	25.21
	UPPER LIMIT	2107240	18.06	2340580	22.35	2371940	25.71
	LOWER LIMIT	526810	17.06	585145	21.35	592985	24.71
	EPA SAMPLE NO.						
01	PB91977BL	821566	17.55	900735	21.84	903501	25.20
02	PB91977BS	832898	17.56	945090	21.85	961779	25.20
03	PB91977BSD	888575	17.55	977014	21.85	1013650	25.21

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG NO.: H3936

EPA Sample No.: SSTDCCC040 Date Analyzed: 07/12/2016

Lab File ID: BG023020.D Time Analyzed: 03:58

Instrument ID: BNA_G GC Column: ZB-GR ID: 0.25 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	95874	8.15	476838	10.98	373907	14.80
	UPPER LIMIT	191748	8.65	953676	11.48	747814	15.3
	LOWER LIMIT	47937	7.65	238419	10.48	186954	14.3
	EPA SAMPLE NO.						
01	SB-1(9-10)	96462	8.15	476577	10.98	365067	14.80
02	SB-2(9-10)	92486	8.16	443739	10.99	358603	14.80
03	SB-5(1-2)	98661	8.15	463082	10.98	352617	14.80
04	SB-5(4-5)	92300	8.16	434009	10.98	338509	14.80

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG NO.: H3936

EPA Sample No.: SSTDCCC040 Date Analyzed: 07/12/2016

Lab File ID: BG023020.D Time Analyzed: 03:58

Instrument ID: BNA_G GC Column: ZB-GR ID: 0.25 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	832894	17.56	881937	21.87	897268	25.26
	UPPER LIMIT	1665790	18.06	1763870	22.37	1794540	25.76
	LOWER LIMIT	416447	17.06	440969	21.37	448634	24.76
	EPA SAMPLE NO.						
01	SB-1(9-10)	852387	17.56	938444	21.87	956090	25.25
02	SB-2(9-10)	822404	17.56	888227	21.87	902940	25.25
03	SB-5(1-2)	834869	17.56	893181	21.86	893252	25.25
04	SB-5(4-5)	771354	17.56	851211	21.86	863411	25.25

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG NO.: H3936

EPA Sample No.: SSTDCCC040 Date Analyzed: 07/12/2016

Lab File ID: BG023035.D Time Analyzed: 14:04

Instrument ID: BNA_G GC Column: ZB-GR ID: 0.25 (mm)

	IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
12 HOUR STD	121844	8.16	571602	10.99	433652	14.81
UPPER LIMIT	243688	8.66	1143200	11.49	867304	15.31
LOWER LIMIT	60922	7.66	285801	10.49	216826	14.31
EPA SAMPLE NO.						
01 PB92013BL	99849	8.15	480595	10.98	392568	14.80

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG NO.: H3936

EPA Sample No.: SSTDCCC040 Date Analyzed: 07/12/2016

Lab File ID: BG023035.D Time Analyzed: 14:04

Instrument ID: BNA_G GC Column: ZB-GR ID: 0.25 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	999867	17.57	1102770	21.88	1145690	25.26
	UPPER LIMIT	1999730	18.07	2205540	22.38	2291380	25.76
	LOWER LIMIT	499934	17.07	551385	21.38	572845	24.76
	EPA SAMPLE NO.						
01	PB92013BL	918249	17.56	1024270	21.87	1008170	25.26

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG NO.: H3936

EPA Sample No.: SSTDCCC040 Date Analyzed: 07/13/2016

Lab File ID: BG023050.D Time Analyzed: 00:47

Instrument ID: BNA_G GC Column: ZB-GR ID: 0.25 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	98067	8.15	489969	10.98	376517	14.80
	UPPER LIMIT	196134	8.65	979938	11.48	753034	15.3
	LOWER LIMIT	49033.5	7.65	244985	10.48	188259	14.3
	EPA SAMPLE NO.						
01	SB-3(5-6)	93606	8.15	460417	10.98	383794	14.80
02	SB-4(4-5)	127173	8.15	564593	10.98	385060	14.80
03	SB-6(11-12)	127673	8.15	561873	10.98	405165	14.80

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG NO.: H3936

EPA Sample No.: SSTDCCC040 Date Analyzed: 07/13/2016

Lab File ID: BG023050.D Time Analyzed: 00:47

Instrument ID: BNA_G GC Column: ZB-GR ID: 0.25 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	858696	17.56	926447	21.87	951104	25.25
	UPPER LIMIT	1717390	18.06	1852890	22.37	1902210	25.75
	LOWER LIMIT	429348	17.06	463224	21.37	475552	24.75
	EPA SAMPLE NO.						
01	SB-3(5-6)	867790	17.55	942703	21.87	981789	25.25
02	SB-4(4-5)	855654	17.56	1402760	21.87	1289710	25.26
03	SB-6(11-12)	862164	17.56	914239	21.86	940516	25.25

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG NO.: H3936

EPA Sample No.: SSTDCCC040 Date Analyzed: 07/13/2016

Lab File ID: BG023068.D Time Analyzed: 13:51

Instrument ID: BNA_G GC Column: ZB-GR ID: 0.25 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	132797	8.15	631086	10.98	475977	14.80
	UPPER LIMIT	265594	8.65	1262170	11.48	951954	15.3
	LOWER LIMIT	66398.5	7.65	315543	10.48	237989	14.3
	EPA SAMPLE NO.						
01	P7-B5(6-12)CMS	97643	8.15	461359	10.99	359727	14.81
02	P7-B5(6-12)CMSD	104445	8.16	497237	10.98	395031	14.81

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG NO.: H3936

EPA Sample No.: SSTDCCC040 Date Analyzed: 07/13/2016

Lab File ID: BG023068.D Time Analyzed: 13:51

Instrument ID: BNA_G GC Column: ZB-GR ID: 0.25 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	1137960	17.57	1136550	21.88	1150970	25.26
	UPPER LIMIT	2275920	18.07	2273100	22.38	2301940	25.76
	LOWER LIMIT	568980	17.07	568275	21.38	575485	24.76
	EPA SAMPLE NO.						
01	P7-B5(6-12)CMS	890628	17.56	910597	21.87	907597	25.26
02	P7-B5(6-12)CMSD	895918	17.56	933314	21.87	955763	25.26

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG NO.: H3936

EPA Sample No.: SSTDCCC040 Date Analyzed: 07/13/2016

Lab File ID: BG023082.D Time Analyzed: 23:51

Instrument ID: BNA_G GC Column: ZB-GR ID: 0.25 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	140783	8.16	623247	10.99	451165	14.81
	UPPER LIMIT	281566	8.66	1246490	11.49	902330	15.31
	LOWER LIMIT	70391.5	7.66	311624	10.49	225583	14.31
	EPA SAMPLE NO.						
01	PB92013BS	103372	8.15	510909	10.98	403973	14.80

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG NO.: H3936

EPA Sample No.: SSTDCCC040 Date Analyzed: 07/13/2016

Lab File ID: BG023082.D Time Analyzed: 23:51

Instrument ID: BNA_G GC Column: ZB-GR ID: 0.25 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	1091000	17.56	1147760	21.87	1156430	25.25
	UPPER LIMIT	2182000	18.06	2295520	22.37	2312860	25.75
	LOWER LIMIT	545500	17.06	573880	21.37	578215	24.75
	EPA SAMPLE NO.						
01	PB92013BS	984668	17.56	1029380	21.87	1024590	25.25

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

QC SAMPLE DATA

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	
Project:	NYCSCA - PS 97X Addition	Date Received:	
Client Sample ID:	PB91977BL	SDG No.:	H3936
Lab Sample ID:	PB91977BL	Matrix:	Water
Analytical Method:	SW8270	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG022952.D	1	07/08/16 08:28	07/09/16 05:26	PB91977

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
100-52-7	Benzaldehyde	1	U	0.77	1	10	ug/L
108-95-2	Phenol	1	U	0.21	1	10	ug/L
111-44-4	bis(2-Chloroethyl)ether	1	U	0.55	1	10	ug/L
95-57-8	2-Chlorophenol	1	U	0.54	1	10	ug/L
95-48-7	2-Methylphenol	1	U	0.24	1	10	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	1	U	0.17	1	10	ug/L
98-86-2	Acetophenone	1	U	0.14	1	10	ug/L
65794-96-9	3+4-Methylphenols	1	U	0.38	1	10	ug/L
621-64-7	n-Nitroso-di-n-propylamine	1	U	0.2	1	10	ug/L
67-72-1	Hexachloroethane	1	U	0.25	1	10	ug/L
98-95-3	Nitrobenzene	1	U	0.68	1	10	ug/L
78-59-1	Isophorone	1	U	0.3	1	10	ug/L
88-75-5	2-Nitrophenol	1	U	0.52	1	10	ug/L
105-67-9	2,4-Dimethylphenol	1	U	0.71	1	10	ug/L
111-91-1	bis(2-Chloroethoxy)methane	1	U	0.55	1	10	ug/L
120-83-2	2,4-Dichlorophenol	1	U	0.66	1	10	ug/L
91-20-3	Naphthalene	1	U	0.12	1	10	ug/L
106-47-8	4-Chloroaniline	1	U	1	1	10	ug/L
87-68-3	Hexachlorobutadiene	1	U	0.25	1	10	ug/L
105-60-2	Caprolactam	1	U	1	1	10	ug/L
59-50-7	4-Chloro-3-methylphenol	1	U	0.4	1	10	ug/L
91-57-6	2-Methylnaphthalene	1	U	0.32	1	10	ug/L
77-47-4	Hexachlorocyclopentadiene	1	U	0.24	1	10	ug/L
88-06-2	2,4,6-Trichlorophenol	1	U	0.56	1	10	ug/L
95-95-4	2,4,5-Trichlorophenol	1	U	0.4	1	10	ug/L
92-52-4	1,1-Biphenyl	1	U	0.15	1	10	ug/L
91-58-7	2-Chloronaphthalene	1	U	0.16	1	10	ug/L
88-74-4	2-Nitroaniline	1	U	0.49	1	10	ug/L
131-11-3	Dimethylphthalate	1	U	0.22	1	10	ug/L
208-96-8	Acenaphthylene	1	U	0.7	1	10	ug/L
606-20-2	2,6-Dinitrotoluene	1	U	0.32	1	10	ug/L

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	
Project:	NYCSCA - PS 97X Addition	Date Received:	
Client Sample ID:	PB91977BL	SDG No.:	H3936
Lab Sample ID:	PB91977BL	Matrix:	Water
Analytical Method:	SW8270	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG022952.D	1	07/08/16 08:28	07/09/16 05:26	PB91977

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
99-09-2	3-Nitroaniline	1	U	1	1	10	ug/L
83-32-9	Acenaphthene	1	U	0.21	1	10	ug/L
51-28-5	2,4-Dinitrophenol	8	U	2.1	8	10	ug/L
100-02-7	4-Nitrophenol	5	U	2	5	10	ug/L
132-64-9	Dibenzofuran	1	U	0.24	1	10	ug/L
121-14-2	2,4-Dinitrotoluene	1	U	1	1	10	ug/L
84-66-2	Diethylphthalate	1	U	0.38	1	10	ug/L
7005-72-3	4-Chlorophenyl-phenylether	1	U	0.21	1	10	ug/L
86-73-7	Fluorene	1	U	0.31	1	10	ug/L
100-01-6	4-Nitroaniline	2	U	1.4	2	10	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	2	U	0.74	2	10	ug/L
86-30-6	n-Nitrosodiphenylamine	1	U	0.6	1	10	ug/L
101-55-3	4-Bromophenyl-phenylether	1	U	0.23	1	10	ug/L
118-74-1	Hexachlorobenzene	1	U	0.18	1	10	ug/L
1912-24-9	Atrazine	1	U	0.4	1	10	ug/L
87-86-5	Pentachlorophenol	1	U	1	1	10	ug/L
85-01-8	Phenanthrene	1	U	0.26	1	10	ug/L
120-12-7	Anthracene	1	U	0.16	1	10	ug/L
86-74-8	Carbazole	1	U	0.22	1	10	ug/L
84-74-2	Di-n-butylphthalate	1	U	1	1	10	ug/L
206-44-0	Fluoranthene	1	U	0.4	1	10	ug/L
129-00-0	Pyrene	1	U	0.2	1	10	ug/L
85-68-7	Butylbenzylphthalate	1	U	0.19	1	10	ug/L
91-94-1	3,3-Dichlorobenzidine	1	U	1	1	10	ug/L
56-55-3	Benzo(a)anthracene	1	U	0.16	1	10	ug/L
218-01-9	Chrysene	1	U	0.18	1	10	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	1	U	0.16	1	10	ug/L
117-84-0	Di-n-octyl phthalate	1	U	0.51	1	10	ug/L
205-99-2	Benzo(b)fluoranthene	1	U	0.29	1	10	ug/L
207-08-9	Benzo(k)fluoranthene	1	U	0.18	1	10	ug/L
50-32-8	Benzo(a)pyrene	1	U	0.14	1	10	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	1	U	0.15	1	10	ug/L
53-70-3	Dibenzo(a,h)anthracene	1	U	0.42	1	10	ug/L

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	
Project:	NYCSCA - PS 97X Addition	Date Received:	
Client Sample ID:	PB91977BL	SDG No.:	H3936
Lab Sample ID:	PB91977BL	Matrix:	Water
Analytical Method:	SW8270	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG022952.D	1	07/08/16 08:28	07/09/16 05:26	PB91977

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
191-24-2	Benzo(g,h,i)perylene	1	U	0.29	1	10	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	1	U	0.2	1	10	ug/L
123-91-1	1,4-Dioxane	5	U	0.2	5	10	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	1	U	0.2	1	10	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	140		10 - 130		94%	SPK: 150
13127-88-3	Phenol-d6	140		10 - 130		94%	SPK: 150
4165-60-0	Nitrobenzene-d5	89.7		36 - 131		90%	SPK: 100
321-60-8	2-Fluorobiphenyl	87.5		39 - 131		88%	SPK: 100
118-79-6	2,4,6-Tribromophenol	120		25 - 155		79%	SPK: 150
1718-51-0	Terphenyl-d14	110		23 - 130		109%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	86996	8.15				
1146-65-2	Naphthalene-d8	392873	10.98				
15067-26-2	Acenaphthene-d10	323905	14.8				
1517-22-2	Phenanthrene-d10	821566	17.55				
1719-03-5	Chrysene-d12	900735	21.84				
1520-96-3	Perylene-d12	903501	25.2				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	
Project:	NYCSCA - PS 97X Addition	Date Received:	
Client Sample ID:	PB92013BL	SDG No.:	H3936
Lab Sample ID:	PB92013BL	Matrix:	SOIL
Analytical Method:	SW8270	% Moisture:	0
Sample Wt/Vol:	30 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023038.D	1	07/11/16 08:58	07/12/16 16:04	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
100-52-7	Benzaldehyde	33.3	U	17.4	33.3	330	ug/Kg
108-95-2	Phenol	33.3	U	7.7	33.3	330	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	33.3	U	16	33.3	330	ug/Kg
95-57-8	2-Chlorophenol	33.3	U	17.6	33.3	330	ug/Kg
95-48-7	2-Methylphenol	33.3	U	18.1	33.3	330	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	33.3	U	13.8	33.3	330	ug/Kg
98-86-2	Acetophenone	33.3	U	10.2	33.3	330	ug/Kg
65794-96-9	3+4-Methylphenols	33.3	U	17.3	33.3	330	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	33.3	U	16.8	33.3	330	ug/Kg
67-72-1	Hexachloroethane	33.3	U	14.9	33.3	330	ug/Kg
98-95-3	Nitrobenzene	33.3	U	12.6	33.3	330	ug/Kg
78-59-1	Isophorone	33.3	U	11	33.3	330	ug/Kg
88-75-5	2-Nitrophenol	33.3	U	16.1	33.3	330	ug/Kg
105-67-9	2,4-Dimethylphenol	33.3	U	18.9	33.3	330	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	33.3	U	19.2	33.3	330	ug/Kg
120-83-2	2,4-Dichlorophenol	33.3	U	12.7	33.3	330	ug/Kg
91-20-3	Naphthalene	33.3	U	11.5	33.3	330	ug/Kg
106-47-8	4-Chloroaniline	33.3	U	23.5	33.3	330	ug/Kg
87-68-3	Hexachlorobutadiene	33.3	U	12.1	33.3	330	ug/Kg
105-60-2	Caprolactam	66.7	U	15.5	66.7	330	ug/Kg
59-50-7	4-Chloro-3-methylphenol	33.3	U	14.8	33.3	330	ug/Kg
91-57-6	2-Methylnaphthalene	33.3	U	8.4	33.3	330	ug/Kg
77-47-4	Hexachlorocyclopentadiene	33.3	U	8.1	33.3	330	ug/Kg
88-06-2	2,4,6-Trichlorophenol	33.3	U	10.2	33.3	330	ug/Kg
95-95-4	2,4,5-Trichlorophenol	33.3	U	23.4	33.3	330	ug/Kg
92-52-4	1,1-Biphenyl	33.3	U	12.6	33.3	330	ug/Kg
91-58-7	2-Chloronaphthalene	33.3	U	7.6	33.3	330	ug/Kg
88-74-4	2-Nitroaniline	33.3	U	14.8	33.3	330	ug/Kg
131-11-3	Dimethylphthalate	33.3	U	9	33.3	330	ug/Kg
208-96-8	Acenaphthylene	33.3	U	8.4	33.3	330	ug/Kg
606-20-2	2,6-Dinitrotoluene	33.3	U	13.6	33.3	330	ug/Kg

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	
Project:	NYCSCA - PS 97X Addition	Date Received:	
Client Sample ID:	PB92013BL	SDG No.:	H3936
Lab Sample ID:	PB92013BL	Matrix:	SOIL
Analytical Method:	SW8270	% Moisture:	0
Sample Wt/Vol:	30 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023038.D	1	07/11/16 08:58	07/12/16 16:04	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
99-09-2	3-Nitroaniline	66.7	U	21.4	66.7	330	ug/Kg
83-32-9	Acenaphthene	33.3	U	9.4	33.3	330	ug/Kg
51-28-5	2,4-Dinitrophenol	270	U	33.9	270	330	ug/Kg
100-02-7	4-Nitrophenol	170	U	61.9	170	330	ug/Kg
132-64-9	Dibenzofuran	33.3	U	13	33.3	330	ug/Kg
121-14-2	2,4-Dinitrotoluene	33.3	U	10	33.3	330	ug/Kg
84-66-2	Diethylphthalate	33.3	U	5.2	33.3	330	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	33.3	U	18.1	33.3	330	ug/Kg
86-73-7	Fluorene	33.3	U	12.6	33.3	330	ug/Kg
100-01-6	4-Nitroaniline	66.7	U	43.4	66.7	330	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	170	U	19.1	170	330	ug/Kg
86-30-6	n-Nitrosodiphenylamine	33.3	U	8	33.3	330	ug/Kg
101-55-3	4-Bromophenyl-phenylether	33.3	U	6.5	33.3	330	ug/Kg
118-74-1	Hexachlorobenzene	33.3	U	13.6	33.3	330	ug/Kg
1912-24-9	Atrazine	33.3	U	17.6	33.3	330	ug/Kg
87-86-5	Pentachlorophenol	33.3	U	22.8	33.3	330	ug/Kg
85-01-8	Phenanthrene	33.3	U	9	33.3	330	ug/Kg
120-12-7	Anthracene	33.3	U	6.8	33.3	330	ug/Kg
86-74-8	Carbazole	33.3	U	7.3	33.3	330	ug/Kg
84-74-2	Di-n-butylphthalate	33.3	U	26.2	33.3	330	ug/Kg
206-44-0	Fluoranthene	33.3	U	6.7	33.3	330	ug/Kg
129-00-0	Pyrene	33.3	U	8	33.3	330	ug/Kg
85-68-7	Butylbenzylphthalate	33.3	U	16	33.3	330	ug/Kg
91-94-1	3,3-Dichlorobenzidine	33.3	U	21.4	33.3	330	ug/Kg
56-55-3	Benzo(a)anthracene	33.3	U	15.9	33.3	330	ug/Kg
218-01-9	Chrysene	33.3	U	15.1	33.3	330	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	33.3	U	11.8	33.3	330	ug/Kg
117-84-0	Di-n-octyl phthalate	33.3	U	3.8	33.3	330	ug/Kg
205-99-2	Benzo(b)fluoranthene	33.3	U	10.9	33.3	330	ug/Kg
207-08-9	Benzo(k)fluoranthene	33.3	U	15.7	33.3	330	ug/Kg
50-32-8	Benzo(a)pyrene	33.3	U	7.2	33.3	330	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	33.3	U	11.1	33.3	330	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	33.3	U	9.6	33.3	330	ug/Kg

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	
Project:	NYCSCA - PS 97X Addition	Date Received:	
Client Sample ID:	PB92013BL	SDG No.:	H3936
Lab Sample ID:	PB92013BL	Matrix:	SOIL
Analytical Method:	SW8270	% Moisture:	0
Sample Wt/Vol:	30 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023038.D	1	07/11/16 08:58	07/12/16 16:04	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
191-24-2	Benzo(g,h,i)perylene	33.3	U	13.5	33.3	330	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	33.3	U	13.1	33.3	330	ug/Kg
123-91-1	1,4-Dioxane	66.7	U	13.1	66.7	330	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	33.3	U	13.1	33.3	330	ug/Kg
SURROGATES							
367-12-4	2-Fluorophenol	140		28 - 127		91%	SPK: 150
13127-88-3	Phenol-d6	140		34 - 127		92%	SPK: 150
4165-60-0	Nitrobenzene-d5	85.2		31 - 132		85%	SPK: 100
321-60-8	2-Fluorobiphenyl	82.9		39 - 123		83%	SPK: 100
118-79-6	2,4,6-Tribromophenol	110		30 - 133		71%	SPK: 150
1718-51-0	Terphenyl-d14	95.6		37 - 115		96%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	99849	8.15				
1146-65-2	Naphthalene-d8	480595	10.98				
15067-26-2	Acenaphthene-d10	392568	14.8				
1517-22-2	Phenanthrene-d10	918249	17.56				
1719-03-5	Chrysene-d12	1024270	21.87				
1520-96-3	Perylene-d12	1008170	25.26				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	
Project:	NYCSCA - PS 97X Addition	Date Received:	
Client Sample ID:	PB91977BS	SDG No.:	H3936
Lab Sample ID:	PB91977BS	Matrix:	Water
Analytical Method:	SW8270	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG022953.D	1	07/08/16 08:28	07/09/16 06:06	PB91977

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
100-52-7	Benzaldehyde	37.1		0.77	1	10	ug/L
108-95-2	Phenol	49.4		0.21	1	10	ug/L
111-44-4	bis(2-Chloroethyl)ether	41		0.55	1	10	ug/L
95-57-8	2-Chlorophenol	48		0.54	1	10	ug/L
95-48-7	2-Methylphenol	48.3		0.24	1	10	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	40.6		0.17	1	10	ug/L
98-86-2	Acetophenone	40.3		0.14	1	10	ug/L
65794-96-9	3+4-Methylphenols	47.5		0.38	1	10	ug/L
621-64-7	n-Nitroso-di-n-propylamine	39.1		0.2	1	10	ug/L
67-72-1	Hexachloroethane	39.6		0.25	1	10	ug/L
98-95-3	Nitrobenzene	44.3		0.68	1	10	ug/L
78-59-1	Isophorone	41		0.3	1	10	ug/L
88-75-5	2-Nitrophenol	44		0.52	1	10	ug/L
105-67-9	2,4-Dimethylphenol	44.4		0.71	1	10	ug/L
111-91-1	bis(2-Chloroethoxy)methane	40.7		0.55	1	10	ug/L
120-83-2	2,4-Dichlorophenol	47.8		0.66	1	10	ug/L
91-20-3	Naphthalene	41.9		0.12	1	10	ug/L
106-47-8	4-Chloroaniline	17.3		1	1	10	ug/L
87-68-3	Hexachlorobutadiene	39.1		0.25	1	10	ug/L
105-60-2	Caprolactam	39.6		1	1	10	ug/L
59-50-7	4-Chloro-3-methylphenol	42.7		0.4	1	10	ug/L
91-57-6	2-Methylnaphthalene	42.9		0.32	1	10	ug/L
77-47-4	Hexachlorocyclopentadiene	80.2	E	0.24	1	10	ug/L
88-06-2	2,4,6-Trichlorophenol	43.8		0.56	1	10	ug/L
95-95-4	2,4,5-Trichlorophenol	44.7		0.4	1	10	ug/L
92-52-4	1,1-Biphenyl	41.3		0.15	1	10	ug/L
91-58-7	2-Chloronaphthalene	41.6		0.16	1	10	ug/L
88-74-4	2-Nitroaniline	42.1		0.49	1	10	ug/L
131-11-3	Dimethylphthalate	42.6		0.22	1	10	ug/L
208-96-8	Acenaphthylene	42.4		0.7	1	10	ug/L
606-20-2	2,6-Dinitrotoluene	42.3		0.32	1	10	ug/L

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	
Project:	NYCSCA - PS 97X Addition	Date Received:	
Client Sample ID:	PB91977BS	SDG No.:	H3936
Lab Sample ID:	PB91977BS	Matrix:	Water
Analytical Method:	SW8270	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG022953.D	1	07/08/16 08:28	07/09/16 06:06	PB91977

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
99-09-2	3-Nitroaniline	28.6		1	1	10	ug/L
83-32-9	Acenaphthene	42.9		0.21	1	10	ug/L
51-28-5	2,4-Dinitrophenol	70.6		2.1	8	10	ug/L
100-02-7	4-Nitrophenol	83.1	E	2	5	10	ug/L
132-64-9	Dibenzofuran	46.3		0.24	1	10	ug/L
121-14-2	2,4-Dinitrotoluene	43.9		1	1	10	ug/L
84-66-2	Diethylphthalate	43.7		0.38	1	10	ug/L
7005-72-3	4-Chlorophenyl-phenylether	43.6		0.21	1	10	ug/L
86-73-7	Fluorene	44		0.31	1	10	ug/L
100-01-6	4-Nitroaniline	39.9		1.4	2	10	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	39.1		0.74	2	10	ug/L
86-30-6	n-Nitrosodiphenylamine	43.2		0.6	1	10	ug/L
101-55-3	4-Bromophenyl-phenylether	42.1		0.23	1	10	ug/L
118-74-1	Hexachlorobenzene	41.1		0.18	1	10	ug/L
1912-24-9	Atrazine	43.7		0.4	1	10	ug/L
87-86-5	Pentachlorophenol	80.1	E	1	1	10	ug/L
85-01-8	Phenanthrene	45.4		0.26	1	10	ug/L
120-12-7	Anthracene	44.7		0.16	1	10	ug/L
86-74-8	Carbazole	45.1		0.22	1	10	ug/L
84-74-2	Di-n-butylphthalate	48.4		1	1	10	ug/L
206-44-0	Fluoranthene	43		0.4	1	10	ug/L
129-00-0	Pyrene	41.2		0.2	1	10	ug/L
85-68-7	Butylbenzylphthalate	44.2		0.19	1	10	ug/L
91-94-1	3,3-Dichlorobenzidine	25.7		1	1	10	ug/L
56-55-3	Benzo(a)anthracene	43.9		0.16	1	10	ug/L
218-01-9	Chrysene	44		0.18	1	10	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	43.7		0.16	1	10	ug/L
117-84-0	Di-n-octyl phthalate	43.8		0.51	1	10	ug/L
205-99-2	Benzo(b)fluoranthene	44.8		0.29	1	10	ug/L
207-08-9	Benzo(k)fluoranthene	44.8		0.18	1	10	ug/L
50-32-8	Benzo(a)pyrene	44.8		0.14	1	10	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	43.9		0.15	1	10	ug/L
53-70-3	Dibenzo(a,h)anthracene	43.8		0.42	1	10	ug/L

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	
Project:	NYCSCA - PS 97X Addition	Date Received:	
Client Sample ID:	PB91977BS	SDG No.:	H3936
Lab Sample ID:	PB91977BS	Matrix:	Water
Analytical Method:	SW8270	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG022953.D	1	07/08/16 08:28	07/09/16 06:06	PB91977

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
191-24-2	Benzo(g,h,i)perylene	43.9		0.29	1	10	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	34.2		0.2	1	10	ug/L
123-91-1	1,4-Dioxane	5	U	0.2	5	10	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	46.7		0.2	1	10	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	140		10 - 130		95%	SPK: 150
13127-88-3	Phenol-d6	140		10 - 130		93%	SPK: 150
4165-60-0	Nitrobenzene-d5	87.9		36 - 131		88%	SPK: 100
321-60-8	2-Fluorobiphenyl	84.8		39 - 131		85%	SPK: 100
118-79-6	2,4,6-Tribromophenol	120		25 - 155		80%	SPK: 150
1718-51-0	Terphenyl-d14	96.7		23 - 130		97%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	91850	8.15				
1146-65-2	Naphthalene-d8	420751	10.98				
15067-26-2	Acenaphthene-d10	327767	14.8				
1517-22-2	Phenanthrene-d10	832898	17.56				
1719-03-5	Chrysene-d12	945090	21.85				
1520-96-3	Perylene-d12	961779	25.2				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	
Project:	NYCSCA - PS 97X Addition	Date Received:	
Client Sample ID:	PB92013BS	SDG No.:	H3936
Lab Sample ID:	PB92013BS	Matrix:	SOIL
Analytical Method:	SW8270	% Moisture:	0
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023084.D	1	07/11/16 08:58	07/14/16 01:52	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
100-52-7	Benzaldehyde	610		17.4	33.3	330	ug/Kg
108-95-2	Phenol	1500		7.7	33.3	330	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1300		16	33.3	330	ug/Kg
95-57-8	2-Chlorophenol	1500		17.6	33.3	330	ug/Kg
95-48-7	2-Methylphenol	1600		18.1	33.3	330	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1300		13.8	33.3	330	ug/Kg
98-86-2	Acetophenone	1200		10.2	33.3	330	ug/Kg
65794-96-9	3+4-Methylphenols	1500		17.3	33.3	330	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	1300		16.8	33.3	330	ug/Kg
67-72-1	Hexachloroethane	1200		14.9	33.3	330	ug/Kg
98-95-3	Nitrobenzene	1300		12.6	33.3	330	ug/Kg
78-59-1	Isophorone	1200		11	33.3	330	ug/Kg
88-75-5	2-Nitrophenol	1300		16.1	33.3	330	ug/Kg
105-67-9	2,4-Dimethylphenol	1300		18.9	33.3	330	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1200		19.2	33.3	330	ug/Kg
120-83-2	2,4-Dichlorophenol	1400		12.7	33.3	330	ug/Kg
91-20-3	Naphthalene	1200		11.5	33.3	330	ug/Kg
106-47-8	4-Chloroaniline	490		23.5	33.3	330	ug/Kg
87-68-3	Hexachlorobutadiene	1100		12.1	33.3	330	ug/Kg
105-60-2	Caprolactam	1200		15.5	66.6	330	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1300		14.8	33.3	330	ug/Kg
91-57-6	2-Methylnaphthalene	1300		8.4	33.3	330	ug/Kg
77-47-4	Hexachlorocyclopentadiene	2200		8.1	33.3	330	ug/Kg
88-06-2	2,4,6-Trichlorophenol	1200		10.2	33.3	330	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1300		23.4	33.3	330	ug/Kg
92-52-4	1,1-Biphenyl	1200		12.6	33.3	330	ug/Kg
91-58-7	2-Chloronaphthalene	1200		7.6	33.3	330	ug/Kg
88-74-4	2-Nitroaniline	1300		14.8	33.3	330	ug/Kg
131-11-3	Dimethylphthalate	1200		9	33.3	330	ug/Kg
208-96-8	Acenaphthylene	1200		8.4	33.3	330	ug/Kg
606-20-2	2,6-Dinitrotoluene	1300		13.6	33.3	330	ug/Kg

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Report of Analysis

Client:	AKRF Engineering, P.C.			Date Collected:	
Project:	NYCSCA - PS 97X Addition			Date Received:	
Client Sample ID:	PB92013BS			SDG No.:	H3936
Lab Sample ID:	PB92013BS			Matrix:	SOIL
Analytical Method:	SW8270			% Moisture:	0
Sample Wt/Vol:	30.02	Units:	g	Final Vol:	1000 uL
Soil Aliquot Vol:			uL	Test:	SVOCMS Group1
Extraction Type :		Decanted :	N	Level :	LOW
Injection Volume :		GPC Factor :	1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023084.D	1	07/11/16 08:58	07/14/16 01:52	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
99-09-2	3-Nitroaniline	760		21.4	66.6	330	ug/Kg
83-32-9	Acenaphthene	1300		9.4	33.3	330	ug/Kg
51-28-5	2,4-Dinitrophenol	2400		33.9	270	330	ug/Kg
100-02-7	4-Nitrophenol	2400		61.9	170	330	ug/Kg
132-64-9	Dibenzofuran	1400		13	33.3	330	ug/Kg
121-14-2	2,4-Dinitrotoluene	1300		10	33.3	330	ug/Kg
84-66-2	Diethylphthalate	1300		5.2	33.3	330	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1200		18.1	33.3	330	ug/Kg
86-73-7	Fluorene	1300		12.6	33.3	330	ug/Kg
100-01-6	4-Nitroaniline	1200		43.4	66.6	330	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1200		19.1	170	330	ug/Kg
86-30-6	n-Nitrosodiphenylamine	1300		8	33.3	330	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1200		6.5	33.3	330	ug/Kg
118-74-1	Hexachlorobenzene	1200		13.6	33.3	330	ug/Kg
1912-24-9	Atrazine	1200		17.6	33.3	330	ug/Kg
87-86-5	Pentachlorophenol	2300		22.8	33.3	330	ug/Kg
85-01-8	Phenanthrene	1300		9	33.3	330	ug/Kg
120-12-7	Anthracene	1300		6.8	33.3	330	ug/Kg
86-74-8	Carbazole	1300		7.3	33.3	330	ug/Kg
84-74-2	Di-n-butylphthalate	1400		26.2	33.3	330	ug/Kg
206-44-0	Fluoranthene	1200		6.7	33.3	330	ug/Kg
129-00-0	Pyrene	1300		8	33.3	330	ug/Kg
85-68-7	Butylbenzylphthalate	1400		16	33.3	330	ug/Kg
91-94-1	3,3-Dichlorobenzidine	840		21.4	33.3	330	ug/Kg
56-55-3	Benzo(a)anthracene	1300		15.9	33.3	330	ug/Kg
218-01-9	Chrysene	1300		15.1	33.3	330	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	1400		11.8	33.3	330	ug/Kg
117-84-0	Di-n-octyl phthalate	1400		3.8	33.3	330	ug/Kg
205-99-2	Benzo(b)fluoranthene	1300		10.9	33.3	330	ug/Kg
207-08-9	Benzo(k)fluoranthene	1400		15.7	33.3	330	ug/Kg
50-32-8	Benzo(a)pyrene	1400		7.2	33.3	330	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1200		11.1	33.3	330	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	1200		9.6	33.3	330	ug/Kg

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	
Project:	NYCSCA - PS 97X Addition	Date Received:	
Client Sample ID:	PB92013BS	SDG No.:	H3936
Lab Sample ID:	PB92013BS	Matrix:	SOIL
Analytical Method:	SW8270	% Moisture:	0
Sample Wt/Vol:	30.02 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023084.D	1	07/11/16 08:58	07/14/16 01:52	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
191-24-2	Benzo(g,h,i)perylene	1200		13.5	33.3	330	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	970		13.1	33.3	330	ug/Kg
123-91-1	1,4-Dioxane	1700		13.1	66.6	330	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	1400		13.1	33.3	330	ug/Kg
SURROGATES							
367-12-4	2-Fluorophenol	130		28 - 127		89%	SPK: 150
13127-88-3	Phenol-d6	130		34 - 127		89%	SPK: 150
4165-60-0	Nitrobenzene-d5	76.7		31 - 132		77%	SPK: 100
321-60-8	2-Fluorobiphenyl	74.7		39 - 123		75%	SPK: 100
118-79-6	2,4,6-Tribromophenol	99.4		30 - 133		66%	SPK: 150
1718-51-0	Terphenyl-d14	84.5		37 - 115		84%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	103372	8.15				
1146-65-2	Naphthalene-d8	510909	10.98				
15067-26-2	Acenaphthene-d10	403973	14.8				
1517-22-2	Phenanthrene-d10	984668	17.56				
1719-03-5	Chrysene-d12	1029380	21.87				
1520-96-3	Perylene-d12	1024590	25.25				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	
Project:	NYCSCA - PS 97X Addition	Date Received:	
Client Sample ID:	PB91977BSD	SDG No.:	H3936
Lab Sample ID:	PB91977BSD	Matrix:	Water
Analytical Method:	SW8270	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG022954.D	1	07/08/16 08:28	07/09/16 06:46	PB91977

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
100-52-7	Benzaldehyde	35.8		0.77	1	10	ug/L
108-95-2	Phenol	46		0.21	1	10	ug/L
111-44-4	bis(2-Chloroethyl)ether	40.6		0.55	1	10	ug/L
95-57-8	2-Chlorophenol	45.1		0.54	1	10	ug/L
95-48-7	2-Methylphenol	46.2		0.24	1	10	ug/L
108-60-1	2,2-oxybis(1-Chloropropane)	38.4		0.17	1	10	ug/L
98-86-2	Acetophenone	38.3		0.14	1	10	ug/L
65794-96-9	3+4-Methylphenols	45.8		0.38	1	10	ug/L
621-64-7	n-Nitroso-di-n-propylamine	36.9		0.2	1	10	ug/L
67-72-1	Hexachloroethane	38.1		0.25	1	10	ug/L
98-95-3	Nitrobenzene	43		0.68	1	10	ug/L
78-59-1	Isophorone	39.4		0.3	1	10	ug/L
88-75-5	2-Nitrophenol	43.7		0.52	1	10	ug/L
105-67-9	2,4-Dimethylphenol	44.2		0.71	1	10	ug/L
111-91-1	bis(2-Chloroethoxy)methane	39.3		0.55	1	10	ug/L
120-83-2	2,4-Dichlorophenol	45.8		0.66	1	10	ug/L
91-20-3	Naphthalene	40.8		0.12	1	10	ug/L
106-47-8	4-Chloroaniline	13.1		1	1	10	ug/L
87-68-3	Hexachlorobutadiene	37.2		0.25	1	10	ug/L
105-60-2	Caprolactam	39.2		1	1	10	ug/L
59-50-7	4-Chloro-3-methylphenol	41		0.4	1	10	ug/L
91-57-6	2-Methylnaphthalene	40.7		0.32	1	10	ug/L
77-47-4	Hexachlorocyclopentadiene	78.4		0.24	1	10	ug/L
88-06-2	2,4,6-Trichlorophenol	41.7		0.56	1	10	ug/L
95-95-4	2,4,5-Trichlorophenol	44.2		0.4	1	10	ug/L
92-52-4	1,1-Biphenyl	40.2		0.15	1	10	ug/L
91-58-7	2-Chloronaphthalene	40.6		0.16	1	10	ug/L
88-74-4	2-Nitroaniline	40.1		0.49	1	10	ug/L
131-11-3	Dimethylphthalate	40.9		0.22	1	10	ug/L
208-96-8	Acenaphthylene	41		0.7	1	10	ug/L
606-20-2	2,6-Dinitrotoluene	42.2		0.32	1	10	ug/L

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	
Project:	NYCSCA - PS 97X Addition	Date Received:	
Client Sample ID:	PB91977BSD	SDG No.:	H3936
Lab Sample ID:	PB91977BSD	Matrix:	Water
Analytical Method:	SW8270	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG022954.D	1	07/08/16 08:28	07/09/16 06:46	PB91977

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
99-09-2	3-Nitroaniline	24.2		1	1	10	ug/L
83-32-9	Acenaphthene	41.1		0.21	1	10	ug/L
51-28-5	2,4-Dinitrophenol	69.3		2.1	8	10	ug/L
100-02-7	4-Nitrophenol	82.3	E	2	5	10	ug/L
132-64-9	Dibenzofuran	44.3		0.24	1	10	ug/L
121-14-2	2,4-Dinitrotoluene	43.7		1	1	10	ug/L
84-66-2	Diethylphthalate	42.7		0.38	1	10	ug/L
7005-72-3	4-Chlorophenyl-phenylether	41.2		0.21	1	10	ug/L
86-73-7	Fluorene	42.7		0.31	1	10	ug/L
100-01-6	4-Nitroaniline	38.7		1.4	2	10	ug/L
534-52-1	4,6-Dinitro-2-methylphenol	37.5		0.74	2	10	ug/L
86-30-6	n-Nitrosodiphenylamine	42.1		0.6	1	10	ug/L
101-55-3	4-Bromophenyl-phenylether	40.1		0.23	1	10	ug/L
118-74-1	Hexachlorobenzene	39.7		0.18	1	10	ug/L
1912-24-9	Atrazine	41.6		0.4	1	10	ug/L
87-86-5	Pentachlorophenol	79.6		1	1	10	ug/L
85-01-8	Phenanthrene	43.2		0.26	1	10	ug/L
120-12-7	Anthracene	43.1		0.16	1	10	ug/L
86-74-8	Carbazole	43.5		0.22	1	10	ug/L
84-74-2	Di-n-butylphthalate	46.7		1	1	10	ug/L
206-44-0	Fluoranthene	41.9		0.4	1	10	ug/L
129-00-0	Pyrene	40.7		0.2	1	10	ug/L
85-68-7	Butylbenzylphthalate	44		0.19	1	10	ug/L
91-94-1	3,3-Dichlorobenzidine	23.8		1	1	10	ug/L
56-55-3	Benzo(a)anthracene	42.3		0.16	1	10	ug/L
218-01-9	Chrysene	42.7		0.18	1	10	ug/L
117-81-7	Bis(2-ethylhexyl)phthalate	43.1		0.16	1	10	ug/L
117-84-0	Di-n-octyl phthalate	42.8		0.51	1	10	ug/L
205-99-2	Benzo(b)fluoranthene	43.2		0.29	1	10	ug/L
207-08-9	Benzo(k)fluoranthene	42		0.18	1	10	ug/L
50-32-8	Benzo(a)pyrene	42.7		0.14	1	10	ug/L
193-39-5	Indeno(1,2,3-cd)pyrene	42.7		0.15	1	10	ug/L
53-70-3	Dibenzo(a,h)anthracene	41.8		0.42	1	10	ug/L

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	
Project:	NYCSCA - PS 97X Addition	Date Received:	
Client Sample ID:	PB91977BSD	SDG No.:	H3936
Lab Sample ID:	PB91977BSD	Matrix:	Water
Analytical Method:	SW8270	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG022954.D	1	07/08/16 08:28	07/09/16 06:46	PB91977

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
191-24-2	Benzo(g,h,i)perylene	41.4		0.29	1	10	ug/L
95-94-3	1,2,4,5-Tetrachlorobenzene	32.8		0.2	1	10	ug/L
123-91-1	1,4-Dioxane	5	U	0.2	5	10	ug/L
58-90-2	2,3,4,6-Tetrachlorophenol	45		0.2	1	10	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	140		10 - 130		95%	SPK: 150
13127-88-3	Phenol-d6	140		10 - 130		92%	SPK: 150
4165-60-0	Nitrobenzene-d5	86.9		36 - 131		87%	SPK: 100
321-60-8	2-Fluorobiphenyl	85.1		39 - 131		85%	SPK: 100
118-79-6	2,4,6-Tribromophenol	120		25 - 155		81%	SPK: 150
1718-51-0	Terphenyl-d14	99.7		23 - 130		100%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	100549	8.16				
1146-65-2	Naphthalene-d8	445708	10.98				
15067-26-2	Acenaphthene-d10	344664	14.8				
1517-22-2	Phenanthrene-d10	888575	17.55				
1719-03-5	Chrysene-d12	977014	21.85				
1520-96-3	Perylene-d12	1013650	25.21				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/07/16
Client Sample ID:	P7-B5(6-12)CMS	SDG No.:	H3936
Lab Sample ID:	H3946-15MS	Matrix:	SOIL
Analytical Method:	SW8270	% Moisture:	17.9
Sample Wt/Vol:	30.11 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023076.D	1	07/11/16 08:58	07/13/16 19:10	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
100-52-7	Benzaldehyde	690		21.1	40.5	400	ug/Kg
108-95-2	Phenol	1300		9.3	40.5	400	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1100		19.4	40.5	400	ug/Kg
95-57-8	2-Chlorophenol	1200		21.4	40.5	400	ug/Kg
95-48-7	2-Methylphenol	1300		22	40.5	400	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1100		16.7	40.5	400	ug/Kg
98-86-2	Acetophenone	980		12.4	40.5	400	ug/Kg
65794-96-9	3+4-Methylphenols	1200		21	40.5	400	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	1100		20.4	40.5	400	ug/Kg
67-72-1	Hexachloroethane	970		18.1	40.5	400	ug/Kg
98-95-3	Nitrobenzene	1100		15.3	40.5	400	ug/Kg
78-59-1	Isophorone	1100		13.3	40.5	400	ug/Kg
88-75-5	2-Nitrophenol	1100		19.5	40.5	400	ug/Kg
105-67-9	2,4-Dimethylphenol	1000		22.9	40.5	400	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1100		23.3	40.5	400	ug/Kg
120-83-2	2,4-Dichlorophenol	1200		15.4	40.5	400	ug/Kg
91-20-3	Naphthalene	1000		14	40.5	400	ug/Kg
106-47-8	4-Chloroaniline	610		28.5	40.5	400	ug/Kg
87-68-3	Hexachlorobutadiene	930		14.7	40.5	400	ug/Kg
105-60-2	Caprolactam	930		18.8	80.9	400	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1100		18	40.5	400	ug/Kg
91-57-6	2-Methylnaphthalene	1100		10.2	40.5	400	ug/Kg
77-47-4	Hexachlorocyclopentadiene	1800		9.8	40.5	400	ug/Kg
88-06-2	2,4,6-Trichlorophenol	1100		12.4	40.5	400	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1100		28.4	40.5	400	ug/Kg
92-52-4	1,1-Biphenyl	1100		15.3	40.4	400	ug/Kg
91-58-7	2-Chloronaphthalene	1100		9.2	40.5	400	ug/Kg
88-74-4	2-Nitroaniline	1100		18	40.5	400	ug/Kg
131-11-3	Dimethylphthalate	1600		10.9	40.5	400	ug/Kg
208-96-8	Acenaphthylene	1100		10.2	40.5	400	ug/Kg
606-20-2	2,6-Dinitrotoluene	1100		16.5	40.5	400	ug/Kg

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/07/16
Client Sample ID:	P7-B5(6-12)CMS	SDG No.:	H3936
Lab Sample ID:	H3946-15MS	Matrix:	SOIL
Analytical Method:	SW8270	% Moisture:	17.9
Sample Wt/Vol:	30.11 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023076.D	1	07/11/16 08:58	07/13/16 19:10	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
99-09-2	3-Nitroaniline	850		26	80.9	400	ug/Kg
83-32-9	Acenaphthene	1100		11.4	40.5	400	ug/Kg
51-28-5	2,4-Dinitrophenol	410		41.1	320	400	ug/Kg
100-02-7	4-Nitrophenol	1900		75.1	200	400	ug/Kg
132-64-9	Dibenzofuran	1200		15.8	40.5	400	ug/Kg
121-14-2	2,4-Dinitrotoluene	1100		12.1	40.5	400	ug/Kg
84-66-2	Diethylphthalate	1200		6.3	40.5	400	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1100		22	40.5	400	ug/Kg
86-73-7	Fluorene	1100		15.3	40.5	400	ug/Kg
100-01-6	4-Nitroaniline	1000		52.7	80.9	400	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	740		23.2	200	400	ug/Kg
86-30-6	n-Nitrosodiphenylamine	1100		9.7	40.5	400	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1100		7.9	40.5	400	ug/Kg
118-74-1	Hexachlorobenzene	1000		16.5	40.5	400	ug/Kg
1912-24-9	Atrazine	1100		21.4	40.5	400	ug/Kg
87-86-5	Pentachlorophenol	1800		27.7	40.5	400	ug/Kg
85-01-8	Phenanthrene	1200		10.9	40.5	400	ug/Kg
120-12-7	Anthracene	1200		8.3	40.5	400	ug/Kg
86-74-8	Carbazole	1200		8.9	40.5	400	ug/Kg
84-74-2	Di-n-butylphthalate	1300		31.8	40.5	400	ug/Kg
206-44-0	Fluoranthene	1100		8.1	40.5	400	ug/Kg
129-00-0	Pyrene	1100		9.7	40.5	400	ug/Kg
85-68-7	Butylbenzylphthalate	1200		19.4	40.5	400	ug/Kg
91-94-1	3,3-Dichlorobenzidine	750		26	40.5	400	ug/Kg
56-55-3	Benzo(a)anthracene	1200		19.3	40.5	400	ug/Kg
218-01-9	Chrysene	1200		18.3	40.5	400	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	1200		14.3	40.5	400	ug/Kg
117-84-0	Di-n-octyl phthalate	1200		4.6	40.5	400	ug/Kg
205-99-2	Benzo(b)fluoranthene	1200		13.2	40.5	400	ug/Kg
207-08-9	Benzo(k)fluoranthene	1200		19.1	40.5	400	ug/Kg
50-32-8	Benzo(a)pyrene	1200		8.7	40.5	400	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1000		13.5	40.5	400	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	1100		11.7	40.5	400	ug/Kg

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/07/16
Client Sample ID:	P7-B5(6-12)CMS	SDG No.:	H3936
Lab Sample ID:	H3946-15MS	Matrix:	SOIL
Analytical Method:	SW8270	% Moisture:	17.9
Sample Wt/Vol:	30.11 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023076.D	1	07/11/16 08:58	07/13/16 19:10	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
191-24-2	Benzo(g,h,i)perylene	1000		16.4	40.5	400	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	850		15.9	40.5	400	ug/Kg
123-91-1	1,4-Dioxane	1600		15.9	80.9	400	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	1100		15.9	40.5	400	ug/Kg
SURROGATES							
367-12-4	2-Fluorophenol	85.4		28 - 127		57%	SPK: 150
13127-88-3	Phenol-d6	88.9		34 - 127		59%	SPK: 150
4165-60-0	Nitrobenzene-d5	53.2		31 - 132		53%	SPK: 100
321-60-8	2-Fluorobiphenyl	51.2		39 - 123		51%	SPK: 100
118-79-6	2,4,6-Tribromophenol	70.4		30 - 133		47%	SPK: 150
1718-51-0	Terphenyl-d14	53.8		37 - 115		54%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	97643	8.15				
1146-65-2	Naphthalene-d8	461359	10.99				
15067-26-2	Acenaphthene-d10	359727	14.81				
1517-22-2	Phenanthrene-d10	890628	17.56				
1719-03-5	Chrysene-d12	910597	21.87				
1520-96-3	Perylene-d12	907597	25.26				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/07/16
Client Sample ID:	P7-B5(6-12)CMSD	SDG No.:	H3936
Lab Sample ID:	H3946-15MSD	Matrix:	SOIL
Analytical Method:	SW8270	% Moisture:	17.9
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023077.D	1	07/11/16 08:58	07/13/16 19:50	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
100-52-7	Benzaldehyde	1200		21.2	40.5	400	ug/Kg
108-95-2	Phenol	2200		9.4	40.5	400	ug/Kg
111-44-4	bis(2-Chloroethyl)ether	1800		19.5	40.5	400	ug/Kg
95-57-8	2-Chlorophenol	2100		21.4	40.5	400	ug/Kg
95-48-7	2-Methylphenol	2200		22	40.5	400	ug/Kg
108-60-1	2,2-oxybis(1-Chloropropane)	1800		16.8	40.5	400	ug/Kg
98-86-2	Acetophenone	1700		12.4	40.5	400	ug/Kg
65794-96-9	3+4-Methylphenols	2200		21	40.5	400	ug/Kg
621-64-7	n-Nitroso-di-n-propylamine	1800		20.4	40.5	400	ug/Kg
67-72-1	Hexachloroethane	1700		18.1	40.5	400	ug/Kg
98-95-3	Nitrobenzene	1900		15.3	40.5	400	ug/Kg
78-59-1	Isophorone	1800		13.4	40.5	400	ug/Kg
88-75-5	2-Nitrophenol	1900		19.6	40.5	400	ug/Kg
105-67-9	2,4-Dimethylphenol	1900		23	40.5	400	ug/Kg
111-91-1	bis(2-Chloroethoxy)methane	1800		23.3	40.5	400	ug/Kg
120-83-2	2,4-Dichlorophenol	2100		15.4	40.5	400	ug/Kg
91-20-3	Naphthalene	1800		14	40.5	400	ug/Kg
106-47-8	4-Chloroaniline	470		28.6	40.5	400	ug/Kg
87-68-3	Hexachlorobutadiene	1600		14.7	40.5	400	ug/Kg
105-60-2	Caprolactam	1700		18.8	81.1	400	ug/Kg
59-50-7	4-Chloro-3-methylphenol	1900		18	40.5	400	ug/Kg
91-57-6	2-Methylnaphthalene	1800		10.2	40.5	400	ug/Kg
77-47-4	Hexachlorocyclopentadiene	3000		9.8	40.5	400	ug/Kg
88-06-2	2,4,6-Trichlorophenol	1800		12.4	40.5	400	ug/Kg
95-95-4	2,4,5-Trichlorophenol	1900		28.5	40.5	400	ug/Kg
92-52-4	1,1-Biphenyl	1700		15.3	40.5	400	ug/Kg
91-58-7	2-Chloronaphthalene	1800		9.2	40.5	400	ug/Kg
88-74-4	2-Nitroaniline	1800		18	40.5	400	ug/Kg
131-11-3	Dimethylphthalate	2400		10.9	40.5	400	ug/Kg
208-96-8	Acenaphthylene	1800		10.2	40.5	400	ug/Kg
606-20-2	2,6-Dinitrotoluene	1800		16.5	40.5	400	ug/Kg

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/07/16
Client Sample ID:	P7-B5(6-12)CMSD	SDG No.:	H3936
Lab Sample ID:	H3946-15MSD	Matrix:	SOIL
Analytical Method:	SW8270	% Moisture:	17.9
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023077.D	1	07/11/16 08:58	07/13/16 19:50	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
99-09-2	3-Nitroaniline	930		26	81.1	400	ug/Kg
83-32-9	Acenaphthene	1800		11.4	40.5	400	ug/Kg
51-28-5	2,4-Dinitrophenol	1100		41.2	320	400	ug/Kg
100-02-7	4-Nitrophenol	3300	E	75.3	200	400	ug/Kg
132-64-9	Dibenzofuran	1900		15.8	40.5	400	ug/Kg
121-14-2	2,4-Dinitrotoluene	1800		12.2	40.5	400	ug/Kg
84-66-2	Diethylphthalate	1800		6.3	40.5	400	ug/Kg
7005-72-3	4-Chlorophenyl-phenylether	1700		22	40.5	400	ug/Kg
86-73-7	Fluorene	1800		15.3	40.5	400	ug/Kg
100-01-6	4-Nitroaniline	1600		52.8	81.1	400	ug/Kg
534-52-1	4,6-Dinitro-2-methylphenol	1600		23.2	200	400	ug/Kg
86-30-6	n-Nitrosodiphenylamine	1900		9.7	40.5	400	ug/Kg
101-55-3	4-Bromophenyl-phenylether	1800		7.9	40.5	400	ug/Kg
118-74-1	Hexachlorobenzene	1700		16.5	40.5	400	ug/Kg
1912-24-9	Atrazine	1800		21.4	40.5	400	ug/Kg
87-86-5	Pentachlorophenol	3300	E	27.7	40.5	400	ug/Kg
85-01-8	Phenanthrene	1900		10.9	40.5	400	ug/Kg
120-12-7	Anthracene	1900		8.3	40.5	400	ug/Kg
86-74-8	Carbazole	1900		8.9	40.5	400	ug/Kg
84-74-2	Di-n-butylphthalate	2000		31.9	40.5	400	ug/Kg
206-44-0	Fluoranthene	1700		8.1	40.5	400	ug/Kg
129-00-0	Pyrene	1800		9.7	40.5	400	ug/Kg
85-68-7	Butylbenzylphthalate	2100		19.5	40.5	400	ug/Kg
91-94-1	3,3-Dichlorobenzidine	970		26	40.5	400	ug/Kg
56-55-3	Benzo(a)anthracene	1900		19.3	40.5	400	ug/Kg
218-01-9	Chrysene	1900		18.4	40.5	400	ug/Kg
117-81-7	Bis(2-ethylhexyl)phthalate	2000		14.3	40.5	400	ug/Kg
117-84-0	Di-n-octyl phthalate	2000		4.6	40.5	400	ug/Kg
205-99-2	Benzo(b)fluoranthene	1900		13.3	40.5	400	ug/Kg
207-08-9	Benzo(k)fluoranthene	1900		19.1	40.5	400	ug/Kg
50-32-8	Benzo(a)pyrene	1900		8.8	40.5	400	ug/Kg
193-39-5	Indeno(1,2,3-cd)pyrene	1800		13.5	40.5	400	ug/Kg
53-70-3	Dibenzo(a,h)anthracene	1800		11.7	40.5	400	ug/Kg

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/07/16
Client Sample ID:	P7-B5(6-12)CMSD	SDG No.:	H3936
Lab Sample ID:	H3946-15MSD	Matrix:	SOIL
Analytical Method:	SW8270	% Moisture:	17.9
Sample Wt/Vol:	30.05 Units: g	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group1
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG023077.D	1	07/11/16 08:58	07/13/16 19:50	PB92013

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
191-24-2	Benzo(g,h,i)perylene	1700		16.4	40.5	400	ug/Kg
95-94-3	1,2,4,5-Tetrachlorobenzene	1400		15.9	40.5	400	ug/Kg
123-91-1	1,4-Dioxane	1700		15.9	81.1	400	ug/Kg
58-90-2	2,3,4,6-Tetrachlorophenol	1900		15.9	40.5	400	ug/Kg
SURROGATES							
367-12-4	2-Fluorophenol	150		28 - 127		98%	SPK: 150
13127-88-3	Phenol-d6	150		34 - 127		99%	SPK: 150
4165-60-0	Nitrobenzene-d5	89.5		31 - 132		89%	SPK: 100
321-60-8	2-Fluorobiphenyl	79.6		39 - 123		80%	SPK: 100
118-79-6	2,4,6-Tribromophenol	110		30 - 133		74%	SPK: 150
1718-51-0	Terphenyl-d14	97.8		37 - 115		98%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	104445	8.16				
1146-65-2	Naphthalene-d8	497237	10.98				
15067-26-2	Acenaphthene-d10	395031	14.81				
1517-22-2	Phenanthrene-d10	895918	17.56				
1719-03-5	Chrysene-d12	933314	21.87				
1520-96-3	Perylene-d12	955763	25.26				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

CALIBRATION SUMMARY

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SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG No.: H3936

Instrument ID: BNA_G Calibration Date(s): 07/07/2016 07/07/2016

Calibration Time(s): 11:50 15:53

LAB FILE ID: RRF2.5 = BG022891.D RRF010 = BG022892.D RRF025 = BG022893.D
RRF040 = BG022894.D RRF050 = BG022895.D RRF060 = BG022896.D

COMPOUND	RRF2.5	RRF010	RRF025	RRF040	RRF050	RRF060	RRF	% RSD
2-Fluorophenol	1.189	1.279	1.234	1.198	1.266	1.220	1.223	3.2
Benzaldehyde	1.521	1.330	1.339	1.255	1.279	1.166	1.280	11.2
Phenol-d6	1.956	1.870	1.924	1.958	2.012	1.850	1.915	3.4
Phenol	2.019	1.861	1.971	1.994	2.068	1.939	1.971	3.4
bis(2-Chloroethyl)ether	1.673	1.486	1.525	1.557	1.635	1.532	1.562	4.3
2-Chlorophenol	1.256	1.277	1.316	1.299	1.338	1.311	1.301	2.1
2-Methylphenol	1.294	1.243	1.235	1.290	1.352	1.267	1.283	3.1
2,2-oxybis(1-Chloropropane)	2.140	1.803	1.877	1.898	1.981	1.836	1.908	6.2
Acetophenone	0.613	0.621	0.624	0.597	0.586	0.590	0.600	3.2
3+4-Methylphenols	1.578	1.675	1.807	1.902	1.915	1.805	1.789	6.8
n-Nitroso-di-n-propylamine	1.731	1.644	1.724	1.775	1.832	1.683	1.727	3.6
Nitrobenzene-d5	0.483	0.488	0.484	0.462	0.470	0.450	0.467	4.3
Hexachloroethane	0.745	0.640	0.693	0.625	0.680	0.663	0.673	5.8
Nitrobenzene	0.521	0.514	0.509	0.483	0.490	0.487	0.496	3.7
Isophorone	0.976	0.934	0.979	0.963	0.937	0.914	0.939	4.0
2-Nitrophenol	0.179	0.183	0.199	0.206	0.196	0.202	0.195	5.0
2,4-Dimethylphenol	0.386	0.321	0.333	0.333	0.333	0.327	0.337	6.6
bis(2-Chloroethoxy)methane	0.545	0.518	0.539	0.528	0.523	0.515	0.524	3.0
2,4-Dichlorophenol	0.344	0.352	0.372	0.366	0.368	0.361	0.359	2.9
Naphthalene	1.133	1.051	1.053	1.004	0.993	0.975	1.018	6.8
4-Chloroaniline	0.520	0.504	0.509	0.497	0.492	0.487	0.498	3.0
Hexachlorobutadiene	0.355	0.352	0.339	0.324	0.320	0.324	0.334	4.5
Caprolactam	0.184	0.147	0.139	0.148	0.145	0.135	0.148	11.5
4-Chloro-3-methylphenol	0.531	0.491	0.493	0.500	0.491	0.471	0.491	4.6
2-Methylnaphthalene	0.827	0.832	0.830	0.820	0.807	0.774	0.805	4.3
Hexachlorocyclopentadiene	0.490	0.455	0.490	0.490	0.514	0.521	0.496	4.5
2,4,6-Trichlorophenol	0.507	0.481	0.506	0.497	0.491	0.506	0.495	2.4
2-Fluorobiphenyl	1.569	1.410	1.356	1.228	1.179	1.146	1.270	14.9
2,4,5-Trichlorophenol	0.558	0.497	0.506	0.496	0.502	0.511	0.509	4.5
1,1-Biphenyl	1.648	1.558	1.567	1.483	1.467	1.443	1.501	6.7
2-Chloronaphthalene	1.304	1.272	1.250	1.205	1.184	1.186	1.217	5.2
2-Nitroaniline	0.559	0.527	0.533	0.511	0.506	0.508	0.519	4.3
Dimethylphthalate	1.917	1.803	1.711	1.582	1.544	1.506	1.634	11.4
Acenaphthylene	2.105	1.983	1.888	1.798	1.742	1.718	1.826	10.1
2,6-Dinitrotoluene	0.362	0.389	0.375	0.361	0.368	0.362	0.367	3.3
3-Nitroaniline	0.381	0.373	0.371	0.364	0.365	0.359	0.366	2.6

All other compounds must meet a minimum RRF of 0.010.

Form VI SV-1

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG No.: H3936

Instrument ID: BNA_G Calibration Date(s): 07/07/2016 07/07/2016

Calibration Time(s): 11:50 15:53

LAB FILE ID: RRF2.5 = BG022891.D RRF010 = BG022892.D RRF025 = BG022893.D
RRF040 = BG022894.D RRF050 = BG022895.D RRF060 = BG022896.D

COMPOUND	RRF2.5	RRF010	RRF025	RRF040	RRF050	RRF060	RRF	% RSD
Acenaphthene	1.325	1.232	1.229	1.165	1.165	1.152	1.193	6.4
2,4-Dinitrophenol	0.241	0.232	0.242	0.259	0.260	0.269	0.252	5.4
4-Nitrophenol	0.344	0.301	0.308	0.304	0.303	0.300	0.307	5.7
Dibenzofuran	2.173	1.940	1.862	1.726	1.686	1.638	1.786	12.7
2,4-Dinitrotoluene	0.606	0.552	0.535	0.522	0.519	0.526	0.535	6.8
Diethylphthalate	2.053	1.856	1.708	1.610	1.552	1.501	1.662	14.0
4-Chlorophenyl-phenylether	1.043	0.997	0.945	0.927	0.917	0.882	0.936	7.2
Fluorene	1.816	1.668	1.587	1.479	1.462	1.430	1.537	10.8
4-Nitroaniline	0.471	0.410	0.389	0.386	0.380	0.377	0.396	9.1
4,6-Dinitro-2-methylphenol	0.133	0.139	0.147	0.156	0.154	0.158	0.149	6.4
n-Nitrosodiphenylamine	0.613	0.594	0.598	0.582	0.570	0.556	0.576	5.3
2,4,6-Tribromophenol	0.409	0.369	0.357	0.348	0.350	0.352	0.359	6.9
4-Bromophenyl-phenylether	0.286	0.253	0.259	0.263	0.257	0.257	0.260	4.9
Hexachlorobenzene	0.291	0.277	0.285	0.285	0.284	0.285	0.283	2.1
Atrazine	0.275	0.274	0.264	0.253	0.250	0.243	0.256	6.5
Pentachlorophenol	0.170	0.163	0.180	0.193	0.192	0.193	0.183	6.8
Phenanthrene	1.159	1.103	1.019	0.968	0.925	0.888	0.980	12.7
Anthracene	1.170	1.108	1.059	0.976	0.934	0.905	0.992	13.0
Carbazole	1.030	0.936	0.891	0.844	0.810	0.790	0.858	12.4
Di-n-butylphthalate		1.135	1.068	0.976	0.906	0.883	0.954	14.4
Fluoranthene	1.408	1.351	1.253	1.139	1.049	1.016	1.203	13.4
Pyrene	1.308	1.260	1.183	1.060	1.010	0.923	1.124	13.4
Terphenyl-d14		0.899	0.775	0.643	0.591	0.528	0.646	25.7
Butylbenzylphthalate	0.512	0.469	0.460	0.441	0.431	0.414	0.445	9.0
3,3-Dichlorobenzidine	0.511	0.523	0.518	0.497	0.483	0.466	0.491	6.2
Benzo(a)anthracene	1.364	1.251	1.205	1.091	1.050	0.988	1.119	14.7
Chrysene	1.252	1.199	1.142	1.019	0.987	0.926	1.050	14.7
Bis(2-ethylhexyl)phthalate	0.745	0.664	0.653	0.602	0.578	0.563	0.618	12.1
Di-n-octyl phthalate	1.224	1.122	1.099	1.022	0.975	0.930	1.031	12.4
Benzo(b)fluoranthene	1.312	1.235	1.187	1.128	1.125	1.066	1.154	8.6
Benzo(k)fluoranthene	1.254	1.162	1.154	1.110	1.039	1.030	1.095	10.0
Benzo(a)pyrene	1.280	1.162	1.140	1.095	1.059	1.031	1.106	9.0
Indeno(1,2,3-cd)pyrene	1.570	1.366	1.341	1.295	1.308	1.259	1.338	8.4
Dibenzo(a,h)anthracene	1.262	1.097	1.120	1.083	1.070	1.048	1.098	7.4
Benzo(g,h,i)perylene	1.206	1.119	1.112	1.093	1.076	1.060	1.099	5.1
1,2,4,5-Tetrachlorobenzene	0.888	0.875	0.885	0.847	0.845	0.864	0.862	2.7

All other compounds must meet a minimum RRF of 0.010.

Form VI SV-1

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG No.: H3936

Instrument ID: BNA_G Calibration Date(s): 07/07/2016 07/07/2016

Calibration Time(s): 11:50 15:53

LAB FILE ID: RRF2.5 = BG022891.D RRF010 = BG022892.D RRF025 = BG022893.D
RRF040 = BG022894.D RRF050 = BG022895.D RRF060 = BG022896.D

COMPOUND	RRF2.5	RRF010	RRF025	RRF040	RRF050	RRF060	RRF	% RSD
1,4-Dioxane	0.487	0.484	0.451	0.457	0.509	0.473	0.475	4.2
2,3,4,6-Tetrachlorophenol	0.527	0.535	0.516	0.502	0.506	0.500	0.509	3.8

All other compounds must meet a minimum RRF of 0.010.

Form VI SV-1

Response Factor Report GC/MS Ins

Method Path : Z:\HPCHEM1\BNA_G\METHODS\
Method File : 8270-BG070816.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Thu Jul 07 16:51:07 2016
Response Via : Initial Calibration

Calibration Files
2.5 =BG022891.D 10 =BG022892.D 25 =BG022893.D 40 =BG022894.D 50 =BG022895.D 60 =BG022896.D 80 =BG022897.D

		Compound	2.5	10	25	40	50	60	80	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------ISTD----------								
2)		1,4-Dioxane	0.487	0.484	0.451	0.457	0.509	0.473	0.467	0.475	4.17
3)		Pyridine	1.615	1.478	1.625	1.622	1.734	1.643	1.670	1.627	4.75
4)		n-Nitrosodimet...	0.708	0.664	0.683	0.706	0.711	0.708	0.704	0.698	2.51
5)	S	2-Fluorophenol	1.189	1.279	1.234	1.198	1.266	1.220	1.175	1.223	3.21
6)		Aniline	2.599	2.527	2.633	2.683	2.823	2.674	2.641	2.654	3.43
7)	S	Phenol-d6	1.956	1.870	1.924	1.958	2.012	1.850	1.837	1.915	3.39
8)		2-Chlorophenol	1.256	1.277	1.316	1.299	1.338	1.311	1.312	1.301	2.11
9)		Benzaldehyde	1.521	1.330	1.339	1.255	1.279	1.166	1.069	1.280	11.17
10)	C	Phenol	2.019	1.861	1.971	1.994	2.068	1.939	1.944	1.971	3.35
11)		bis(2-Chloroet...	1.673	1.486	1.525	1.557	1.635	1.532	1.525	1.562	4.30
12)		1,3-Dichlorobe...	1.611	1.690	1.614	1.544	1.609	1.540	1.543	1.593	3.45
13)	C	1,4-Dichlorobe...	1.512	1.646	1.620	1.575	1.648	1.590	1.572	1.595	3.01
14)		1,2-Dichlorobe...	1.700	1.564	1.595	1.522	1.627	1.571	1.518	1.585	4.00
15)		Benzyl Alcohol	1.687	1.606	1.724	1.806	1.893	1.751	1.812	1.754	5.33
16)		2,2'-oxybis(1-...	2.140	1.803	1.877	1.898	1.981	1.836	1.820	1.908	6.21
17)		2-Methylphenol	1.294	1.243	1.235	1.290	1.352	1.267	1.298	1.283	3.07
18)		Hexachloroethane	0.745	0.640	0.693	0.625	0.680	0.663	0.666	0.673	5.83
19)	P	n-Nitroso-di-n...	1.731	1.644	1.724	1.775	1.832	1.683	1.697	1.727	3.60
20)		3+4-Methylphenols	1.578	1.675	1.807	1.902	1.915	1.805	1.842	1.789	6.82
21)	I	Naphthalene-d8	----------ISTD----------								
22)		Acetophenone	0.613	0.621	0.624	0.597	0.586	0.590	0.572	0.600	3.23
23)	S	Nitrobenzene-d5	0.483	0.488	0.484	0.462	0.470	0.450	0.434	0.467	4.29
24)		Nitrobenzene	0.521	0.514	0.509	0.483	0.490	0.487	0.471	0.496	3.66
25)		Isophorone	0.976	0.934	0.979	0.963	0.937	0.914	0.873	0.939	4.01
26)	C	2-Nitrophenol	0.179	0.183	0.199	0.206	0.196	0.202	0.197	0.195	5.01
27)		2,4-Dimethylph...	0.386	0.321	0.333	0.333	0.333	0.327	0.324	0.337	6.61
28)		bis(2-Chloroet...	0.545	0.518	0.539	0.528	0.523	0.515	0.497	0.524	3.04
29)	C	2,4-Dichloroph...	0.344	0.352	0.372	0.366	0.368	0.361	0.352	0.359	2.85
30)		1,2,4-Trichlor...	0.428	0.409	0.415	0.407	0.408	0.417	0.398	0.411	2.29
31)		Naphthalene	1.133	1.051	1.053	1.004	0.993	0.975	0.917	1.018	6.75
32)		Benzoic acid	0.338	0.257	0.269	0.324	0.315	0.313	0.327	0.306	10.07
33)		4-Chloroaniline	0.520	0.504	0.509	0.497	0.492	0.487	0.476	0.498	2.96
34)	C	Hexachlorobuta...	0.355	0.352	0.339	0.324	0.320	0.324	0.319	0.334	4.55
35)		Caprolactam	0.184	0.147	0.139	0.148	0.145	0.135	0.135	0.148	11.50
36)	C	4-Chloro-3-met...	0.531	0.491	0.493	0.500	0.491	0.471	0.460	0.491	4.60
37)		2-Methylnaphth...	0.827	0.832	0.830	0.820	0.807	0.774	0.742	0.805	4.26

Method Path : Z:\HPCHEM1\BNA_G\METHODS\
Method File : 8270-BG070816.M

38)	I	Acenaphthene-d10	----------ISTD----------								
39)		1,2,4,5-Tetrac...	0.888	0.875	0.885	0.847	0.845	0.864	0.827	0.862	2.65
40)	P	Hexachlorocycl...	0.490	0.455	0.490	0.490	0.514	0.521	0.513	0.496	4.55
41)	S	2,4,6-Tribromo...	0.409	0.369	0.357	0.348	0.350	0.352	0.330	0.359	6.93
42)	C	2,4,6-Trichlor...	0.507	0.481	0.506	0.497	0.491	0.506	0.479	0.495	2.40
43)		2,4,5-Trichlor...	0.558	0.497	0.506	0.496	0.502	0.511	0.490	0.509	4.52
44)	S	2-Fluorobiphenyl	1.569	1.410	1.356	1.228	1.179	1.146	1.001	1.270	14.88
45)		1,1'-Biphenyl	1.648	1.558	1.567	1.483	1.467	1.443	1.338	1.501	6.71
46)		2-Chloronaphth...	1.304	1.272	1.250	1.205	1.184	1.186	1.119	1.217	5.15
47)		2-Nitroaniline	0.559	0.527	0.533	0.511	0.506	0.508	0.491	0.519	4.31
48)		Acenaphthylene	2.105	1.983	1.888	1.798	1.742	1.718	1.549	1.826	10.05
49)		Dimethylphthalate	1.917	1.803	1.711	1.582	1.544	1.506	1.373	1.634	11.44
50)		2,6-Dinitrotol...	0.362	0.389	0.375	0.361	0.368	0.362	0.352	0.367	3.31
51)	C	Acenaphthene	1.325	1.232	1.229	1.165	1.165	1.152	1.084	1.193	6.41
52)		3-Nitroaniline	0.381	0.373	0.371	0.364	0.365	0.359	0.351	0.366	2.59
53)	P	2,4-Dinitrophenol	0.241	0.232	0.242	0.259	0.260	0.269	0.261	0.252	5.37
54)		Dibenzofuran	2.173	1.940	1.862	1.726	1.686	1.638	1.476	1.786	12.74
55)	P	4-Nitrophenol	0.344	0.301	0.308	0.304	0.303	0.300	0.288	0.307	5.74
56)		2,4-Dinitrotol...	0.606	0.552	0.535	0.522	0.519	0.526	0.488	0.535	6.82
57)		Fluorene	1.816	1.668	1.587	1.479	1.462	1.430	1.318	1.537	10.82
58)		2,3,4,6-Tetrac...	0.527	0.535	0.516	0.502	0.506	0.500	0.477	0.509	3.77
59)		Diethylphthalate	2.053	1.856	1.708	1.610	1.552	1.501	1.356	1.662	14.05
60)		4-Chlorophenyl...	1.043	0.997	0.945	0.927	0.917	0.882	0.843	0.936	7.19
61)		4-Nitroaniline	0.471	0.410	0.389	0.386	0.380	0.377	0.361	0.396	9.12
62)		Azobenzene	1.872	1.735	1.667	1.547	1.514	1.460	1.336	1.590	11.35
63)	I	Phenanthrene-d10	----------ISTD----------								
64)		4,6-Dinitro-2-...	0.133	0.139	0.147	0.156	0.154	0.158	0.155	0.149	6.44
65)	c	n-Nitrosodiphe...	0.613	0.594	0.598	0.582	0.570	0.556	0.522	0.576	5.29
66)		4-Bromophenyl-...	0.286	0.253	0.259	0.263	0.257	0.257	0.246	0.260	4.86
67)		Hexachlorobenzene	0.291	0.277	0.285	0.285	0.284	0.285	0.274	0.283	2.06
68)		Atrazine	0.275	0.274	0.264	0.253	0.250	0.243	0.230	0.256	6.47
69)	C	Pentachlorophenol	0.170	0.163	0.180	0.193	0.192	0.193	0.191	0.183	6.76
70)		Phenanthrene	1.159	1.103	1.019	0.968	0.925	0.888	0.798	0.980	12.73
71)		Anthracene	1.170	1.108	1.059	0.976	0.934	0.905	0.795	0.992	13.00
72)		Carbazole	1.030	0.936	0.891	0.844	0.810	0.790	0.703	0.858	12.42
73)		Di-n-butylphth...		1.135	1.068	0.976	0.906	0.883	0.753	0.954	14.38
74)	C	Fluoranthene	1.408	1.351	1.253	1.139	1.049	1.016		1.203	13.36
75)	I	Chrysene-d12	----------ISTD----------								
76)		Benzidine		0.625	0.627	0.590	0.574	0.540	0.484	0.573	9.54
77)		Pyrene	1.308	1.260	1.183	1.059	1.010	0.923		1.124	13.42
78)	S	Terphenyl-d14		0.899	0.775	0.643	0.591	0.528	0.444	0.646	25.74
79)		Butylbenzylpht...	0.512	0.469	0.460	0.441	0.431	0.414	0.389	0.445	9.01
80)		Benzo(a)anthra...	1.364	1.251	1.205	1.091	1.050	0.988	0.884	1.119	14.73
81)		3,3'-Dichlorob...	0.511	0.523	0.518	0.497	0.483	0.466	0.439	0.491	6.24
82)		Chrysene	1.252	1.199	1.142	1.019	0.987	0.926	0.823	1.050	14.72

Method Path : Z:\HPCHEM1\BNA_G\METHODS\
Method File : 8270-BG070816.M

83)		Bis(2-ethylhex...	0.745	0.664	0.653	0.602	0.578	0.563	0.522	0.618	12.08
84)	c	Di-n-octyl pht...	1.224	1.122	1.099	1.022	0.975	0.930	0.845	1.031	12.42
85)		Indeno(1,2,3-c...	1.570	1.366	1.341	1.295	1.308	1.259	1.230	1.338	8.37
86)	I	Perylene-d12	----------ISTD----------								
87)		Benzo(b)fluora...	1.312	1.235	1.187	1.128	1.125	1.066	1.025	1.154	8.56
88)		Benzo(k)fluora...	1.254	1.162	1.154	1.110	1.039	1.030	0.917	1.095	10.05
89)	C	Benzo(a)pyrene	1.280	1.162	1.140	1.095	1.059	1.031	0.975	1.106	9.01
90)		Dibenzo(a,h)an...	1.262	1.097	1.120	1.083	1.070	1.048	1.006	1.098	7.38
91)		Benzo(g,h,i)pe...	1.206	1.119	1.112	1.093	1.076	1.060	1.029	1.099	5.11

(#) = Out of Range

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG No.: H3936

Instrument ID: BNA_G Calibration Date/Time: 07/08/2016 18:05

Lab File ID: BG022935.D Init. Calib. Date(s): 07/07/2016 07/07/2016

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:50 15:53

GC Column: ZB-GR ID: 0.25 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.223	1.188		-2.9	
Benzaldehyde	1.280	1.312		2.5	
Phenol-d6	1.915	1.974		3.1	
Phenol	1.971	2.023		2.6	20.0
bis(2-Chloroethyl)ether	1.562	1.566		0.3	
2-Chlorophenol	1.301	1.352		3.9	
2-Methylphenol	1.283	1.295		0.9	
2,2-oxybis(1-Chloropropane)	1.908	1.959		2.7	
Acetophenone	0.600	0.595		-0.8	
3+4-Methylphenols	1.789	1.893		5.8	
n-Nitroso-di-n-propylamine	1.727	1.730	0.050	0.2	
Nitrobenzene-d5	0.467	0.479		2.6	
Hexachloroethane	0.673	0.677		0.6	
Nitrobenzene	0.496	0.513		3.4	
Isophorone	0.939	0.924		-1.6	
2-Nitrophenol	0.195	0.198		1.5	20.0
2,4-Dimethylphenol	0.337	0.341		1.2	
bis(2-Chloroethoxy)methane	0.524	0.528		0.8	
2,4-Dichlorophenol	0.359	0.368		2.5	20.0
Naphthalene	1.018	1.040		2.2	
4-Chloroaniline	0.498	0.506		1.6	
Hexachlorobutadiene	0.334	0.344		3.0	20.0
Caprolactam	0.148	0.133		-10.1	
4-Chloro-3-methylphenol	0.491	0.488		-0.6	20.0
2-Methylnaphthalene	0.805	0.809		0.5	
Hexachlorocyclopentadiene	0.496	0.481	0.050	-3.0	
2,4,6-Trichlorophenol	0.495	0.500		1.0	20.0
2-Fluorobiphenyl	1.270	1.257		-1.0	
2,4,5-Trichlorophenol	0.509	0.503		-1.2	
1,1-Biphenyl	1.501	1.509		0.5	
2-Chloronaphthalene	1.217	1.243		2.1	
2-Nitroaniline	0.519	0.530		2.1	
Dimethylphthalate	1.634	1.548		-5.3	
Acenaphthylene	1.826	1.817		-0.5	
2,6-Dinitrotoluene	0.367	0.345		-6.0	
3-Nitroaniline	0.366	0.353		-3.6	
Acenaphthene	1.193	1.182		-0.9	20.0
2,4-Dinitrophenol	0.252	0.200	0.050	-20.6	
4-Nitrophenol	0.307	0.284	0.050	-7.5	
Dibenzofuran	1.786	1.727		-3.3	
2,4-Dinitrotoluene	0.535	0.506		-5.4	

Form VII SV-1

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG No.: H3936

Instrument ID: BNA_G Calibration Date/Time: 07/08/2016 18:05

Lab File ID: BG022935.D Init. Calib. Date(s): 07/07/2016 07/07/2016

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:50 15:53

GC Column: ZB-GR ID: 0.25 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Diethylphthalate	1.662	1.540		-7.3	
4-Chlorophenyl-phenylether	0.936	0.897		-4.2	
Fluorene	1.537	1.502		-2.3	
4-Nitroaniline	0.396	0.371		-6.3	
4,6-Dinitro-2-methylphenol	0.149	0.136		-8.7	
n-Nitrosodiphenylamine	0.576	0.581		0.9	20.0
2,4,6-Tribromophenol	0.359	0.327		-8.9	
4-Bromophenyl-phenylether	0.260	0.250		-3.8	
Hexachlorobenzene	0.283	0.280		-1.1	
Atrazine	0.256	0.248		-3.1	
Pentachlorophenol	0.183	0.170		-7.1	20.0
Phenanthrene	0.980	0.982		0.2	
Anthracene	0.992	1.001		0.9	
Carbazole	0.858	0.868		1.2	
Di-n-butylphthalate	0.954	1.004		5.2	
Fluoranthene	1.203	1.185		-1.5	20.0
Pyrene	1.124	1.058		-5.9	
Terphenyl-d14	0.646	0.643		-0.5	
Butylbenzylphthalate	0.445	0.447		0.4	
3,3-Dichlorobenzidine	0.491	0.485		-1.2	
Benzo(a)anthracene	1.119	1.114		-0.4	
Chrysene	1.050	1.051		0.1	
Bis(2-ethylhexyl)phthalate	0.618	0.612		-1.0	
Di-n-octyl phthalate	1.031	1.044		1.3	20.0
Benzo(b)fluoranthene	1.154	1.155		0.1	
Benzo(k)fluoranthene	1.095	1.121		2.4	
Benzo(a)pyrene	1.106	1.107		0.1	20.0
Indeno(1,2,3-cd)pyrene	1.338	1.327		-0.8	
Dibenzo(a,h)anthracene	1.098	1.105		0.6	
Benzo(g,h,i)perylene	1.099	1.118		1.7	
1,2,4,5-Tetrachlorobenzene	0.862	0.880		2.1	
1,4-Dioxane	0.475	0.483		1.7	20.0
2,3,4,6-Tetrachlorophenol	0.509	0.486		-4.5	

All other compounds must meet a minimum RRF of 0.010.

Form VII SV-1

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SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG No.: H3936

Instrument ID: BNA_G Calibration Date/Time: 07/09/2016 04:46

Lab File ID: BG022951.D Init. Calib. Date(s): 07/07/2016 07/07/2016

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:50 15:53

GC Column: ZB-GR ID: 0.25 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.223	1.207		-1.3	
Benzaldehyde	1.280	1.275		-0.4	
Phenol-d6	1.915	1.923		0.4	
Phenol	1.971	1.989		0.9	20.0
bis(2-Chloroethyl)ether	1.562	1.556		-0.4	
2-Chlorophenol	1.301	1.324		1.8	
2-Methylphenol	1.283	1.277		-0.5	
2,2-oxybis(1-Chloropropane)	1.908	1.940		1.7	
Acetophenone	0.600	0.575		-4.2	
3+4-Methylphenols	1.789	1.820		1.7	
n-Nitroso-di-n-propylamine	1.727	1.689	0.050	-2.2	
Nitrobenzene-d5	0.467	0.460		-1.5	
Hexachloroethane	0.673	0.655		-2.7	
Nitrobenzene	0.496	0.485		-2.2	
Isophorone	0.939	0.853		-9.2	
2-Nitrophenol	0.195	0.194		-0.5	20.0
2,4-Dimethylphenol	0.337	0.320		-5.0	
bis(2-Chloroethoxy)methane	0.524	0.495		-5.5	
2,4-Dichlorophenol	0.359	0.357		-0.6	20.0
Naphthalene	1.018	0.992		-2.6	
4-Chloroaniline	0.498	0.482		-3.2	
Hexachlorobutadiene	0.334	0.329		-1.5	20.0
Caprolactam	0.148	0.121		-18.2	
4-Chloro-3-methylphenol	0.491	0.453		-7.7	20.0
2-Methylnaphthalene	0.805	0.767		-4.7	
Hexachlorocyclopentadiene	0.496	0.482	0.050	-2.8	
2,4,6-Trichlorophenol	0.495	0.508		2.6	20.0
2-Fluorobiphenyl	1.270	1.295		2.0	
2,4,5-Trichlorophenol	0.509	0.519		2.0	
1,1-Biphenyl	1.501	1.569		4.5	
2-Chloronaphthalene	1.217	1.267		4.1	
2-Nitroaniline	0.519	0.525		1.2	
Dimethylphthalate	1.634	1.545		-5.4	
Acenaphthylene	1.826	1.840		0.8	
2,6-Dinitrotoluene	0.367	0.358		-2.5	
3-Nitroaniline	0.366	0.370		1.1	
Acenaphthene	1.193	1.200		0.6	20.0
2,4-Dinitrophenol	0.252	0.189	0.050	-25.0	
4-Nitrophenol	0.307	0.272	0.050	-11.4	
Dibenzofuran	1.786	1.741		-2.5	
2,4-Dinitrotoluene	0.535	0.518		-3.2	

Form VII SV-1

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG No.: H3936

Instrument ID: BNA_G Calibration Date/Time: 07/09/2016 04:46

Lab File ID: BG022951.D Init. Calib. Date(s): 07/07/2016 07/07/2016

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:50 15:53

GC Column: ZB-GR ID: 0.25 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Diethylphthalate	1.662	1.539		-7.4	
4-Chlorophenyl-phenylether	0.936	0.901		-3.7	
Fluorene	1.537	1.478		-3.8	
4-Nitroaniline	0.396	0.372		-6.1	
4,6-Dinitro-2-methylphenol	0.149	0.140		-6.0	
n-Nitrosodiphenylamine	0.576	0.583		1.2	20.0
2,4,6-Tribromophenol	0.359	0.329		-8.4	
4-Bromophenyl-phenylether	0.260	0.255		-1.9	
Hexachlorobenzene	0.283	0.278		-1.8	
Atrazine	0.256	0.249		-2.7	
Pentachlorophenol	0.183	0.173		-5.5	20.0
Phenanthrene	0.980	0.960		-2.0	
Anthracene	0.992	0.984		-0.8	
Carbazole	0.858	0.845		-1.5	
Di-n-butylphthalate	0.954	0.976		2.3	
Fluoranthene	1.203	1.141		-5.2	20.0
Pyrene	1.124	1.049		-6.7	
Terphenyl-d14	0.646	0.640		-0.9	
Butylbenzylphthalate	0.445	0.449		0.9	
3,3-Dichlorobenzidine	0.491	0.481		-2.0	
Benzo(a)anthracene	1.119	1.098		-1.9	
Chrysene	1.050	1.047		-0.3	
Bis(2-ethylhexyl)phthalate	0.618	0.604		-2.3	
Di-n-octyl phthalate	1.031	1.027		-0.4	20.0
Benzo(b)fluoranthene	1.154	1.154		0.0	
Benzo(k)fluoranthene	1.095	1.129		3.1	
Benzo(a)pyrene	1.106	1.115		0.8	20.0
Indeno(1,2,3-cd)pyrene	1.338	1.298		-3.0	
Dibenzo(a,h)anthracene	1.098	1.108		0.9	
Benzo(g,h,i)perylene	1.099	1.112		1.2	
1,2,4,5-Tetrachlorobenzene	0.862	0.918		6.5	
1,4-Dioxane	0.475	0.480		1.1	20.0
2,3,4,6-Tetrachlorophenol	0.509	0.478		-6.1	

All other compounds must meet a minimum RRF of 0.010.

Form VII SV-1

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SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG No.: H3936

Instrument ID: BNA_G Calibration Date/Time: 07/12/2016 03:58

Lab File ID: BG023020.D Init. Calib. Date(s): 07/07/2016 07/07/2016

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:50 15:53

GC Column: ZB-GR ID: 0.25 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.223	1.209		-1.1	
Benzaldehyde	1.280	1.267		-1.0	
Phenol-d6	1.915	2.058		7.5	
Phenol	1.971	2.083		5.7	20.0
bis(2-Chloroethyl)ether	1.562	1.533		-1.9	
2-Chlorophenol	1.301	1.369		5.2	
2-Methylphenol	1.283	1.349		5.1	
2,2-oxybis(1-Chloropropane)	1.908	1.982		3.9	
Acetophenone	0.600	0.593		-1.2	
3+4-Methylphenols	1.789	1.972		10.2	
n-Nitroso-di-n-propylamine	1.727	1.767	0.050	2.3	
Nitrobenzene-d5	0.467	0.468		0.2	
Hexachloroethane	0.673	0.658		-2.2	
Nitrobenzene	0.496	0.488		-1.6	
Isophorone	0.939	0.892		-5.0	
2-Nitrophenol	0.195	0.195		0.0	20.0
2,4-Dimethylphenol	0.337	0.333		-1.2	
bis(2-Chloroethoxy)methane	0.524	0.511		-2.5	
2,4-Dichlorophenol	0.359	0.365		1.7	20.0
Naphthalene	1.018	1.041		2.3	
4-Chloroaniline	0.498	0.493		-1.0	
Hexachlorobutadiene	0.334	0.316		-5.4	20.0
Caprolactam	0.148	0.130		-12.2	
4-Chloro-3-methylphenol	0.491	0.500		1.8	20.0
2-Methylnaphthalene	0.805	0.827		2.7	
Hexachlorocyclopentadiene	0.496	0.531	0.050	7.1	
2,4,6-Trichlorophenol	0.495	0.487		-1.6	20.0
2-Fluorobiphenyl	1.270	1.267		-0.2	
2,4,5-Trichlorophenol	0.509	0.493		-3.1	
1,1-Biphenyl	1.501	1.532		2.1	
2-Chloronaphthalene	1.217	1.227		0.8	
2-Nitroaniline	0.519	0.519		0.0	
Dimethylphthalate	1.634	1.515		-7.3	
Acenaphthylene	1.826	1.798		-1.5	
2,6-Dinitrotoluene	0.367	0.338		-7.9	
3-Nitroaniline	0.366	0.346		-5.5	
Acenaphthene	1.193	1.175		-1.5	20.0
2,4-Dinitrophenol	0.252	0.296	0.050	17.5	
4-Nitrophenol	0.307	0.260	0.050	-15.3	
Dibenzofuran	1.786	1.702		-4.7	
2,4-Dinitrotoluene	0.535	0.488		-8.8	

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SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG No.: H3936

Instrument ID: BNA_G Calibration Date/Time: 07/12/2016 03:58

Lab File ID: BG023020.D Init. Calib. Date(s): 07/07/2016 07/07/2016

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:50 15:53

GC Column: ZB-GR ID: 0.25 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Diethylphthalate	1.662	1.516		-8.8	
4-Chlorophenyl-phenylether	0.936	0.851		-9.1	
Fluorene	1.537	1.436		-6.6	
4-Nitroaniline	0.396	0.348		-12.1	
4,6-Dinitro-2-methylphenol	0.149	0.131		-12.1	
n-Nitrosodiphenylamine	0.576	0.606		5.2	20.0
2,4,6-Tribromophenol	0.359	0.298		-17.0	
4-Bromophenyl-phenylether	0.260	0.255		-1.9	
Hexachlorobenzene	0.283	0.277		-2.1	
Atrazine	0.256	0.248		-3.1	
Pentachlorophenol	0.183	0.158		-13.7	20.0
Phenanthrene	0.980	0.989		0.9	
Anthracene	0.992	1.018		2.6	
Carbazole	0.858	0.857		-0.1	
Di-n-butylphthalate	0.954	1.013		6.2	
Fluoranthene	1.203	1.163		-3.3	20.0
Pyrene	1.124	1.136		1.1	
Terphenyl-d14	0.646	0.706		9.3	
Butylbenzylphthalate	0.445	0.463		4.0	
3,3-Dichlorobenzidine	0.491	0.484		-1.4	
Benzo(a)anthracene	1.119	1.126		0.6	
Chrysene	1.050	1.068		1.7	
Bis(2-ethylhexyl)phthalate	0.618	0.647		4.7	
Di-n-octyl phthalate	1.031	1.091		5.8	20.0
Benzo(b)fluoranthene	1.154	1.154		0.0	
Benzo(k)fluoranthene	1.095	1.102		0.6	
Benzo(a)pyrene	1.106	1.105		-0.1	20.0
Indeno(1,2,3-cd)pyrene	1.338	1.221		-8.7	
Dibenzo(a,h)anthracene	1.098	1.057		-3.7	
Benzo(g,h,i)perylene	1.099	1.030		-6.3	
1,2,4,5-Tetrachlorobenzene	0.862	0.850		-1.4	
1,4-Dioxane	0.475	0.459		-3.4	20.0
2,3,4,6-Tetrachlorophenol	0.509	0.439		-13.8	

All other compounds must meet a minimum RRF of 0.010.

Form VII SV-1

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SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG No.: H3936

Instrument ID: BNA_G Calibration Date/Time: 07/12/2016 14:04

Lab File ID: BG023035.D Init. Calib. Date(s): 07/07/2016 07/07/2016

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:50 15:53

GC Column: ZB-GR ID: 0.25 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.223	1.149		-6.1	
Benzaldehyde	1.280	1.223		-4.5	
Phenol-d6	1.915	1.906		-0.5	
Phenol	1.971	2.010		2.0	20.0
bis(2-Chloroethyl)ether	1.562	1.469		-6.0	
2-Chlorophenol	1.301	1.297		-0.3	
2-Methylphenol	1.283	1.261		-1.7	
2,2-oxybis(1-Chloropropane)	1.908	1.863		-2.4	
Acetophenone	0.600	0.582		-3.0	
3+4-Methylphenols	1.789	1.840		2.9	
n-Nitroso-di-n-propylamine	1.727	1.650	0.050	-4.5	
Nitrobenzene-d5	0.467	0.465		-0.4	
Hexachloroethane	0.673	0.646		-4.0	
Nitrobenzene	0.496	0.502		1.2	
Isophorone	0.939	0.885		-5.8	
2-Nitrophenol	0.195	0.194		-0.5	20.0
2,4-Dimethylphenol	0.337	0.330		-2.1	
bis(2-Chloroethoxy)methane	0.524	0.498		-5.0	
2,4-Dichlorophenol	0.359	0.363		1.1	20.0
Naphthalene	1.018	1.007		-1.1	
4-Chloroaniline	0.498	0.494		-0.8	
Hexachlorobutadiene	0.334	0.309		-7.5	20.0
Caprolactam	0.148	0.129		-12.8	
4-Chloro-3-methylphenol	0.491	0.475		-3.3	20.0
2-Methylnaphthalene	0.805	0.811		0.7	
Hexachlorocyclopentadiene	0.496	0.551	0.050	11.1	
2,4,6-Trichlorophenol	0.495	0.485		-2.0	20.0
2-Fluorobiphenyl	1.270	1.244		-2.0	
2,4,5-Trichlorophenol	0.509	0.487		-4.3	
1,1-Biphenyl	1.501	1.527		1.7	
2-Chloronaphthalene	1.217	1.240		1.9	
2-Nitroaniline	0.519	0.529		1.9	
Dimethylphthalate	1.634	1.493		-8.6	
Acenaphthylene	1.826	1.798		-1.5	
2,6-Dinitrotoluene	0.367	0.354		-3.5	
3-Nitroaniline	0.366	0.359		-1.9	
Acenaphthene	1.193	1.189		-0.3	20.0
2,4-Dinitrophenol	0.252	0.317	0.050	25.8	
4-Nitrophenol	0.307	0.270	0.050	-12.1	
Dibenzofuran	1.786	1.720		-3.7	
2,4-Dinitrotoluene	0.535	0.498		-6.9	

Form VII SV-1

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SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG No.: H3936

Instrument ID: BNA_G Calibration Date/Time: 07/12/2016 14:04

Lab File ID: BG023035.D Init. Calib. Date(s): 07/07/2016 07/07/2016

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:50 15:53

GC Column: ZB-GR ID: 0.25 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Diethylphthalate	1.662	1.526		-8.2	
4-Chlorophenyl-phenylether	0.936	0.861		-8.0	
Fluorene	1.537	1.456		-5.3	
4-Nitroaniline	0.396	0.371		-6.3	
4,6-Dinitro-2-methylphenol	0.149	0.136		-8.7	
n-Nitrosodiphenylamine	0.576	0.584		1.4	20.0
2,4,6-Tribromophenol	0.359	0.297		-17.3	
4-Bromophenyl-phenylether	0.260	0.251		-3.5	
Hexachlorobenzene	0.283	0.273		-3.5	
Atrazine	0.256	0.248		-3.1	
Pentachlorophenol	0.183	0.166		-9.3	20.0
Phenanthrene	0.980	0.968		-1.2	
Anthracene	0.992	0.978		-1.4	
Carbazole	0.858	0.850		-0.9	
Di-n-butylphthalate	0.954	1.012		6.1	
Fluoranthene	1.203	1.154		-4.1	20.0
Pyrene	1.124	1.078		-4.1	
Terphenyl-d14	0.646	0.650		0.6	
Butylbenzylphthalate	0.445	0.464		4.3	
3,3-Dichlorobenzidine	0.491	0.475		-3.3	
Benzo(a)anthracene	1.119	1.115		-0.4	
Chrysene	1.050	1.042		-0.8	
Bis(2-ethylhexyl)phthalate	0.618	0.636		2.9	
Di-n-octyl phthalate	1.031	1.066		3.4	20.0
Benzo(b)fluoranthene	1.154	1.121		-2.9	
Benzo(k)fluoranthene	1.095	1.108		1.2	
Benzo(a)pyrene	1.106	1.079		-2.4	20.0
Indeno(1,2,3-cd)pyrene	1.338	1.243		-7.1	
Dibenzo(a,h)anthracene	1.098	1.047		-4.6	
Benzo(g,h,i)perylene	1.099	1.030		-6.3	
1,2,4,5-Tetrachlorobenzene	0.862	0.855		-0.8	
1,4-Dioxane	0.475	0.460		-3.2	20.0
2,3,4,6-Tetrachlorophenol	0.509	0.447		-12.2	

All other compounds must meet a minimum RRF of 0.010.

Form VII SV-1

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG No.: H3936

Instrument ID: BNA_G Calibration Date/Time: 07/13/2016 00:47

Lab File ID: BG023050.D Init. Calib. Date(s): 07/07/2016 07/07/2016

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:50 15:53

GC Column: ZB-GR ID: 0.25 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.223	1.233		0.8	
Benzaldehyde	1.280	1.241		-3.0	
Phenol-d6	1.915	2.045		6.8	
Phenol	1.971	2.126		7.9	20.0
bis(2-Chloroethyl)ether	1.562	1.550		-0.8	
2-Chlorophenol	1.301	1.329		2.2	
2-Methylphenol	1.283	1.355		5.6	
2,2-oxybis(1-Chloropropane)	1.908	1.971		3.3	
Acetophenone	0.600	0.562		-6.3	
3+4-Methylphenols	1.789	1.954		9.2	
n-Nitroso-di-n-propylamine	1.727	1.716	0.050	-0.6	
Nitrobenzene-d5	0.467	0.467		0.0	
Hexachloroethane	0.673	0.675		0.3	
Nitrobenzene	0.496	0.490		-1.2	
Isophorone	0.939	0.886		-5.6	
2-Nitrophenol	0.195	0.194		-0.5	20.0
2,4-Dimethylphenol	0.337	0.324		-3.9	
bis(2-Chloroethoxy)methane	0.524	0.499		-4.8	
2,4-Dichlorophenol	0.359	0.359		0.0	20.0
Naphthalene	1.018	1.010		-0.8	
4-Chloroaniline	0.498	0.493		-1.0	
Hexachlorobutadiene	0.334	0.313		-6.3	20.0
Caprolactam	0.148	0.131		-11.5	
4-Chloro-3-methylphenol	0.491	0.485		-1.2	20.0
2-Methylnaphthalene	0.805	0.801		-0.5	
Hexachlorocyclopentadiene	0.496	0.530	0.050	6.9	
2,4,6-Trichlorophenol	0.495	0.474		-4.2	20.0
2-Fluorobiphenyl	1.270	1.266		-0.3	
2,4,5-Trichlorophenol	0.509	0.492		-3.3	
1,1-Biphenyl	1.501	1.532		2.1	
2-Chloronaphthalene	1.217	1.255		3.1	
2-Nitroaniline	0.519	0.529		1.9	
Dimethylphthalate	1.634	1.508		-7.7	
Acenaphthylene	1.826	1.822		-0.2	
2,6-Dinitrotoluene	0.367	0.344		-6.3	
3-Nitroaniline	0.366	0.355		-3.0	
Acenaphthene	1.193	1.173		-1.7	20.0
2,4-Dinitrophenol	0.252	0.306	0.050	21.4	
4-Nitrophenol	0.307	0.260	0.050	-15.3	
Dibenzofuran	1.786	1.737		-2.7	
2,4-Dinitrotoluene	0.535	0.500		-6.5	

Form VII SV-1

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG No.: H3936

Instrument ID: BNA_G Calibration Date/Time: 07/13/2016 00:47

Lab File ID: BG023050.D Init. Calib. Date(s): 07/07/2016 07/07/2016

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:50 15:53

GC Column: ZB-GR ID: 0.25 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Diethylphthalate	1.662	1.547		-6.9	
4-Chlorophenyl-phenylether	0.936	0.861		-8.0	
Fluorene	1.537	1.465		-4.7	
4-Nitroaniline	0.396	0.360		-9.1	
4,6-Dinitro-2-methylphenol	0.149	0.134		-10.1	
n-Nitrosodiphenylamine	0.576	0.606		5.2	20.0
2,4,6-Tribromophenol	0.359	0.291		-18.9	
4-Bromophenyl-phenylether	0.260	0.254		-2.3	
Hexachlorobenzene	0.283	0.269		-4.9	
Atrazine	0.256	0.246		-3.9	
Pentachlorophenol	0.183	0.166		-9.3	20.0
Phenanthrene	0.980	1.001		2.1	
Anthracene	0.992	1.007		1.5	
Carbazole	0.858	0.867		1.0	
Di-n-butylphthalate	0.954	1.028		7.8	
Fluoranthene	1.203	1.175		-2.3	20.0
Pyrene	1.124	1.111		-1.2	
Terphenyl-d14	0.646	0.679		5.1	
Butylbenzylphthalate	0.445	0.472		6.1	
3,3-Dichlorobenzidine	0.491	0.483		-1.6	
Benzo(a)anthracene	1.119	1.140		1.9	
Chrysene	1.050	1.068		1.7	
Bis(2-ethylhexyl)phthalate	0.618	0.644		4.2	
Di-n-octyl phthalate	1.031	1.098		6.5	20.0
Benzo(b)fluoranthene	1.154	1.156		0.2	
Benzo(k)fluoranthene	1.095	1.090		-0.5	
Benzo(a)pyrene	1.106	1.093		-1.2	20.0
Indeno(1,2,3-cd)pyrene	1.338	1.226		-8.4	
Dibenzo(a,h)anthracene	1.098	1.028		-6.4	
Benzo(g,h,i)perylene	1.099	0.993		-9.6	
1,2,4,5-Tetrachlorobenzene	0.862	0.856		-0.7	
1,4-Dioxane	0.475	0.471		-0.8	20.0
2,3,4,6-Tetrachlorophenol	0.509	0.446		-12.4	

All other compounds must meet a minimum RRF of 0.010.

Form VII SV-1

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG No.: H3936

Instrument ID: BNA_G Calibration Date/Time: 07/13/2016 13:51

Lab File ID: BG023068.D Init. Calib. Date(s): 07/07/2016 07/07/2016

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:50 15:53

GC Column: ZB-GR ID: 0.25 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.223	1.196		-2.2	
Benzaldehyde	1.280	1.208		-5.6	
Phenol-d6	1.915	1.947		1.7	
Phenol	1.971	2.037		3.3	20.0
bis(2-Chloroethyl)ether	1.562	1.524		-2.4	
2-Chlorophenol	1.301	1.335		2.6	
2-Methylphenol	1.283	1.275		-0.6	
2,2-oxybis(1-Chloropropane)	1.908	1.998		4.7	
Acetophenone	0.600	0.588		-2.0	
3+4-Methylphenols	1.789	1.846		3.2	
n-Nitroso-di-n-propylamine	1.727	1.757	0.050	1.7	
Nitrobenzene-d5	0.467	0.462		-1.1	
Hexachloroethane	0.673	0.666		-1.0	
Nitrobenzene	0.496	0.490		-1.2	
Isophorone	0.939	0.895		-4.7	
2-Nitrophenol	0.195	0.194		-0.5	20.0
2,4-Dimethylphenol	0.337	0.326		-3.3	
bis(2-Chloroethoxy)methane	0.524	0.510		-2.7	
2,4-Dichlorophenol	0.359	0.353		-1.7	20.0
Naphthalene	1.018	0.994		-2.4	
4-Chloroaniline	0.498	0.495		-0.6	
Hexachlorobutadiene	0.334	0.314		-6.0	20.0
Caprolactam	0.148	0.138		-6.8	
4-Chloro-3-methylphenol	0.491	0.479		-2.4	20.0
2-Methylnaphthalene	0.805	0.789		-2.0	
Hexachlorocyclopentadiene	0.496	0.593	0.050	19.6	
2,4,6-Trichlorophenol	0.495	0.473		-4.4	20.0
2-Fluorobiphenyl	1.270	1.220		-3.9	
2,4,5-Trichlorophenol	0.509	0.501		-1.6	
1,1-Biphenyl	1.501	1.513		0.8	
2-Chloronaphthalene	1.217	1.231		1.1	
2-Nitroaniline	0.519	0.546		5.2	
Dimethylphthalate	1.634	1.517		-7.2	
Acenaphthylene	1.826	1.796		-1.6	
2,6-Dinitrotoluene	0.367	0.354		-3.5	
3-Nitroaniline	0.366	0.367		0.3	
Acenaphthene	1.193	1.190		-0.3	20.0
2,4-Dinitrophenol	0.252	0.345	0.050	36.9	
4-Nitrophenol	0.307	0.290	0.050	-5.5	
Dibenzofuran	1.786	1.698		-4.9	
2,4-Dinitrotoluene	0.535	0.509		-4.9	

Form VII SV-1

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG No.: H3936

Instrument ID: BNA_G Calibration Date/Time: 07/13/2016 13:51

Lab File ID: BG023068.D Init. Calib. Date(s): 07/07/2016 07/07/2016

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:50 15:53

GC Column: ZB-GR ID: 0.25 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Diethylphthalate	1.662	1.548		-6.9	
4-Chlorophenyl-phenylether	0.936	0.865		-7.6	
Fluorene	1.537	1.476		-4.0	
4-Nitroaniline	0.396	0.384		-3.0	
4,6-Dinitro-2-methylphenol	0.149	0.145		-2.7	
n-Nitrosodiphenylamine	0.576	0.581		0.9	20.0
2,4,6-Tribromophenol	0.359	0.313		-12.8	
4-Bromophenyl-phenylether	0.260	0.242		-6.9	
Hexachlorobenzene	0.283	0.272		-3.9	
Atrazine	0.256	0.246		-3.9	
Pentachlorophenol	0.183	0.173		-5.5	20.0
Phenanthrene	0.980	0.945		-3.6	
Anthracene	0.992	0.961		-3.1	
Carbazole	0.858	0.845		-1.5	
Di-n-butylphthalate	0.954	0.975		2.2	
Fluoranthene	1.203	1.086		-9.7	20.0
Pyrene	1.124	1.105		-1.7	
Terphenyl-d14	0.646	0.657		1.7	
Butylbenzylphthalate	0.445	0.473		6.3	
3,3-Dichlorobenzidine	0.491	0.483		-1.6	
Benzo(a)anthracene	1.119	1.116		-0.3	
Chrysene	1.050	1.038		-1.1	
Bis(2-ethylhexyl)phthalate	0.618	0.644		4.2	
Di-n-octyl phthalate	1.031	1.087		5.4	20.0
Benzo(b)fluoranthene	1.154	1.142		-1.0	
Benzo(k)fluoranthene	1.095	1.100		0.5	
Benzo(a)pyrene	1.106	1.100		-0.5	20.0
Indeno(1,2,3-cd)pyrene	1.338	1.246		-6.9	
Dibenzo(a,h)anthracene	1.098	1.060		-3.5	
Benzo(g,h,i)perylene	1.099	1.061		-3.5	
1,2,4,5-Tetrachlorobenzene	0.862	0.835		-3.1	
1,4-Dioxane	0.475	0.439		-7.6	20.0
2,3,4,6-Tetrachlorophenol	0.509	0.477		-6.3	

All other compounds must meet a minimum RRF of 0.010.

Form VII SV-1

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG No.: H3936

Instrument ID: BNA_G Calibration Date/Time: 07/13/2016 23:51

Lab File ID: BG023082.D Init. Calib. Date(s): 07/07/2016 07/07/2016

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:50 15:53

GC Column: ZB-GR ID: 0.25 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.223	1.208		-1.2	
Benzaldehyde	1.280	1.192		-6.9	
Phenol-d6	1.915	1.884		-1.6	
Phenol	1.971	1.920		-2.6	20.0
bis(2-Chloroethyl)ether	1.562	1.505		-3.6	
2-Chlorophenol	1.301	1.299		-0.2	
2-Methylphenol	1.283	1.214		-5.4	
2,2-oxybis(1-Chloropropane)	1.908	1.907		-0.1	
Acetophenone	0.600	0.577		-3.8	
3+4-Methylphenols	1.789	1.743		-2.6	
n-Nitroso-di-n-propylamine	1.727	1.588	0.050	-8.0	
Nitrobenzene-d5	0.467	0.470		0.6	
Hexachloroethane	0.673	0.678		0.7	
Nitrobenzene	0.496	0.501		1.0	
Isophorone	0.939	0.889		-5.3	
2-Nitrophenol	0.195	0.196		0.5	20.0
2,4-Dimethylphenol	0.337	0.320		-5.0	
bis(2-Chloroethoxy)methane	0.524	0.504		-3.8	
2,4-Dichlorophenol	0.359	0.348		-3.1	20.0
Naphthalene	1.018	1.010		-0.8	
4-Chloroaniline	0.498	0.482		-3.2	
Hexachlorobutadiene	0.334	0.320		-4.2	20.0
Caprolactam	0.148	0.125		-15.5	
4-Chloro-3-methylphenol	0.491	0.459		-6.5	20.0
2-Methylnaphthalene	0.805	0.782		-2.9	
Hexachlorocyclopentadiene	0.496	0.595	0.050	20.0	
2,4,6-Trichlorophenol	0.495	0.480		-3.0	20.0
2-Fluorobiphenyl	1.270	1.235		-2.8	
2,4,5-Trichlorophenol	0.509	0.486		-4.5	
1,1-Biphenyl	1.501	1.502		0.1	
2-Chloronaphthalene	1.217	1.247		2.5	
2-Nitroaniline	0.519	0.543		4.6	
Dimethylphthalate	1.634	1.507		-7.8	
Acenaphthylene	1.826	1.811		-0.8	
2,6-Dinitrotoluene	0.367	0.356		-3.0	
3-Nitroaniline	0.366	0.369		0.8	
Acenaphthene	1.193	1.169		-2.0	20.0
2,4-Dinitrophenol	0.252	0.360	0.050	42.9	
4-Nitrophenol	0.307	0.283	0.050	-7.8	
Dibenzofuran	1.786	1.709		-4.3	
2,4-Dinitrotoluene	0.535	0.512		-4.3	

Form VII SV-1

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG No.: H3936

Instrument ID: BNA_G Calibration Date/Time: 07/13/2016 23:51

Lab File ID: BG023082.D Init. Calib. Date(s): 07/07/2016 07/07/2016

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:50 15:53

GC Column: ZB-GR ID: 0.25 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
Diethylphthalate	1.662	1.541		-7.3	
4-Chlorophenyl-phenylether	0.936	0.866		-7.5	
Fluorene	1.537	1.477		-3.9	
4-Nitroaniline	0.396	0.389		-1.8	
4,6-Dinitro-2-methylphenol	0.149	0.141		-5.4	
n-Nitrosodiphenylamine	0.576	0.580		0.7	20.0
2,4,6-Tribromophenol	0.359	0.311		-13.4	
4-Bromophenyl-phenylether	0.260	0.237		-8.8	
Hexachlorobenzene	0.283	0.265		-6.4	
Atrazine	0.256	0.243		-5.1	
Pentachlorophenol	0.183	0.170		-7.1	20.0
Phenanthrene	0.980	0.943		-3.8	
Anthracene	0.992	0.971		-2.1	
Carbazole	0.858	0.837		-2.4	
Di-n-butylphthalate	0.954	0.993		4.1	
Fluoranthene	1.203	1.107		-8.0	20.0
Pyrene	1.124	1.087		-3.3	
Terphenyl-d14	0.646	0.646		0.0	
Butylbenzylphthalate	0.445	0.470		5.6	
3,3-Dichlorobenzidine	0.491	0.478		-2.6	
Benzo(a)anthracene	1.119	1.100		-1.7	
Chrysene	1.050	1.026		-2.3	
Bis(2-ethylhexyl)phthalate	0.618	0.637		3.1	
Di-n-octyl phthalate	1.031	1.075		4.3	20.0
Benzo(b)fluoranthene	1.154	1.145		-0.8	
Benzo(k)fluoranthene	1.095	1.091		-0.4	
Benzo(a)pyrene	1.106	1.094		-1.1	20.0
Indeno(1,2,3-cd)pyrene	1.338	1.199		-10.4	
Dibenzo(a,h)anthracene	1.098	1.023		-6.8	
Benzo(g,h,i)perylene	1.099	1.024		-6.8	
1,2,4,5-Tetrachlorobenzene	0.862	0.851		-1.3	
1,4-Dioxane	0.475	0.477		0.4	20.0
2,3,4,6-Tetrachlorophenol	0.509	0.460		-9.6	

All other compounds must meet a minimum RRF of 0.010.

Form VII SV-1

CHEMTECH
284 Sheffield Street, Mountainside, New Jersey - 07092
Phone: (908) 789 8900 Fax: (908) 789 8922

LAB CHRONICLE

OrderID:	H3936	**OrderDate:**	7/6/2016 5:13:22 PM
Client:	AKRF Engineering, P.C.	**Project:**	NYCSCA - PS 97X Addition
Contact:	Rebecca Kinal, PE	**Location:**	P63

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
H3936-08	**TW-4-DEP**	**Water**			**07/06/16**			**07/06/16**
			SVOCMS Group2	625		07/08/16	07/09/16	

CHEMTECH

Hit Summary Sheet
SW-846

SDG No.: H3936

Client: AKRF Engineering, P.C.

Sample ID	Client ID	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID :								

Total Concentration:

SAMPLE DATA

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	TW-4-DEP	SDG No.:	H3936
Lab Sample ID:	H3936-08	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group2
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG022964.D	1	07/08/16 08:25	07/09/16 14:05	PB91974

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
108-95-2	Phenol	1.3	U	0.46	1.3	2.5	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.3	U	0.14	1.3	2.5	ug/L
91-20-3	Naphthalene	1.3	U	0.19	1.3	2.5	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	38		10 - 160		38%	SPK: 100
13127-88-3	Phenol-d6	25.3		10 - 161		25%	SPK: 100
4165-60-0	Nitrobenzene-d5	83.9		25 - 124		84%	SPK: 100
321-60-8	2-Fluorobiphenyl	90.5		20 - 129		90%	SPK: 100
118-79-6	2,4,6-Tribromophenol	79.8		10 - 140		80%	SPK: 100
1718-51-0	Terphenyl-d14	110		14 - 155		107%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	95888	8.15				
1146-65-2	Naphthalene-d8	450635	10.98				
15067-26-2	Acenaphthene-d10	348268	14.8				
1517-22-2	Phenanthrene-d10	853302	17.55				
1719-03-5	Chrysene-d12	938472	21.85				
1520-96-3	Perylene-d12	953830	25.21				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

QC SUMMARY

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Surrogate Summary

SW-846

SDG No.: H3936

Client: AKRF Engineering, P.C.

Analytical Method: 625

Lab Sample ID	Client ID	Parameter	Spike (PPM)	Result (PPM)	Recovery (%)	Qual	Limits (%) Low	Limits (%) High
H3936-08	TW-4-DEP	2-Fluorophenol	100	37.98	38		10	160
		Phenol-d6	100	25.31	25		10	161
		Nitrobenzene-d5	100	83.93	84		25	124
		2-Fluorobiphenyl	100	90.49	90		20	129
		2,4,6-Tribromophenol	100	79.78	80		10	140
		Terphenyl-d14	100	106.65	107		14	155
PB91974BL	PB91974BL	2-Fluorophenol	100	93.31	93		10	160
		Phenol-d6	100	92.94	93		10	161
		Nitrobenzene-d5	100	83.88	84		25	124
		2-Fluorobiphenyl	100	85.38	85		20	129
		2,4,6-Tribromophenol	100	77.84	78		10	140
		Terphenyl-d14	100	106.14	106		14	155
PB91974BS	PB91974BS	2-Fluorophenol	100	99.43	99		10	160
		Phenol-d6	100	97.00	97		10	161
		Nitrobenzene-d5	100	88.26	88		25	124
		2-Fluorobiphenyl	100	86.69	87		20	129
		2,4,6-Tribromophenol	100	82.74	83		10	140
		Terphenyl-d14	100	103.37	103		14	155
PB91974BSD	PB91974BSD	2-Fluorophenol	100	98.35	98		10	160
		Phenol-d6	100	97.59	98		10	161
		Nitrobenzene-d5	100	86.78	87		25	124
		2-Fluorobiphenyl	100	82.83	83		20	129
		2,4,6-Tribromophenol	100	80.48	80		10	140
		Terphenyl-d14	100	97.34	97		14	155

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: H3936

Client: AKRF Engineering, P.C.

Analytical Method: 625 **DataFile:** BG022962.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB91974BS	Phenol	50	49.6	ug/L	99				5	112	
	1,2,4-Trichlorobenzene	50	42	ug/L	84				44	142	
	Naphthalene	50	42.6	ug/L	85				21	133	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: H3936

Client: AKRF Engineering, P.C.

Analytical Method: 625 **DataFile:** BG022963.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB91974BSD	Phenol	50	51.3	ug/L	103	3			5	112	20
	1,2,4-Trichlorobenzene	50	42.4	ug/L	85	1			44	142	20
	Naphthalene	50	42.9	ug/L	86	1			21	133	20

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4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB91974BL

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG NO.: H3936

Lab File ID: BG022961.D Lab Sample ID: PB91974BL

Instrument ID: BNA_G Date Extracted: 07/08/2016

Matrix: (soil/water) Water Date Analyzed: 07/09/2016

Level: (low/med) LOW Time Analyzed: 12:05

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB91974BS	PB91974BS	BG022962.D	07/09/2016
PB91974BSD	PB91974BSD	BG022963.D	07/09/2016
TW-4-DEP	H3936-08	BG022964.D	07/09/2016

COMMENTS:

Form IV SV

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM SAS No.: H3936 SDG NO.: H3936

Lab File ID: BG022889.D DFTPP Injection Date: 07/07/2016

Instrument ID: BNA_G DFTPP Injection Time: 09:27

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	30.3
68	Less than 2.0% of mass 69	0.3 (0.8) 1
69	Mass 69 relative abundance	39.4
70	Less than 2.0% of mass 69	0.2 (0.5) 1
127	10.0 - 80.0% of mass 198	41.4
197	Less than 2.0% of mass 198	0.8
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	7.9
275	10.0 - 60.0% of mass 198	31.6
365	Greater than 1% of mass 198	4.1
441	Present, but less than mass 443	12.3
442	Greater than 50% of mass 198	78.7
443	15.0 - 24.0% of mass 442	15.6 (19.8) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDICC02.5	SSTDICC02.5	BG022891.D	07/07/2016	11:50
SSTDICC010	SSTDICC010	BG022892.D	07/07/2016	12:30
SSTDICC025	SSTDICC025	BG022893.D	07/07/2016	13:11
SSTDICCC040	SSTDICCC040	BG022894.D	07/07/2016	13:52
SSTDICC050	SSTDICC050	BG022895.D	07/07/2016	14:32
SSTDICC060	SSTDICC060	BG022896.D	07/07/2016	15:13
SSTDICC080	SSTDICC080	BG022897.D	07/07/2016	15:53

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5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM SAS No.: H3936 SDG NO.: H3936

Lab File ID: BG022950.D DFTPP Injection Date: 07/09/2016

Instrument ID: BNA_G DFTPP Injection Time: 04:06

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	10.0 - 80.0% of mass 198	29.6
68	Less than 2.0% of mass 69	0.4 (1.1) 1
69	Mass 69 relative abundance	38.1
70	Less than 2.0% of mass 69	0.1 (0.3) 1
127	10.0 - 80.0% of mass 198	39.4
197	Less than 2.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100
199	5.0 to 9.0% of mass 198	7.1
275	10.0 - 60.0% of mass 198	29.9
365	Greater than 1% of mass 198	3.8
441	Present, but less than mass 443	11
442	Greater than 50% of mass 198	72.1
443	15.0 - 24.0% of mass 442	12.7 (17.7) 2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
SSTDCCC040	SSTDCCC040	BG022951.D	07/09/2016	04:46
PB91974BL	PB91974BL	BG022961.D	07/09/2016	12:05
PB91974BS	PB91974BS	BG022962.D	07/09/2016	12:45
PB91974BSD	PB91974BSD	BG022963.D	07/09/2016	13:25
TW-4-DEP	H3936-08	BG022964.D	07/09/2016	14:05

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8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG NO.: H3936

EPA Sample No.: SSTDCCC040 Date Analyzed: 07/09/2016

Lab File ID: BG022951.D Time Analyzed: 04:46

Instrument ID: BNA_G GC Column: ZB-GR ID: 0.25 (mm)

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	134900	8.16	634546	10.98	441261	14.80
	UPPER LIMIT	269800	8.66	1269090	11.48	882522	15.3
	LOWER LIMIT	67450	7.66	317273	10.48	220631	14.3
	EPA SAMPLE NO.						
01	TW-4-DEP	95888	8.15	450635	10.98	348268	14.80
02	PB91974BL	82333	8.15	382769	10.98	305336	14.80
03	PB91974BS	82694	8.16	377746	10.98	292260	14.80
04	PB91974BSD	101187	8.15	468494	10.98	363314	14.80

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG NO.: H3936

EPA Sample No.: SSTDCCC040 Date Analyzed: 07/09/2016

Lab File ID: BG022951.D Time Analyzed: 04:46

Instrument ID: BNA_G GC Column: ZB-GR ID: 0.25 (mm)

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	1053620	17.56	1170290	21.85	1185970	25.21
	UPPER LIMIT	2107240	18.06	2340580	22.35	2371940	25.71
	LOWER LIMIT	526810	17.06	585145	21.35	592985	24.71
	EPA SAMPLE NO.						
01	TW-4-DEP	853302	17.55	938472	21.85	953830	25.21
02	PB91974BL	801356	17.55	876821	21.85	878372	25.20
03	PB91974BS	776208	17.55	867545	21.85	885222	25.21
04	PB91974BSD	922752	17.56	1007350	21.85	1029630	25.20

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT UPPER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

QC SAMPLE DATA

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	
Project:	NYCSCA - PS 97X Addition	Date Received:	
Client Sample ID:	PB91974BL	SDG No.:	H3936
Lab Sample ID:	PB91974BL	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group2
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG022961.D	1	07/08/16 08:25	07/09/16 12:05	PB91974

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
108-95-2	Phenol	1.3	U	0.46	1.3	2.5	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.3	U	0.14	1.3	2.5	ug/L
91-20-3	Naphthalene	1.3	U	0.19	1.3	2.5	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	93.3		10 - 160		93%	SPK: 100
13127-88-3	Phenol-d6	92.9		10 - 161		93%	SPK: 100
4165-60-0	Nitrobenzene-d5	83.9		25 - 124		84%	SPK: 100
321-60-8	2-Fluorobiphenyl	85.4		20 - 129		85%	SPK: 100
118-79-6	2,4,6-Tribromophenol	77.8		10 - 140		78%	SPK: 100
1718-51-0	Terphenyl-d14	110		14 - 155		106%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	82333	8.15				
1146-65-2	Naphthalene-d8	382769	10.98				
15067-26-2	Acenaphthene-d10	305336	14.8				
1517-22-2	Phenanthrene-d10	801356	17.55				
1719-03-5	Chrysene-d12	876821	21.85				
1520-96-3	Perylene-d12	878372	25.2				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	
Project:	NYCSCA - PS 97X Addition	Date Received:	
Client Sample ID:	PB91974BS	SDG No.:	H3936
Lab Sample ID:	PB91974BS	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group2
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG022962.D	1	07/08/16 08:25	07/09/16 12:45	PB91974

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
108-95-2	Phenol	49.6		0.46	1.3	2.5	ug/L
120-82-1	1,2,4-Trichlorobenzene	42		0.14	1.3	2.5	ug/L
91-20-3	Naphthalene	42.6		0.19	1.3	2.5	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	99.4		10 - 160		99%	SPK: 100
13127-88-3	Phenol-d6	97		10 - 161		97%	SPK: 100
4165-60-0	Nitrobenzene-d5	88.3		25 - 124		88%	SPK: 100
321-60-8	2-Fluorobiphenyl	86.7		20 - 129		87%	SPK: 100
118-79-6	2,4,6-Tribromophenol	82.7		10 - 140		83%	SPK: 100
1718-51-0	Terphenyl-d14	100		14 - 155		103%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	82694	8.16				
1146-65-2	Naphthalene-d8	377746	10.98				
15067-26-2	Acenaphthene-d10	292260	14.8				
1517-22-2	Phenanthrene-d10	776208	17.55				
1719-03-5	Chrysene-d12	867545	21.85				
1520-96-3	Perylene-d12	885222	25.21				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
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M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
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() = Laboratory InHouse Limit

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	
Project:	NYCSCA - PS 97X Addition	Date Received:	
Client Sample ID:	PB91974BSD	SDG No.:	H3936
Lab Sample ID:	PB91974BSD	Matrix:	Water
Analytical Method:	625	% Moisture:	100
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	SVOCMS Group2
Extraction Type :	Decanted : N	Level :	LOW
Injection Volume :	GPC Factor : 1.0	GPC Cleanup :	N PH :

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
BG022963.D	1	07/08/16 08:25	07/09/16 13:25	PB91974

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
108-95-2	Phenol	51.3		0.46	1.3	2.5	ug/L
120-82-1	1,2,4-Trichlorobenzene	42.4		0.14	1.3	2.5	ug/L
91-20-3	Naphthalene	42.9		0.19	1.3	2.5	ug/L
SURROGATES							
367-12-4	2-Fluorophenol	98.4		10 - 160		98%	SPK: 100
13127-88-3	Phenol-d6	97.6		10 - 161		98%	SPK: 100
4165-60-0	Nitrobenzene-d5	86.8		25 - 124		87%	SPK: 100
321-60-8	2-Fluorobiphenyl	82.8		20 - 129		83%	SPK: 100
118-79-6	2,4,6-Tribromophenol	80.5		10 - 140		80%	SPK: 100
1718-51-0	Terphenyl-d14	97.3		14 - 155		97%	SPK: 100
INTERNAL STANDARDS							
3855-82-1	1,4-Dichlorobenzene-d4	101187	8.15				
1146-65-2	Naphthalene-d8	468494	10.98				
15067-26-2	Acenaphthene-d10	363314	14.8				
1517-22-2	Phenanthrene-d10	922752	17.56				
1719-03-5	Chrysene-d12	1007350	21.85				
1520-96-3	Perylene-d12	1029630	25.2				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit

CALIBRATION SUMMARY

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG No.: H3936

Instrument ID: BNA_G Calibration Date(s): 07/07/2016 07/07/2016

Calibration Time(s): 11:50 15:53

LAB FILE ID: RRF2.5 = BG022891.D RRF010 = BG022892.D RRF025 = BG022893.D
RRF040 = BG022894.D RRF050 = BG022895.D RRF060 = BG022896.D

COMPOUND	RRF2.5	RRF010	RRF025	RRF040	RRF050	RRF060	RRF	% RSD
2-Fluorophenol	1.189	1.279	1.234	1.198	1.266	1.220	1.223	3.2
Phenol-d6	1.956	1.870	1.924	1.958	2.012	1.850	1.915	3.4
Phenol	2.019	1.861	1.971	1.994	2.068	1.939	1.971	3.4
Nitrobenzene-d5	0.483	0.488	0.484	0.462	0.470	0.450	0.467	4.3
1,2,4-Trichlorobenzene	0.428	0.409	0.415	0.407	0.408	0.417	0.411	2.3
Naphthalene	1.133	1.051	1.053	1.004	0.993	0.975	1.018	6.8
2-Fluorobiphenyl	1.569	1.410	1.356	1.228	1.179	1.146	1.270	14.9
2,4,6-Tribromophenol	0.409	0.369	0.357	0.348	0.350	0.352	0.359	6.9
Terphenyl-d14		0.899	0.775	0.643	0.591	0.528	0.646	25.7

All other compounds must meet a minimum RRF of 0.010.

Form VI SV-1

Response Factor Report GC/MS Ins

Method Path : Z:\HPCHEM1\BNA_G\METHODS\
Method File : 8270-BG070816.M
Title : ASP BNA STANDARDS FOR 5 POINT CALIBRATION
Last Update : Thu Jul 07 16:51:07 2016
Response Via : Initial Calibration

Calibration Files
2.5 =BG022891.D 10 =BG022892.D 25 =BG022893.D 40 =BG022894.D 50 =BG022895.D 60 =BG022896.D 80 =BG022897.D

		Compound	2.5	10	25	40	50	60	80	Avg	%RSD
1)	I	1,4-Dichlorobenzen...	----------ISTD----------								
2)		1,4-Dioxane	0.487	0.484	0.451	0.457	0.509	0.473	0.467	0.475	4.17
3)		Pyridine	1.615	1.478	1.625	1.622	1.734	1.643	1.670	1.627	4.75
4)		n-Nitrosodimet...	0.708	0.664	0.683	0.706	0.711	0.708	0.704	0.698	2.51
5)	S	2-Fluorophenol	1.189	1.279	1.234	1.198	1.266	1.220	1.175	1.223	3.21
6)		Aniline	2.599	2.527	2.633	2.683	2.823	2.674	2.641	2.654	3.43
7)	S	Phenol-d6	1.956	1.870	1.924	1.958	2.012	1.850	1.837	1.915	3.39
8)		2-Chlorophenol	1.256	1.277	1.316	1.299	1.338	1.311	1.312	1.301	2.11
9)		Benzaldehyde	1.521	1.330	1.339	1.255	1.279	1.166	1.069	1.280	11.17
10)	C	Phenol	2.019	1.861	1.971	1.994	2.068	1.939	1.944	1.971	3.35
11)		bis(2-Chloroet...	1.673	1.486	1.525	1.557	1.635	1.532	1.525	1.562	4.30
12)		1,3-Dichlorobe...	1.611	1.690	1.614	1.544	1.609	1.540	1.543	1.593	3.45
13)	C	1,4-Dichlorobe...	1.512	1.646	1.620	1.575	1.648	1.590	1.572	1.595	3.01
14)		1,2-Dichlorobe...	1.700	1.564	1.595	1.522	1.627	1.571	1.518	1.585	4.00
15)		Benzyl Alcohol	1.687	1.606	1.724	1.806	1.893	1.751	1.812	1.754	5.33
16)		2,2'-oxybis(1-...	2.140	1.803	1.877	1.898	1.981	1.836	1.820	1.908	6.21
17)		2-Methylphenol	1.294	1.243	1.235	1.290	1.352	1.267	1.298	1.283	3.07
18)		Hexachloroethane	0.745	0.640	0.693	0.625	0.680	0.663	0.666	0.673	5.83
19)	P	n-Nitroso-di-n...	1.731	1.644	1.724	1.775	1.832	1.683	1.697	1.727	3.60
20)		3+4-Methylphenols	1.578	1.675	1.807	1.902	1.915	1.805	1.842	1.789	6.82
21)	I	Naphthalene-d8	----------ISTD----------								
22)		Acetophenone	0.613	0.621	0.624	0.597	0.586	0.590	0.572	0.600	3.23
23)	S	Nitrobenzene-d5	0.483	0.488	0.484	0.462	0.470	0.450	0.434	0.467	4.29
24)		Nitrobenzene	0.521	0.514	0.509	0.483	0.490	0.487	0.471	0.496	3.66
25)		Isophorone	0.976	0.934	0.979	0.963	0.937	0.914	0.873	0.939	4.01
26)	C	2-Nitrophenol	0.179	0.183	0.199	0.206	0.196	0.202	0.197	0.195	5.01
27)		2,4-Dimethylph...	0.386	0.321	0.333	0.333	0.333	0.327	0.324	0.337	6.61
28)		bis(2-Chloroet...	0.545	0.518	0.539	0.528	0.523	0.515	0.497	0.524	3.04
29)	C	2,4-Dichloroph...	0.344	0.352	0.372	0.366	0.368	0.361	0.352	0.359	2.85
30)		1,2,4-Trichlor...	0.428	0.409	0.415	0.407	0.408	0.417	0.398	0.411	2.29
31)		Naphthalene	1.133	1.051	1.053	1.004	0.993	0.975	0.917	1.018	6.75
32)		Benzoic acid	0.338	0.257	0.269	0.324	0.315	0.313	0.327	0.306	10.07
33)		4-Chloroaniline	0.520	0.504	0.509	0.497	0.492	0.487	0.476	0.498	2.96
34)	C	Hexachlorobuta...	0.355	0.352	0.339	0.324	0.320	0.324	0.319	0.334	4.55
35)		Caprolactam	0.184	0.147	0.139	0.148	0.145	0.135	0.135	0.148	11.50
36)	C	4-Chloro-3-met...	0.531	0.491	0.493	0.500	0.491	0.471	0.460	0.491	4.60
37)		2-Methylnaphth...	0.827	0.832	0.830	0.820	0.807	0.774	0.742	0.805	4.26

Method Path : Z:\HPCHEM1\BNA_G\METHODS\
Method File : 8270-BG070816.M

38)	I	Acenaphthene-d10	----------ISTD----------								
39)		1,2,4,5-Tetrac...	0.888	0.875	0.885	0.847	0.845	0.864	0.827	0.862	2.65
40)	P	Hexachlorocycl...	0.490	0.455	0.490	0.490	0.514	0.521	0.513	0.496	4.55
41)	S	2,4,6-Tribromo...	0.409	0.369	0.357	0.348	0.350	0.352	0.330	0.359	6.93
42)	C	2,4,6-Trichlor...	0.507	0.481	0.506	0.497	0.491	0.506	0.479	0.495	2.40
43)		2,4,5-Trichlor...	0.558	0.497	0.506	0.496	0.502	0.511	0.490	0.509	4.52
44)	S	2-Fluorobiphenyl	1.569	1.410	1.356	1.228	1.179	1.146	1.001	1.270	14.88
45)		1,1'-Biphenyl	1.648	1.558	1.567	1.483	1.467	1.443	1.338	1.501	6.71
46)		2-Chloronaphth...	1.304	1.272	1.250	1.205	1.184	1.186	1.119	1.217	5.15
47)		2-Nitroaniline	0.559	0.527	0.533	0.511	0.506	0.508	0.491	0.519	4.31
48)		Acenaphthylene	2.105	1.983	1.888	1.798	1.742	1.718	1.549	1.826	10.05
49)		Dimethylphthalate	1.917	1.803	1.711	1.582	1.544	1.506	1.373	1.634	11.44
50)		2,6-Dinitrotol...	0.362	0.389	0.375	0.361	0.368	0.362	0.352	0.367	3.31
51)	C	Acenaphthene	1.325	1.232	1.229	1.165	1.165	1.152	1.084	1.193	6.41
52)		3-Nitroaniline	0.381	0.373	0.371	0.364	0.365	0.359	0.351	0.366	2.59
53)	P	2,4-Dinitrophenol	0.241	0.232	0.242	0.259	0.260	0.269	0.261	0.252	5.37
54)		Dibenzofuran	2.173	1.940	1.862	1.726	1.686	1.638	1.476	1.786	12.74
55)	P	4-Nitrophenol	0.344	0.301	0.308	0.304	0.303	0.300	0.288	0.307	5.74
56)		2,4-Dinitrotol...	0.606	0.552	0.535	0.522	0.519	0.526	0.488	0.535	6.82
57)		Fluorene	1.816	1.668	1.587	1.479	1.462	1.430	1.318	1.537	10.82
58)		2,3,4,6-Tetrac...	0.527	0.535	0.516	0.502	0.506	0.500	0.477	0.509	3.77
59)		Diethylphthalate	2.053	1.856	1.708	1.610	1.552	1.501	1.356	1.662	14.05
60)		4-Chlorophenyl...	1.043	0.997	0.945	0.927	0.917	0.882	0.843	0.936	7.19
61)		4-Nitroaniline	0.471	0.410	0.389	0.386	0.380	0.377	0.361	0.396	9.12
62)		Azobenzene	1.872	1.735	1.667	1.547	1.514	1.460	1.336	1.590	11.35
63)	I	Phenanthrene-d10	----------ISTD----------								
64)		4,6-Dinitro-2-...	0.133	0.139	0.147	0.156	0.154	0.158	0.155	0.149	6.44
65)	c	n-Nitrosodiphe...	0.613	0.594	0.598	0.582	0.570	0.556	0.522	0.576	5.29
66)		4-Bromophenyl-...	0.286	0.253	0.259	0.263	0.257	0.257	0.246	0.260	4.86
67)		Hexachlorobenzene	0.291	0.277	0.285	0.285	0.284	0.285	0.274	0.283	2.06
68)		Atrazine	0.275	0.274	0.264	0.253	0.250	0.243	0.230	0.256	6.47
69)	C	Pentachlorophenol	0.170	0.163	0.180	0.193	0.192	0.193	0.191	0.183	6.76
70)		Phenanthrene	1.159	1.103	1.019	0.968	0.925	0.888	0.798	0.980	12.73
71)		Anthracene	1.170	1.108	1.059	0.976	0.934	0.905	0.795	0.992	13.00
72)		Carbazole	1.030	0.936	0.891	0.844	0.810	0.790	0.703	0.858	12.42
73)		Di-n-butylphth...		1.135	1.068	0.976	0.906	0.883	0.753	0.954	14.38
74)	C	Fluoranthene	1.408	1.351	1.253	1.139	1.049	1.016		1.203	13.36
75)	I	Chrysene-d12	----------ISTD----------								
76)		Benzidine		0.625	0.627	0.590	0.574	0.540	0.484	0.573	9.54
77)		Pyrene	1.308	1.260	1.183	1.059	1.010	0.923		1.124	13.42
78)	S	Terphenyl-d14		0.899	0.775	0.643	0.591	0.528	0.444	0.646	25.74
79)		Butylbenzylpht...	0.512	0.469	0.460	0.441	0.431	0.414	0.389	0.445	9.01
80)		Benzo(a)anthra...	1.364	1.251	1.205	1.091	1.050	0.988	0.884	1.119	14.73
81)		3,3'-Dichlorob...	0.511	0.523	0.518	0.497	0.483	0.466	0.439	0.491	6.24
82)		Chrysene	1.252	1.199	1.142	1.019	0.987	0.926	0.823	1.050	14.72

Method Path : Z:\HPCHEM1\BNA_G\METHODS\
Method File : 8270-BG070816.M

83)		Bis(2-ethylhex...	0.745	0.664	0.653	0.602	0.578	0.563	0.522	0.618	12.08
84)	c	Di-n-octyl pht...	1.224	1.122	1.099	1.022	0.975	0.930	0.845	1.031	12.42
85)		Indeno(1,2,3-c...	1.570	1.366	1.341	1.295	1.308	1.259	1.230	1.338	8.37
86)	I	Perylene-d12	----------ISTD----------								
87)		Benzo(b)fluora...	1.312	1.235	1.187	1.128	1.125	1.066	1.025	1.154	8.56
88)		Benzo(k)fluora...	1.254	1.162	1.154	1.110	1.039	1.030	0.917	1.095	10.05
89)	C	Benzo(a)pyrene	1.280	1.162	1.140	1.095	1.059	1.031	0.975	1.106	9.01
90)		Dibenzo(a,h)an...	1.262	1.097	1.120	1.083	1.070	1.048	1.006	1.098	7.38
91)		Benzo(g,h,i)pe...	1.206	1.119	1.112	1.093	1.076	1.060	1.029	1.099	5.11

(#) = Out of Range

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7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG No.: H3936

Instrument ID: BNA_G Calibration Date/Time: 07/09/2016 04:46

Lab File ID: BG022951.D Init. Calib. Date(s): 07/07/2016 07/07/2016

EPA Sample No.: SSTDCCC040 Init. Calib. Time(s): 11:50 15:53

GC Column: ZB-GR ID: 0.25 (mm)

COMPOUND	RRF	RRF040	MIN RRF	%D	MAX%D
2-Fluorophenol	1.223	1.207		-1.3	
Phenol-d6	1.915	1.923		0.4	
Phenol	1.971	1.989		0.9	20.0
Nitrobenzene-d5	0.467	0.460		-1.5	
1,2,4-Trichlorobenzene	0.411	0.399		-2.9	
Naphthalene	1.018	0.992		-2.6	
2-Fluorobiphenyl	1.270	1.295		2.0	
2,4,6-Tribromophenol	0.359	0.329		-8.4	
Terphenyl-d14	0.646	0.640		-0.9	

All other compounds must meet a minimum RRF of 0.010.

Form VII SV-1

CHEMTECH
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LAB CHRONICLE

OrderID:	H3936	**OrderDate:**	7/6/2016 5:13:22 PM
Client:	AKRF Engineering, P.C.	**Project:**	NYCSCA - PS 97X Addition
Contact:	Rebecca Kinal, PE	**Location:**	P63

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
H3936-01	**SB-1(9-10)**	**SOIL**			**07/06/16**			**07/06/16**
			Diesel Range Organics	8015B		07/11/16	07/12/16	
			Gasoline Range Organics	8015B			07/13/16	
			PCB	8082A		07/11/16	07/13/16	
H3936-02	**SB-2(9-10)**	**SOIL**			**07/06/16**			**07/06/16**
			Diesel Range Organics	8015B		07/11/16	07/12/16	
			Gasoline Range Organics	8015B			07/13/16	
			PCB	8082A		07/11/16	07/13/16	
H3936-03	**SB-3(5-6)**	**SOIL**			**07/06/16**			**07/06/16**
			Diesel Range Organics	8015B		07/11/16	07/12/16	
			Gasoline Range Organics	8015B			07/13/16	
			PCB	8082A		07/11/16	07/13/16	
H3936-04	**SB-4(4-5)**	**SOIL**			**07/06/16**			**07/06/16**
			Diesel Range Organics	8015B		07/11/16	07/13/16	
			Gasoline Range Organics	8015B			07/13/16	
			PCB	8082A		07/11/16	07/13/16	
H3936-05	**SB-5(1-2)**	**SOIL**			**07/06/16**			**07/06/16**
			Diesel Range Organics	8015B		07/11/16	07/13/16	
			Gasoline Range Organics	8015B			07/13/16	
			PCB	8082A		07/11/16	07/13/16	
H3936-06	**SB-5(4-5)**	**SOIL**			**07/06/16**			**07/06/16**
			Diesel Range Organics	8015B		07/11/16	07/13/16	
			Gasoline Range Organics	8015B			07/13/16	
			PCB	8082A		07/11/16	07/13/16	
H3936-07	**TW-4**	**Water**			**07/06/16**			**07/06/16**
			PCB	8082A		07/08/16	07/13/16	
H3936-08	**TW-4-DEP**	**Water**			**07/06/16**			**07/06/16**

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LAB CHRONICLE

			PCB Group2	608		07/08/16	07/12/16	
H3936-09	**SB-6(11-12)**	**SOIL**			**07/06/16**			**07/06/16**
			Diesel Range Organics	8015B		07/11/16	07/13/16	
			Gasoline Range Organics	8015B			07/13/16	
			PCB	8082A		07/11/16	07/13/16	

CHEMTECH

Hit Summary Sheet
SW-846

SDG No.: **Order ID:**

Client: **Project ID:**

Sample ID	Client ID	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID :								

Total Concentration:

SAMPLE DATA

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-1(9-10)	SDG No.:	H3936
Lab Sample ID:	H3936-01	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	5 Decanted:
Sample Wt/Vol:	30.1 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO028792.D	1	07/11/16 14:02	07/13/16 14:44	PB92030

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
12674-11-2	Aroclor-1016	3.5	U	3.5	3.5	17.8	ug/kg
11104-28-2	Aroclor-1221	3.5	U	3.5	3.5	17.8	ug/kg
11141-16-5	Aroclor-1232	3.5	U	3.5	3.5	17.8	ug/kg
53469-21-9	Aroclor-1242	3.5	U	3.5	3.5	17.8	ug/kg
12672-29-6	Aroclor-1248	3.5	U	3.5	3.5	17.8	ug/kg
11097-69-1	Aroclor-1254	3.5	U	1.6	3.5	17.8	ug/kg
37324-23-5	Aroclor-1262	3.5	U	3.5	3.5	17.8	ug/kg
11100-14-4	Aroclor-1268	3.5	U	3.5	3.5	17.8	ug/kg
11096-82-5	Aroclor-1260	3.5	U	3.5	3.5	17.8	ug/kg
SURROGATES							
877-09-8	Tetrachloro-m-xylene	18.8		10 - 166		94%	SPK: 20
2051-24-3	Decachlorobiphenyl	15.4		60 - 125		77%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-2(9-10)	SDG No.:	H3936
Lab Sample ID:	H3936-02	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	12.6 Decanted:
Sample Wt/Vol:	30.06 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO028793.D	1	07/11/16 14:02	07/13/16 15:00	PB92030

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
12674-11-2	Aroclor-1016	3.8	U	3.8	3.8	19.4	ug/kg
11104-28-2	Aroclor-1221	3.8	U	3.8	3.8	19.4	ug/kg
11141-16-5	Aroclor-1232	3.8	U	3.8	3.8	19.4	ug/kg
53469-21-9	Aroclor-1242	3.8	U	3.8	3.8	19.4	ug/kg
12672-29-6	Aroclor-1248	3.8	U	3.8	3.8	19.4	ug/kg
11097-69-1	Aroclor-1254	3.8	U	1.7	3.8	19.4	ug/kg
37324-23-5	Aroclor-1262	3.8	U	3.8	3.8	19.4	ug/kg
11100-14-4	Aroclor-1268	3.8	U	3.8	3.8	19.4	ug/kg
11096-82-5	Aroclor-1260	3.8	U	3.8	3.8	19.4	ug/kg
SURROGATES							
877-09-8	Tetrachloro-m-xylene	19.5		10 - 166		98%	SPK: 20
2051-24-3	Decachlorobiphenyl	12.7		60 - 125		63%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-3(5-6)	SDG No.:	H3936
Lab Sample ID:	H3936-03	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	10.8 Decanted:
Sample Wt/Vol:	30.09 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO028794.D	1	07/11/16 14:02	07/13/16 15:16	PB92030

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
12674-11-2	Aroclor-1016	3.7	U	3.7	3.7	19	ug/kg
11104-28-2	Aroclor-1221	3.7	U	3.7	3.7	19	ug/kg
11141-16-5	Aroclor-1232	3.7	U	3.7	3.7	19	ug/kg
53469-21-9	Aroclor-1242	3.7	U	3.7	3.7	19	ug/kg
12672-29-6	Aroclor-1248	3.7	U	3.7	3.7	19	ug/kg
11097-69-1	Aroclor-1254	3.7	U	1.7	3.7	19	ug/kg
37324-23-5	Aroclor-1262	3.7	U	3.7	3.7	19	ug/kg
11100-14-4	Aroclor-1268	3.7	U	3.7	3.7	19	ug/kg
11096-82-5	Aroclor-1260	3.7	U	3.7	3.7	19	ug/kg
SURROGATES							
877-09-8	Tetrachloro-m-xylene	21.4		10 - 166		107%	SPK: 20
2051-24-3	Decachlorobiphenyl	15.5		60 - 125		78%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-4(4-5)	SDG No.:	H3936
Lab Sample ID:	H3936-04	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	9.1 Decanted:
Sample Wt/Vol:	30.04 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO028795.D	1	07/11/16 14:02	07/13/16 15:32	PB92030

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
12674-11-2	Aroclor-1016	3.7	U	3.7	3.7	18.7	ug/kg
11104-28-2	Aroclor-1221	3.7	U	3.7	3.7	18.7	ug/kg
11141-16-5	Aroclor-1232	3.7	U	3.7	3.7	18.7	ug/kg
53469-21-9	Aroclor-1242	3.7	U	3.7	3.7	18.7	ug/kg
12672-29-6	Aroclor-1248	3.7	U	3.7	3.7	18.7	ug/kg
11097-69-1	Aroclor-1254	3.7	U	1.6	3.7	18.7	ug/kg
37324-23-5	Aroclor-1262	3.7	U	3.7	3.7	18.7	ug/kg
11100-14-4	Aroclor-1268	3.7	U	3.7	3.7	18.7	ug/kg
11096-82-5	Aroclor-1260	3.7	U	3.7	3.7	18.7	ug/kg
SURROGATES							
877-09-8	Tetrachloro-m-xylene	21		10 - 166		105%	SPK: 20
2051-24-3	Decachlorobiphenyl	13.4		60 - 125		67%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
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S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-5(1-2)	SDG No.:	H3936
Lab Sample ID:	H3936-05	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	7.6 Decanted:
Sample Wt/Vol:	30.07 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO028801.D	1	07/11/16 14:02	07/13/16 17:07	PB92030

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
12674-11-2	Aroclor-1016	3.6	U	3.6	3.6	18.4	ug/kg
11104-28-2	Aroclor-1221	3.6	U	3.6	3.6	18.4	ug/kg
11141-16-5	Aroclor-1232	3.6	U	3.6	3.6	18.4	ug/kg
53469-21-9	Aroclor-1242	3.6	U	3.6	3.6	18.4	ug/kg
12672-29-6	Aroclor-1248	3.6	U	3.6	3.6	18.4	ug/kg
11097-69-1	Aroclor-1254	3.6	U	1.6	3.6	18.4	ug/kg
37324-23-5	Aroclor-1262	3.6	U	3.6	3.6	18.4	ug/kg
11100-14-4	Aroclor-1268	3.6	U	3.6	3.6	18.4	ug/kg
11096-82-5	Aroclor-1260	3.6	U	3.6	3.6	18.4	ug/kg
SURROGATES							
877-09-8	Tetrachloro-m-xylene	21.2		10 - 166		106%	SPK: 20
2051-24-3	Decachlorobiphenyl	15.2		60 - 125		76%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-5(4-5)	SDG No.:	H3936
Lab Sample ID:	H3936-06	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	12.6 Decanted:
Sample Wt/Vol:	30.03 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO028800.D	1	07/11/16 14:02	07/13/16 16:52	PB92030

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
12674-11-2	Aroclor-1016	3.8	U	3.8	3.8	19.4	ug/kg
11104-28-2	Aroclor-1221	3.8	U	3.8	3.8	19.4	ug/kg
11141-16-5	Aroclor-1232	3.8	U	3.8	3.8	19.4	ug/kg
53469-21-9	Aroclor-1242	3.8	U	3.8	3.8	19.4	ug/kg
12672-29-6	Aroclor-1248	3.8	U	3.8	3.8	19.4	ug/kg
11097-69-1	Aroclor-1254	3.8	U	1.7	3.8	19.4	ug/kg
37324-23-5	Aroclor-1262	3.8	U	3.8	3.8	19.4	ug/kg
11100-14-4	Aroclor-1268	3.8	U	3.8	3.8	19.4	ug/kg
11096-82-5	Aroclor-1260	3.8	U	3.8	3.8	19.4	ug/kg
SURROGATES							
877-09-8	Tetrachloro-m-xylene	18.1		10 - 166		90%	SPK: 20
2051-24-3	Decachlorobiphenyl	10.9	*	60 - 125		55%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
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() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	TW-4	SDG No.:	H3936
Lab Sample ID:	H3936-07	Matrix:	Water
Analytical Method:	SW8082A	% Moisture:	100 Decanted:
Sample Wt/Vol:	720 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO028798.D	1	07/08/16 10:54	07/13/16 16:20	PB91979

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	0.139	U	0.133	0.139	0.694	ug/L
11104-28-2	Aroclor-1221	0.139	U	0.139	0.139	0.694	ug/L
11141-16-5	Aroclor-1232	0.139	U	0.139	0.139	0.694	ug/L
53469-21-9	Aroclor-1242	0.139	U	0.124	0.139	0.694	ug/L
12672-29-6	Aroclor-1248	0.139	U	0.139	0.139	0.694	ug/L
11097-69-1	Aroclor-1254	0.139	U	0.0611	0.139	0.694	ug/L
37324-23-5	Aroclor-1262	0.139	U	0.112	0.139	0.694	ug/L
11100-14-4	Aroclor-1268	0.139	U	0.112	0.139	0.694	ug/L
11096-82-5	Aroclor-1260	0.139	U	0.112	0.139	0.694	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	18.7		35 - 137		93%	SPK: 20
2051-24-3	Decachlorobiphenyl	13.3		40 - 135		66%	SPK: 20

Comments:

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LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	SB-6(11-12)	SDG No.:	H3936
Lab Sample ID:	H3936-09	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	19.4 Decanted:
Sample Wt/Vol:	30.06 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO028799.D	1	07/11/16 14:02	07/13/16 16:36	PB92030

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
12674-11-2	Aroclor-1016	4.1	U	4.1	4.1	21	ug/kg
11104-28-2	Aroclor-1221	4.1	U	4.1	4.1	21	ug/kg
11141-16-5	Aroclor-1232	4.1	U	4.1	4.1	21	ug/kg
53469-21-9	Aroclor-1242	4.1	U	4.1	4.1	21	ug/kg
12672-29-6	Aroclor-1248	4.1	U	4.1	4.1	21	ug/kg
11097-69-1	Aroclor-1254	4.1	U	1.8	4.1	21	ug/kg
37324-23-5	Aroclor-1262	4.1	U	4.1	4.1	21	ug/kg
11100-14-4	Aroclor-1268	4.1	U	4.1	4.1	21	ug/kg
11096-82-5	Aroclor-1260	4.1	U	4.1	4.1	21	ug/kg
SURROGATES							
877-09-8	Tetrachloro-m-xylene	19.8		10 - 166		99%	SPK: 20
2051-24-3	Decachlorobiphenyl	12.3		60 - 125		62%	SPK: 20

Comments:

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MDL = Method Detection Limit
LOD = Limit of Detection
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P = Indicates >25% difference for detected concentrations between the two GC columns
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J = Estimated Value
B = Analyte Found in Associated Method Blank
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QC SUMMARY

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Surrogate Summary

SDG No.: H3936

Client: AKRF Engineering, P.C.

Analytical Method: 8082A

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
I.BLK-PO028208.D	PIBLK-PO028208.D	Tetrachloro-m-xylene	1	20	20.07	100		35	137
		Decachlorobiphenyl	1	20	20.77	104		40	135
		Tetrachloro-m-xylene	2	20	20.51	103		35	137
		Decachlorobiphenyl	2	20	20.68	103		40	135
I.BLK-PO028787.D	PIBLK-PO028787.D	Tetrachloro-m-xylene	1	20	24.76	124		35	137
		Decachlorobiphenyl	1	20	19.66	98		40	135
		Tetrachloro-m-xylene	2	20	20.59	103		35	137
		Decachlorobiphenyl	2	20	20.93	105		40	135
H3936-01	SB-1(9-10)	Tetrachloro-m-xylene	1	20	18.79	94		10	166
		Decachlorobiphenyl	1	20	15.45	77		60	125
		Tetrachloro-m-xylene	2	20	15.84	79		10	166
		Decachlorobiphenyl	2	20	15.84	79		60	125
H3936-02	SB-2(9-10)	Tetrachloro-m-xylene	1	20	19.52	98		10	166
		Decachlorobiphenyl	1	20	12.66	63		60	125
		Tetrachloro-m-xylene	2	20	16.32	82		10	166
		Decachlorobiphenyl	2	20	13.61	68		60	125
H3936-03	SB-3(5-6)	Tetrachloro-m-xylene	1	20	21.4	107		10	166
		Decachlorobiphenyl	1	20	15.5	78		60	125
		Tetrachloro-m-xylene	2	20	17.73	89		10	166
		Decachlorobiphenyl	2	20	16.84	84		60	125
H3936-04	SB-4(4-5)	Tetrachloro-m-xylene	1	20	21.02	105		10	166
		Decachlorobiphenyl	1	20	13.36	67		60	125
		Tetrachloro-m-xylene	2	20	17.32	87		10	166
		Decachlorobiphenyl	2	20	13.59	68		60	125
H3936-07	TW-4	Tetrachloro-m-xylene	1	20	18.69	93		35	137
		Decachlorobiphenyl	1	20	13.27	66		40	135
		Tetrachloro-m-xylene	2	20	16.28	81		35	137
		Decachlorobiphenyl	2	20	14.45	72		40	135
H3936-09	SB-6(11-12)	Tetrachloro-m-xylene	1	20	19.82	99		10	166
		Decachlorobiphenyl	1	20	12.33	62		60	125
		Tetrachloro-m-xylene	2	20	16.54	83		10	166
		Decachlorobiphenyl	2	20	13.48	67		60	125
H3936-06	SB-5(4-5)	Tetrachloro-m-xylene	1	20	18.07	90		10	166
		Decachlorobiphenyl	1	20	10.91	55	*	60	125
		Tetrachloro-m-xylene	2	20	14.99	75		10	166
		Decachlorobiphenyl	2	20	12.05	60		60	125
H3936-05	SB-5(1-2)	Tetrachloro-m-xylene	1	20	21.25	106		10	166
		Decachlorobiphenyl	1	20	15.23	76		60	125
		Tetrachloro-m-xylene	2	20	17.7	89		10	166
		Decachlorobiphenyl	2	20	16.97	85		60	125
I.BLK-PO028802.D	PIBLK-PO028802.D	Tetrachloro-m-xylene	1	20	25.14	126		35	137
		Decachlorobiphenyl	1	20	19.83	99		40	135
		Tetrachloro-m-xylene	2	20	21.15	106		35	137

Surrogate Summary

SDG No.: H3936

Client: AKRF Engineering, P.C.

Analytical Method: 8082A

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
I.BLK-PO028802.D	PIBLK-PO028802.D	Decachlorobiphenyl	2	20	22.31	112		40	135
I.BLK-PO028838.D	PIBLK-PO028838.D	Tetrachloro-m-xylene	1	20	26.34	132		35	137
		Decachlorobiphenyl	1	20	19.59	98		40	135
		Tetrachloro-m-xylene	2	20	22.65	113		35	137
		Decachlorobiphenyl	2	20	21.51	108		40	135
PB92030BL	PB92030BL	Tetrachloro-m-xylene	1	20	21.09	105		10	166
		Decachlorobiphenyl	1	20	16.01	80		60	125
		Tetrachloro-m-xylene	2	20	17.95	90		10	166
		Decachlorobiphenyl	2	20	18.56	93		60	125
PB92030BS	PB92030BS	Tetrachloro-m-xylene	1	20	21.28	106		10	166
		Decachlorobiphenyl	1	20	16.12	81		60	125
		Tetrachloro-m-xylene	2	20	17.71	89		10	166
		Decachlorobiphenyl	2	20	18.68	93		60	125
I.BLK-PO028850.D	PIBLK-PO028850.D	Tetrachloro-m-xylene	1	20	28.44	142	*	35	137
		Decachlorobiphenyl	1	20	21.51	108		40	135
		Tetrachloro-m-xylene	2	20	24.21	121		35	137
		Decachlorobiphenyl	2	20	24.89	124		40	135
I.BLK-PO028894.D	PIBLK-PO028894.D	Tetrachloro-m-xylene	1	20	26.86	134		35	137
		Decachlorobiphenyl	1	20	20.31	102		40	135
		Tetrachloro-m-xylene	2	20	25.5	128		35	137
		Decachlorobiphenyl	2	20	20.88	104		40	135
PB91979BL	PB91979BL	Tetrachloro-m-xylene	1	20	20.56	103		35	137
		Decachlorobiphenyl	1	20	16.15	81		40	135
		Tetrachloro-m-xylene	2	20	19.48	97		35	137
		Decachlorobiphenyl	2	20	18.35	92		40	135
PB91979BS	PB91979BS	Tetrachloro-m-xylene	1	20	21.23	106		35	137
		Decachlorobiphenyl	1	20	16.69	83		40	135
		Tetrachloro-m-xylene	2	20	19.44	97		35	137
		Decachlorobiphenyl	2	20	19.08	95		40	135
I.BLK-PO028904.D	PIBLK-PO028904.D	Tetrachloro-m-xylene	1	20	27.52	138	*	35	137
		Decachlorobiphenyl	1	20	21.62	108		40	135
		Tetrachloro-m-xylene	2	20	25.57	128		35	137
		Decachlorobiphenyl	2	20	24.6	123		40	135
I.BLK-PQ009380.D	PIBLK-PQ009380.D	Tetrachloro-m-xylene	1	20	19.24	96		35	137
		Decachlorobiphenyl	1	20	21.46	107		40	135
		Tetrachloro-m-xylene	2	20	20.13	101		35	137
		Decachlorobiphenyl	2	20	20.05	100		40	135
I.BLK-PQ010134.D	PIBLK-PQ010134.D	Tetrachloro-m-xylene	1	20	21.44	107		35	137
		Decachlorobiphenyl	1	20	22.07	110		40	135
		Tetrachloro-m-xylene	2	20	23.36	117		35	137
		Decachlorobiphenyl	2	20	21.7	109		40	135
H3975-04MS	LOCATION-22A-9-11MS	Tetrachloro-m-xylene	1	20	19.22	96		10	166
		Decachlorobiphenyl	1	20	16.42	82		60	125

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Surrogate Summary

SDG No.: H3936

Client: AKRF Engineering, P.C.

Analytical Method: 8082A

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
H3975-04MS	LOCATION-22A-9-11MS	Tetrachloro-m-xylene	2	20	18.49	92		10	166
		Decachlorobiphenyl	2	20	16.01	80		60	125
H3975-04MSD	LOCATION-22A-9-11MSD	Tetrachloro-m-xylene	1	20	19.72	99		10	166
		Decachlorobiphenyl	1	20	18.03	90		60	125
		Tetrachloro-m-xylene	2	20	21.2	106		10	166
		Decachlorobiphenyl	2	20	18.25	91		60	125
I.BLK-PQ010146.D	PIBLK-PQ010146.D	Tetrachloro-m-xylene	1	20	20.38	102		35	137
		Decachlorobiphenyl	1	20	20.89	104		40	135
		Tetrachloro-m-xylene	2	20	22.46	112		35	137
		Decachlorobiphenyl	2	20	21.16	106		40	135
H3940-02MS	KY030LC068-W-160706MS	Tetrachloro-m-xylene	1	20	13.61	68		35	137
		Decachlorobiphenyl	1	20	13.74	69		40	135
		Tetrachloro-m-xylene	2	20	13.68	68		35	137
		Decachlorobiphenyl	2	20	13.11	66		40	135
I.BLK-PQ010158.D	PIBLK-PQ010158.D	Tetrachloro-m-xylene	1	20	20.63	103		35	137
		Decachlorobiphenyl	1	20	21.56	108		40	135
		Tetrachloro-m-xylene	2	20	22.64	113		35	137
		Decachlorobiphenyl	2	20	21.57	108		40	135
H3940-03MSD	KY030LC068-W-160706MSD	Tetrachloro-m-xylene	1	20	15.63	78		35	137
		Decachlorobiphenyl	1	20	14.78	74		40	135
		Tetrachloro-m-xylene	2	20	16.92	85		35	137
		Decachlorobiphenyl	2	20	14.43	72		40	135
I.BLK-PQ010169.D	PIBLK-PQ010169.D	Tetrachloro-m-xylene	1	20	21.14	106		35	137
		Decachlorobiphenyl	1	20	22.69	113		40	135
		Tetrachloro-m-xylene	2	20	23.23	116		35	137
		Decachlorobiphenyl	2	20	22.54	113		40	135

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: H3936

Client: AKRF Engineering, P.C.

Analytical Method: 8082A **DataFile :** PQ010144.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Client Sample ID:	**LOCATION-22A-9-11MS**											
H3975-04MS	AR1016	74.62	0	120	ug/kg	161	*			40	140	
	AR1260	74.62	0	73.2	ug/kg	98				60	130	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: H3936

Client: AKRF Engineering, P.C.

Analytical Method: 8082A **DataFile :** PQ010145.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Client Sample ID:	**LOCATION-22A-9-11MSD**											
H3975-04MSD	AR1016	74.7	0	88.1	ug/kg	118		31	*	40	140	20
	AR1260	74.7	0	76	ug/kg	102		4		60	130	20

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: H3936

Client: AKRF Engineering, P.C.

Analytical Method: 8082A **DataFile :** PQ010151.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Client Sample ID:	**KY030LC068-W-160706MS**											
H3940-02MS	AR1016	2.062	0	2	ug/L	97				65	145	
	AR1260	2.062	0	1.8	ug/L	87				65	145	

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Matrix Spike/Matrix Spike Duplicate Summary

SW-846

SDG No.: H3936

Client: AKRF Engineering, P.C.

Analytical Method: 8082A **DataFile :** PQ010164.D

Lab Sample ID:	Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	RPD
Client Sample ID:	**KY030LC068-W-160706MSD**											
H3940-03MSD	AR1016	2	0	2	ug/L	100		3		65	145	20
	AR1260	2	0	1.9	ug/L	95		9		65	145	20

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: H3936

Client: AKRF Engineering, P.C.

Analytical Method: 8082A **Datafile :** PO028849.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB92030BS	AR1016	66.6	76.8	ug/kg	115				53	140	
	AR1260	66.6	63.1	ug/kg	95				65	130	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: H3936

Client: AKRF Engineering, P.C.

Analytical Method: 8082A **Datafile :** PO028903.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB91979BS	AR1016	2	2.2	ug/L	110				56	149	
	AR1260	2	1.9	ug/L	95				66	147	

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB91979BL

Lab Name: CHEMTECH

Contract: AKRF02

Lab Code: CHEM

Case No.: H3936

SAS No.: H3936

SDG NO.: H3936

Lab Sample ID: PB91979BL

Lab File ID: PO028902.D

Matrix: (soil/water) Water

Extraction: (Type) SEPF

Sulfur Cleanup: (Y/N) N

Date Extracted: 07/08/2016

Date Analyzed (1): 07/15/2016

Date Analyzed (2): 07/15/2016

Time Analyzed (1): 00:07

Time Analyzed (2): 00:07

Instrument ID (1): ECD_O

Instrument ID (2): ECD_O

GC Column (1): ZB-MR1 ID: 0.32 (mm)

GC Column (2): ZB-MR2 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
TW-4	H3936-07	PO028798.D	07/13/2016	07/13/2016
PB91979BS	PB91979BS	PO028903.D	07/15/2016	07/15/2016
KY030LC068-W-160706MS	H3940-02MS	PQ010151.D	07/15/2016	07/15/2016
KY030LC068-W-160706MSD	H3940-03MSD	PQ010164.D	07/15/2016	07/15/2016

COMMENTS:

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB92030BL

Lab Name: CHEMTECH Contract: AKRF02

Lab Code: CHEM Case No.: H3936 SAS No.: H3936 SDG NO.: H3936

Lab Sample ID: PB92030BL Lab File ID: PO028848.D

Matrix: (soil/water) Solid Extraction: (Type) SOXH

Sulfur Cleanup: (Y/N) N Date Extracted: 07/11/2016

Date Analyzed (1): 07/14/2016 Date Analyzed (2): 07/14/2016

Time Analyzed (1): 05:35 Time Analyzed (2): 05:35

Instrument ID (1): ECD_O Instrument ID (2): ECD_O

GC Column (1): ZB-MR1 ID: 0.32 (mm) GC Column (2): ZB-MR2 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
SB-1(9-10)	H3936-01	PO028792.D	07/13/2016	07/13/2016
SB-2(9-10)	H3936-02	PO028793.D	07/13/2016	07/13/2016
SB-3(5-6)	H3936-03	PO028794.D	07/13/2016	07/13/2016
SB-4(4-5)	H3936-04	PO028795.D	07/13/2016	07/13/2016
SB-6(11-12)	H3936-09	PO028799.D	07/13/2016	07/13/2016
SB-5(4-5)	H3936-06	PO028800.D	07/13/2016	07/13/2016
SB-5(1-2)	H3936-05	PO028801.D	07/13/2016	07/13/2016
PB92030BS	PB92030BS	PO028849.D	07/14/2016	07/14/2016
LOCATION-22A-9-11MS	H3975-04MS	PQ010144.D	07/15/2016	07/15/2016
LOCATION-22A-9-11MSD	H3975-04MSD	PQ010145.D	07/15/2016	07/15/2016

COMMENTS:

Form IV Pest

CALIBRATION SUMMARY

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

RETENTION TIMES OF INITIAL CALIBRATION

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Instrument ID: ECD_O **Calibration Date(s):** 06/16/2016 06/16/2016

Calibration Times: 19:22 23:21

GC Column: ZB-MR1 ID: 0.32 (mm)

LAB FILE ID: RT 1000 = PO028209.D RT 750 = PO028210.D

RT 500 = PO028211.D RT 250 = PO028212.D RT 050 = PO028213.D

COMPOUND		RT 1000	RT 750	RT 500	RT 250	RT 050	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Aroclor-1016-1	(1)	5.13	5.13	5.13	5.13	5.13	5.13	5.03	5.23
Aroclor-1016-2	(2)	5.48	5.48	5.48	5.48	5.48	5.48	5.38	5.58
Aroclor-1016-3	(3)	5.58	5.58	5.58	5.58	5.58	5.58	5.48	5.68
Aroclor-1016-4	(4)	5.87	5.87	5.87	5.87	5.86	5.87	5.77	5.97
Aroclor-1016-5	(5)	6.01	6.01	6.01	6.01	6.01	6.01	5.91	6.11
Aroclor-1260-1	(1)	6.99	6.99	6.99	6.99	6.99	6.99	6.89	7.09
Aroclor-1260-2	(2)	7.24	7.24	7.24	7.24	7.24	7.24	7.14	7.34
Aroclor-1260-3	(3)	7.53	7.53	7.53	7.53	7.52	7.53	7.43	7.63
Aroclor-1260-4	(4)	7.82	7.83	7.82	7.82	7.82	7.82	7.72	7.92
Aroclor-1260-5	(5)	8.13	8.13	8.13	8.13	8.13	8.13	8.03	8.23
Decachlorobiphenyl		9.83	9.83	9.82	9.82	9.83	9.82	9.72	9.92
Tetrachloro-m-xylene		4.23	4.23	4.23	4.23	4.23	4.23	4.13	4.33

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Instrument ID: ECD_O **Calibration Date(s):** 06/16/2016 06/16/2016

Calibration Times: 19:22 23:21

GC Column: ZB-MR2 ID: 0.32 (mm)

LAB FILE ID: RT 1000 = PO028209.D RT 750 = PO028210.D

RT 500 = PO028211.D RT 250 = PO028212.D RT 050 = PO028213.D

COMPOUND		RT 1000	RT 750	RT 500	RT 250	RT 050	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Aroclor-1016-1	(1)	3.92	3.92	3.92	3.92	3.92	3.92	3.82	4.02
Aroclor-1016-2	(2)	4.31	4.31	4.31	4.31	4.31	4.31	4.21	4.41
Aroclor-1016-3	(3)	4.35	4.35	4.35	4.35	4.35	4.35	4.25	4.45
Aroclor-1016-4	(4)	4.39	4.39	4.39	4.39	4.39	4.39	4.29	4.49
Aroclor-1016-5	(5)	4.56	4.56	4.56	4.56	4.56	4.56	4.46	4.66
Aroclor-1260-1	(1)	5.55	5.55	5.55	5.55	5.55	5.55	5.45	5.65
Aroclor-1260-2	(2)	5.73	5.73	5.73	5.73	5.73	5.73	5.63	5.83
Aroclor-1260-3	(3)	5.88	5.88	5.88	5.88	5.88	5.88	5.78	5.98
Aroclor-1260-4	(4)	6.05	6.05	6.05	6.05	6.05	6.05	5.95	6.15
Aroclor-1260-5	(5)	6.58	6.58	6.58	6.58	6.58	6.58	6.48	6.68
Decachlorobiphenyl		7.88	7.88	7.88	7.88	7.88	7.88	7.78	7.98
Tetrachloro-m-xylene		3.11	3.11	3.11	3.11	3.11	3.11	3.01	3.21

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Instrument ID: ECD_O

Calibration Date(s): 06/16/2016 06/16/2016

Calibration Times: 19:22 23:21

GC Column: ZB-MR1 **ID:** 0.32 (mm)

LAB FILE ID: CF 1000 = PO028209.D CF 750 = PO028210.D

CF 500 = PO028211.D CF 250 = PO028212.D CF 050 = PO028213.D

COMPOUND		CF 1000	CF 750	CF 500	CF 250	CF 050	CF	% RSD
Aroclor-1016-1	(1)	6628713	7128873	7322370	7549560	6892680	7104439	5
Aroclor-1016-2	(2)	9382439	10319707	10336064	10105372	9420640	9912844	5
Aroclor-1016-3	(3)	7938619	8360069	8566218	8802852	9305040	8594560	6
Aroclor-1016-4	(4)	7685499	7955593	8087128	8411484	7341060	7896153	5
Aroclor-1016-5	(5)	8320856	8730455	8974396	9653512	9511760	9038196	6
Aroclor-1260-1	(1)	15624346	16904920	16332090	18326040	15390460	16515571	7
Aroclor-1260-2	(2)	18216985	19447031	19426924	20932220	20406940	19686020	5
Aroclor-1260-3	(3)	23853895	22498697	25659776	27149076	20955800	24023449	10
Aroclor-1260-4	(4)	16060233	14699400	15211798	15179040	15870480	15404190	4
Aroclor-1260-5	(5)	28935664	28852953	29892318	30864976	31917020	30092586	4
Decachlorobiphenyl		266874960	286586333	298689260	311432440	333006800	299317959	8
Tetrachloro-m-xylene		299510720	315485053	321117220	324785480	342650200	320709735	5

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Instrument ID: ECD_O

Calibration Date(s): 06/16/2016 06/16/2016

Calibration Times: 19:22 23:21

GC Column: ZB-MR2 **ID:** 0.32 (mm)

LAB FILE ID: CF 1000 = PO028209.D CF 750 = PO028210.D

CF 500 = PO028211.D CF 250 = PO028212.D CF 050 = PO028213.D

COMPOUND		CF 1000	CF 750	CF 500	CF 250	CF 050	CF	% RSD
Aroclor-1016-1	(1)	5937552	6328591	6291336	6904476	4992440	6090879	12
Aroclor-1016-2	(2)	6794698	7103767	7117038	7359048	8774940	7429898	10
Aroclor-1016-3	(3)	4628641	4788300	4875068	4581472	5578380	4890372	8
Aroclor-1016-4	(4)	5693675	6100037	6117038	5898596	5977340	5957337	3
Aroclor-1016-5	(5)	7130784	7073239	7159858	7730888	7634340	7345822	4
Aroclor-1260-1	(1)	16891106	15347112	15765718	18146160	13320420	15894103	11
Aroclor-1260-2	(2)	20109587	18746967	19145562	20972060	20280560	19850947	5
Aroclor-1260-3	(3)	19866716	18355031	18257316	19516608	19280080	19055150	4
Aroclor-1260-4	(4)	22386156	22449995	22809232	23202008	22689580	22707394	1
Aroclor-1260-5	(5)	35571094	35986508	36924074	38023312	39030200	37107038	4
Decachlorobiphenyl		287234290	305705907	315702260	330233080	357043400	319183787	8
Tetrachloro-m-xylene		245124900	256317120	259129040	262792320	282444800	261161636	5

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Instrument ID: ECD_O **Date(s) Analyzed:** 06/16/2016 06/16/2016

GC Column: ZB-MR1 **ID:** 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Aroclor-1221	500	1	4.44	4.34	4.54	3234300
		2	4.53	4.43	4.63	2468280
		3	4.60	4.50	4.70	6927040
		4	0.00			0
		5	0.00			0
Aroclor-1232	500	1	5.13	5.03	5.23	2702340
		2	5.40	5.30	5.50	4542720
		3	5.42	5.32	5.52	6676940
		4	5.48	5.38	5.58	4314820
		5	5.58	5.48	5.68	3390260
Aroclor-1242	500	1	4.94	4.84	5.04	5464340
		2	5.48	5.38	5.58	7560120
		3	5.58	5.48	5.68	6368060
		4	5.87	5.77	5.97	6227680
		5	6.01	5.91	6.11	7212100
Aroclor-1248	500	1	5.87	5.77	5.97	10901100
		2	6.01	5.91	6.11	9784980
		3	6.27	6.17	6.37	12984900
		4	6.31	6.21	6.41	12588200
		5	6.47	6.37	6.57	12667900
Aroclor-1254	500	1	6.24	6.14	6.34	11499600
		2	6.46	6.36	6.56	18025100
		3	6.83	6.73	6.93	19679300
		4	7.11	7.01	7.21	16024200
		5	7.38	7.28	7.48	12407000
Aroclor-1262	500	1	6.99	6.89	7.09	13228600
		2	7.24	7.14	7.34	14500800
		3	7.60	7.50	7.70	21217400
		4	7.82	7.72	7.92	18249300
		5	8.13	8.03	8.23	34762000
Aroclor-1268	500	1	8.42	8.32	8.52	38620000
		2	8.51	8.41	8.61	37750200
		3	8.72	8.62	8.82	32016000
		4	9.13	9.03	9.23	13571700
		5	9.52	9.42	9.62	99100400

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Instrument ID: ECD_O **Date(s) Analyzed:** 06/16/2016 06/16/2016

GC Column: ZB-MR2 **ID:** 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Aroclor-1221	500	1	3.31	3.21	3.41	1962650
		2	3.39	3.29	3.49	1422170
		3	3.46	3.36	3.56	4877460
		4	0.00			0
		5	0.00			0
Aroclor-1232	500	1	3.92	3.82	4.02	2598080
		2	4.13	4.03	4.23	3286580
		3	4.15	4.05	4.25	5348000
		4	4.31	4.21	4.41	2865460
		5	4.35	4.25	4.45	1717090
Aroclor-1242	500	1	3.74	3.64	3.84	4179800
		2	4.20	4.10	4.30	6760840
		3	4.31	4.21	4.41	5456640
		4	4.39	4.29	4.49	4757320
		5	4.56	4.46	4.66	5652140
Aroclor-1248	500	1	4.56	4.46	4.66	9180980
		2	4.70	4.60	4.80	8710320
		3	4.89	4.79	4.99	14207100
		4	4.93	4.83	5.03	10010800
		5	5.42	5.32	5.52	6476960
Aroclor-1254	500	1	4.89	4.79	4.99	13853000
		2	5.03	4.93	5.13	12005400
		3	5.42	5.32	5.52	21127600
		4	5.64	5.54	5.74	14038800
		5	5.95	5.85	6.05	10324600
Aroclor-1262	500	1	5.73	5.63	5.83	15450000
		2	5.88	5.78	5.98	15508400
		3	6.09	5.99	6.19	22032600
		4	6.34	6.24	6.44	20139000
		5	6.58	6.48	6.68	40755600
Aroclor-1268	500	1	6.85	6.75	6.95	42884800
		2	6.92	6.82	7.02	41695800
		3	7.11	7.01	7.21	35475800
		4	7.40	7.30	7.50	15783700
		5	7.67	7.57	7.77	111755000

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Instrument ID: ECD_Q **Calibration Date(s):** 06/16/2016 06/17/2016

Calibration Times: 19:25 00:01

GC Column: ZB-MR1 ID: 0.32 (mm)

LAB FILE ID: RT 1000 = PQ009381.D RT 750 = PQ009382.D

RT 500 = PQ009383.D RT 250 = PQ009384.D RT 050 = PQ009385.D

COMPOUND		RT 1000	RT 750	RT 500	RT 250	RT 050	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Aroclor-1016-1	(1)	5.41	5.41	5.41	5.41	5.41	5.41	5.31	5.51
Aroclor-1016-2	(2)	5.76	5.76	5.76	5.76	5.76	5.76	5.66	5.86
Aroclor-1016-3	(3)	5.86	5.86	5.86	5.86	5.86	5.86	5.76	5.96
Aroclor-1016-4	(4)	6.15	6.15	6.15	6.15	6.15	6.15	6.05	6.25
Aroclor-1016-5	(5)	6.30	6.29	6.30	6.29	6.30	6.29	6.19	6.39
Aroclor-1260-1	(1)	7.27	7.28	7.27	7.27	7.27	7.27	7.17	7.37
Aroclor-1260-2	(2)	7.53	7.53	7.53	7.53	7.53	7.53	7.43	7.63
Aroclor-1260-3	(3)	7.82	7.82	7.82	7.81	7.82	7.82	7.72	7.92
Aroclor-1260-4	(4)	8.12	8.12	8.12	8.12	8.12	8.12	8.02	8.22
Aroclor-1260-5	(5)	8.44	8.44	8.44	8.44	8.44	8.44	8.34	8.54
Decachlorobiphenyl		10.28	10.28	10.28	10.27	10.28	10.28	10.18	10.38
Tetrachloro-m-xylene		4.50	4.50	4.50	4.50	4.50	4.50	4.40	4.60

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Instrument ID: ECD_Q **Calibration Date(s):** 06/16/2016 06/17/2016

Calibration Times: 19:25 00:01

GC Column: ZB-MR2 ID: 0.32 (mm)

LAB FILE ID: RT 1000 = PQ009381.D RT 750 = PQ009382.D

RT 500 = PQ009383.D RT 250 = PQ009384.D RT 050 = PQ009385.D

COMPOUND		RT 1000	RT 750	RT 500	RT 250	RT 050	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Aroclor-1016-1	(1)	4.60	4.59	4.60	4.60	4.60	4.59	4.49	4.69
Aroclor-1016-2	(2)	5.01	5.01	5.01	5.01	5.01	5.01	4.91	5.11
Aroclor-1016-3	(3)	5.05	5.05	5.05	5.05	5.05	5.05	4.95	5.15
Aroclor-1016-4	(4)	5.09	5.09	5.09	5.09	5.09	5.09	4.99	5.19
Aroclor-1016-5	(5)	5.26	5.26	5.26	5.26	5.26	5.26	5.16	5.36
Aroclor-1260-1	(1)	6.28	6.28	6.28	6.28	6.28	6.28	6.18	6.38
Aroclor-1260-2	(2)	6.47	6.47	6.47	6.47	6.47	6.47	6.37	6.57
Aroclor-1260-3	(3)	6.63	6.63	6.63	6.62	6.62	6.62	6.52	6.72
Aroclor-1260-4	(4)	6.80	6.80	6.80	6.80	6.80	6.80	6.70	6.90
Aroclor-1260-5	(5)	7.33	7.33	7.33	7.33	7.33	7.33	7.23	7.43
Decachlorobiphenyl		8.71	8.72	8.72	8.71	8.71	8.71	8.61	8.81
Tetrachloro-m-xylene		3.73	3.73	3.73	3.73	3.73	3.73	3.63	3.83

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Instrument ID: ECD_Q **Calibration Date(s):** 06/16/2016 06/17/2016

Calibration Times: 19:25 00:01

GC Column: ZB-MR1 **ID:** 0.32 (mm)

LAB FILE ID: CF 1000 = PQ009381.D CF 750 = PQ009382.D

CF 500 = PQ009383.D CF 250 = PQ009384.D CF 050 = PQ009385.D

COMPOUND		CF 1000	CF 750	CF 500	CF 250	CF 050	CF	% RSD
Aroclor-1016-1	(1)	175379514	185653467	191330418	193577948	190641180	187316505	4
Aroclor-1016-2	(2)	209122590	222796561	233245784	238262832	241138620	228913277	6
Aroclor-1016-3	(3)	177137370	184870933	193399260	195684448	185532620	187324926	4
Aroclor-1016-4	(4)	174103315	180456852	188973722	193076000	162420420	179806062	7
Aroclor-1016-5	(5)	185218986	194211340	199343596	204347164	208225300	198269277	5
Aroclor-1260-1	(1)	307658499	323817767	336990124	351313600	393103180	342576634	9
Aroclor-1260-2	(2)	355201504	369907911	385360500	402483764	449868700	392564476	9
Aroclor-1260-3	(3)	419924756	436750461	446678230	463514072	494485160	452270536	6
Aroclor-1260-4	(4)	286458691	298107669	309256510	318731348	338053820	310121608	6
Aroclor-1260-5	(5)	531824367	552998968	573693830	589806208	634604880	576585651	7
Decachlorobiphenyl		4371016460	4555923667	4833187120	4958734480	5179278400	4779628025	7
Tetrachloro-m-xylene		8043069570	8453984933	8590798600	8411737040	8644686600	8428855349	3

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Instrument ID: ECD_Q **Calibration Date(s):** 06/16/2016 06/17/2016

Calibration Times: 19:25 00:01

GC Column: ZB-MR2 **ID:** 0.32 (mm)

LAB FILE ID: CF 1000 = PQ009381.D CF 750 = PQ009382.D

CF 500 = PQ009383.D CF 250 = PQ009384.D CF 050 = PQ009385.D

COMPOUND		CF 1000	CF 750	CF 500	CF 250	CF 050	CF	% RSD
Aroclor-1016-1	(1)	145015046	165403995	154167768	148433752	153731500	153350412	5
Aroclor-1016-2	(2)	77028327	83412343	85326474	83175928	82538860	82296386	4
Aroclor-1016-3	(3)	56930385	61303232	62592454	61469212	85105540	65480165	17
Aroclor-1016-4	(4)	72948652	78071040	80174756	77169520	79186000	77509994	4
Aroclor-1016-5	(5)	88193280	91844367	94375174	88953360	89877320	90648700	3
Aroclor-1260-1	(1)	225678512	234817772	242980730	235575308	271440240	242098512	7
Aroclor-1260-2	(2)	286522102	299446539	308608944	300512376	341535760	307325144	7
Aroclor-1260-3	(3)	266355928	277825623	282046826	276147032	283782820	277231646	2
Aroclor-1260-4	(4)	325795533	335559923	343684008	343523916	369745680	343661812	5
Aroclor-1260-5	(5)	552178327	573609081	575066530	561879396	624856780	577518023	5
Decachlorobiphenyl		4714104310	4854990267	4989970360	4951074840	5225805200	4947188995	4
Tetrachloro-m-xylene		8653184270	9074983693	9211300240	9188336400	9035659000	9032692721	2

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Instrument ID: ECD_Q **Date(s) Analyzed:** 06/16/2016 06/17/2016

GC Column: ZB-MR1 **ID:** 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Aroclor-1221	500	1	4.71	4.61	4.81	73224800
		2	4.80	4.70	4.90	55807800
		3	4.88	4.78	4.98	174393000
		4	0.00			0
		5	0.00			0
Aroclor-1232	500	1	4.88	4.78	4.98	140021000
		2	5.41	5.31	5.51	79763200
		3	5.76	5.66	5.86	89698400
		4	5.86	5.76	5.96	71913800
		5	6.15	6.05	6.25	61783000
Aroclor-1242	500	1	5.41	5.31	5.51	138744000
		2	5.86	5.76	5.96	138603000
		3	6.15	6.05	6.25	140125000
		4	6.29	6.19	6.39	151205000
		5	6.60	6.50	6.70	136115000
Aroclor-1248	500	1	6.15	6.05	6.25	229148000
		2	6.30	6.20	6.40	197962000
		3	6.56	6.46	6.66	250322000
		4	6.60	6.50	6.70	244372000
		5	6.75	6.65	6.85	246050000
Aroclor-1254	500	1	6.53	6.43	6.63	245094000
		2	6.74	6.64	6.84	370618000
		3	7.11	7.01	7.21	381610000
		4	7.40	7.30	7.50	268166000
		5	7.68	7.58	7.78	210096000
Aroclor-1262	500	1	7.27	7.17	7.37	246778000
		2	7.53	7.43	7.63	278424000
		3	7.89	7.79	7.99	374624000
		4	8.12	8.02	8.22	348298000
		5	8.44	8.34	8.54	636074000
Aroclor-1268	500	1	8.76	8.66	8.86	682932000
		2	8.85	8.75	8.95	623730000
		3	9.08	8.98	9.18	527142000
		4	9.52	9.42	9.62	222500000
		5	9.94	9.84	10.04	1526280000

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Instrument ID: ECD_Q **Date(s) Analyzed:** 06/16/2016 06/17/2016

GC Column: ZB-MR2 **ID:** 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Aroclor-1221	500	1	3.95	3.85	4.05	84689200
		2	4.03	3.93	4.13	66644000
		3	4.11	4.01	4.21	204012000
		4	0.00			0
		5	0.00			0
Aroclor-1232	500	1	4.11	4.01	4.21	167113000
		2	4.89	4.79	4.99	45092400
		3	5.01	4.91	5.11	33423400
		4	5.26	5.16	5.36	32591800
		5	5.61	5.51	5.71	46245200
Aroclor-1242	500	1	4.60	4.50	4.70	105544000
		2	5.01	4.91	5.11	61622200
		3	5.26	5.16	5.36	69361600
		4	5.61	5.51	5.71	102101000
		5	5.65	5.55	5.75	85287600
Aroclor-1248	500	1	5.05	4.95	5.15	86408600
		2	5.09	4.99	5.19	92548400
		3	5.26	5.16	5.36	113860000
		4	5.61	5.51	5.71	206014000
		5	5.65	5.55	5.75	146955000
Aroclor-1254	500	1	5.61	5.51	5.71	210182000
		2	5.75	5.65	5.85	183588000
		3	6.16	6.06	6.26	316694000
		4	6.38	6.28	6.48	239438000
		5	6.70	6.60	6.80	145455000
Aroclor-1262	500	1	6.28	6.18	6.38	179878000
		2	6.47	6.37	6.57	223196000
		3	6.83	6.73	6.93	343992000
		4	7.09	6.99	7.19	292692000
		5	7.33	7.23	7.43	642028000
Aroclor-1268	500	1	7.61	7.51	7.71	699526000
		2	7.68	7.58	7.78	656752000
		3	7.88	7.78	7.98	557682000
		4	8.17	8.07	8.27	229120000
		5	8.46	8.36	8.56	1847980000

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Continuing Calib Date: 07/13/2016 **Initial Calibration Date(s):** 06/16/2016 06/16/2016

Continuing Calib Time: 13:41 **Initial Calibration Time(s):** 19:22 23:21

GC Column: ZB-MR1 **ID:** 0.32 (mm)

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	5.12	5.13	5.03	5.23	0.01
Aroclor-1016-2	(2)	5.47	5.48	5.38	5.58	0.01
Aroclor-1016-3	(3)	5.57	5.58	5.48	5.68	0.01
Aroclor-1016-4	(4)	5.86	5.87	5.77	5.97	0.01
Aroclor-1016-5	(5)	6.00	6.01	5.91	6.11	0.01
Aroclor-1260-1	(1)	6.98	6.99	6.89	7.09	0.01
Aroclor-1260-2	(2)	7.23	7.24	7.14	7.34	0.01
Aroclor-1260-3	(3)	7.52	7.53	7.43	7.63	0.01
Aroclor-1260-4	(4)	7.82	7.82	7.72	7.92	0.00
Aroclor-1260-5	(5)	8.12	8.13	8.03	8.23	0.01
Tetrachloro-m-xylene		4.22	4.23	4.13	4.33	0.01
Decachlorobiphenyl		9.81	9.82	9.72	9.92	0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Continuing Calib Date: 07/13/2016 **Initial Calibration Date(s):** 06/16/2016 06/16/2016

Continuing Calib Time: 13:41 **Initial Calibration Time(s):** 19:22 23:21

GC Column: ZB-MR2 **ID:** 0.32 (mm)

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	3.92	3.92	3.82	4.02	0.00
Aroclor-1016-2	(2)	4.31	4.31	4.21	4.41	0.00
Aroclor-1016-3	(3)	4.35	4.35	4.25	4.45	0.00
Aroclor-1016-4	(4)	4.39	4.39	4.29	4.49	0.00
Aroclor-1016-5	(5)	4.55	4.56	4.46	4.66	0.01
Aroclor-1260-1	(1)	5.54	5.55	5.45	5.65	0.01
Aroclor-1260-2	(2)	5.72	5.73	5.63	5.83	0.01
Aroclor-1260-3	(3)	5.87	5.88	5.78	5.98	0.01
Aroclor-1260-4	(4)	6.04	6.05	5.95	6.15	0.01
Aroclor-1260-5	(5)	6.57	6.58	6.48	6.68	0.01
Tetrachloro-m-xylene		3.10	3.11	3.01	3.21	0.01
Decachlorobiphenyl		7.87	7.88	7.78	7.98	0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 06/16/2016 06/16/2016

Client Sample No.: CCAL01 **Date Analyzed:** 07/13/2016

Lab Sample No.: AR1660CCC500 **Data File :** PO028788.D **Time Analyzed:** 13:41

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	5.122	5.028	5.228	614.270	500.000	22.9
Aroclor-1016-2	5.473	5.378	5.578	581.710	500.000	16.3
Aroclor-1016-3	5.571	5.478	5.678	563.290	500.000	12.7
Aroclor-1016-4	5.862	5.768	5.968	575.460	500.000	15.1
Aroclor-1016-5	6.002	5.909	6.109	547.260	500.000	9.5
Aroclor-1260-1	6.979	6.886	7.086	483.770	500.000	-3.2
Aroclor-1260-2	7.234	7.141	7.341	502.910	500.000	0.6
Aroclor-1260-3	7.518	7.425	7.625	508.400	500.000	1.7
Aroclor-1260-4	7.816	7.723	7.923	455.380	500.000	-8.9
Aroclor-1260-5	8.123	8.031	8.231	467.360	500.000	-6.5
Decachlorobiphenyl	9.810	9.724	9.924	41.430	50.000	-17.1
Tetrachloro-m-xylene	4.223	4.128	4.328	55.030	50.000	10.1

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 06/16/2016 06/16/2016

Client Sample No.: CCAL01 **Date Analyzed:** 07/13/2016

Lab Sample No.: AR1660CCC500 **Data File :** PO028788.D **Time Analyzed:** 13:41

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	3.916	3.821	4.021	508.840	500.000	1.8
Aroclor-1016-2	4.307	4.213	4.413	461.170	500.000	-7.8
Aroclor-1016-3	4.348	4.254	4.454	500.130	500.000	0.0
Aroclor-1016-4	4.386	4.292	4.492	515.900	500.000	3.2
Aroclor-1016-5	4.550	4.457	4.657	450.320	500.000	-9.9
Aroclor-1260-1	5.540	5.447	5.647	426.980	500.000	-14.6
Aroclor-1260-2	5.723	5.630	5.830	430.480	500.000	-13.9
Aroclor-1260-3	5.871	5.779	5.979	415.540	500.000	-16.9
Aroclor-1260-4	6.041	5.949	6.149	439.350	500.000	-12.1
Aroclor-1260-5	6.568	6.476	6.676	437.660	500.000	-12.5
Decachlorobiphenyl	7.872	7.780	7.980	45.740	50.000	-8.5
Tetrachloro-m-xylene	3.101	3.006	3.206	45.500	50.000	-9.0

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Continuing Calib Date: 07/13/2016 **Initial Calibration Date(s):** 06/16/2016 06/16/2016

Continuing Calib Time: 17:39 **Initial Calibration Time(s):** 19:22 23:21

GC Column: ZB-MR1 **ID:** 0.32 (mm)

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	5.12	5.13	5.03	5.23	0.01
Aroclor-1016-2	(2)	5.47	5.48	5.38	5.58	0.01
Aroclor-1016-3	(3)	5.57	5.58	5.48	5.68	0.01
Aroclor-1016-4	(4)	5.86	5.87	5.77	5.97	0.01
Aroclor-1016-5	(5)	6.00	6.01	5.91	6.11	0.01
Aroclor-1260-1	(1)	6.98	6.99	6.89	7.09	0.01
Aroclor-1260-2	(2)	7.23	7.24	7.14	7.34	0.01
Aroclor-1260-3	(3)	7.52	7.53	7.43	7.63	0.01
Aroclor-1260-4	(4)	7.82	7.82	7.72	7.92	0.00
Aroclor-1260-5	(5)	8.12	8.13	8.03	8.23	0.01
Tetrachloro-m-xylene		4.22	4.23	4.13	4.33	0.01
Decachlorobiphenyl		9.81	9.82	9.72	9.92	0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Continuing Calib Date: 07/13/2016 **Initial Calibration Date(s):** 06/16/2016 06/16/2016

Continuing Calib Time: 17:39 **Initial Calibration Time(s):** 19:22 23:21

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	3.92	3.92	3.82	4.02	0.00
Aroclor-1016-2	(2)	4.31	4.31	4.21	4.41	0.00
Aroclor-1016-3	(3)	4.35	4.35	4.25	4.45	0.00
Aroclor-1016-4	(4)	4.39	4.39	4.29	4.49	0.00
Aroclor-1016-5	(5)	4.55	4.56	4.46	4.66	0.01
Aroclor-1260-1	(1)	5.54	5.55	5.45	5.65	0.01
Aroclor-1260-2	(2)	5.72	5.73	5.63	5.83	0.01
Aroclor-1260-3	(3)	5.87	5.88	5.78	5.98	0.01
Aroclor-1260-4	(4)	6.04	6.05	5.95	6.15	0.01
Aroclor-1260-5	(5)	6.57	6.58	6.48	6.68	0.01
Tetrachloro-m-xylene		3.10	3.11	3.01	3.21	0.01
Decachlorobiphenyl		7.87	7.88	7.78	7.98	0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 06/16/2016 06/16/2016

Client Sample No.: CCAL02 **Date Analyzed:** 07/13/2016

Lab Sample No.: AR1660CCC500 **Data File :** PO028803.D **Time Analyzed:** 17:39

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	5.123	5.028	5.228	625.150	500.000	25.0
Aroclor-1016-2	5.473	5.378	5.578	589.640	500.000	17.9
Aroclor-1016-3	5.572	5.478	5.678	571.430	500.000	14.3
Aroclor-1016-4	5.862	5.768	5.968	580.670	500.000	16.1
Aroclor-1016-5	6.003	5.909	6.109	550.980	500.000	10.2
Aroclor-1260-1	6.979	6.886	7.086	546.620	500.000	9.3
Aroclor-1260-2	7.234	7.141	7.341	547.460	500.000	9.5
Aroclor-1260-3	7.518	7.425	7.625	541.220	500.000	8.2
Aroclor-1260-4	7.816	7.723	7.923	484.100	500.000	-3.2
Aroclor-1260-5	8.123	8.031	8.231	476.610	500.000	-4.7
Decachlorobiphenyl	9.808	9.724	9.924	41.260	50.000	-17.5
Tetrachloro-m-xylene	4.224	4.128	4.328	55.280	50.000	10.6

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 06/16/2016 06/16/2016

Client Sample No.: CCAL02 **Date Analyzed:** 07/13/2016

Lab Sample No.: AR1660CCC500 **Data File :** PO028803.D **Time Analyzed:** 17:39

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	3.917	3.821	4.021	514.180	500.000	2.8
Aroclor-1016-2	4.308	4.213	4.413	466.220	500.000	-6.8
Aroclor-1016-3	4.348	4.254	4.454	507.460	500.000	1.5
Aroclor-1016-4	4.387	4.292	4.492	526.480	500.000	5.3
Aroclor-1016-5	4.551	4.457	4.657	484.210	500.000	-3.2
Aroclor-1260-1	5.541	5.447	5.647	433.800	500.000	-13.2
Aroclor-1260-2	5.724	5.630	5.830	438.130	500.000	-12.4
Aroclor-1260-3	5.872	5.779	5.979	421.110	500.000	-15.8
Aroclor-1260-4	6.042	5.949	6.149	446.180	500.000	-10.8
Aroclor-1260-5	6.569	6.476	6.676	441.130	500.000	-11.8
Decachlorobiphenyl	7.873	7.780	7.980	47.250	50.000	-5.5
Tetrachloro-m-xylene	3.102	3.006	3.206	45.910	50.000	-8.2

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Continuing Calib Date: 07/14/2016 **Initial Calibration Date(s):** 06/16/2016 06/16/2016

Continuing Calib Time: 03:12 **Initial Calibration Time(s):** 19:22 23:21

GC Column: ZB-MR1 **ID:** 0.32 (mm)

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	5.12	5.13	5.03	5.23	0.01
Aroclor-1016-2	(2)	5.47	5.48	5.38	5.58	0.01
Aroclor-1016-3	(3)	5.57	5.58	5.48	5.68	0.01
Aroclor-1016-4	(4)	5.86	5.87	5.77	5.97	0.01
Aroclor-1016-5	(5)	6.00	6.01	5.91	6.11	0.01
Aroclor-1260-1	(1)	6.98	6.99	6.89	7.09	0.01
Aroclor-1260-2	(2)	7.24	7.24	7.14	7.34	0.00
Aroclor-1260-3	(3)	7.52	7.53	7.43	7.63	0.01
Aroclor-1260-4	(4)	7.82	7.82	7.72	7.92	0.00
Aroclor-1260-5	(5)	8.12	8.13	8.03	8.23	0.01
Tetrachloro-m-xylene		4.22	4.23	4.13	4.33	0.01
Decachlorobiphenyl		9.81	9.82	9.72	9.92	0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Continuing Calib Date: 07/14/2016 **Initial Calibration Date(s):** 06/16/2016 06/16/2016

Continuing Calib Time: 03:12 **Initial Calibration Time(s):** 19:22 23:21

GC Column: ZB-MR2 **ID:** 0.32 (mm)

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	3.92	3.92	3.82	4.02	0.00
Aroclor-1016-2	(2)	4.31	4.31	4.21	4.41	0.00
Aroclor-1016-3	(3)	4.35	4.35	4.25	4.45	0.00
Aroclor-1016-4	(4)	4.39	4.39	4.29	4.49	0.00
Aroclor-1016-5	(5)	4.55	4.56	4.46	4.66	0.01
Aroclor-1260-1	(1)	5.54	5.55	5.45	5.65	0.01
Aroclor-1260-2	(2)	5.72	5.73	5.63	5.83	0.01
Aroclor-1260-3	(3)	5.87	5.88	5.78	5.98	0.01
Aroclor-1260-4	(4)	6.04	6.05	5.95	6.15	0.01
Aroclor-1260-5	(5)	6.57	6.58	6.48	6.68	0.01
Tetrachloro-m-xylene		3.10	3.11	3.01	3.21	0.01
Decachlorobiphenyl		7.87	7.88	7.78	7.98	0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 06/16/2016 06/16/2016

Client Sample No.: CCAL03 **Date Analyzed:** 07/14/2016

Lab Sample No.: AR1660CCC500 **Data File :** PO028839.D **Time Analyzed:** 03:12

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	5.123	5.028	5.228	683.200	500.000	36.6
Aroclor-1016-2	5.473	5.378	5.578	648.460	500.000	29.7
Aroclor-1016-3	5.572	5.478	5.678	628.840	500.000	25.8
Aroclor-1016-4	5.863	5.768	5.968	628.740	500.000	25.7
Aroclor-1016-5	6.003	5.909	6.109	593.100	500.000	18.6
Aroclor-1260-1	6.979	6.886	7.086	604.980	500.000	21.0
Aroclor-1260-2	7.235	7.141	7.341	586.120	500.000	17.2
Aroclor-1260-3	7.518	7.425	7.625	551.140	500.000	10.2
Aroclor-1260-4	7.818	7.723	7.923	472.160	500.000	-5.6
Aroclor-1260-5	8.124	8.031	8.231	491.530	500.000	-1.7
Decachlorobiphenyl	9.813	9.724	9.924	44.040	50.000	-11.9
Tetrachloro-m-xylene	4.224	4.128	4.328	62.340	50.000	24.7

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 06/16/2016 06/16/2016

Client Sample No.: CCAL03 **Date Analyzed:** 07/14/2016

Lab Sample No.: AR1660CCC500 **Data File :** PO028839.D **Time Analyzed:** 03:12

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	3.917	3.821	4.021	580.130	500.000	16.0
Aroclor-1016-2	4.308	4.213	4.413	527.290	500.000	5.5
Aroclor-1016-3	4.348	4.254	4.454	575.700	500.000	15.1
Aroclor-1016-4	4.387	4.292	4.492	594.750	500.000	19.0
Aroclor-1016-5	4.551	4.457	4.657	570.310	500.000	14.1
Aroclor-1260-1	5.541	5.447	5.647	485.550	500.000	-2.9
Aroclor-1260-2	5.724	5.630	5.830	508.910	500.000	1.8
Aroclor-1260-3	5.872	5.779	5.979	486.500	500.000	-2.7
Aroclor-1260-4	6.042	5.949	6.149	504.430	500.000	0.9
Aroclor-1260-5	6.570	6.476	6.676	489.440	500.000	-2.1
Decachlorobiphenyl	7.873	7.780	7.980	49.680	50.000	-0.6
Tetrachloro-m-xylene	3.103	3.006	3.206	52.990	50.000	6.0

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Continuing Calib Date: 07/14/2016 **Initial Calibration Date(s):** 06/16/2016 06/16/2016

Continuing Calib Time: 06:23 **Initial Calibration Time(s):** 19:22 23:21

GC Column: ZB-MR1 **ID:** 0.32 (mm)

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	5.12	5.13	5.03	5.23	0.01
Aroclor-1016-2	(2)	5.47	5.48	5.38	5.58	0.01
Aroclor-1016-3	(3)	5.57	5.58	5.48	5.68	0.01
Aroclor-1016-4	(4)	5.86	5.87	5.77	5.97	0.01
Aroclor-1016-5	(5)	6.00	6.01	5.91	6.11	0.01
Aroclor-1260-1	(1)	6.98	6.99	6.89	7.09	0.01
Aroclor-1260-2	(2)	7.24	7.24	7.14	7.34	0.00
Aroclor-1260-3	(3)	7.52	7.53	7.43	7.63	0.01
Aroclor-1260-4	(4)	7.82	7.82	7.72	7.92	0.00
Aroclor-1260-5	(5)	8.12	8.13	8.03	8.23	0.01
Tetrachloro-m-xylene		4.22	4.23	4.13	4.33	0.01
Decachlorobiphenyl		9.81	9.82	9.72	9.92	0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Continuing Calib Date: 07/14/2016 **Initial Calibration Date(s):** 06/16/2016 06/16/2016

Continuing Calib Time: 06:23 **Initial Calibration Time(s):** 19:22 23:21

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	3.92	3.92	3.82	4.02	0.00
Aroclor-1016-2	(2)	4.31	4.31	4.21	4.41	0.00
Aroclor-1016-3	(3)	4.35	4.35	4.25	4.45	0.00
Aroclor-1016-4	(4)	4.39	4.39	4.29	4.49	0.00
Aroclor-1016-5	(5)	4.55	4.56	4.46	4.66	0.01
Aroclor-1260-1	(1)	5.54	5.55	5.45	5.65	0.01
Aroclor-1260-2	(2)	5.72	5.73	5.63	5.83	0.01
Aroclor-1260-3	(3)	5.87	5.88	5.78	5.98	0.01
Aroclor-1260-4	(4)	6.04	6.05	5.95	6.15	0.01
Aroclor-1260-5	(5)	6.57	6.58	6.48	6.68	0.01
Tetrachloro-m-xylene		3.10	3.11	3.01	3.21	0.01
Decachlorobiphenyl		7.87	7.88	7.78	7.98	0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 06/16/2016 06/16/2016

Client Sample No.: CCAL04 **Date Analyzed:** 07/14/2016

Lab Sample No.: AR1660CCC500 **Data File :** PO028851.D **Time Analyzed:** 06:23

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	5.123	5.028	5.228	692.700	500.000	38.5
Aroclor-1016-2	5.473	5.378	5.578	659.470	500.000	31.9
Aroclor-1016-3	5.572	5.478	5.678	636.770	500.000	27.4
Aroclor-1016-4	5.863	5.768	5.968	647.190	500.000	29.4
Aroclor-1016-5	6.004	5.909	6.109	607.310	500.000	21.5
Aroclor-1260-1	6.979	6.886	7.086	641.530	500.000	28.3
Aroclor-1260-2	7.235	7.141	7.341	611.520	500.000	22.3
Aroclor-1260-3	7.518	7.425	7.625	511.140	500.000	2.2
Aroclor-1260-4	7.817	7.723	7.923	491.800	500.000	-1.6
Aroclor-1260-5	8.124	8.031	8.231	512.590	500.000	2.5
Decachlorobiphenyl	9.809	9.724	9.924	45.150	50.000	-9.7
Tetrachloro-m-xylene	4.224	4.128	4.328	62.800	50.000	25.6

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 06/16/2016 06/16/2016

Client Sample No.: CCAL04 **Date Analyzed:** 07/14/2016

Lab Sample No.: AR1660CCC500 **Data File :** PO028851.D **Time Analyzed:** 06:23

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	3.917	3.821	4.021	585.170	500.000	17.0
Aroclor-1016-2	4.308	4.213	4.413	529.640	500.000	5.9
Aroclor-1016-3	4.349	4.254	4.454	582.360	500.000	16.5
Aroclor-1016-4	4.387	4.292	4.492	598.020	500.000	19.6
Aroclor-1016-5	4.551	4.457	4.657	564.670	500.000	12.9
Aroclor-1260-1	5.541	5.447	5.647	489.510	500.000	-2.1
Aroclor-1260-2	5.723	5.630	5.830	511.570	500.000	2.3
Aroclor-1260-3	5.871	5.779	5.979	488.150	500.000	-2.4
Aroclor-1260-4	6.042	5.949	6.149	507.490	500.000	1.5
Aroclor-1260-5	6.569	6.476	6.676	500.760	500.000	0.2
Decachlorobiphenyl	7.872	7.780	7.980	52.420	50.000	4.8
Tetrachloro-m-xylene	3.103	3.006	3.206	53.090	50.000	6.2

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Continuing Calib Date: 07/14/2016 **Initial Calibration Date(s):** 06/16/2016 06/16/2016

Continuing Calib Time: 22:16 **Initial Calibration Time(s):** 19:22 23:21

GC Column: ZB-MR1 **ID:** 0.32 (mm)

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	5.12	5.13	5.03	5.23	0.01
Aroclor-1016-2	(2)	5.47	5.48	5.38	5.58	0.01
Aroclor-1016-3	(3)	5.57	5.58	5.48	5.68	0.01
Aroclor-1016-4	(4)	5.86	5.87	5.77	5.97	0.01
Aroclor-1016-5	(5)	6.00	6.01	5.91	6.11	0.01
Aroclor-1260-1	(1)	6.98	6.99	6.89	7.09	0.01
Aroclor-1260-2	(2)	7.23	7.24	7.14	7.34	0.01
Aroclor-1260-3	(3)	7.52	7.53	7.43	7.63	0.01
Aroclor-1260-4	(4)	7.82	7.82	7.72	7.92	0.00
Aroclor-1260-5	(5)	8.12	8.13	8.03	8.23	0.01
Tetrachloro-m-xylene		4.22	4.23	4.13	4.33	0.01
Decachlorobiphenyl		9.81	9.82	9.72	9.92	0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Continuing Calib Date: 07/14/2016 **Initial Calibration Date(s):** 06/16/2016 06/16/2016

Continuing Calib Time: 22:16 **Initial Calibration Time(s):** 19:22 23:21

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	3.92	3.92	3.82	4.02	0.00
Aroclor-1016-2	(2)	4.31	4.31	4.21	4.41	0.00
Aroclor-1016-3	(3)	4.35	4.35	4.25	4.45	0.00
Aroclor-1016-4	(4)	4.39	4.39	4.29	4.49	0.00
Aroclor-1016-5	(5)	4.55	4.56	4.46	4.66	0.01
Aroclor-1260-1	(1)	5.54	5.55	5.45	5.65	0.01
Aroclor-1260-2	(2)	5.72	5.73	5.63	5.83	0.01
Aroclor-1260-3	(3)	5.87	5.88	5.78	5.98	0.01
Aroclor-1260-4	(4)	6.04	6.05	5.95	6.15	0.01
Aroclor-1260-5	(5)	6.57	6.58	6.48	6.68	0.01
Tetrachloro-m-xylene		3.10	3.11	3.01	3.21	0.01
Decachlorobiphenyl		7.87	7.88	7.78	7.98	0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 06/16/2016 06/16/2016

Client Sample No.: CCAL05 **Date Analyzed:** 07/14/2016

Lab Sample No.: AR1660CCC500 **Data File :** PO028895.D **Time Analyzed:** 22:16

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	5.122	5.028	5.228	662.070	500.000	32.4
Aroclor-1016-2	5.472	5.378	5.578	610.280	500.000	22.1
Aroclor-1016-3	5.572	5.478	5.678	584.970	500.000	17.0
Aroclor-1016-4	5.862	5.768	5.968	606.000	500.000	21.2
Aroclor-1016-5	6.003	5.909	6.109	553.760	500.000	10.8
Aroclor-1260-1	6.979	6.886	7.086	485.820	500.000	-2.8
Aroclor-1260-2	7.234	7.141	7.341	505.840	500.000	1.2
Aroclor-1260-3	7.517	7.425	7.625	516.480	500.000	3.3
Aroclor-1260-4	7.815	7.723	7.923	440.650	500.000	-11.9
Aroclor-1260-5	8.122	8.031	8.231	451.960	500.000	-9.6
Decachlorobiphenyl	9.809	9.724	9.924	41.010	50.000	-18.0
Tetrachloro-m-xylene	4.223	4.128	4.328	59.600	50.000	19.2

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 06/16/2016 06/16/2016

Client Sample No.: CCAL05 **Date Analyzed:** 07/14/2016

Lab Sample No.: AR1660CCC500 **Data File :** PO028895.D **Time Analyzed:** 22:16

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	3.916	3.821	4.021	616.410	500.000	23.3
Aroclor-1016-2	4.307	4.213	4.413	566.510	500.000	13.3
Aroclor-1016-3	4.348	4.254	4.454	612.140	500.000	22.4
Aroclor-1016-4	4.386	4.292	4.492	628.650	500.000	25.7
Aroclor-1016-5	4.551	4.457	4.657	540.290	500.000	8.1
Aroclor-1260-1	5.540	5.447	5.647	476.800	500.000	-4.6
Aroclor-1260-2	5.723	5.630	5.830	474.400	500.000	-5.1
Aroclor-1260-3	5.872	5.779	5.979	459.030	500.000	-8.2
Aroclor-1260-4	6.042	5.949	6.149	484.540	500.000	-3.1
Aroclor-1260-5	6.569	6.476	6.676	458.440	500.000	-8.3
Decachlorobiphenyl	7.872	7.780	7.980	46.100	50.000	-7.8
Tetrachloro-m-xylene	3.101	3.006	3.206	56.330	50.000	12.7

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Continuing Calib Date: 07/15/2016 **Initial Calibration Date(s):** 06/16/2016 06/16/2016

Continuing Calib Time: 00:55 **Initial Calibration Time(s):** 19:22 23:21

GC Column: ZB-MR1 **ID:** 0.32 (mm)

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	5.12	5.13	5.03	5.23	0.01
Aroclor-1016-2	(2)	5.47	5.48	5.38	5.58	0.01
Aroclor-1016-3	(3)	5.57	5.58	5.48	5.68	0.01
Aroclor-1016-4	(4)	5.86	5.87	5.77	5.97	0.01
Aroclor-1016-5	(5)	6.00	6.01	5.91	6.11	0.01
Aroclor-1260-1	(1)	6.98	6.99	6.89	7.09	0.01
Aroclor-1260-2	(2)	7.24	7.24	7.14	7.34	0.00
Aroclor-1260-3	(3)	7.52	7.53	7.43	7.63	0.01
Aroclor-1260-4	(4)	7.82	7.82	7.72	7.92	0.00
Aroclor-1260-5	(5)	8.12	8.13	8.03	8.23	0.01
Tetrachloro-m-xylene		4.23	4.23	4.13	4.33	0.01
Decachlorobiphenyl		9.81	9.82	9.72	9.92	0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Continuing Calib Date: 07/15/2016 **Initial Calibration Date(s):** 06/16/2016 06/16/2016

Continuing Calib Time: 00:55 **Initial Calibration Time(s):** 19:22 23:21

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	3.92	3.92	3.82	4.02	0.00
Aroclor-1016-2	(2)	4.31	4.31	4.21	4.41	0.00
Aroclor-1016-3	(3)	4.35	4.35	4.25	4.45	0.00
Aroclor-1016-4	(4)	4.39	4.39	4.29	4.49	0.00
Aroclor-1016-5	(5)	4.55	4.56	4.46	4.66	0.01
Aroclor-1260-1	(1)	5.54	5.55	5.45	5.65	0.01
Aroclor-1260-2	(2)	5.72	5.73	5.63	5.83	0.01
Aroclor-1260-3	(3)	5.87	5.88	5.78	5.98	0.01
Aroclor-1260-4	(4)	6.04	6.05	5.95	6.15	0.01
Aroclor-1260-5	(5)	6.57	6.58	6.48	6.68	0.01
Tetrachloro-m-xylene		3.10	3.11	3.01	3.21	0.01
Decachlorobiphenyl		7.87	7.88	7.78	7.98	0.01

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 06/16/2016 06/16/2016

Client Sample No.: CCAL06 **Date Analyzed:** 07/15/2016

Lab Sample No.: AR1660CCC500 **Data File :** PO028905.D **Time Analyzed:** 00:55

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	5.123	5.028	5.228	691.200	500.000	38.2
Aroclor-1016-2	5.474	5.378	5.578	649.080	500.000	29.8
Aroclor-1016-3	5.573	5.478	5.678	632.610	500.000	26.5
Aroclor-1016-4	5.864	5.768	5.968	632.940	500.000	26.6
Aroclor-1016-5	6.004	5.909	6.109	604.380	500.000	20.9
Aroclor-1260-1	6.979	6.886	7.086	550.150	500.000	10.0
Aroclor-1260-2	7.235	7.141	7.341	560.420	500.000	12.1
Aroclor-1260-3	7.519	7.425	7.625	495.130	500.000	-1.0
Aroclor-1260-4	7.817	7.723	7.923	484.090	500.000	-3.2
Aroclor-1260-5	8.124	8.031	8.231	508.770	500.000	1.8
Decachlorobiphenyl	9.812	9.724	9.924	46.430	50.000	-7.1
Tetrachloro-m-xylene	4.225	4.128	4.328	61.700	50.000	23.4

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

GC Column: ZB-MR2 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 06/16/2016 06/16/2016

Client Sample No.: CCAL06 **Date Analyzed:** 07/15/2016

Lab Sample No.: AR1660CCC500 **Data File :** PO028905.D **Time Analyzed:** 00:55

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	3.917	3.821	4.021	611.210	500.000	22.2
Aroclor-1016-2	4.308	4.213	4.413	573.870	500.000	14.8
Aroclor-1016-3	4.348	4.254	4.454	608.750	500.000	21.8
Aroclor-1016-4	4.387	4.292	4.492	620.900	500.000	24.2
Aroclor-1016-5	4.551	4.457	4.657	550.220	500.000	10.0
Aroclor-1260-1	5.541	5.447	5.647	515.440	500.000	3.1
Aroclor-1260-2	5.723	5.630	5.830	510.680	500.000	2.1
Aroclor-1260-3	5.871	5.779	5.979	488.790	500.000	-2.2
Aroclor-1260-4	6.042	5.949	6.149	529.530	500.000	5.9
Aroclor-1260-5	6.569	6.476	6.676	522.010	500.000	4.4
Decachlorobiphenyl	7.874	7.780	7.980	53.000	50.000	6.0
Tetrachloro-m-xylene	3.102	3.006	3.206	57.110	50.000	14.2

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Continuing Calib Date: 07/15/2016 **Initial Calibration Date(s):** 06/16/2016 06/17/2016

Continuing Calib Time: 09:33 **Initial Calibration Time(s):** 19:25 00:01

GC Column: ZB-MR1 **ID:** 0.32 (mm)

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	5.40	5.41	5.31	5.51	0.02
Aroclor-1016-2	(2)	5.75	5.76	5.66	5.86	0.01
Aroclor-1016-3	(3)	5.85	5.86	5.76	5.96	0.01
Aroclor-1016-4	(4)	6.14	6.15	6.05	6.25	0.01
Aroclor-1016-5	(5)	6.28	6.30	6.20	6.40	0.02
Aroclor-1260-1	(1)	7.26	7.27	7.17	7.37	0.01
Aroclor-1260-2	(2)	7.51	7.53	7.43	7.63	0.02
Aroclor-1260-3	(3)	7.80	7.82	7.72	7.92	0.02
Aroclor-1260-4	(4)	8.10	8.12	8.02	8.22	0.02
Aroclor-1260-5	(5)	8.42	8.44	8.34	8.54	0.02
Tetrachloro-m-xylene		4.49	4.50	4.40	4.60	0.01
Decachlorobiphenyl		10.24	10.28	10.18	10.38	0.04

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Continuing Calib Date: 07/15/2016 **Initial Calibration Date(s):** 06/16/2016 06/17/2016

Continuing Calib Time: 09:33 **Initial Calibration Time(s):** 19:25 00:01

GC Column: ZB-MR2 **ID:** 0.32 (mm)

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	4.59	4.60	4.50	4.70	0.01
Aroclor-1016-2	(2)	5.00	5.01	4.91	5.11	0.01
Aroclor-1016-3	(3)	5.04	5.05	4.95	5.15	0.02
Aroclor-1016-4	(4)	5.08	5.09	4.99	5.19	0.01
Aroclor-1016-5	(5)	5.25	5.26	5.16	5.36	0.01
Aroclor-1260-1	(1)	6.27	6.28	6.18	6.38	0.01
Aroclor-1260-2	(2)	6.46	6.47	6.37	6.57	0.01
Aroclor-1260-3	(3)	6.61	6.63	6.53	6.73	0.02
Aroclor-1260-4	(4)	6.79	6.80	6.70	6.90	0.01
Aroclor-1260-5	(5)	7.32	7.33	7.23	7.43	0.01
Tetrachloro-m-xylene		3.72	3.73	3.63	3.83	0.01
Decachlorobiphenyl		8.70	8.72	8.62	8.82	0.02

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 06/16/2016 06/16/2016

Client Sample No.: CCAL07 **Date Analyzed:** 07/15/2016

Lab Sample No.: AR1660CCC500 **Data File :** PQ010135.D **Time Analyzed:** 09:33

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	5.395	5.308	5.508	499.690	500.000	-0.1
Aroclor-1016-2	5.747	5.661	5.861	478.980	500.000	-4.2
Aroclor-1016-3	5.847	5.762	5.962	470.460	500.000	-5.9
Aroclor-1016-4	6.138	6.054	6.254	482.910	500.000	-3.4
Aroclor-1016-5	6.279	6.195	6.395	450.790	500.000	-9.8
Aroclor-1260-1	7.256	7.174	7.374	445.390	500.000	-10.9
Aroclor-1260-2	7.512	7.429	7.629	449.110	500.000	-10.2
Aroclor-1260-3	7.797	7.716	7.916	450.260	500.000	-9.9
Aroclor-1260-4	8.097	8.016	8.216	447.820	500.000	-10.4
Aroclor-1260-5	8.421	8.343	8.543	458.210	500.000	-8.4
Decachlorobiphenyl	10.239	10.175	10.375	46.860	50.000	-6.3
Tetrachloro-m-xylene	4.489	4.401	4.601	49.150	50.000	-1.7

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 06/16/2016 06/16/2016

Client Sample No.: CCAL07 **Date Analyzed:** 07/15/2016

Lab Sample No.: AR1660CCC500 **Data File :** PQ010135.D **Time Analyzed:** 09:33

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.586	4.495	4.695	543.270	500.000	8.7
Aroclor-1016-2	4.998	4.908	5.108	553.960	500.000	10.8
Aroclor-1016-3	5.035	4.945	5.145	514.730	500.000	2.9
Aroclor-1016-4	5.078	4.987	5.187	518.530	500.000	3.7
Aroclor-1016-5	5.250	5.160	5.360	495.710	500.000	-0.9
Aroclor-1260-1	6.272	6.184	6.384	533.920	500.000	6.8
Aroclor-1260-2	6.457	6.368	6.568	572.670	500.000	14.5
Aroclor-1260-3	6.613	6.525	6.725	542.310	500.000	8.5
Aroclor-1260-4	6.786	6.698	6.898	530.960	500.000	6.2
Aroclor-1260-5	7.320	7.231	7.431	543.630	500.000	8.7
Decachlorobiphenyl	8.698	8.615	8.815	49.210	50.000	-1.6
Tetrachloro-m-xylene	3.723	3.631	3.831	52.160	50.000	4.3

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Continuing Calib Date: 07/15/2016 **Initial Calibration Date(s):** 06/16/2016 06/17/2016

Continuing Calib Time: 12:48 **Initial Calibration Time(s):** 19:25 00:01

GC Column: ZB-MR1 **ID:** 0.32 (mm)

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	5.39	5.41	5.31	5.51	0.02
Aroclor-1016-2	(2)	5.75	5.76	5.66	5.86	0.02
Aroclor-1016-3	(3)	5.85	5.86	5.76	5.96	0.01
Aroclor-1016-4	(4)	6.14	6.15	6.05	6.25	0.01
Aroclor-1016-5	(5)	6.28	6.30	6.20	6.40	0.02
Aroclor-1260-1	(1)	7.25	7.27	7.17	7.37	0.02
Aroclor-1260-2	(2)	7.51	7.53	7.43	7.63	0.02
Aroclor-1260-3	(3)	7.79	7.82	7.72	7.92	0.03
Aroclor-1260-4	(4)	8.09	8.12	8.02	8.22	0.03
Aroclor-1260-5	(5)	8.42	8.44	8.34	8.54	0.02
Tetrachloro-m-xylene		4.49	4.50	4.40	4.60	0.01
Decachlorobiphenyl		10.23	10.28	10.18	10.38	0.05

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Continuing Calib Date: 07/15/2016 **Initial Calibration Date(s):** 06/16/2016 06/17/2016

Continuing Calib Time: 12:48 **Initial Calibration Time(s):** 19:25 00:01

GC Column: ZB-MR2 **ID:** 0.32 (mm)

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	4.59	4.60	4.50	4.70	0.01
Aroclor-1016-2	(2)	5.00	5.01	4.91	5.11	0.01
Aroclor-1016-3	(3)	5.04	5.05	4.95	5.15	0.02
Aroclor-1016-4	(4)	5.08	5.09	4.99	5.19	0.01
Aroclor-1016-5	(5)	5.25	5.26	5.16	5.36	0.01
Aroclor-1260-1	(1)	6.27	6.28	6.18	6.38	0.01
Aroclor-1260-2	(2)	6.46	6.47	6.37	6.57	0.01
Aroclor-1260-3	(3)	6.61	6.63	6.53	6.73	0.02
Aroclor-1260-4	(4)	6.79	6.80	6.70	6.90	0.02
Aroclor-1260-5	(5)	7.32	7.33	7.23	7.43	0.01
Tetrachloro-m-xylene		3.72	3.73	3.63	3.83	0.01
Decachlorobiphenyl		8.70	8.72	8.62	8.82	0.02

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 06/16/2016 06/16/2016

Client Sample No.: CCAL08 **Date Analyzed:** 07/15/2016

Lab Sample No.: AR1660CCC500 **Data File :** PQ010147.D **Time Analyzed:** 12:48

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	5.393	5.308	5.508	482.960	500.000	-3.4
Aroclor-1016-2	5.745	5.661	5.861	465.490	500.000	-6.9
Aroclor-1016-3	5.846	5.762	5.962	459.340	500.000	-8.1
Aroclor-1016-4	6.137	6.054	6.254	467.500	500.000	-6.5
Aroclor-1016-5	6.277	6.195	6.395	437.340	500.000	-12.5
Aroclor-1260-1	7.254	7.174	7.374	436.180	500.000	-12.8
Aroclor-1260-2	7.510	7.429	7.629	435.510	500.000	-12.9
Aroclor-1260-3	7.794	7.716	7.916	437.100	500.000	-12.6
Aroclor-1260-4	8.094	8.016	8.216	434.100	500.000	-13.2
Aroclor-1260-5	8.417	8.343	8.543	445.390	500.000	-10.9
Decachlorobiphenyl	10.233	10.175	10.375	45.550	50.000	-8.9
Tetrachloro-m-xylene	4.488	4.401	4.601	48.080	50.000	-3.8

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 06/16/2016 06/16/2016

Client Sample No.: CCAL08 **Date Analyzed:** 07/15/2016

Lab Sample No.: AR1660CCC500 **Data File :** PQ010147.D **Time Analyzed:** 12:48

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.586	4.495	4.695	549.160	500.000	9.8
Aroclor-1016-2	4.998	4.908	5.108	593.870	500.000	18.8
Aroclor-1016-3	5.035	4.945	5.145	549.470	500.000	9.9
Aroclor-1016-4	5.077	4.987	5.187	544.810	500.000	9.0
Aroclor-1016-5	5.249	5.160	5.360	474.690	500.000	-5.1
Aroclor-1260-1	6.272	6.184	6.384	513.020	500.000	2.6
Aroclor-1260-2	6.456	6.368	6.568	551.310	500.000	10.3
Aroclor-1260-3	6.612	6.525	6.725	524.720	500.000	4.9
Aroclor-1260-4	6.785	6.698	6.898	517.130	500.000	3.4
Aroclor-1260-5	7.318	7.231	7.431	533.040	500.000	6.6
Decachlorobiphenyl	8.696	8.615	8.815	48.010	50.000	-4.0
Tetrachloro-m-xylene	3.724	3.631	3.831	50.450	50.000	0.9

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Continuing Calib Date: 07/15/2016 **Initial Calibration Date(s):** 06/16/2016 06/17/2016

Continuing Calib Time: 16:46 **Initial Calibration Time(s):** 19:25 00:01

GC Column: ZB-MR1 **ID:** 0.32 (mm)

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	5.39	5.41	5.31	5.51	0.02
Aroclor-1016-2	(2)	5.75	5.76	5.66	5.86	0.02
Aroclor-1016-3	(3)	5.85	5.86	5.76	5.96	0.02
Aroclor-1016-4	(4)	6.14	6.15	6.05	6.25	0.01
Aroclor-1016-5	(5)	6.28	6.30	6.20	6.40	0.02
Aroclor-1260-1	(1)	7.26	7.27	7.17	7.37	0.01
Aroclor-1260-2	(2)	7.51	7.53	7.43	7.63	0.02
Aroclor-1260-3	(3)	7.80	7.82	7.72	7.92	0.02
Aroclor-1260-4	(4)	8.09	8.12	8.02	8.22	0.03
Aroclor-1260-5	(5)	8.42	8.44	8.34	8.54	0.02
Tetrachloro-m-xylene		4.49	4.50	4.40	4.60	0.01
Decachlorobiphenyl		10.23	10.28	10.18	10.38	0.05

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Continuing Calib Date: 07/15/2016 **Initial Calibration Date(s):** 06/16/2016 06/17/2016

Continuing Calib Time: 16:46 **Initial Calibration Time(s):** 19:25 00:01

GC Column: ZB-MR2 **ID:** 0.32 (mm)

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	4.59	4.60	4.50	4.70	0.01
Aroclor-1016-2	(2)	5.00	5.01	4.91	5.11	0.01
Aroclor-1016-3	(3)	5.04	5.05	4.95	5.15	0.02
Aroclor-1016-4	(4)	5.08	5.09	4.99	5.19	0.01
Aroclor-1016-5	(5)	5.25	5.26	5.16	5.36	0.01
Aroclor-1260-1	(1)	6.27	6.28	6.18	6.38	0.01
Aroclor-1260-2	(2)	6.46	6.47	6.37	6.57	0.01
Aroclor-1260-3	(3)	6.61	6.63	6.53	6.73	0.02
Aroclor-1260-4	(4)	6.79	6.80	6.70	6.90	0.02
Aroclor-1260-5	(5)	7.32	7.33	7.23	7.43	0.01
Tetrachloro-m-xylene		3.72	3.73	3.63	3.83	0.01
Decachlorobiphenyl		8.70	8.72	8.62	8.82	0.02

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 06/16/2016 06/16/2016

Client Sample No.: CCAL09 **Date Analyzed:** 07/15/2016

Lab Sample No.: AR1660CCC500 **Data File :** PQ010159.D **Time Analyzed:** 16:46

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	5.393	5.308	5.508	504.570	500.000	0.9
Aroclor-1016-2	5.745	5.661	5.861	490.460	500.000	-1.9
Aroclor-1016-3	5.845	5.762	5.962	480.050	500.000	-4.0
Aroclor-1016-4	6.137	6.054	6.254	488.240	500.000	-2.4
Aroclor-1016-5	6.278	6.195	6.395	456.280	500.000	-8.7
Aroclor-1260-1	7.255	7.174	7.374	452.760	500.000	-9.4
Aroclor-1260-2	7.509	7.429	7.629	455.370	500.000	-8.9
Aroclor-1260-3	7.795	7.716	7.916	455.580	500.000	-8.9
Aroclor-1260-4	8.094	8.016	8.216	455.030	500.000	-9.0
Aroclor-1260-5	8.418	8.343	8.543	462.880	500.000	-7.4
Decachlorobiphenyl	10.233	10.175	10.375	47.450	50.000	-5.1
Tetrachloro-m-xylene	4.488	4.401	4.601	49.620	50.000	-0.8

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 06/16/2016 06/16/2016

Client Sample No.: CCAL09 **Date Analyzed:** 07/15/2016

Lab Sample No.: AR1660CCC500 **Data File :** PQ010159.D **Time Analyzed:** 16:46

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.585	4.495	4.695	513.670	500.000	2.7
Aroclor-1016-2	4.998	4.908	5.108	551.730	500.000	10.3
Aroclor-1016-3	5.035	4.945	5.145	515.490	500.000	3.1
Aroclor-1016-4	5.076	4.987	5.187	525.330	500.000	5.1
Aroclor-1016-5	5.250	5.160	5.360	504.140	500.000	0.8
Aroclor-1260-1	6.272	6.184	6.384	534.790	500.000	7.0
Aroclor-1260-2	6.456	6.368	6.568	570.130	500.000	14.0
Aroclor-1260-3	6.612	6.525	6.725	553.710	500.000	10.7
Aroclor-1260-4	6.785	6.698	6.898	547.630	500.000	9.5
Aroclor-1260-5	7.318	7.231	7.431	564.080	500.000	12.8
Decachlorobiphenyl	8.697	8.615	8.815	50.340	50.000	0.7
Tetrachloro-m-xylene	3.724	3.631	3.831	53.030	50.000	6.1

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Continuing Calib Date: 07/15/2016 **Initial Calibration Date(s):** 06/16/2016 06/17/2016

Continuing Calib Time: 19:55 **Initial Calibration Time(s):** 19:25 00:01

GC Column: ZB-MR1 **ID:** 0.32 (mm)

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	5.39	5.41	5.31	5.51	0.02
Aroclor-1016-2	(2)	5.75	5.76	5.66	5.86	0.01
Aroclor-1016-3	(3)	5.85	5.86	5.76	5.96	0.01
Aroclor-1016-4	(4)	6.14	6.15	6.05	6.25	0.01
Aroclor-1016-5	(5)	6.28	6.30	6.20	6.40	0.02
Aroclor-1260-1	(1)	7.25	7.27	7.17	7.37	0.02
Aroclor-1260-2	(2)	7.51	7.53	7.43	7.63	0.02
Aroclor-1260-3	(3)	7.79	7.82	7.72	7.92	0.03
Aroclor-1260-4	(4)	8.09	8.12	8.02	8.22	0.03
Aroclor-1260-5	(5)	8.42	8.44	8.34	8.54	0.02
Tetrachloro-m-xylene		4.49	4.50	4.40	4.60	0.01
Decachlorobiphenyl		10.23	10.28	10.18	10.38	0.05

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Continuing Calib Date: 07/15/2016 **Initial Calibration Date(s):** 06/16/2016 06/17/2016

Continuing Calib Time: 19:55 **Initial Calibration Time(s):** 19:25 00:01

GC Column: ZB-MR2 **ID:** 0.32 (mm)

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	4.59	4.60	4.50	4.70	0.01
Aroclor-1016-2	(2)	5.00	5.01	4.91	5.11	0.01
Aroclor-1016-3	(3)	5.03	5.05	4.95	5.15	0.02
Aroclor-1016-4	(4)	5.08	5.09	4.99	5.19	0.01
Aroclor-1016-5	(5)	5.25	5.26	5.16	5.36	0.01
Aroclor-1260-1	(1)	6.27	6.28	6.18	6.38	0.01
Aroclor-1260-2	(2)	6.46	6.47	6.37	6.57	0.01
Aroclor-1260-3	(3)	6.61	6.63	6.53	6.73	0.02
Aroclor-1260-4	(4)	6.78	6.80	6.70	6.90	0.02
Aroclor-1260-5	(5)	7.32	7.33	7.23	7.43	0.01
Tetrachloro-m-xylene		3.72	3.73	3.63	3.83	0.01
Decachlorobiphenyl		8.69	8.72	8.62	8.82	0.03

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

GC Column: ZB-MR1 **ID:** 0.32 **(mm)** **Initi. Calib. Date(s):** 06/16/2016 06/16/2016

Client Sample No.: CCAL10 **Date Analyzed:** 07/15/2016

Lab Sample No.: AR1660CCC500 **Data File :** PQ010170.D **Time Analyzed:** 19:55

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	5.393	5.308	5.508	506.890	500.000	1.4
Aroclor-1016-2	5.746	5.661	5.861	513.340	500.000	2.7
Aroclor-1016-3	5.846	5.762	5.962	504.820	500.000	1.0
Aroclor-1016-4	6.136	6.054	6.254	506.150	500.000	1.2
Aroclor-1016-5	6.278	6.195	6.395	477.460	500.000	-4.5
Aroclor-1260-1	7.254	7.174	7.374	501.490	500.000	0.3
Aroclor-1260-2	7.508	7.429	7.629	480.490	500.000	-3.9
Aroclor-1260-3	7.794	7.716	7.916	465.340	500.000	-6.9
Aroclor-1260-4	8.093	8.016	8.216	475.690	500.000	-4.9
Aroclor-1260-5	8.417	8.343	8.543	480.070	500.000	-4.0
Decachlorobiphenyl	10.233	10.175	10.375	49.460	50.000	-1.1
Tetrachloro-m-xylene	4.488	4.401	4.601	51.990	50.000	4.0

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 06/16/2016 06/16/2016

Client Sample No.: CCAL10 **Date Analyzed:** 07/15/2016

Lab Sample No.: AR1660CCC500 **Data File :** PQ010170.D **Time Analyzed:** 19:55

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.585	4.495	4.695	548.490	500.000	9.7
Aroclor-1016-2	4.997	4.908	5.108	573.680	500.000	14.7
Aroclor-1016-3	5.034	4.945	5.145	541.080	500.000	8.2
Aroclor-1016-4	5.076	4.987	5.187	546.220	500.000	9.2
Aroclor-1016-5	5.249	5.160	5.360	517.060	500.000	3.4
Aroclor-1260-1	6.271	6.184	6.384	566.370	500.000	13.3
Aroclor-1260-2	6.456	6.368	6.568	612.700	500.000	22.5
Aroclor-1260-3	6.611	6.525	6.725	581.640	500.000	16.3
Aroclor-1260-4	6.784	6.698	6.898	566.550	500.000	13.3
Aroclor-1260-5	7.317	7.231	7.431	584.180	500.000	16.8
Decachlorobiphenyl	8.694	8.615	8.815	53.030	50.000	6.1
Tetrachloro-m-xylene	3.724	3.631	3.831	55.480	50.000	11.0

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Analytical Sequence

Client: AKRF Engineering, P.C. SDG No.: H3936

Project: NYCSCA - PS 97X Addition Instrument ID: ECD_O

GC Column: ZB-MR1 ID: 0.32 (mm) Inst. Calib. Date(s): 06/16/2016 06/16/2016

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
I.BLK	I.BLK	06/16/2016	19:07	PO028208.D	9.82	4.23
AR1660ICC1000	AR1660ICC1000	06/16/2016	19:22	PO028209.D	9.83	4.23
AR1660ICC750	AR1660ICC750	06/16/2016	19:38	PO028210.D	9.83	4.23
AR1660ICC500	AR1660ICC500	06/16/2016	19:54	PO028211.D	9.82	4.23
AR1660ICC250	AR1660ICC250	06/16/2016	20:10	PO028212.D	9.82	4.23
AR1660ICC050	AR1660ICC050	06/16/2016	20:26	PO028213.D	9.83	4.23
AR1221ICC500	AR1221ICC500	06/16/2016	20:42	PO028214.D	9.82	4.23
AR1232ICC500	AR1232ICC500	06/16/2016	20:58	PO028215.D	9.82	4.23
AR1242ICC500	AR1242ICC500	06/16/2016	21:14	PO028216.D	9.83	4.23
AR1248ICC500	AR1248ICC500	06/16/2016	21:30	PO028217.D	9.82	4.23
AR1254ICC500	AR1254ICC500	06/16/2016	22:17	PO028220.D	9.82	4.23
AR1262ICC500	AR1262ICC500	06/16/2016	23:05	PO028223.D	9.82	4.23
AR1268ICC500	AR1268ICC500	06/16/2016	23:21	PO028224.D	9.82	4.23
I.BLK	I.BLK	07/13/2016	13:25	PO028787.D	9.81	4.22
AR1660CCC500	AR1660CCC500	07/13/2016	13:41	PO028788.D	9.81	4.22
SB-1(9-10)	H3936-01	07/13/2016	14:44	PO028792.D	9.81	4.22
SB-2(9-10)	H3936-02	07/13/2016	15:00	PO028793.D	9.81	4.22
SB-3(5-6)	H3936-03	07/13/2016	15:16	PO028794.D	9.81	4.22
SB-4(4-5)	H3936-04	07/13/2016	15:32	PO028795.D	9.81	4.23
TW-4	H3936-07	07/13/2016	16:20	PO028798.D	9.81	4.23
SB-6(11-12)	H3936-09	07/13/2016	16:36	PO028799.D	9.81	4.22
SB-5(4-5)	H3936-06	07/13/2016	16:52	PO028800.D	9.81	4.22
SB-5(1-2)	H3936-05	07/13/2016	17:07	PO028801.D	9.81	4.22
I.BLK	I.BLK	07/13/2016	17:23	PO028802.D	9.81	4.22
AR1660CCC500	AR1660CCC500	07/13/2016	17:39	PO028803.D	9.81	4.22
I.BLK	I.BLK	07/14/2016	02:56	PO028838.D	9.81	4.22
AR1660CCC500	AR1660CCC500	07/14/2016	03:12	PO028839.D	9.81	4.22
PB92030BL	PB92030BL	07/14/2016	05:35	PO028848.D	9.81	4.23
PB92030BS	PB92030BS	07/14/2016	05:51	PO028849.D	9.81	4.22
I.BLK	I.BLK	07/14/2016	06:07	PO028850.D	9.81	4.22
AR1660CCC500	AR1660CCC500	07/14/2016	06:23	PO028851.D	9.81	4.22
I.BLK	I.BLK	07/14/2016	22:00	PO028894.D	9.81	4.22
AR1660CCC500	AR1660CCC500	07/14/2016	22:16	PO028895.D	9.81	4.22
PB91979BL	PB91979BL	07/15/2016	00:07	PO028902.D	9.81	4.23
PB91979BS	PB91979BS	07/15/2016	00:23	PO028903.D	9.81	4.23
I.BLK	I.BLK	07/15/2016	00:39	PO028904.D	9.81	4.22
AR1660CCC500	AR1660CCC500	07/15/2016	00:55	PO028905.D	9.81	4.23
I.BLK	I.BLK	06/16/2016	19:10	PQ009380.D	10.28	4.50
AR1660ICC1000	AR1660ICC1000	06/16/2016	19:25	PQ009381.D	10.28	4.50
AR1660ICC750	AR1660ICC750	06/16/2016	19:39	PQ009382.D	10.28	4.50
AR1660ICC500	AR1660ICC500	06/16/2016	19:54	PQ009383.D	10.28	4.50
AR1660ICC250	AR1660ICC250	06/16/2016	20:08	PQ009384.D	10.27	4.50
AR1660ICC050	AR1660ICC050	06/16/2016	20:23	PQ009385.D	10.28	4.50
AR1221ICC500	AR1221ICC500	06/16/2016	20:37	PQ009386.D	10.28	4.50
AR1232ICC500	AR1232ICC500	06/16/2016	20:52	PQ009387.D	10.27	4.50

Analytical Sequence

AR1242ICC500	AR1242ICC500	06/16/2016	21:07	PQ009388.D	10.28	4.50
AR1248ICC500	AR1248ICC500	06/16/2016	21:50	PQ009391.D	10.27	4.50
AR1254ICC500	AR1254ICC500	06/16/2016	23:03	PQ009396.D	10.27	4.50
AR1262ICC500	AR1262ICC500	06/16/2016	23:47	PQ009399.D	10.27	4.50
AR1268ICC500	AR1268ICC500	06/17/2016	00:01	PQ009400.D	10.27	4.50
I.BLK	I.BLK	07/15/2016	09:18	PQ010134.D	10.24	4.49
AR1660CCC500	AR1660CCC500	07/15/2016	09:33	PQ010135.D	10.24	4.49
LOCATION-22A-9-11MS	H3975-04MS	07/15/2016	12:05	PQ010144.D	10.24	4.49
LOCATION-22A-9-11MSD	H3975-04MSD	07/15/2016	12:19	PQ010145.D	10.24	4.49
I.BLK	I.BLK	07/15/2016	12:34	PQ010146.D	10.24	4.49
AR1660CCC500	AR1660CCC500	07/15/2016	12:48	PQ010147.D	10.23	4.49
KY030LC068-W-160706MS	H3940-02MS	07/15/2016	14:23	PQ010151.D	10.24	4.49
I.BLK	I.BLK	07/15/2016	16:31	PQ010158.D	10.24	4.49
AR1660CCC500	AR1660CCC500	07/15/2016	16:46	PQ010159.D	10.23	4.49
KY030LC068-W-160706MSD	H3940-03MSD	07/15/2016	17:59	PQ010164.D	10.23	4.49
I.BLK	I.BLK	07/15/2016	19:41	PQ010169.D	10.23	4.49
AR1660CCC500	AR1660CCC500	07/15/2016	19:55	PQ010170.D	10.23	4.49

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Analytical Sequence

Client: AKRF Engineering, P.C. SDG No.: H3936

Project: NYCSCA - PS 97X Addition Instrument ID: ECD_O

GC Column: ZB-MR2 ID: 0.32 (mm) Inst. Calib. Date(s): 06/16/2016 06/16/2016

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
I.BLK	I.BLK	06/16/2016	19:07	PO028208.D	7.88	3.11
AR1660ICC1000	AR1660ICC1000	06/16/2016	19:22	PO028209.D	7.88	3.11
AR1660ICC750	AR1660ICC750	06/16/2016	19:38	PO028210.D	7.88	3.11
AR1660ICC500	AR1660ICC500	06/16/2016	19:54	PO028211.D	7.88	3.11
AR1660ICC250	AR1660ICC250	06/16/2016	20:10	PO028212.D	7.88	3.11
AR1660ICC050	AR1660ICC050	06/16/2016	20:26	PO028213.D	7.88	3.11
AR1221ICC500	AR1221ICC500	06/16/2016	20:42	PO028214.D	7.88	3.11
AR1232ICC500	AR1232ICC500	06/16/2016	20:58	PO028215.D	7.88	3.11
AR1242ICC500	AR1242ICC500	06/16/2016	21:14	PO028216.D	7.88	3.11
AR1248ICC500	AR1248ICC500	06/16/2016	21:30	PO028217.D	7.88	3.11
AR1254ICC500	AR1254ICC500	06/16/2016	22:17	PO028220.D	7.88	3.11
AR1262ICC500	AR1262ICC500	06/16/2016	23:05	PO028223.D	7.88	3.11
AR1268ICC500	AR1268ICC500	06/16/2016	23:21	PO028224.D	7.88	3.11
I.BLK	I.BLK	07/13/2016	13:25	PO028787.D	7.87	3.10
AR1660CCC500	AR1660CCC500	07/13/2016	13:41	PO028788.D	7.87	3.10
SB-1(9-10)	H3936-01	07/13/2016	14:44	PO028792.D	7.87	3.10
SB-2(9-10)	H3936-02	07/13/2016	15:00	PO028793.D	7.87	3.10
SB-3(5-6)	H3936-03	07/13/2016	15:16	PO028794.D	7.87	3.10
SB-4(4-5)	H3936-04	07/13/2016	15:32	PO028795.D	7.87	3.10
TW-4	H3936-07	07/13/2016	16:20	PO028798.D	7.87	3.10
SB-6(11-12)	H3936-09	07/13/2016	16:36	PO028799.D	7.87	3.10
SB-5(4-5)	H3936-06	07/13/2016	16:52	PO028800.D	7.87	3.10
SB-5(1-2)	H3936-05	07/13/2016	17:07	PO028801.D	7.87	3.10
I.BLK	I.BLK	07/13/2016	17:23	PO028802.D	7.87	3.10
AR1660CCC500	AR1660CCC500	07/13/2016	17:39	PO028803.D	7.87	3.10
I.BLK	I.BLK	07/14/2016	02:56	PO028838.D	7.87	3.10
AR1660CCC500	AR1660CCC500	07/14/2016	03:12	PO028839.D	7.87	3.10
PB92030BL	PB92030BL	07/14/2016	05:35	PO028848.D	7.87	3.10
PB92030BS	PB92030BS	07/14/2016	05:51	PO028849.D	7.87	3.10
I.BLK	I.BLK	07/14/2016	06:07	PO028850.D	7.87	3.10
AR1660CCC500	AR1660CCC500	07/14/2016	06:23	PO028851.D	7.87	3.10
I.BLK	I.BLK	07/14/2016	22:00	PO028894.D	7.87	3.10
AR1660CCC500	AR1660CCC500	07/14/2016	22:16	PO028895.D	7.87	3.10
PB91979BL	PB91979BL	07/15/2016	00:07	PO028902.D	7.87	3.10
PB91979BS	PB91979BS	07/15/2016	00:23	PO028903.D	7.87	3.10
I.BLK	I.BLK	07/15/2016	00:39	PO028904.D	7.87	3.10
AR1660CCC500	AR1660CCC500	07/15/2016	00:55	PO028905.D	7.87	3.10
I.BLK	I.BLK	06/16/2016	19:10	PQ009380.D	8.72	3.73
AR1660ICC1000	AR1660ICC1000	06/16/2016	19:25	PQ009381.D	8.71	3.73
AR1660ICC750	AR1660ICC750	06/16/2016	19:39	PQ009382.D	8.72	3.73
AR1660ICC500	AR1660ICC500	06/16/2016	19:54	PQ009383.D	8.72	3.73
AR1660ICC250	AR1660ICC250	06/16/2016	20:08	PQ009384.D	8.71	3.73
AR1660ICC050	AR1660ICC050	06/16/2016	20:23	PQ009385.D	8.71	3.73
AR1221ICC500	AR1221ICC500	06/16/2016	20:37	PQ009386.D	8.71	3.73
AR1232ICC500	AR1232ICC500	06/16/2016	20:52	PQ009387.D	8.71	3.73

Analytical Sequence

AR1242ICC500	AR1242ICC500	06/16/2016	21:07	PQ009388.D	8.71	3.73
AR1248ICC500	AR1248ICC500	06/16/2016	21:50	PQ009391.D	8.71	3.73
AR1254ICC500	AR1254ICC500	06/16/2016	23:03	PQ009396.D	8.71	3.73
AR1262ICC500	AR1262ICC500	06/16/2016	23:47	PQ009399.D	8.71	3.73
AR1268ICC500	AR1268ICC500	06/17/2016	00:01	PQ009400.D	8.71	3.73
I.BLK	I.BLK	07/15/2016	09:18	PQ010134.D	8.70	3.72
AR1660CCC500	AR1660CCC500	07/15/2016	09:33	PQ010135.D	8.70	3.72
LOCATION-22A-9-11MS	H3975-04MS	07/15/2016	12:05	PQ010144.D	8.70	3.72
LOCATION-22A-9-11MSD	H3975-04MSD	07/15/2016	12:19	PQ010145.D	8.70	3.72
I.BLK	I.BLK	07/15/2016	12:34	PQ010146.D	8.70	3.72
AR1660CCC500	AR1660CCC500	07/15/2016	12:48	PQ010147.D	8.70	3.72
KY030LC068-W-160706MS	H3940-02MS	07/15/2016	14:23	PQ010151.D	8.70	3.72
I.BLK	I.BLK	07/15/2016	16:31	PQ010158.D	8.70	3.72
AR1660CCC500	AR1660CCC500	07/15/2016	16:46	PQ010159.D	8.70	3.72
KY030LC068-W-160706MSD	H3940-03MSD	07/15/2016	17:59	PQ010164.D	8.70	3.73
I.BLK	I.BLK	07/15/2016	19:41	PQ010169.D	8.70	3.72
AR1660CCC500	AR1660CCC500	07/15/2016	19:55	PQ010170.D	8.69	3.72

QC SAMPLE DATA

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	
Project:	NYCSCA - PS 97X Addition	Date Received:	
Client Sample ID:	PB91979BL	SDG No.:	H3936
Lab Sample ID:	PB91979BL	Matrix:	Water
Analytical Method:	SW8082A	% Moisture:	100 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO028902.D	1	07/08/16 10:54	07/15/16 00:07	PB91979

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	0.1	U	0.096	0.1	0.5	ug/L
11104-28-2	Aroclor-1221	0.1	U	0.1	0.1	0.5	ug/L
11141-16-5	Aroclor-1232	0.1	U	0.1	0.1	0.5	ug/L
53469-21-9	Aroclor-1242	0.1	U	0.089	0.1	0.5	ug/L
12672-29-6	Aroclor-1248	0.1	U	0.1	0.1	0.5	ug/L
11097-69-1	Aroclor-1254	0.1	U	0.044	0.1	0.5	ug/L
37324-23-5	Aroclor-1262	0.1	U	0.081	0.1	0.5	ug/L
11100-14-4	Aroclor-1268	0.1	U	0.081	0.1	0.5	ug/L
11096-82-5	Aroclor-1260	0.1	U	0.081	0.1	0.5	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	20.6		35 - 137		103%	SPK: 20
2051-24-3	Decachlorobiphenyl	16.2		40 - 135		81%	SPK: 20

Comments:

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LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	
Project:	NYCSCA - PS 97X Addition	Date Received:	
Client Sample ID:	PB92030BL	SDG No.:	H3936
Lab Sample ID:	PB92030BL	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	0 Decanted:
Sample Wt/Vol:	30.01 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO028848.D	1	07/11/16 14:02	07/14/16 05:35	PB92030

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
12674-11-2	Aroclor-1016	3.3	U	3.3	3.3	17	ug/kg
11104-28-2	Aroclor-1221	3.3	U	3.3	3.3	17	ug/kg
11141-16-5	Aroclor-1232	3.3	U	3.3	3.3	17	ug/kg
53469-21-9	Aroclor-1242	3.3	U	3.3	3.3	17	ug/kg
12672-29-6	Aroclor-1248	3.3	U	3.3	3.3	17	ug/kg
11097-69-1	Aroclor-1254	3.3	U	1.5	3.3	17	ug/kg
37324-23-5	Aroclor-1262	3.3	U	3.3	3.3	17	ug/kg
11100-14-4	Aroclor-1268	3.3	U	3.3	3.3	17	ug/kg
11096-82-5	Aroclor-1260	3.3	U	3.3	3.3	17	ug/kg
SURROGATES							
877-09-8	Tetrachloro-m-xylene	21.1		10 - 166		105%	SPK: 20
2051-24-3	Decachlorobiphenyl	16		60 - 125		80%	SPK: 20

Comments:

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	06/16/16
Project:	NYCSCA - PS 97X Addition	Date Received:	06/16/16
Client Sample ID:	PIBLK-PO028208.D	SDG No.:	H3936
Lab Sample ID:	I.BLK-PO028208.D	Matrix:	Water
Analytical Method:	SW8082A	% Moisture:	100 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO028208.D	1		06/16/16	PO061616

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	0.1	U	0.096	0.1	0.5	ug/L
11104-28-2	Aroclor-1221	0.1	U	0.1	0.1	0.5	ug/L
11141-16-5	Aroclor-1232	0.1	U	0.1	0.1	0.5	ug/L
53469-21-9	Aroclor-1242	0.1	U	0.089	0.1	0.5	ug/L
12672-29-6	Aroclor-1248	0.1	U	0.1	0.1	0.5	ug/L
11097-69-1	Aroclor-1254	0.1	U	0.044	0.1	0.5	ug/L
37324-23-5	Aroclor-1262	0.1	U	0.081	0.1	0.5	ug/L
11100-14-4	Aroclor-1268	0.1	U	0.081	0.1	0.5	ug/L
11096-82-5	Aroclor-1260	0.1	U	0.081	0.1	0.5	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	20.1		35 - 137		100%	SPK: 20
2051-24-3	Decachlorobiphenyl	20.8		40 - 135		104%	SPK: 20

Comments:

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/13/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/13/16
Client Sample ID:	PIBLK-PO028787.D	SDG No.:	H3936
Lab Sample ID:	I.BLK-PO028787.D	Matrix:	Water
Analytical Method:	SW8082A	% Moisture:	100 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO028787.D	1		07/13/16	PO071316

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	0.1	U	0.096	0.1	0.5	ug/L
11104-28-2	Aroclor-1221	0.1	U	0.1	0.1	0.5	ug/L
11141-16-5	Aroclor-1232	0.1	U	0.1	0.1	0.5	ug/L
53469-21-9	Aroclor-1242	0.1	U	0.089	0.1	0.5	ug/L
12672-29-6	Aroclor-1248	0.1	U	0.1	0.1	0.5	ug/L
11097-69-1	Aroclor-1254	0.1	U	0.044	0.1	0.5	ug/L
37324-23-5	Aroclor-1262	0.1	U	0.081	0.1	0.5	ug/L
11100-14-4	Aroclor-1268	0.1	U	0.081	0.1	0.5	ug/L
11096-82-5	Aroclor-1260	0.1	U	0.081	0.1	0.5	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	24.8		35 - 137		124%	SPK: 20
2051-24-3	Decachlorobiphenyl	19.7		40 - 135		98%	SPK: 20

Comments:

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/13/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/13/16
Client Sample ID:	PIBLK-PO028802.D	SDG No.:	H3936
Lab Sample ID:	I.BLK-PO028802.D	Matrix:	Water
Analytical Method:	SW8082A	% Moisture:	100 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO028802.D	1		07/13/16	PO071316

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	0.1	U	0.096	0.1	0.5	ug/L
11104-28-2	Aroclor-1221	0.1	U	0.1	0.1	0.5	ug/L
11141-16-5	Aroclor-1232	0.1	U	0.1	0.1	0.5	ug/L
53469-21-9	Aroclor-1242	0.1	U	0.089	0.1	0.5	ug/L
12672-29-6	Aroclor-1248	0.1	U	0.1	0.1	0.5	ug/L
11097-69-1	Aroclor-1254	0.1	U	0.044	0.1	0.5	ug/L
37324-23-5	Aroclor-1262	0.1	U	0.081	0.1	0.5	ug/L
11100-14-4	Aroclor-1268	0.1	U	0.081	0.1	0.5	ug/L
11096-82-5	Aroclor-1260	0.1	U	0.081	0.1	0.5	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	25.1		35 - 137		126%	SPK: 20
2051-24-3	Decachlorobiphenyl	19.8		40 - 135		99%	SPK: 20

Comments:

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/14/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/14/16
Client Sample ID:	PIBLK-PO028838.D	SDG No.:	H3936
Lab Sample ID:	I.BLK-PO028838.D	Matrix:	Water
Analytical Method:	SW8082A	% Moisture:	100 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO028838.D	1		07/14/16	PO071316

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	0.1	U	0.096	0.1	0.5	ug/L
11104-28-2	Aroclor-1221	0.1	U	0.1	0.1	0.5	ug/L
11141-16-5	Aroclor-1232	0.1	U	0.1	0.1	0.5	ug/L
53469-21-9	Aroclor-1242	0.1	U	0.089	0.1	0.5	ug/L
12672-29-6	Aroclor-1248	0.1	U	0.1	0.1	0.5	ug/L
11097-69-1	Aroclor-1254	0.1	U	0.044	0.1	0.5	ug/L
37324-23-5	Aroclor-1262	0.1	U	0.081	0.1	0.5	ug/L
11100-14-4	Aroclor-1268	0.1	U	0.081	0.1	0.5	ug/L
11096-82-5	Aroclor-1260	0.1	U	0.081	0.1	0.5	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	26.3		35 - 137		132%	SPK: 20
2051-24-3	Decachlorobiphenyl	19.6		40 - 135		98%	SPK: 20

Comments:

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/14/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/14/16
Client Sample ID:	PIBLK-PO028850.D	SDG No.:	H3936
Lab Sample ID:	I.BLK-PO028850.D	Matrix:	Water
Analytical Method:	SW8082A	% Moisture:	100 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO028850.D	1		07/14/16	PO071316

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	0.1	U	0.096	0.1	0.5	ug/L
11104-28-2	Aroclor-1221	0.1	U	0.1	0.1	0.5	ug/L
11141-16-5	Aroclor-1232	0.1	U	0.1	0.1	0.5	ug/L
53469-21-9	Aroclor-1242	0.1	U	0.089	0.1	0.5	ug/L
12672-29-6	Aroclor-1248	0.1	U	0.1	0.1	0.5	ug/L
11097-69-1	Aroclor-1254	0.1	U	0.044	0.1	0.5	ug/L
37324-23-5	Aroclor-1262	0.1	U	0.081	0.1	0.5	ug/L
11100-14-4	Aroclor-1268	0.1	U	0.081	0.1	0.5	ug/L
11096-82-5	Aroclor-1260	0.1	U	0.081	0.1	0.5	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	28.4	*	35 - 137		142%	SPK: 20
2051-24-3	Decachlorobiphenyl	21.5		40 - 135		108%	SPK: 20

Comments:

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Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/14/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/14/16
Client Sample ID:	PIBLK-PO028894.D	SDG No.:	H3936
Lab Sample ID:	I.BLK-PO028894.D	Matrix:	Water
Analytical Method:	SW8082A	% Moisture:	100 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO028894.D	1		07/14/16	PO071416

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	0.1	U	0.096	0.1	0.5	ug/L
11104-28-2	Aroclor-1221	0.1	U	0.1	0.1	0.5	ug/L
11141-16-5	Aroclor-1232	0.1	U	0.1	0.1	0.5	ug/L
53469-21-9	Aroclor-1242	0.1	U	0.089	0.1	0.5	ug/L
12672-29-6	Aroclor-1248	0.1	U	0.1	0.1	0.5	ug/L
11097-69-1	Aroclor-1254	0.1	U	0.044	0.1	0.5	ug/L
37324-23-5	Aroclor-1262	0.1	U	0.081	0.1	0.5	ug/L
11100-14-4	Aroclor-1268	0.1	U	0.081	0.1	0.5	ug/L
11096-82-5	Aroclor-1260	0.1	U	0.081	0.1	0.5	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	26.9		35 - 137		134%	SPK: 20
2051-24-3	Decachlorobiphenyl	20.3		40 - 135		102%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/15/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/15/16
Client Sample ID:	PIBLK-PO028904.D	SDG No.:	H3936
Lab Sample ID:	I.BLK-PO028904.D	Matrix:	Water
Analytical Method:	SW8082A	% Moisture:	100 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO028904.D	1		07/15/16	PO071416

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	0.1	U	0.096	0.1	0.5	ug/L
11104-28-2	Aroclor-1221	0.1	U	0.1	0.1	0.5	ug/L
11141-16-5	Aroclor-1232	0.1	U	0.1	0.1	0.5	ug/L
53469-21-9	Aroclor-1242	0.1	U	0.089	0.1	0.5	ug/L
12672-29-6	Aroclor-1248	0.1	U	0.1	0.1	0.5	ug/L
11097-69-1	Aroclor-1254	0.1	U	0.044	0.1	0.5	ug/L
37324-23-5	Aroclor-1262	0.1	U	0.081	0.1	0.5	ug/L
11100-14-4	Aroclor-1268	0.1	U	0.081	0.1	0.5	ug/L
11096-82-5	Aroclor-1260	0.1	U	0.081	0.1	0.5	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	27.5	*	35 - 137		138%	SPK: 20
2051-24-3	Decachlorobiphenyl	21.6		40 - 135		108%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	06/16/16
Project:	NYCSCA - PS 97X Addition	Date Received:	06/16/16
Client Sample ID:	PIBLK-PQ009380.D	SDG No.:	H3936
Lab Sample ID:	I.BLK-PQ009380.D	Matrix:	Water
Analytical Method:	SW8082A	% Moisture:	100 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PQ009380.D	1		06/16/16	PQ061716

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	0.1	U	0.096	0.1	0.5	ug/L
11104-28-2	Aroclor-1221	0.1	U	0.1	0.1	0.5	ug/L
11141-16-5	Aroclor-1232	0.1	U	0.1	0.1	0.5	ug/L
53469-21-9	Aroclor-1242	0.1	U	0.089	0.1	0.5	ug/L
12672-29-6	Aroclor-1248	0.1	U	0.1	0.1	0.5	ug/L
11097-69-1	Aroclor-1254	0.1	U	0.044	0.1	0.5	ug/L
37324-23-5	Aroclor-1262	0.1	U	0.081	0.1	0.5	ug/L
11100-14-4	Aroclor-1268	0.1	U	0.081	0.1	0.5	ug/L
11096-82-5	Aroclor-1260	0.1	U	0.081	0.1	0.5	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	19.2		35 - 137		96%	SPK: 20
2051-24-3	Decachlorobiphenyl	21.5		40 - 135		107%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/15/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/15/16
Client Sample ID:	PIBLK-PQ010134.D	SDG No.:	H3936
Lab Sample ID:	I.BLK-PQ010134.D	Matrix:	Water
Analytical Method:	SW8082A	% Moisture:	100 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PQ010134.D	1		07/15/16	PQ071516

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	0.1	U	0.096	0.1	0.5	ug/L
11104-28-2	Aroclor-1221	0.1	U	0.1	0.1	0.5	ug/L
11141-16-5	Aroclor-1232	0.1	U	0.1	0.1	0.5	ug/L
53469-21-9	Aroclor-1242	0.1	U	0.089	0.1	0.5	ug/L
12672-29-6	Aroclor-1248	0.1	U	0.1	0.1	0.5	ug/L
11097-69-1	Aroclor-1254	0.1	U	0.044	0.1	0.5	ug/L
37324-23-5	Aroclor-1262	0.1	U	0.081	0.1	0.5	ug/L
11100-14-4	Aroclor-1268	0.1	U	0.081	0.1	0.5	ug/L
11096-82-5	Aroclor-1260	0.1	U	0.081	0.1	0.5	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	21.4		35 - 137		107%	SPK: 20
2051-24-3	Decachlorobiphenyl	22.1		40 - 135		110%	SPK: 20

Comments:

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LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
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() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/15/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/15/16
Client Sample ID:	PIBLK-PQ010146.D	SDG No.:	H3936
Lab Sample ID:	I.BLK-PQ010146.D	Matrix:	Water
Analytical Method:	SW8082A	% Moisture:	100 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PQ010146.D	1		07/15/16	PQ071516

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	0.1	U	0.096	0.1	0.5	ug/L
11104-28-2	Aroclor-1221	0.1	U	0.1	0.1	0.5	ug/L
11141-16-5	Aroclor-1232	0.1	U	0.1	0.1	0.5	ug/L
53469-21-9	Aroclor-1242	0.1	U	0.089	0.1	0.5	ug/L
12672-29-6	Aroclor-1248	0.1	U	0.1	0.1	0.5	ug/L
11097-69-1	Aroclor-1254	0.1	U	0.044	0.1	0.5	ug/L
37324-23-5	Aroclor-1262	0.1	U	0.081	0.1	0.5	ug/L
11100-14-4	Aroclor-1268	0.1	U	0.081	0.1	0.5	ug/L
11096-82-5	Aroclor-1260	0.1	U	0.081	0.1	0.5	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	20.4		35 - 137		102%	SPK: 20
2051-24-3	Decachlorobiphenyl	20.9		40 - 135		104%	SPK: 20

Comments:

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LOD = Limit of Detection
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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/15/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/15/16
Client Sample ID:	PIBLK-PQ010158.D	SDG No.:	H3936
Lab Sample ID:	I.BLK-PQ010158.D	Matrix:	Water
Analytical Method:	SW8082A	% Moisture:	100 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PQ010158.D	1		07/15/16	PQ071516

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	0.1	U	0.096	0.1	0.5	ug/L
11104-28-2	Aroclor-1221	0.1	U	0.1	0.1	0.5	ug/L
11141-16-5	Aroclor-1232	0.1	U	0.1	0.1	0.5	ug/L
53469-21-9	Aroclor-1242	0.1	U	0.089	0.1	0.5	ug/L
12672-29-6	Aroclor-1248	0.1	U	0.1	0.1	0.5	ug/L
11097-69-1	Aroclor-1254	0.1	U	0.044	0.1	0.5	ug/L
37324-23-5	Aroclor-1262	0.1	U	0.081	0.1	0.5	ug/L
11100-14-4	Aroclor-1268	0.1	U	0.081	0.1	0.5	ug/L
11096-82-5	Aroclor-1260	0.1	U	0.081	0.1	0.5	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	20.6		35 - 137		103%	SPK: 20
2051-24-3	Decachlorobiphenyl	21.6		40 - 135		108%	SPK: 20

Comments:

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LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/15/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/15/16
Client Sample ID:	PIBLK-PQ010169.D	SDG No.:	H3936
Lab Sample ID:	I.BLK-PQ010169.D	Matrix:	Water
Analytical Method:	SW8082A	% Moisture:	100 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PQ010169.D	1		07/15/16	PQ071516

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	0.1	U	0.096	0.1	0.5	ug/L
11104-28-2	Aroclor-1221	0.1	U	0.1	0.1	0.5	ug/L
11141-16-5	Aroclor-1232	0.1	U	0.1	0.1	0.5	ug/L
53469-21-9	Aroclor-1242	0.1	U	0.089	0.1	0.5	ug/L
12672-29-6	Aroclor-1248	0.1	U	0.1	0.1	0.5	ug/L
11097-69-1	Aroclor-1254	0.1	U	0.044	0.1	0.5	ug/L
37324-23-5	Aroclor-1262	0.1	U	0.081	0.1	0.5	ug/L
11100-14-4	Aroclor-1268	0.1	U	0.081	0.1	0.5	ug/L
11096-82-5	Aroclor-1260	0.1	U	0.081	0.1	0.5	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	21.1		35 - 137		106%	SPK: 20
2051-24-3	Decachlorobiphenyl	22.7		40 - 135		113%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	
Project:	NYCSCA - PS 97X Addition	Date Received:	
Client Sample ID:	PB91979BS	SDG No.:	H3936
Lab Sample ID:	PB91979BS	Matrix:	Water
Analytical Method:	SW8082A	% Moisture:	100 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO028903.D	1	07/08/16 10:54	07/15/16 00:23	PB91979

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	2.2		0.096	0.1	0.5	ug/L
11104-28-2	Aroclor-1221	0.1	U	0.1	0.1	0.5	ug/L
11141-16-5	Aroclor-1232	0.1	U	0.1	0.1	0.5	ug/L
53469-21-9	Aroclor-1242	0.1	U	0.089	0.1	0.5	ug/L
12672-29-6	Aroclor-1248	0.1	U	0.1	0.1	0.5	ug/L
11097-69-1	Aroclor-1254	0.1	U	0.044	0.1	0.5	ug/L
37324-23-5	Aroclor-1262	0.1	U	0.081	0.1	0.5	ug/L
11100-14-4	Aroclor-1268	0.1	U	0.081	0.1	0.5	ug/L
11096-82-5	Aroclor-1260	1.9		0.081	0.1	0.5	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	21.2		35 - 137		106%	SPK: 20
2051-24-3	Decachlorobiphenyl	16.7		40 - 135		83%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	
Project:	NYCSCA - PS 97X Addition	Date Received:	
Client Sample ID:	PB92030BS	SDG No.:	H3936
Lab Sample ID:	PB92030BS	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	0 Decanted:
Sample Wt/Vol:	30.03 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO028849.D	1	07/11/16 14:02	07/14/16 05:51	PB92030

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
12674-11-2	Aroclor-1016	76.8		3.3	3.3	17	ug/kg
11104-28-2	Aroclor-1221	3.3	U	3.3	3.3	17	ug/kg
11141-16-5	Aroclor-1232	3.3	U	3.3	3.3	17	ug/kg
53469-21-9	Aroclor-1242	3.3	U	3.3	3.3	17	ug/kg
12672-29-6	Aroclor-1248	3.3	U	3.3	3.3	17	ug/kg
11097-69-1	Aroclor-1254	3.3	U	1.5	3.3	17	ug/kg
37324-23-5	Aroclor-1262	3.3	U	3.3	3.3	17	ug/kg
11100-14-4	Aroclor-1268	3.3	U	3.3	3.3	17	ug/kg
11096-82-5	Aroclor-1260	63.1		3.3	3.3	17	ug/kg
SURROGATES							
877-09-8	Tetrachloro-m-xylene	21.3		10 - 166		106%	SPK: 20
2051-24-3	Decachlorobiphenyl	16.1		60 - 125		81%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/07/16
Client Sample ID:	KY030LC068-W-160706MS	SDG No.:	H3936
Lab Sample ID:	H3940-02MS	Matrix:	Water
Analytical Method:	SW8082A	% Moisture:	100 Decanted:
Sample Wt/Vol:	970 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PQ010151.D	1	07/08/16 10:54	07/15/16 14:23	PB91979

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	2		0.099	0.103	0.516	ug/L
11104-28-2	Aroclor-1221	0.103	U	0.103	0.103	0.516	ug/L
11141-16-5	Aroclor-1232	0.103	U	0.103	0.103	0.516	ug/L
53469-21-9	Aroclor-1242	0.103	U	0.0918	0.103	0.516	ug/L
12672-29-6	Aroclor-1248	0.103	U	0.103	0.103	0.516	ug/L
11097-69-1	Aroclor-1254	0.103	U	0.0454	0.103	0.516	ug/L
37324-23-5	Aroclor-1262	0.103	U	0.0835	0.103	0.516	ug/L
11100-14-4	Aroclor-1268	0.103	U	0.0835	0.103	0.516	ug/L
11096-82-5	Aroclor-1260	1.8		0.0835	0.103	0.516	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	13.6		35 - 137		68%	SPK: 20
2051-24-3	Decachlorobiphenyl	13.7		40 - 135		69%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/08/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/08/16
Client Sample ID:	LOCATION-22A-9-11MS	SDG No.:	H3936
Lab Sample ID:	H3975-04MS	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	10.9 Decanted:
Sample Wt/Vol:	30.08 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PQ010144.D	1	07/11/16 14:02	07/15/16 12:05	PB92030

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
12674-11-2	Aroclor-1016	120	P	3.7	3.7	19	ug/kg
11104-28-2	Aroclor-1221	3.7	U	3.7	3.7	19	ug/kg
11141-16-5	Aroclor-1232	3.7	U	3.7	3.7	19	ug/kg
53469-21-9	Aroclor-1242	3.7	U	3.7	3.7	19	ug/kg
12672-29-6	Aroclor-1248	3.7	U	3.7	3.7	19	ug/kg
11097-69-1	Aroclor-1254	3.7	U	1.7	3.7	19	ug/kg
37324-23-5	Aroclor-1262	3.7	U	3.7	3.7	19	ug/kg
11100-14-4	Aroclor-1268	3.7	U	3.7	3.7	19	ug/kg
11096-82-5	Aroclor-1260	73.2		3.7	3.7	19	ug/kg
SURROGATES							
877-09-8	Tetrachloro-m-xylene	19.2		10 - 166		96%	SPK: 20
2051-24-3	Decachlorobiphenyl	16.4		60 - 125		82%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/07/16
Client Sample ID:	KY030LC068-W-160706MSD	SDG No.:	H3936
Lab Sample ID:	H3940-03MSD	Matrix:	Water
Analytical Method:	SW8082A	% Moisture:	100 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PQ010164.D	1	07/08/16 10:54	07/15/16 17:59	PB91979

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	2		0.096	0.1	0.5	ug/L
11104-28-2	Aroclor-1221	0.1	U	0.1	0.1	0.5	ug/L
11141-16-5	Aroclor-1232	0.1	U	0.1	0.1	0.5	ug/L
53469-21-9	Aroclor-1242	0.1	U	0.089	0.1	0.5	ug/L
12672-29-6	Aroclor-1248	0.1	U	0.1	0.1	0.5	ug/L
11097-69-1	Aroclor-1254	0.1	U	0.044	0.1	0.5	ug/L
37324-23-5	Aroclor-1262	0.1	U	0.081	0.1	0.5	ug/L
11100-14-4	Aroclor-1268	0.1	U	0.081	0.1	0.5	ug/L
11096-82-5	Aroclor-1260	1.9		0.081	0.1	0.5	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	15.6		35 - 137		78%	SPK: 20
2051-24-3	Decachlorobiphenyl	14.8		40 - 135		74%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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Q = indicates LCS control criteria did not meet requirements
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B = Analyte Found in Associated Method Blank
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S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/08/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/08/16
Client Sample ID:	LOCATION-22A-9-11MSD	SDG No.:	H3936
Lab Sample ID:	H3975-04MSD	Matrix:	SOIL
Analytical Method:	SW8082A	% Moisture:	10.9 Decanted:
Sample Wt/Vol:	30.05 Units: g	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PQ010145.D	1	07/11/16 14:02	07/15/16 12:19	PB92030

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units(Dry Weight)
TARGETS							
12674-11-2	Aroclor-1016	88.1		3.7	3.7	19	ug/kg
11104-28-2	Aroclor-1221	3.7	U	3.7	3.7	19	ug/kg
11141-16-5	Aroclor-1232	3.7	U	3.7	3.7	19	ug/kg
53469-21-9	Aroclor-1242	3.7	U	3.7	3.7	19	ug/kg
12672-29-6	Aroclor-1248	3.7	U	3.7	3.7	19	ug/kg
11097-69-1	Aroclor-1254	3.7	U	1.7	3.7	19	ug/kg
37324-23-5	Aroclor-1262	3.7	U	3.7	3.7	19	ug/kg
11100-14-4	Aroclor-1268	3.7	U	3.7	3.7	19	ug/kg
11096-82-5	Aroclor-1260	76		3.7	3.7	19	ug/kg
SURROGATES							
877-09-8	Tetrachloro-m-xylene	19.7		10 - 166		99%	SPK: 20
2051-24-3	Decachlorobiphenyl	18		60 - 125		90%	SPK: 20

Comments:

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LOQ = Limit of Quantitation
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LAB CHRONICLE

OrderID:	H3936	**OrderDate:**	7/6/2016 5:13:22 PM
Client:	AKRF Engineering, P.C.	**Project:**	NYCSCA - PS 97X Addition
Contact:	Rebecca Kinal, PE	**Location:**	P63

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
H3936-01	**SB-1(9-10)**	**SOIL**			**07/06/16**			**07/06/16**
			Diesel Range Organics	8015B		07/11/16	07/12/16	
			Gasoline Range Organics	8015B			07/13/16	
			PCB	8082A		07/11/16	07/13/16	
H3936-02	**SB-2(9-10)**	**SOIL**			**07/06/16**			**07/06/16**
			Diesel Range Organics	8015B		07/11/16	07/12/16	
			Gasoline Range Organics	8015B			07/13/16	
			PCB	8082A		07/11/16	07/13/16	
H3936-03	**SB-3(5-6)**	**SOIL**			**07/06/16**			**07/06/16**
			Diesel Range Organics	8015B		07/11/16	07/12/16	
			Gasoline Range Organics	8015B			07/13/16	
			PCB	8082A		07/11/16	07/13/16	
H3936-04	**SB-4(4-5)**	**SOIL**			**07/06/16**			**07/06/16**
			Diesel Range Organics	8015B		07/11/16	07/13/16	
			Gasoline Range Organics	8015B			07/13/16	
			PCB	8082A		07/11/16	07/13/16	
H3936-05	**SB-5(1-2)**	**SOIL**			**07/06/16**			**07/06/16**
			Diesel Range Organics	8015B		07/11/16	07/13/16	
			Gasoline Range Organics	8015B			07/13/16	
			PCB	8082A		07/11/16	07/13/16	
H3936-06	**SB-5(4-5)**	**SOIL**			**07/06/16**			**07/06/16**
			Diesel Range Organics	8015B		07/11/16	07/13/16	
			Gasoline Range Organics	8015B			07/13/16	
			PCB	8082A		07/11/16	07/13/16	
H3936-07	**TW-4**	**Water**			**07/06/16**			**07/06/16**
			PCB	8082A		07/08/16	07/13/16	
H3936-08	**TW-4-DEP**	**Water**			**07/06/16**			**07/06/16**

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LAB CHRONICLE

			PCB Group2	608		07/08/16	07/12/16	
H3936-09	**SB-6(11-12)**	**SOIL**			**07/06/16**			**07/06/16**
			Diesel Range Organics	8015B		07/11/16	07/13/16	
			Gasoline Range Organics	8015B			07/13/16	
			PCB	8082A		07/11/16	07/13/16	

Hit Summary Sheet
SW-846

SDG No.: **Order ID:**

Client: **Project ID:**

Sample ID	Client ID	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID :								

Total Concentration:

SAMPLE DATA

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/06/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/06/16
Client Sample ID:	TW-4-DEP	SDG No.:	H3936
Lab Sample ID:	H3936-08	Matrix:	Water
Analytical Method:	608	% Moisture:	100 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	PCB Group2
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PQ009999.D	1	07/08/16 08:25	07/12/16 01:46	PB91973

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	0.025	U	0.02	0.025	0.05	ug/L
11104-28-2	Aroclor-1221	0.025	U	0.02	0.025	0.05	ug/L
11141-16-5	Aroclor-1232	0.025	U	0.008	0.025	0.05	ug/L
53469-21-9	Aroclor-1242	0.025	U	0.01	0.025	0.05	ug/L
12672-29-6	Aroclor-1248	0.025	U	0.015	0.025	0.05	ug/L
11097-69-1	Aroclor-1254	0.025	U	0.012	0.025	0.05	ug/L
11096-82-5	Aroclor-1260	0.025	U	0.024	0.025	0.05	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	15		18 - 163		75%	SPK: 20
2051-24-3	Decachlorobiphenyl	14.5		10 - 177		73%	SPK: 20

Comments:

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() = Laboratory InHouse Limit

QC SUMMARY

Surrogate Summary

SDG No.: H3936

Client: AKRF Engineering, P.C.

Analytical Method: 608 PCB

Lab Sample ID	Client ID	Parameter	Column	Spike	Result	Rec	Qual	Limits Low	Limits High
I.BLK-PO028920.D	PIBLK-PO028920.D	Tetrachloro-m-xylene	1	20	22.83	114		35	137
		Decachlorobiphenyl	1	20	21.55	108		40	135
		Tetrachloro-m-xylene	2	20	22.91	115		35	137
		Decachlorobiphenyl	2	20	21.09	105		40	135
I.BLK-PO028940.D	PIBLK-PO028940.D	Tetrachloro-m-xylene	1	20	22.26	111		18	163
		Decachlorobiphenyl	1	20	23.8	119		10	177
		Tetrachloro-m-xylene	2	20	22.28	111		18	163
		Decachlorobiphenyl	2	20	24.09	120		10	177
PB91973BS	PB91973BS	Tetrachloro-m-xylene	1	20	14.87	74		18	163
		Decachlorobiphenyl	1	20	16.91	85		10	177
		Tetrachloro-m-xylene	2	20	15.45	77		18	163
		Decachlorobiphenyl	2	20	17.44	87		10	177
PB91973BSD	PB91973BSD	Tetrachloro-m-xylene	1	20	14.81	74		18	163
		Decachlorobiphenyl	1	20	17.26	86		10	177
		Tetrachloro-m-xylene	2	20	14.72	74		18	163
		Decachlorobiphenyl	2	20	17.48	87		10	177
I.BLK-PO028952.D	PIBLK-PO028952.D	Tetrachloro-m-xylene	1	20	21.39	107		35	137
		Decachlorobiphenyl	1	20	23.75	119		40	135
		Tetrachloro-m-xylene	2	20	21.41	107		35	137
		Decachlorobiphenyl	2	20	24.78	124		40	135
I.BLK-PQ009380.D	PIBLK-PQ009380.D	Tetrachloro-m-xylene	1	20	19.24	96		35	137
		Decachlorobiphenyl	1	20	21.46	107		40	135
		Tetrachloro-m-xylene	2	20	20.13	101		35	137
		Decachlorobiphenyl	2	20	20.05	100		40	135
I.BLK-PQ009989.D	PIBLK-PQ009989.D	Tetrachloro-m-xylene	1	20	20.57	103		35	137
		Decachlorobiphenyl	1	20	19.54	98		40	135
		Tetrachloro-m-xylene	2	20	21.14	106		35	137
		Decachlorobiphenyl	2	20	19.45	97		40	135
PB91973BL	PB91973BL	Tetrachloro-m-xylene	1	20	16.27	81		18	163
		Decachlorobiphenyl	1	20	13.03	65		10	177
		Tetrachloro-m-xylene	2	20	16.55	83		18	163
		Decachlorobiphenyl	2	20	12.7	64		10	177
H3936-08	TW-4-DEP	Tetrachloro-m-xylene	1	20	14.98	75		18	163
		Decachlorobiphenyl	1	20	14.53	73		10	177
		Tetrachloro-m-xylene	2	20	15.16	76		18	163
		Decachlorobiphenyl	2	20	15.01	75		10	177
I.BLK-PQ010000.D	PIBLK-PQ010000.D	Tetrachloro-m-xylene	1	20	22.28	111		35	137
		Decachlorobiphenyl	1	20	20.68	103		40	135
		Tetrachloro-m-xylene	2	20	22.2	111		35	137
		Decachlorobiphenyl	2	20	21.5	108		40	135

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: H3936

Client: AKRF Engineering, P.C.

Analytical Method: 608 PCB **Datafile :** PO028942.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB91973BS	AROCLOR 1016	0.05	0.042	ug/L	84				50	114	
	AROCLOR 1260	0.05	0.0455	ug/L	91				8	127	

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Laboratory Control Sample/Laboratory Control Sample Duplicate Summary

SW-846

SDG No.: H3936

Client: AKRF Engineering, P.C.

Analytical Method: 608 PCB **Datafile :** PO028943.D

Lab Sample ID	Parameter	Spike	Result	Units	Rec	RPD	Qual	RPD Qual	Limits Low	Limits High	RPD
PB91973BSD	AROCLOR 1016	0.05	0.0368	ug/L	74	13			50	114	20
	AROCLOR 1260	0.05	0.0405	ug/L	81	12			8	127	20

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4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB91973BL

Lab Name: CHEMTECH

Contract: AKRF02

Lab Code: CHEM

Case No.: H3936

SAS No.: H3936

SDG NO.: H3936

Lab Sample ID: PB91973BL

Lab File ID: PQ009996.D

Matrix: (soil/water) Water

Extraction: (Type) SEPF

Sulfur Cleanup: (Y/N) N

Date Extracted: 07/08/2016

Date Analyzed (1): 07/12/2016

Date Analyzed (2): 07/12/2016

Time Analyzed (1): 01:03

Time Analyzed (2): 01:03

Instrument ID (1): ECD_Q

Instrument ID (2): ECD_Q

GC Column (1): ZB-MR1 ID: 0.32 (mm)

GC Column (2): ZB-MR2 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
PB91973BS	PB91973BS	PO028942.D	07/17/2016	07/17/2016
PB91973BSD	PB91973BSD	PO028943.D	07/17/2016	07/17/2016
TW-4-DEP	H3936-08	PQ009999.D	07/12/2016	07/12/2016

COMMENTS:

CALIBRATION SUMMARY

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

RETENTION TIMES OF INITIAL CALIBRATION

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Instrument ID: ECD_O **Calibration Date(s):** 07/16/2016 07/16/2016

Calibration Times: 12:12 16:11

GC Column: ZB-MR1 ID: 0.32 (mm)

LAB FILE ID: RT 1000 = PO028921.D RT 750 = PO028922.D

RT 500 = PO028923.D RT 250 = PO028924.D RT 050 = PO028925.D

COMPOUND		RT 1000	RT 750	RT 500	RT 250	RT 050	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Aroclor-1016-1	(1)	5.12	5.12	5.12	5.12	5.12	5.12	5.02	5.22
Aroclor-1016-2	(2)	5.47	5.47	5.47	5.47	5.47	5.47	5.37	5.57
Aroclor-1016-3	(3)	5.57	5.57	5.57	5.57	5.57	5.57	5.47	5.67
Aroclor-1016-4	(4)	5.86	5.86	5.86	5.86	5.86	5.86	5.76	5.96
Aroclor-1016-5	(5)	6.00	6.00	6.00	6.00	6.00	6.00	5.90	6.10
Aroclor-1260-1	(1)	6.98	6.98	6.98	6.98	6.98	6.98	6.88	7.08
Aroclor-1260-2	(2)	7.23	7.23	7.23	7.23	7.23	7.23	7.13	7.33
Aroclor-1260-3	(3)	7.52	7.52	7.52	7.52	7.51	7.51	7.41	7.61
Aroclor-1260-4	(4)	7.82	7.81	7.81	7.81	7.81	7.81	7.71	7.91
Aroclor-1260-5	(5)	8.12	8.12	8.12	8.12	8.12	8.12	8.02	8.22
Decachlorobiphenyl		9.81	9.81	9.81	9.81	9.81	9.81	9.71	9.91
Tetrachloro-m-xylene		4.22	4.22	4.22	4.22	4.22	4.22	4.12	4.32
Aroclor-1254-1	(1)	6.24	6.23	6.24	6.23	6.24	6.23	6.13	6.33
Aroclor-1254-2	(2)	6.45	6.45	6.45	6.45	6.45	6.45	6.35	6.55
Aroclor-1254-3	(3)	6.82	6.82	6.82	6.82	6.82	6.82	6.72	6.92
Aroclor-1254-4	(4)	7.10	7.10	7.10	7.10	7.10	7.10	7.00	7.20
Aroclor-1254-5	(5)	7.38	7.38	7.38	7.38	7.38	7.38	7.28	7.48
Decachlorobiphenyl		9.81	9.81	9.81	9.81	9.81	9.81	9.71	9.91
Tetrachloro-m-xylene		4.22	4.22	4.22	4.22	4.22	4.22	4.12	4.32

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Instrument ID: ECD_O **Calibration Date(s):** 07/16/2016 07/16/2016

Calibration Times: 12:12 16:11

GC Column: ZB-MR2 ID: 0.32 (mm)

LAB FILE ID: RT 1000 = PO028921.D RT 750 = PO028922.D

RT 500 = PO028923.D RT 250 = PO028924.D RT 050 = PO028925.D

COMPOUND		RT 1000	RT 750	RT 500	RT 250	RT 050	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Aroclor-1016-1	(1)	3.91	3.91	3.91	3.91	3.91	3.91	3.81	4.01
Aroclor-1016-2	(2)	4.31	4.31	4.31	4.31	4.31	4.30	4.20	4.40
Aroclor-1016-3	(3)	4.35	4.35	4.35	4.35	4.35	4.35	4.25	4.45
Aroclor-1016-4	(4)	4.38	4.38	4.38	4.38	4.39	4.38	4.28	4.48
Aroclor-1016-5	(5)	4.55	4.55	4.55	4.55	4.55	4.55	4.45	4.65
Aroclor-1260-1	(1)	5.54	5.54	5.54	5.54	5.54	5.54	5.44	5.64
Aroclor-1260-2	(2)	5.72	5.72	5.72	5.72	5.72	5.72	5.62	5.82
Aroclor-1260-3	(3)	5.87	5.87	5.87	5.87	5.87	5.87	5.77	5.97
Aroclor-1260-4	(4)	6.04	6.04	6.04	6.04	6.04	6.04	5.94	6.14
Aroclor-1260-5	(5)	6.57	6.57	6.57	6.57	6.57	6.57	6.47	6.67
Decachlorobiphenyl		7.87	7.87	7.87	7.87	7.87	7.87	7.77	7.97
Tetrachloro-m-xylene		3.10	3.10	3.10	3.10	3.10	3.10	3.00	3.20
Aroclor-1254-1	(1)	4.89	4.88	4.89	4.89	4.89	4.88	4.78	4.98
Aroclor-1254-2	(2)	5.03	5.03	5.03	5.03	5.03	5.03	4.93	5.13
Aroclor-1254-3	(3)	5.42	5.41	5.42	5.42	5.42	5.41	5.31	5.51
Aroclor-1254-4	(4)	5.64	5.64	5.64	5.64	5.64	5.64	5.54	5.74
Aroclor-1254-5	(5)	5.94	5.94	5.94	5.94	5.94	5.94	5.84	6.04
Decachlorobiphenyl		7.87	7.87	7.87	7.87	7.87	7.87	7.77	7.97
Tetrachloro-m-xylene		3.10	3.10	3.10	3.10	3.10	3.10	3.00	3.20

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Instrument ID: ECD_O

Calibration Date(s): 07/16/2016 07/16/2016

Calibration Times: 12:12 16:11

GC Column: ZB-MR1 **ID:** 0.32 (mm)

LAB FILE ID: CF 1000 = PO028921.D CF 750 = PO028922.D

CF 500 = PO028923.D CF 250 = PO028924.D CF 050 = PO028925.D

COMPOUND		CF 1000	CF 750	CF 500	CF 250	CF 050	CF	% RSD
Aroclor-1016-1	(1)	8941398	9979735	9371282	8980828	9534940	9361637	5
Aroclor-1016-2	(2)	11726687	13174697	12275096	11824004	12358980	12271893	5
Aroclor-1016-3	(3)	9947834	11166335	10283080	9817704	10422740	10327539	5
Aroclor-1016-4	(4)	9380997	10554119	9840894	9387784	10789600	9990679	7
Aroclor-1016-5	(5)	10356394	11685376	10711628	10330496	11325900	10881959	6
Aroclor-1260-1	(1)	16754310	18664517	18017556	17895112	17689840	17804267	4
Aroclor-1260-2	(2)	21259568	23595968	22930384	22289728	23698120	22754754	4
Aroclor-1260-3	(3)	23059227	25660209	24366216	23819212	24898020	24360577	4
Aroclor-1260-4	(4)	14599065	16140893	15112138	15046780	15384580	15256691	4
Aroclor-1260-5	(5)	29733617	32635992	30927264	30625080	31911120	31166615	4
Decachlorobiphenyl		245695160	273873547	263988040	271739720	291151000	269289493	6
Tetrachloro-m-xylene		374716880	415362600	378121320	349958400	353480800	374328000	7
Aroclor-1254-1	(1)	24370128	12467780	12555072	13694248	14041400	15425726	33
Aroclor-1254-2	(2)	37858192	19253939	19321064	20575052	21667720	23735193	34
Aroclor-1254-3	(3)	39406918	19988487	20087950	21337268	19937520	24151629	35
Aroclor-1254-4	(4)	32618432	16600691	16811090	17768088	17099760	20179612	35
Aroclor-1254-5	(5)	22349522	11228832	11223852	11170964	11172760	13429186	37
Decachlorobiphenyl		460309020	230836000	242284940	256479560	260114400	290004784	33
Tetrachloro-m-xylene		668272380	334812533	328655980	341444680	316666400	397970395	38

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Instrument ID: ECD_O **Calibration Date(s):** 07/16/2016 07/16/2016

Calibration Times: 12:12 16:11

GC Column: ZB-MR2 **ID:** 0.32 (mm)

LAB FILE ID: CF 1000 = PO028921.D CF 750 = PO028922.D

CF 500 = PO028923.D CF 250 = PO028924.D CF 050 = PO028925.D

COMPOUND		CF 1000	CF 750	CF 500	CF 250	CF 050	CF	% RSD
Aroclor-1016-1	(1)	6800677	7557803	7052322	6743876	6556020	6942140	6
Aroclor-1016-2	(2)	7768907	8597164	7979622	7591308	7843400	7956080	5
Aroclor-1016-3	(3)	5387056	5966068	5591878	5379876	5558900	5576756	4
Aroclor-1016-4	(4)	6777399	7519341	7044944	6708540	6874180	6984881	5
Aroclor-1016-5	(5)	7628823	8582061	7973006	7823180	7514180	7904250	5
Aroclor-1260-1	(1)	14857874	16650397	15734074	15386692	16305940	15786995	5
Aroclor-1260-2	(2)	18694681	21113455	20087360	20048660	21856140	20360059	6
Aroclor-1260-3	(3)	17215521	19400304	18346914	18134700	19006620	18420812	5
Aroclor-1260-4	(4)	21727484	24143583	22738276	22369068	23440900	22883862	4
Aroclor-1260-5	(5)	35173301	39461100	36386032	35280748	36217880	36503812	5
Decachlorobiphenyl		295507080	332280333	314538260	320745680	364331200	325480511	8
Tetrachloro-m-xylene		274525440	300066440	273863680	254226720	258901000	272316656	7
Aroclor-1254-1	(1)	25579432	13070423	13050376	14085336	13803780	15917869	34
Aroclor-1254-2	(2)	22084750	11333093	11309118	12055088	12032740	13762958	34
Aroclor-1254-3	(3)	38729678	19702468	19486762	20435688	19710200	23612959	36
Aroclor-1254-4	(4)	25451034	13070672	12826546	13496728	13751820	15719360	35
Aroclor-1254-5	(5)	18463530	9554267	9181226	9540552	9342980	11216511	36
Decachlorobiphenyl		574142140	296826840	294311640	313312640	334604600	362639572	33
Tetrachloro-m-xylene		489623500	246618000	242483180	250228240	238007400	293392064	37

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Instrument ID: ECD_O **Date(s) Analyzed:** 07/16/2016 07/16/2016

GC Column: ZB-MR1 **ID:** 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Aroclor-1221	500	1	4.43	4.33	4.53	3540060
		2	4.52	4.42	4.62	2612140
		3	4.60	4.50	4.70	8302300
		4	0.00			0
		5	0.00			0
Aroclor-1232	500	1	5.12	5.02	5.22	3597780
		2	5.39	5.29	5.49	5323580
		3	5.41	5.31	5.51	7775360
		4	5.47	5.37	5.57	4598300
		5	5.57	5.47	5.67	3730760
Aroclor-1242	500	1	4.93	4.83	5.03	6657060
		2	5.47	5.37	5.57	9085680
		3	5.57	5.47	5.67	7638760
		4	5.86	5.76	5.96	7349780
		5	6.00	5.90	6.10	8315460
Aroclor-1248	500	1	5.86	5.76	5.96	11826700
		2	6.00	5.90	6.10	10481300
		3	6.26	6.16	6.36	14234400
		4	6.30	6.20	6.40	13591900
		5	6.46	6.36	6.56	13566400

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Instrument ID: ECD_O **Date(s) Analyzed:** 07/16/2016 07/16/2016

GC Column: ZB-MR2 **ID:** 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Aroclor-1221	500	1	3.31	3.21	3.41	2267460
		2	3.39	3.29	3.49	1918860
		3	3.46	3.36	3.56	6032640
		4	0.00			0
		5	0.00			0
Aroclor-1232	500	1	3.92	3.82	4.02	2659740
		2	4.12	4.02	4.22	3507340
		3	4.14	4.04	4.24	5655380
		4	4.31	4.21	4.41	3010900
		5	4.35	4.25	4.45	1764060
Aroclor-1242	500	1	3.74	3.64	3.84	4715740
		2	4.19	4.09	4.29	7020700
		3	4.31	4.21	4.41	5839440
		4	4.39	4.29	4.49	5179220
		5	4.55	4.45	4.65	6057500
Aroclor-1248	500	1	4.55	4.45	4.65	9447780
		2	4.69	4.59	4.79	7324800
		3	4.89	4.79	4.99	14049800
		4	4.92	4.82	5.02	10409700
		5	5.42	5.32	5.52	6535100

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Instrument ID: ECD_Q **Calibration Date(s):** 06/16/2016 06/17/2016

Calibration Times: 19:25 00:01

GC Column: ZB-MR1 ID: 0.32 (mm)

LAB FILE ID: RT 1000 = PQ009381.D RT 750 = PQ009382.D

RT 500 = PQ009383.D RT 250 = PQ009384.D RT 050 = PQ009385.D

COMPOUND		RT 1000	RT 750	RT 500	RT 250	RT 050	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Aroclor-1016-1	(1)	5.41	5.41	5.41	5.41	5.41	5.41	5.31	5.51
Aroclor-1016-2	(2)	5.76	5.76	5.76	5.76	5.76	5.76	5.66	5.86
Aroclor-1016-3	(3)	5.86	5.86	5.86	5.86	5.86	5.86	5.76	5.96
Aroclor-1016-4	(4)	6.15	6.15	6.15	6.15	6.15	6.15	6.05	6.25
Aroclor-1016-5	(5)	6.30	6.29	6.30	6.29	6.30	6.29	6.19	6.39
Aroclor-1260-1	(1)	7.27	7.28	7.27	7.27	7.27	7.27	7.17	7.37
Aroclor-1260-2	(2)	7.53	7.53	7.53	7.53	7.53	7.53	7.43	7.63
Aroclor-1260-3	(3)	7.82	7.82	7.82	7.81	7.82	7.82	7.72	7.92
Aroclor-1260-4	(4)	8.12	8.12	8.12	8.12	8.12	8.12	8.02	8.22
Aroclor-1260-5	(5)	8.44	8.44	8.44	8.44	8.44	8.44	8.34	8.54
Decachlorobiphenyl		10.28	10.28	10.28	10.27	10.28	10.28	10.18	10.38
Tetrachloro-m-xylene		4.50	4.50	4.50	4.50	4.50	4.50	4.40	4.60

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RETENTION TIMES OF INITIAL CALIBRATION

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Instrument ID: ECD_Q **Calibration Date(s):** 06/16/2016 06/17/2016

Calibration Times: 19:25 00:01

GC Column: ZB-MR2 ID: 0.32 (mm)

LAB FILE ID: RT 1000 = PQ009381.D RT 750 = PQ009382.D

RT 500 = PQ009383.D RT 250 = PQ009384.D RT 050 = PQ009385.D

COMPOUND		RT 1000	RT 750	RT 500	RT 250	RT 050	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Aroclor-1016-1	(1)	4.60	4.59	4.60	4.60	4.60	4.59	4.49	4.69
Aroclor-1016-2	(2)	5.01	5.01	5.01	5.01	5.01	5.01	4.91	5.11
Aroclor-1016-3	(3)	5.05	5.05	5.05	5.05	5.05	5.05	4.95	5.15
Aroclor-1016-4	(4)	5.09	5.09	5.09	5.09	5.09	5.09	4.99	5.19
Aroclor-1016-5	(5)	5.26	5.26	5.26	5.26	5.26	5.26	5.16	5.36
Aroclor-1260-1	(1)	6.28	6.28	6.28	6.28	6.28	6.28	6.18	6.38
Aroclor-1260-2	(2)	6.47	6.47	6.47	6.47	6.47	6.47	6.37	6.57
Aroclor-1260-3	(3)	6.63	6.63	6.63	6.62	6.62	6.62	6.52	6.72
Aroclor-1260-4	(4)	6.80	6.80	6.80	6.80	6.80	6.80	6.70	6.90
Aroclor-1260-5	(5)	7.33	7.33	7.33	7.33	7.33	7.33	7.23	7.43
Decachlorobiphenyl		8.71	8.72	8.72	8.71	8.71	8.71	8.61	8.81
Tetrachloro-m-xylene		3.73	3.73	3.73	3.73	3.73	3.73	3.63	3.83

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Instrument ID: ECD_Q **Calibration Date(s):** 06/16/2016 06/17/2016

Calibration Times: 19:25 00:01

GC Column: ZB-MR1 **ID:** 0.32 (mm)

LAB FILE ID: CF 1000 = PQ009381.D CF 750 = PQ009382.D

CF 500 = PQ009383.D CF 250 = PQ009384.D CF 050 = PQ009385.D

COMPOUND		CF 1000	CF 750	CF 500	CF 250	CF 050	CF	% RSD
Aroclor-1016-1	(1)	175379514	185653467	191330418	193577948	190641180	187316505	4
Aroclor-1016-2	(2)	209122590	222796561	233245784	238262832	241138620	228913277	6
Aroclor-1016-3	(3)	177137370	184870933	193399260	195684448	185532620	187324926	4
Aroclor-1016-4	(4)	174103315	180456852	188973722	193076000	162420420	179806062	7
Aroclor-1016-5	(5)	185218986	194211340	199343596	204347164	208225300	198269277	5
Aroclor-1260-1	(1)	307658499	323817767	336990124	351313600	393103180	342576634	9
Aroclor-1260-2	(2)	355201504	369907911	385360500	402483764	449868700	392564476	9
Aroclor-1260-3	(3)	419924756	436750461	446678230	463514072	494485160	452270536	6
Aroclor-1260-4	(4)	286458691	298107669	309256510	318731348	338053820	310121608	6
Aroclor-1260-5	(5)	531824367	552998968	573693830	589806208	634604880	576585651	7
Decachlorobiphenyl		4371016460	4555923667	4833187120	4958734480	5179278400	4779628025	7
Tetrachloro-m-xylene		8043069570	8453984933	8590798600	8411737040	8644686600	8428855349	3

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CALIBRATION FACTOR OF INITIAL CALIBRATION

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Instrument ID: ECD_Q

Calibration Date(s): 06/16/2016 06/17/2016

Calibration Times: 19:25 00:01

GC Column: ZB-MR2 **ID:** 0.32 (mm)

LAB FILE ID: CF 1000 = PQ009381.D CF 750 = PQ009382.D

CF 500 = PQ009383.D CF 250 = PQ009384.D CF 050 = PQ009385.D

COMPOUND		CF 1000	CF 750	CF 500	CF 250	CF 050	CF	% RSD
Aroclor-1016-1	(1)	145015046	165403995	154167768	148433752	153731500	153350412	5
Aroclor-1016-2	(2)	77028327	83412343	85326474	83175928	82538860	82296386	4
Aroclor-1016-3	(3)	56930385	61303232	62592454	61469212	85105540	65480165	17
Aroclor-1016-4	(4)	72948652	78071040	80174756	77169520	79186000	77509994	4
Aroclor-1016-5	(5)	88193280	91844367	94375174	88953360	89877320	90648700	3
Aroclor-1260-1	(1)	225678512	234817772	242980730	235575308	271440240	242098512	7
Aroclor-1260-2	(2)	286522102	299446539	308608944	300512376	341535760	307325144	7
Aroclor-1260-3	(3)	266355928	277825623	282046826	276147032	283782820	277231646	2
Aroclor-1260-4	(4)	325795533	335559923	343684008	343523916	369745680	343661812	5
Aroclor-1260-5	(5)	552178327	573609081	575066530	561879396	624856780	577518023	5
Decachlorobiphenyl		4714104310	4854990267	4989970360	4951074840	5225805200	4947188995	4
Tetrachloro-m-xylene		8653184270	9074983693	9211300240	9188336400	9035659000	9032692721	2

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Instrument ID: ECD_Q **Date(s) Analyzed:** 06/16/2016 06/17/2016

GC Column: ZB-MR1 **ID:** 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Aroclor-1221	500	1	4.71	4.61	4.81	73224800
		2	4.80	4.70	4.90	55807800
		3	4.88	4.78	4.98	174393000
		4	0.00			0
		5	0.00			0
Aroclor-1232	500	1	4.88	4.78	4.98	140021000
		2	5.41	5.31	5.51	79763200
		3	5.76	5.66	5.86	89698400
		4	5.86	5.76	5.96	71913800
		5	6.15	6.05	6.25	61783000
Aroclor-1242	500	1	5.41	5.31	5.51	138744000
		2	5.86	5.76	5.96	138603000
		3	6.15	6.05	6.25	140125000
		4	6.29	6.19	6.39	151205000
		5	6.60	6.50	6.70	136115000
Aroclor-1248	500	1	6.15	6.05	6.25	229148000
		2	6.30	6.20	6.40	197962000
		3	6.56	6.46	6.66	250322000
		4	6.60	6.50	6.70	244372000
		5	6.75	6.65	6.85	246050000
Aroclor-1254	500	1	6.53	6.43	6.63	245094000
		2	6.74	6.64	6.84	370618000
		3	7.11	7.01	7.21	381610000
		4	7.40	7.30	7.50	268166000
		5	7.68	7.58	7.78	210096000

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INITIAL CALIBRATION OF MULTICOMPONENT ANALYTES

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Instrument ID: ECD_Q **Date(s) Analyzed:** 06/16/2016 06/17/2016

GC Column: ZB-MR2 **ID:** 0.32 (mm)

COMPOUND	AMOUNT (ng)	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CALIBRATION FACTOR
Aroclor-1221	500	1	3.95	3.85	4.05	84689200
		2	4.03	3.93	4.13	66644000
		3	4.11	4.01	4.21	204012000
		4	0.00			0
		5	0.00			0
Aroclor-1232	500	1	4.11	4.01	4.21	167113000
		2	4.89	4.79	4.99	45092400
		3	5.01	4.91	5.11	33423400
		4	5.26	5.16	5.36	32591800
		5	5.61	5.51	5.71	46245200
Aroclor-1242	500	1	4.60	4.50	4.70	105544000
		2	5.01	4.91	5.11	61622200
		3	5.26	5.16	5.36	69361600
		4	5.61	5.51	5.71	102101000
		5	5.65	5.55	5.75	85287600
Aroclor-1248	500	1	5.05	4.95	5.15	86408600
		2	5.09	4.99	5.19	92548400
		3	5.26	5.16	5.36	113860000
		4	5.61	5.51	5.71	206014000
		5	5.65	5.55	5.75	146955000
Aroclor-1254	500	1	5.61	5.51	5.71	210182000
		2	5.75	5.65	5.85	183588000
		3	6.16	6.06	6.26	316694000
		4	6.38	6.28	6.48	239438000
		5	6.70	6.60	6.80	145455000

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Continuing Calib Date: 07/17/2016 **Initial Calibration Date(s):** 07/16/2016 07/16/2016

Continuing Calib Time: 13:40 **Initial Calibration Time(s):** 12:12 16:11

GC Column: ZB-MR1 **ID:** 0.32 (mm)

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	5.12	5.12	5.02	5.22	0.00
Aroclor-1016-2	(2)	5.47	5.47	5.37	5.57	0.00
Aroclor-1016-3	(3)	5.57	5.57	5.47	5.67	0.00
Aroclor-1016-4	(4)	5.86	5.86	5.76	5.96	0.00
Aroclor-1016-5	(5)	6.00	6.00	5.90	6.10	0.00
Aroclor-1260-1	(1)	6.98	6.98	6.88	7.08	0.00
Aroclor-1260-2	(2)	7.23	7.23	7.13	7.33	0.00
Aroclor-1260-3	(3)	7.52	7.52	7.42	7.62	0.00
Aroclor-1260-4	(4)	7.81	7.81	7.71	7.91	0.00
Aroclor-1260-5	(5)	8.12	8.12	8.02	8.22	0.00
Tetrachloro-m-xylene		4.22	4.22	4.12	4.32	0.00
Decachlorobiphenyl		9.81	9.81	9.71	9.91	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Continuing Calib Date: 07/17/2016 **Initial Calibration Date(s):** 07/16/2016 07/16/2016

Continuing Calib Time: 13:40 **Initial Calibration Time(s):** 12:12 16:11

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	3.91	3.91	3.81	4.01	0.00
Aroclor-1016-2	(2)	4.30	4.31	4.21	4.41	0.01
Aroclor-1016-3	(3)	4.35	4.35	4.25	4.45	0.01
Aroclor-1016-4	(4)	4.38	4.38	4.28	4.48	0.00
Aroclor-1016-5	(5)	4.55	4.55	4.45	4.65	0.00
Aroclor-1260-1	(1)	5.54	5.54	5.44	5.64	0.00
Aroclor-1260-2	(2)	5.72	5.72	5.62	5.82	0.00
Aroclor-1260-3	(3)	5.87	5.87	5.77	5.97	0.00
Aroclor-1260-4	(4)	6.04	6.04	5.94	6.14	0.00
Aroclor-1260-5	(5)	6.57	6.57	6.47	6.67	0.00
Tetrachloro-m-xylene		3.10	3.10	3.00	3.20	0.00
Decachlorobiphenyl		7.87	7.87	7.77	7.97	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 07/16/2016 07/16/2016

Client Sample No.: CCAL01 **Date Analyzed:** 07/17/2016

Lab Sample No.: AR1660CCC500 **Data File :** PO028941.D **Time Analyzed:** 13:40

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	5.120	5.021	5.221	482.830	500.000	-3.4
Aroclor-1016-2	5.470	5.371	5.571	492.240	500.000	-1.6
Aroclor-1016-3	5.569	5.470	5.670	492.810	500.000	-1.4
Aroclor-1016-4	5.860	5.760	5.960	486.790	500.000	-2.6
Aroclor-1016-5	6.001	5.901	6.101	490.880	500.000	-1.8
Aroclor-1260-1	6.976	6.877	7.077	502.330	500.000	0.5
Aroclor-1260-2	7.231	7.132	7.332	503.600	500.000	0.7
Aroclor-1260-3	7.516	7.416	7.616	508.830	500.000	1.8
Aroclor-1260-4	7.813	7.714	7.914	514.090	500.000	2.8
Aroclor-1260-5	8.121	8.021	8.221	517.640	500.000	3.5
Decachlorobiphenyl	9.806	9.705	9.905	49.580	50.000	-0.8
Tetrachloro-m-xylene	4.221	4.122	4.322	47.970	50.000	-4.1

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 07/16/2016 07/16/2016

Client Sample No.: CCAL01 **Date Analyzed:** 07/17/2016

Lab Sample No.: AR1660CCC500 **Data File :** PO028941.D **Time Analyzed:** 13:40

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	3.914	3.814	4.014	494.980	500.000	-1.0
Aroclor-1016-2	4.304	4.205	4.405	490.610	500.000	-1.9
Aroclor-1016-3	4.345	4.246	4.446	493.380	500.000	-1.3
Aroclor-1016-4	4.384	4.284	4.484	495.730	500.000	-0.9
Aroclor-1016-5	4.548	4.449	4.649	496.970	500.000	-0.6
Aroclor-1260-1	5.538	5.439	5.639	493.570	500.000	-1.3
Aroclor-1260-2	5.721	5.622	5.822	489.810	500.000	-2.0
Aroclor-1260-3	5.869	5.770	5.970	498.390	500.000	-0.3
Aroclor-1260-4	6.039	5.940	6.140	505.180	500.000	1.0
Aroclor-1260-5	6.566	6.467	6.667	515.710	500.000	3.1
Decachlorobiphenyl	7.870	7.771	7.971	50.920	50.000	1.8
Tetrachloro-m-xylene	3.099	3.000	3.200	48.390	50.000	-3.2

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Continuing Calib Date: 07/17/2016 **Initial Calibration Date(s):** 07/16/2016 07/16/2016

Continuing Calib Time: 21:45 **Initial Calibration Time(s):** 12:12 16:11

GC Column: ZB-MR1 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	5.12	5.12	5.02	5.22	0.00
Aroclor-1016-2	(2)	5.47	5.47	5.37	5.57	0.00
Aroclor-1016-3	(3)	5.57	5.57	5.47	5.67	0.00
Aroclor-1016-4	(4)	5.86	5.86	5.76	5.96	0.00
Aroclor-1016-5	(5)	6.00	6.00	5.90	6.10	0.00
Aroclor-1260-1	(1)	6.98	6.98	6.88	7.08	0.00
Aroclor-1260-2	(2)	7.23	7.23	7.13	7.33	0.00
Aroclor-1260-3	(3)	7.52	7.52	7.42	7.62	0.00
Aroclor-1260-4	(4)	7.81	7.81	7.71	7.91	0.00
Aroclor-1260-5	(5)	8.12	8.12	8.02	8.22	0.00
Tetrachloro-m-xylene		4.22	4.22	4.12	4.32	0.00
Decachlorobiphenyl		9.81	9.81	9.71	9.91	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Continuing Calib Date: 07/17/2016 **Initial Calibration Date(s):** 07/16/2016 07/16/2016

Continuing Calib Time: 21:45 **Initial Calibration Time(s):** 12:12 16:11

GC Column: ZB-MR2 **ID:** 0.32 (mm)

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	3.92	3.91	3.81	4.01	0.00
Aroclor-1016-2	(2)	4.31	4.31	4.21	4.41	0.00
Aroclor-1016-3	(3)	4.35	4.35	4.25	4.45	0.00
Aroclor-1016-4	(4)	4.39	4.38	4.28	4.48	-0.01
Aroclor-1016-5	(5)	4.55	4.55	4.45	4.65	0.00
Aroclor-1260-1	(1)	5.54	5.54	5.44	5.64	0.00
Aroclor-1260-2	(2)	5.72	5.72	5.62	5.82	0.00
Aroclor-1260-3	(3)	5.87	5.87	5.77	5.97	0.00
Aroclor-1260-4	(4)	6.04	6.04	5.94	6.14	0.00
Aroclor-1260-5	(5)	6.57	6.57	6.47	6.67	0.00
Tetrachloro-m-xylene		3.10	3.10	3.00	3.20	0.00
Decachlorobiphenyl		7.87	7.87	7.77	7.97	0.00

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 07/16/2016 07/16/2016

Client Sample No.: CCAL02 **Date Analyzed:** 07/17/2016

Lab Sample No.: AR1660CCC500 **Data File :** PO028953.D **Time Analyzed:** 21:45

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	5.121	5.021	5.221	494.700	500.000	-1.1
Aroclor-1016-2	5.472	5.371	5.571	491.810	500.000	-1.6
Aroclor-1016-3	5.571	5.470	5.670	495.380	500.000	-0.9
Aroclor-1016-4	5.861	5.760	5.960	487.900	500.000	-2.4
Aroclor-1016-5	6.002	5.901	6.101	490.560	500.000	-1.9
Aroclor-1260-1	6.977	6.877	7.077	523.450	500.000	4.7
Aroclor-1260-2	7.233	7.132	7.332	516.450	500.000	3.3
Aroclor-1260-3	7.516	7.416	7.616	508.450	500.000	1.7
Aroclor-1260-4	7.814	7.714	7.914	513.340	500.000	2.7
Aroclor-1260-5	8.121	8.021	8.221	515.230	500.000	3.0
Decachlorobiphenyl	9.806	9.705	9.905	49.390	50.000	-1.2
Tetrachloro-m-xylene	4.223	4.122	4.322	47.680	50.000	-4.6

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 07/16/2016 07/16/2016

Client Sample No.: CCAL02 **Date Analyzed:** 07/17/2016

Lab Sample No.: AR1660CCC500 **Data File :** PO028953.D **Time Analyzed:** 21:45

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	3.915	3.814	4.014	485.960	500.000	-2.8
Aroclor-1016-2	4.306	4.205	4.405	480.840	500.000	-3.8
Aroclor-1016-3	4.347	4.246	4.446	485.440	500.000	-2.9
Aroclor-1016-4	4.385	4.284	4.484	485.460	500.000	-2.9
Aroclor-1016-5	4.550	4.449	4.649	488.520	500.000	-2.3
Aroclor-1260-1	5.540	5.439	5.639	485.800	500.000	-2.8
Aroclor-1260-2	5.723	5.622	5.822	482.870	500.000	-3.4
Aroclor-1260-3	5.870	5.770	5.970	489.400	500.000	-2.1
Aroclor-1260-4	6.040	5.940	6.140	497.470	500.000	-0.5
Aroclor-1260-5	6.568	6.467	6.667	511.460	500.000	2.3
Decachlorobiphenyl	7.871	7.771	7.971	52.350	50.000	4.7
Tetrachloro-m-xylene	3.101	3.000	3.200	47.270	50.000	-5.5

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Continuing Calib Date: 07/11/2016 **Initial Calibration Date(s):** 06/16/2016 06/17/2016

Continuing Calib Time: 23:36 **Initial Calibration Time(s):** 19:25 00:01

GC Column: ZB-MR1 **ID:** 0.32 (mm)

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	5.40	5.41	5.31	5.51	0.01
Aroclor-1016-2	(2)	5.75	5.76	5.66	5.86	0.01
Aroclor-1016-3	(3)	5.85	5.86	5.76	5.96	0.01
Aroclor-1016-4	(4)	6.14	6.15	6.05	6.25	0.01
Aroclor-1016-5	(5)	6.28	6.30	6.20	6.40	0.02
Aroclor-1260-1	(1)	7.26	7.27	7.17	7.37	0.01
Aroclor-1260-2	(2)	7.52	7.53	7.43	7.63	0.02
Aroclor-1260-3	(3)	7.80	7.82	7.72	7.92	0.02
Aroclor-1260-4	(4)	8.10	8.12	8.02	8.22	0.02
Aroclor-1260-5	(5)	8.43	8.44	8.34	8.54	0.01
Tetrachloro-m-xylene		4.49	4.50	4.40	4.60	0.01
Decachlorobiphenyl		10.25	10.28	10.18	10.38	0.04

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Continuing Calib Date: 07/11/2016 **Initial Calibration Date(s):** 06/16/2016 06/17/2016

Continuing Calib Time: 23:36 **Initial Calibration Time(s):** 19:25 00:01

GC Column: ZB-MR2 **ID:** 0.32 **(mm)**

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	4.59	4.60	4.50	4.70	0.01
Aroclor-1016-2	(2)	5.00	5.01	4.91	5.11	0.01
Aroclor-1016-3	(3)	5.04	5.05	4.95	5.15	0.01
Aroclor-1016-4	(4)	5.08	5.09	4.99	5.19	0.01
Aroclor-1016-5	(5)	5.25	5.26	5.16	5.36	0.01
Aroclor-1260-1	(1)	6.28	6.28	6.18	6.38	0.00
Aroclor-1260-2	(2)	6.46	6.47	6.37	6.57	0.01
Aroclor-1260-3	(3)	6.62	6.63	6.53	6.73	0.02
Aroclor-1260-4	(4)	6.79	6.80	6.70	6.90	0.01
Aroclor-1260-5	(5)	7.32	7.33	7.23	7.43	0.01
Tetrachloro-m-xylene		3.73	3.73	3.63	3.83	0.00
Decachlorobiphenyl		8.70	8.72	8.62	8.82	0.02

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 06/16/2016 06/16/2016

Client Sample No.: CCAL03 **Date Analyzed:** 07/11/2016

Lab Sample No.: AR1660CCC500 **Data File :** PQ009990.D **Time Analyzed:** 23:36

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	5.398	5.308	5.508	525.120	500.000	5.0
Aroclor-1016-2	5.751	5.661	5.861	513.950	500.000	2.8
Aroclor-1016-3	5.851	5.762	5.962	502.250	500.000	0.5
Aroclor-1016-4	6.142	6.054	6.254	502.430	500.000	0.5
Aroclor-1016-5	6.283	6.195	6.395	469.190	500.000	-6.2
Aroclor-1260-1	7.260	7.174	7.374	478.790	500.000	-4.2
Aroclor-1260-2	7.515	7.429	7.629	468.540	500.000	-6.3
Aroclor-1260-3	7.801	7.716	7.916	465.350	500.000	-6.9
Aroclor-1260-4	8.100	8.016	8.216	465.510	500.000	-6.9
Aroclor-1260-5	8.425	8.343	8.543	475.130	500.000	-5.0
Decachlorobiphenyl	10.245	10.175	10.375	45.810	50.000	-8.4
Tetrachloro-m-xylene	4.493	4.401	4.601	52.880	50.000	5.8

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 06/16/2016 06/16/2016

Client Sample No.: CCAL03 **Date Analyzed:** 07/11/2016

Lab Sample No.: AR1660CCC500 **Data File :** PQ009990.D **Time Analyzed:** 23:36

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.588	4.495	4.695	511.250	500.000	2.3
Aroclor-1016-2	5.000	4.908	5.108	571.700	500.000	14.3
Aroclor-1016-3	5.038	4.945	5.145	539.210	500.000	7.8
Aroclor-1016-4	5.080	4.987	5.187	542.780	500.000	8.6
Aroclor-1016-5	5.252	5.160	5.360	523.450	500.000	4.7
Aroclor-1260-1	6.275	6.184	6.384	530.010	500.000	6.0
Aroclor-1260-2	6.459	6.368	6.568	543.530	500.000	8.7
Aroclor-1260-3	6.615	6.525	6.725	529.360	500.000	5.9
Aroclor-1260-4	6.787	6.698	6.898	519.360	500.000	3.9
Aroclor-1260-5	7.321	7.231	7.431	521.220	500.000	4.2
Decachlorobiphenyl	8.700	8.615	8.815	47.470	50.000	-5.1
Tetrachloro-m-xylene	3.726	3.631	3.831	53.130	50.000	6.3

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Continuing Calib Date: 07/12/2016 **Initial Calibration Date(s):** 06/16/2016 06/17/2016

Continuing Calib Time: 02:16 **Initial Calibration Time(s):** 19:25 00:01

GC Column: ZB-MR1 **ID:** 0.32 (mm)

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	5.40	5.41	5.31	5.51	0.01
Aroclor-1016-2	(2)	5.75	5.76	5.66	5.86	0.01
Aroclor-1016-3	(3)	5.85	5.86	5.76	5.96	0.01
Aroclor-1016-4	(4)	6.14	6.15	6.05	6.25	0.01
Aroclor-1016-5	(5)	6.28	6.30	6.20	6.40	0.02
Aroclor-1260-1	(1)	7.26	7.27	7.17	7.37	0.01
Aroclor-1260-2	(2)	7.52	7.53	7.43	7.63	0.02
Aroclor-1260-3	(3)	7.80	7.82	7.72	7.92	0.02
Aroclor-1260-4	(4)	8.10	8.12	8.02	8.22	0.02
Aroclor-1260-5	(5)	8.42	8.44	8.34	8.54	0.02
Tetrachloro-m-xylene		4.49	4.50	4.40	4.60	0.01
Decachlorobiphenyl		10.24	10.28	10.18	10.38	0.04

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

Continuing Calib Date: 07/12/2016 **Initial Calibration Date(s):** 06/16/2016 06/17/2016

Continuing Calib Time: 02:16 **Initial Calibration Time(s):** 19:25 00:01

GC Column: ZB-MR2 **ID:** 0.32 (mm)

COMPOUND		CCAL RT	AVG RT	RT WINDOW FROM	TO	DIFF RT
Aroclor-1016-1	(1)	4.59	4.60	4.50	4.70	0.01
Aroclor-1016-2	(2)	5.00	5.01	4.91	5.11	0.01
Aroclor-1016-3	(3)	5.04	5.05	4.95	5.15	0.01
Aroclor-1016-4	(4)	5.08	5.09	4.99	5.19	0.01
Aroclor-1016-5	(5)	5.25	5.26	5.16	5.36	0.01
Aroclor-1260-1	(1)	6.27	6.28	6.18	6.38	0.01
Aroclor-1260-2	(2)	6.46	6.47	6.37	6.57	0.01
Aroclor-1260-3	(3)	6.62	6.63	6.53	6.73	0.02
Aroclor-1260-4	(4)	6.79	6.80	6.70	6.90	0.01
Aroclor-1260-5	(5)	7.32	7.33	7.23	7.43	0.01
Tetrachloro-m-xylene		3.73	3.73	3.63	3.83	0.00
Decachlorobiphenyl		8.70	8.72	8.62	8.82	0.02

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

GC Column: ZB-MR1 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 06/16/2016 06/16/2016

Client Sample No.: CCAL04 **Date Analyzed:** 07/12/2016

Lab Sample No.: AR1660CCC500 **Data File :** PQ010001.D **Time Analyzed:** 02:16

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	5.398	5.308	5.508	546.710	500.000	9.3
Aroclor-1016-2	5.750	5.661	5.861	526.430	500.000	5.3
Aroclor-1016-3	5.850	5.762	5.962	513.130	500.000	2.6
Aroclor-1016-4	6.141	6.054	6.254	520.610	500.000	4.1
Aroclor-1016-5	6.283	6.195	6.395	489.840	500.000	-2.0
Aroclor-1260-1	7.260	7.174	7.374	493.500	500.000	-1.3
Aroclor-1260-2	7.515	7.429	7.629	483.150	500.000	-3.4
Aroclor-1260-3	7.800	7.716	7.916	481.130	500.000	-3.8
Aroclor-1260-4	8.099	8.016	8.216	471.150	500.000	-5.8
Aroclor-1260-5	8.424	8.343	8.543	484.470	500.000	-3.1
Decachlorobiphenyl	10.244	10.175	10.375	46.560	50.000	-6.9
Tetrachloro-m-xylene	4.492	4.401	4.601	54.990	50.000	10.0

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CALIBRATION VERIFICATION SUMMARY

Contract: AKRF02

Lab Code: CHEM **Case No.:** H3936 **SAS No.:** H3936 **SDG NO.:** H3936

GC Column: ZB-MR2 **ID:** 0.32 (mm) **Initi. Calib. Date(s):** 06/16/2016 06/16/2016

Client Sample No.: CCAL04 **Date Analyzed:** 07/12/2016

Lab Sample No.: AR1660CCC500 **Data File :** PQ010001.D **Time Analyzed:** 02:16

COMPOUND	RT	RT WINDOW FROM	RT WINDOW TO	CALC AMOUNT(ng)	NOM AMOUNT(ng)	%D
Aroclor-1016-1	4.588	4.495	4.695	536.850	500.000	7.4
Aroclor-1016-2	5.000	4.908	5.108	594.690	500.000	18.9
Aroclor-1016-3	5.038	4.945	5.145	560.730	500.000	12.1
Aroclor-1016-4	5.079	4.987	5.187	563.040	500.000	12.6
Aroclor-1016-5	5.252	5.160	5.360	537.100	500.000	7.4
Aroclor-1260-1	6.274	6.184	6.384	557.610	500.000	11.5
Aroclor-1260-2	6.459	6.368	6.568	576.330	500.000	15.3
Aroclor-1260-3	6.615	6.525	6.725	560.470	500.000	12.1
Aroclor-1260-4	6.788	6.698	6.898	554.960	500.000	11.0
Aroclor-1260-5	7.321	7.231	7.431	557.910	500.000	11.6
Decachlorobiphenyl	8.700	8.615	8.815	51.450	50.000	2.9
Tetrachloro-m-xylene	3.726	3.631	3.831	55.130	50.000	10.3

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Analytical Sequence

Client: AKRF Engineering, P.C. SDG No.: H3936

Project: NYCSCA - PS 97X Addition Instrument ID: ECD_O

GC Column: ZB-MR1 ID: 0.32 (mm) Inst. Calib. Date(s): 07/16/2016 07/16/2016

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
I.BLK	I.BLK	07/16/2016	11:56	PO028920.D	9.81	4.22
AR1660ICC1000	AR1660ICC1000	07/16/2016	12:12	PO028921.D	9.81	4.22
AR1660ICC750	AR1660ICC750	07/16/2016	12:28	PO028922.D	9.81	4.22
AR1660ICC500	AR1660ICC500	07/16/2016	12:44	PO028923.D	9.81	4.22
AR1660ICC250	AR1660ICC250	07/16/2016	13:00	PO028924.D	9.81	4.22
AR1660ICC050	AR1660ICC050	07/16/2016	13:16	PO028925.D	9.81	4.22
AR1221ICC500	AR1221ICC500	07/16/2016	13:32	PO028926.D	9.81	4.22
AR1232ICC500	AR1232ICC500	07/16/2016	13:48	PO028927.D	9.81	4.22
AR1242ICC500	AR1242ICC500	07/16/2016	14:04	PO028928.D	9.81	4.22
AR1248ICC500	AR1248ICC500	07/16/2016	14:19	PO028929.D	9.81	4.22
AR1254ICC1000	AR1254ICC1000	07/16/2016	14:35	PO028930.D	9.81	4.22
AR1254ICC750	AR1254ICC750	07/16/2016	14:51	PO028931.D	9.81	4.22
AR1254ICC500	AR1254ICC500	07/16/2016	15:07	PO028932.D	9.81	4.22
AR1254ICC250	AR1254ICC250	07/16/2016	15:23	PO028933.D	9.81	4.22
AR1254ICC050	AR1254ICC050	07/16/2016	15:39	PO028934.D	9.81	4.22
AR1262ICC500	AR1262ICC500	07/16/2016	15:55	PO028935.D	9.81	4.22
AR1268ICC500	AR1268ICC500	07/16/2016	16:11	PO028936.D	9.81	4.22
I.BLK	I.BLK	07/17/2016	13:24	PO028940.D	9.81	4.22
AR1660CCC500	AR1660CCC500	07/17/2016	13:40	PO028941.D	9.81	4.22
PB91973BS	PB91973BS	07/17/2016	18:19	PO028942.D	9.82	4.23
PB91973BSD	PB91973BSD	07/17/2016	18:35	PO028943.D	9.81	4.22
I.BLK	I.BLK	07/17/2016	21:29	PO028952.D	9.81	4.22
AR1660CCC500	AR1660CCC500	07/17/2016	21:45	PO028953.D	9.81	4.22
I.BLK	I.BLK	06/16/2016	19:10	PQ009380.D	10.28	4.50
AR1660ICC1000	AR1660ICC1000	06/16/2016	19:25	PQ009381.D	10.28	4.50
AR1660ICC750	AR1660ICC750	06/16/2016	19:39	PQ009382.D	10.28	4.50
AR1660ICC500	AR1660ICC500	06/16/2016	19:54	PQ009383.D	10.28	4.50
AR1660ICC250	AR1660ICC250	06/16/2016	20:08	PQ009384.D	10.27	4.50
AR1660ICC050	AR1660ICC050	06/16/2016	20:23	PQ009385.D	10.28	4.50
AR1221ICC500	AR1221ICC500	06/16/2016	20:37	PQ009386.D	10.28	4.50
AR1232ICC500	AR1232ICC500	06/16/2016	20:52	PQ009387.D	10.27	4.50
AR1242ICC500	AR1242ICC500	06/16/2016	21:07	PQ009388.D	10.28	4.50
AR1248ICC500	AR1248ICC500	06/16/2016	21:50	PQ009391.D	10.27	4.50
AR1254ICC500	AR1254ICC500	06/16/2016	23:03	PQ009396.D	10.27	4.50
AR1262ICC500	AR1262ICC500	06/16/2016	23:47	PQ009399.D	10.27	4.50
AR1268ICC500	AR1268ICC500	06/17/2016	00:01	PQ009400.D	10.27	4.50
I.BLK	I.BLK	07/11/2016	23:21	PQ009989.D	10.25	4.49
AR1660CCC500	AR1660CCC500	07/11/2016	23:36	PQ009990.D	10.25	4.49
PB91973BL	PB91973BL	07/12/2016	01:03	PQ009996.D	10.25	4.49
TW-4-DEP	H3936-08	07/12/2016	01:46	PQ009999.D	10.24	4.49
I.BLK	I.BLK	07/12/2016	02:01	PQ010000.D	10.24	4.49
AR1660CCC500	AR1660CCC500	07/12/2016	02:16	PQ010001.D	10.24	4.49

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Analytical Sequence

Client: AKRF Engineering, P.C. SDG No.: H3936

Project: NYCSCA - PS 97X Addition Instrument ID: ECD_O

GC Column: ZB-MR2 ID: 0.32 (mm) Inst. Calib. Date(s): 07/16/2016 07/16/2016

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	DATAFILE	DCB RT #	TCX RT #
I.BLK	I.BLK	07/16/2016	11:56	PO028920.D	7.87	3.10
AR1660ICC1000	AR1660ICC1000	07/16/2016	12:12	PO028921.D	7.87	3.10
AR1660ICC750	AR1660ICC750	07/16/2016	12:28	PO028922.D	7.87	3.10
AR1660ICC500	AR1660ICC500	07/16/2016	12:44	PO028923.D	7.87	3.10
AR1660ICC250	AR1660ICC250	07/16/2016	13:00	PO028924.D	7.87	3.10
AR1660ICC050	AR1660ICC050	07/16/2016	13:16	PO028925.D	7.87	3.10
AR1221ICC500	AR1221ICC500	07/16/2016	13:32	PO028926.D	7.87	3.10
AR1232ICC500	AR1232ICC500	07/16/2016	13:48	PO028927.D	7.87	3.10
AR1242ICC500	AR1242ICC500	07/16/2016	14:04	PO028928.D	7.87	3.10
AR1248ICC500	AR1248ICC500	07/16/2016	14:19	PO028929.D	7.87	3.10
AR1254ICC1000	AR1254ICC1000	07/16/2016	14:35	PO028930.D	7.87	3.10
AR1254ICC750	AR1254ICC750	07/16/2016	14:51	PO028931.D	7.87	3.10
AR1254ICC500	AR1254ICC500	07/16/2016	15:07	PO028932.D	7.87	3.10
AR1254ICC250	AR1254ICC250	07/16/2016	15:23	PO028933.D	7.87	3.10
AR1254ICC050	AR1254ICC050	07/16/2016	15:39	PO028934.D	7.87	3.10
AR1262ICC500	AR1262ICC500	07/16/2016	15:55	PO028935.D	7.87	3.10
AR1268ICC500	AR1268ICC500	07/16/2016	16:11	PO028936.D	7.87	3.10
I.BLK	I.BLK	07/17/2016	13:24	PO028940.D	7.87	3.10
AR1660CCC500	AR1660CCC500	07/17/2016	13:40	PO028941.D	7.87	3.10
PB91973BS	PB91973BS	07/17/2016	18:19	PO028942.D	7.87	3.10
PB91973BSD	PB91973BSD	07/17/2016	18:35	PO028943.D	7.87	3.10
I.BLK	I.BLK	07/17/2016	21:29	PO028952.D	7.87	3.10
AR1660CCC500	AR1660CCC500	07/17/2016	21:45	PO028953.D	7.87	3.10
I.BLK	I.BLK	06/16/2016	19:10	PQ009380.D	8.72	3.73
AR1660ICC1000	AR1660ICC1000	06/16/2016	19:25	PQ009381.D	8.71	3.73
AR1660ICC750	AR1660ICC750	06/16/2016	19:39	PQ009382.D	8.72	3.73
AR1660ICC500	AR1660ICC500	06/16/2016	19:54	PQ009383.D	8.72	3.73
AR1660ICC250	AR1660ICC250	06/16/2016	20:08	PQ009384.D	8.71	3.73
AR1660ICC050	AR1660ICC050	06/16/2016	20:23	PQ009385.D	8.71	3.73
AR1221ICC500	AR1221ICC500	06/16/2016	20:37	PQ009386.D	8.71	3.73
AR1232ICC500	AR1232ICC500	06/16/2016	20:52	PQ009387.D	8.71	3.73
AR1242ICC500	AR1242ICC500	06/16/2016	21:07	PQ009388.D	8.71	3.73
AR1248ICC500	AR1248ICC500	06/16/2016	21:50	PQ009391.D	8.71	3.73
AR1254ICC500	AR1254ICC500	06/16/2016	23:03	PQ009396.D	8.71	3.73
AR1262ICC500	AR1262ICC500	06/16/2016	23:47	PQ009399.D	8.71	3.73
AR1268ICC500	AR1268ICC500	06/17/2016	00:01	PQ009400.D	8.71	3.73
I.BLK	I.BLK	07/11/2016	23:21	PQ009989.D	8.70	3.73
AR1660CCC500	AR1660CCC500	07/11/2016	23:36	PQ009990.D	8.70	3.73
PB91973BL	PB91973BL	07/12/2016	01:03	PQ009996.D	8.70	3.73
TW-4-DEP	H3936-08	07/12/2016	01:46	PQ009999.D	8.70	3.73
I.BLK	I.BLK	07/12/2016	02:01	PQ010000.D	8.70	3.73
AR1660CCC500	AR1660CCC500	07/12/2016	02:16	PQ010001.D	8.70	3.73

QC SAMPLE DATA

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	
Project:	NYCSCA - PS 97X Addition	Date Received:	
Client Sample ID:	PB91973BL	SDG No.:	H3936
Lab Sample ID:	PB91973BL	Matrix:	Water
Analytical Method:	608	% Moisture:	100 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	PCB Group2
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PQ009996.D	1	07/08/16 08:25	07/12/16 01:03	PB91973

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	0.025	U	0.02	0.025	0.05	ug/L
11104-28-2	Aroclor-1221	0.025	U	0.02	0.025	0.05	ug/L
11141-16-5	Aroclor-1232	0.025	U	0.008	0.025	0.05	ug/L
53469-21-9	Aroclor-1242	0.025	U	0.01	0.025	0.05	ug/L
12672-29-6	Aroclor-1248	0.025	U	0.015	0.025	0.05	ug/L
11097-69-1	Aroclor-1254	0.025	U	0.012	0.025	0.05	ug/L
11096-82-5	Aroclor-1260	0.025	U	0.024	0.025	0.05	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	16.3		18 - 163		81%	SPK: 20
2051-24-3	Decachlorobiphenyl	13		10 - 177		65%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/16/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/16/16
Client Sample ID:	PIBLK-PO028920.D	SDG No.:	H3936
Lab Sample ID:	I.BLK-PO028920.D	Matrix:	Water
Analytical Method:	608	% Moisture:	100 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB Group2
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO028920.D	1		07/16/16	PO071616

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	0.1	U	0.096	0.1	0.5	ug/L
11104-28-2	Aroclor-1221	0.1	U	0.1	0.1	0.5	ug/L
11141-16-5	Aroclor-1232	0.1	U	0.1	0.1	0.5	ug/L
53469-21-9	Aroclor-1242	0.1	U	0.089	0.1	0.5	ug/L
12672-29-6	Aroclor-1248	0.1	U	0.1	0.1	0.5	ug/L
11097-69-1	Aroclor-1254	0.1	U	0.044	0.1	0.5	ug/L
11096-82-5	Aroclor-1260	0.1	U	0.081	0.1	0.5	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	22.8		35 - 137		114%	SPK: 20
2051-24-3	Decachlorobiphenyl	21.6		40 - 135		108%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/17/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/17/16
Client Sample ID:	PIBLK-PO028940.D	SDG No.:	H3936
Lab Sample ID:	I.BLK-PO028940.D	Matrix:	Water
Analytical Method:	608	% Moisture:	100 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB Group2
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO028940.D	1		07/17/16	PO071716

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	0.25	U	0.2	0.25	0.5	ug/L
11104-28-2	Aroclor-1221	0.25	U	0.2	0.25	0.5	ug/L
11141-16-5	Aroclor-1232	0.25	U	0.08	0.25	0.5	ug/L
53469-21-9	Aroclor-1242	0.25	U	0.1	0.25	0.5	ug/L
12672-29-6	Aroclor-1248	0.25	U	0.15	0.25	0.5	ug/L
11097-69-1	Aroclor-1254	0.25	U	0.12	0.25	0.5	ug/L
11096-82-5	Aroclor-1260	0.25	U	0.24	0.25	0.5	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	22.3		18 - 163		111%	SPK: 20
2051-24-3	Decachlorobiphenyl	23.8		10 - 177		119%	SPK: 20

Comments:

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LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
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D = Dilution
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() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/17/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/17/16
Client Sample ID:	PIBLK-PO028952.D	SDG No.:	H3936
Lab Sample ID:	I.BLK-PO028952.D	Matrix:	Water
Analytical Method:	608	% Moisture:	100 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB Group2
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO028952.D	1		07/17/16	PO071716

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	0.1	U	0.096	0.1	0.5	ug/L
11104-28-2	Aroclor-1221	0.1	U	0.1	0.1	0.5	ug/L
11141-16-5	Aroclor-1232	0.1	U	0.1	0.1	0.5	ug/L
53469-21-9	Aroclor-1242	0.1	U	0.089	0.1	0.5	ug/L
12672-29-6	Aroclor-1248	0.1	U	0.1	0.1	0.5	ug/L
11097-69-1	Aroclor-1254	0.1	U	0.044	0.1	0.5	ug/L
11096-82-5	Aroclor-1260	0.1	U	0.081	0.1	0.5	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	21.4		35 - 137		107%	SPK: 20
2051-24-3	Decachlorobiphenyl	23.8		40 - 135		119%	SPK: 20

Comments:

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LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	06/16/16
Project:	NYCSCA - PS 97X Addition	Date Received:	06/16/16
Client Sample ID:	PIBLK-PQ009380.D	SDG No.:	H3936
Lab Sample ID:	I.BLK-PQ009380.D	Matrix:	Water
Analytical Method:	608	% Moisture:	100 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB Group2
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PQ009380.D	1		06/16/16	PQ061716

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	0.1	U	0.096	0.1	0.5	ug/L
11104-28-2	Aroclor-1221	0.1	U	0.1	0.1	0.5	ug/L
11141-16-5	Aroclor-1232	0.1	U	0.1	0.1	0.5	ug/L
53469-21-9	Aroclor-1242	0.1	U	0.089	0.1	0.5	ug/L
12672-29-6	Aroclor-1248	0.1	U	0.1	0.1	0.5	ug/L
11097-69-1	Aroclor-1254	0.1	U	0.044	0.1	0.5	ug/L
11096-82-5	Aroclor-1260	0.1	U	0.081	0.1	0.5	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	19.2		35 - 137		96%	SPK: 20
2051-24-3	Decachlorobiphenyl	21.5		40 - 135		107%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
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() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/11/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/11/16
Client Sample ID:	PIBLK-PQ009989.D	SDG No.:	H3936
Lab Sample ID:	I.BLK-PQ009989.D	Matrix:	Water
Analytical Method:	608	% Moisture:	100 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB Group2
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PQ009989.D	1		07/11/16	PQ071116

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	0.1	U	0.096	0.1	0.5	ug/L
11104-28-2	Aroclor-1221	0.1	U	0.1	0.1	0.5	ug/L
11141-16-5	Aroclor-1232	0.1	U	0.1	0.1	0.5	ug/L
53469-21-9	Aroclor-1242	0.1	U	0.089	0.1	0.5	ug/L
12672-29-6	Aroclor-1248	0.1	U	0.1	0.1	0.5	ug/L
11097-69-1	Aroclor-1254	0.1	U	0.044	0.1	0.5	ug/L
11096-82-5	Aroclor-1260	0.1	U	0.081	0.1	0.5	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	20.6		35 - 137		103%	SPK: 20
2051-24-3	Decachlorobiphenyl	19.5		40 - 135		98%	SPK: 20

Comments:

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M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
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D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	07/12/16
Project:	NYCSCA - PS 97X Addition	Date Received:	07/12/16
Client Sample ID:	PIBLK-PQ010000.D	SDG No.:	H3936
Lab Sample ID:	I.BLK-PQ010000.D	Matrix:	Water
Analytical Method:	608	% Moisture:	100 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	10000 uL
Soil Aliquot Vol:	uL	Test:	PCB Group2
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PQ010000.D	1		07/12/16	PQ071116

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	0.1	U	0.096	0.1	0.5	ug/L
11104-28-2	Aroclor-1221	0.1	U	0.1	0.1	0.5	ug/L
11141-16-5	Aroclor-1232	0.1	U	0.1	0.1	0.5	ug/L
53469-21-9	Aroclor-1242	0.1	U	0.089	0.1	0.5	ug/L
12672-29-6	Aroclor-1248	0.1	U	0.1	0.1	0.5	ug/L
11097-69-1	Aroclor-1254	0.1	U	0.044	0.1	0.5	ug/L
11096-82-5	Aroclor-1260	0.1	U	0.081	0.1	0.5	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	22.3		35 - 137		111%	SPK: 20
2051-24-3	Decachlorobiphenyl	20.7		40 - 135		103%	SPK: 20

Comments:

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J = Estimated Value
B = Analyte Found in Associated Method Blank
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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	
Project:	NYCSCA - PS 97X Addition	Date Received:	
Client Sample ID:	PB91973BS	SDG No.:	H3936
Lab Sample ID:	PB91973BS	Matrix:	Water
Analytical Method:	608	% Moisture:	100 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	PCB Group2
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO028942.D	1	07/08/16 08:25	07/17/16 18:19	PB91973

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	0.042	J	0.02	0.025	0.05	ug/L
11104-28-2	Aroclor-1221	0.025	U	0.02	0.025	0.05	ug/L
11141-16-5	Aroclor-1232	0.025	U	0.008	0.025	0.05	ug/L
53469-21-9	Aroclor-1242	0.025	U	0.01	0.025	0.05	ug/L
12672-29-6	Aroclor-1248	0.025	U	0.015	0.025	0.05	ug/L
11097-69-1	Aroclor-1254	0.025	U	0.012	0.025	0.05	ug/L
11096-82-5	Aroclor-1260	0.0455	J	0.024	0.025	0.05	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	14.9		18 - 163		74%	SPK: 20
2051-24-3	Decachlorobiphenyl	16.9		10 - 177		85%	SPK: 20

Comments:

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MDL = Method Detection Limit
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Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
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() = Laboratory InHouse Limit

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Report of Analysis

Client:	AKRF Engineering, P.C.	Date Collected:	
Project:	NYCSCA - PS 97X Addition	Date Received:	
Client Sample ID:	PB91973BSD	SDG No.:	H3936
Lab Sample ID:	PB91973BSD	Matrix:	Water
Analytical Method:	608	% Moisture:	100 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1000 uL
Soil Aliquot Vol:	uL	Test:	PCB Group2
Extraction Type:		Injection Volume :	
GPC Factor :	1.0 PH :		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
PO028943.D	1	07/08/16 08:25	07/17/16 18:35	PB91973

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
12674-11-2	Aroclor-1016	0.0368	J	0.02	0.025	0.05	ug/L
11104-28-2	Aroclor-1221	0.025	U	0.02	0.025	0.05	ug/L
11141-16-5	Aroclor-1232	0.025	U	0.008	0.025	0.05	ug/L
53469-21-9	Aroclor-1242	0.025	U	0.01	0.025	0.05	ug/L
12672-29-6	Aroclor-1248	0.025	U	0.015	0.025	0.05	ug/L
11097-69-1	Aroclor-1254	0.025	U	0.012	0.025	0.05	ug/L
11096-82-5	Aroclor-1260	0.0405	J	0.024	0.025	0.05	ug/L
SURROGATES							
877-09-8	Tetrachloro-m-xylene	14.8		18 - 163		74%	SPK: 20
2051-24-3	Decachlorobiphenyl	17.3		10 - 177		86%	SPK: 20

Comments:

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M = MS/MSD acceptance criteria did not meet requirements

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N = Presumptive Evidence of a Compound
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LAB CHRONICLE

OrderID:	H3936	**OrderDate:**	7/6/2016 5:13:22 PM
Client:	AKRF Engineering, P.C.	**Project:**	NYCSCA - PS 97X Addition
Contact:	Rebecca Kinal, PE	**Location:**	P63

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
H3936-01	**SB-1(9-10)**	**SOIL**			**07/06/16**			**07/06/16**
			Diesel Range Organics	8015B		07/11/16	07/12/16	
			Gasoline Range Organics	8015B			07/13/16	
			PCB	8082A		07/11/16	07/13/16	
H3936-02	**SB-2(9-10)**	**SOIL**			**07/06/16**			**07/06/16**
			Diesel Range Organics	8015B		07/11/16	07/12/16	
			Gasoline Range Organics	8015B			07/13/16	
			PCB	8082A		07/11/16	07/13/16	
H3936-03	**SB-3(5-6)**	**SOIL**			**07/06/16**			**07/06/16**
			Diesel Range Organics	8015B		07/11/16	07/12/16	
			Gasoline Range Organics	8015B			07/13/16	
			PCB	8082A		07/11/16	07/13/16	
H3936-04	**SB-4(4-5)**	**SOIL**			**07/06/16**			**07/06/16**
			Diesel Range Organics	8015B		07/11/16	07/13/16	
			Gasoline Range Organics	8015B			07/13/16	
			PCB	8082A		07/11/16	07/13/16	
H3936-05	**SB-5(1-2)**	**SOIL**			**07/06/16**			**07/06/16**
			Diesel Range Organics	8015B		07/11/16	07/13/16	
			Gasoline Range Organics	8015B			07/13/16	
			PCB	8082A		07/11/16	07/13/16	
H3936-06	**SB-5(4-5)**	**SOIL**			**07/06/16**			**07/06/16**
			Diesel Range Organics	8015B		07/11/16	07/13/16	
			Gasoline Range Organics	8015B			07/13/16	
			PCB	8082A		07/11/16	07/13/16	
H3936-07	**TW-4**	**Water**			**07/06/16**			**07/06/16**
			PCB	8082A		07/08/16	07/13/16	
H3936-08	**TW-4-DEP**	**Water**			**07/06/16**			**07/06/16**

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LAB CHRONICLE

			PCB Group2	608		07/08/16	07/12/16	
H3936-09	**SB-6(11-12)**	**SOIL**			**07/06/16**			**07/06/16**
			Diesel Range Organics	8015B		07/11/16	07/13/16	
			Gasoline Range Organics	8015B			07/13/16	
			PCB	8082A		07/11/16	07/13/16	