

## ANALYTICAL REPORT

Job Number: 460-112213-1

Job Description: DEC Elmont546; Site: E130150

For:

New York State D.E.C.  
625 Broadway 9th Floor  
Albany, NY 12233-7258

Attention: Mr. Brian Jankauskas



Approved for release.  
Shalini Williams  
Project Management Assistant II  
4/21/2016 8:20 AM

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04/21/2016

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## **CASE NARRATIVE**

**Client: New York State D.E.C.**

**Project: DEC Elmont546; Site: E130150**

**Report Number: 460-112213-1**

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

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

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

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

### **RECEIPT**

The sample was received on 4/15/2016 3:30 PM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.2° C.

### **Receipt Exceptions**

The following sample was collected in an improper container: BISSET\_FINETOPSOIL (460-112213-1). VOC was collected as dirt in jar. Samples were not collected according to 5035L/5035A-L specifications.

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

### **VOLATILE ORGANICS**

Sample BISSET\_FINETOPSOIL (460-112213-1) was analyzed for Volatile organics in accordance with EPA SW-846 Method 8260C. The samples were prepared on 04/15/2016 and analyzed on 04/16/2016.

The laboratory control sample (LCS) for batch 362882 recovered outside control limits for the following analyte: Bromomethane. This analyte was not detected in the associated samples; therefore, the data have been reported.

Refer to the QC report for details.

No other difficulties were encountered during the Volatile organics analysis.

All quality control parameters were within the acceptance limits.

### **PESTICIDES**

Sample BISSET\_FINETOPSOIL (460-112213-1) was analyzed for Pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared and analyzed on 04/16/2016.

No difficulties were encountered during the Pesticides analysis.

All quality control parameters were within the acceptance limits.

### **POLYCHLORINATED BIPHENYLS**

Sample BISSET\_FINETOPSOIL (460-112213-1) was analyzed for polychlorinated biphenyls in accordance with EPA SW-846 Method 8082A. The samples were prepared and analyzed on 04/16/2016.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

### **SEMIVOLATILE ORGANIC COMPOUNDS**

Sample BISSET\_FINETOPSOIL (460-112213-1) was analyzed for Semivolatile organic compounds in accordance with EPA SW-846 Method 8270D. The samples were prepared on 04/18/2016 and analyzed on 04/19/2016.

The continuing calibration verification (CCV) analyzed in batch 460-363249 was outside the method criteria for the following analyte(s): Caprolactam. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The continuing calibration verification (CCV) analyzed in 460-363400 was outside the method criteria for the following analyte(s): Di-n-octyl phthalate. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Several analytes failed the recovery criteria low for the MS/MSD of sample 460-112270-3 in batch 460-363400. 3,3'-Dichlorobenzidine and Pentachlorophenol exceeded the RPD limit.

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

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

#### **METALS**

Sample BISSET\_FINETOPSOIL (460-112213-1) was analyzed for Metals in accordance with EPA SW-846 Methods 6010C. The samples were prepared on 04/15/2016 and analyzed on 04/18/2016.

Antimony, Iron and Manganese failed the recovery criteria low for the MS of sample 460-112097-3 in batch 460-363175. Aluminum failed the recovery criteria high.

Refer to the QC report for details.

Sample BISSET\_FINETOPSOIL (460-112213-1)[4X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the Metals analysis.

All other quality control parameters were within the acceptance limits.

#### **TOTAL MERCURY**

Sample BISSET\_FINETOPSOIL (460-112213-1) was analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared and analyzed on 04/18/2016.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

#### **PERCENT SOLIDS/PERCENT MOISTURE**

Sample BISSET\_FINETOPSOIL (460-112213-1) was analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 04/15/2016.

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

All quality control parameters were within the acceptance limits.

## EXECUTIVE SUMMARY - Detections

Client: New York State D.E.C.

Job Number: 460-112213-1

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
<b>460-112213-1</b>	<b>BISSET_FINETOPSOIL</b>					
2-Methylnaphthalene		16	J	410	ug/Kg	8270D
Acenaphthene		29	J	410	ug/Kg	8270D
Anthracene		43	J	410	ug/Kg	8270D
Benzo[a]anthracene		250		41	ug/Kg	8270D
Benzo[a]pyrene		280		41	ug/Kg	8270D
Benzo[b]fluoranthene		380		41	ug/Kg	8270D
Benzo[g,h,i]perylene		290	J	410	ug/Kg	8270D
Benzo[k]fluoranthene		130		41	ug/Kg	8270D
Bis(2-ethylhexyl) phthalate		300	J	410	ug/Kg	8270D
Carbazole		21	J	410	ug/Kg	8270D
Chrysene		300	J	410	ug/Kg	8270D
Dibenz(a,h)anthracene		84		41	ug/Kg	8270D
Dibenzofuran		19	J	410	ug/Kg	8270D
Fluoranthene		450		410	ug/Kg	8270D
Fluorene		24	J	410	ug/Kg	8270D
Indeno[1,2,3-cd]pyrene		320		41	ug/Kg	8270D
Naphthalene		21	J	410	ug/Kg	8270D
Phenanthrene		200	J	410	ug/Kg	8270D
Pyrene		410		410	ug/Kg	8270D
4,4'-DDD		12		8.4	ug/Kg	8081B
4,4'-DDE		11		8.4	ug/Kg	8081B
4,4'-DDT		6.1	J	8.4	ug/Kg	8081B
Chlordane (technical)		100		84	ug/Kg	8081B
Aluminum		5160		37.9	mg/Kg	6010C
Arsenic		4.3		2.8	mg/Kg	6010C
Barium		40.6		37.9	mg/Kg	6010C
Calcium		13500		947	mg/Kg	6010C
Chromium		12.0		1.9	mg/Kg	6010C
Cobalt		3.7	J	9.5	mg/Kg	6010C
Copper		21.7		4.7	mg/Kg	6010C
Iron		10500		28.4	mg/Kg	6010C
Lead		38.6		1.9	mg/Kg	6010C
Magnesium		4540		947	mg/Kg	6010C
Manganese		191		2.8	mg/Kg	6010C
Nickel		8.4		7.6	mg/Kg	6010C
Potassium		621	J	947	mg/Kg	6010C
Sodium		687	J	947	mg/Kg	6010C
Vanadium		19.1		9.5	mg/Kg	6010C
Zinc		56.9		5.7	mg/Kg	6010C
Mercury		0.094		0.020	mg/Kg	7471B
Percent Moisture		20.0		1.0	%	Moisture
Percent Solids		80.0		1.0	%	Moisture

## METHOD SUMMARY

Client: New York State D.E.C.

Job Number: 460-112213-1

Description	Lab Location	Method	Preparation Method
<b>Matrix: Solid</b>			
Volatile Organic Compounds by GC/MS	TAL EDI	SW846 8260C	
Closed System Purge and Trap	TAL EDI		SW846 5035
Semivolatile Organic Compounds (GC/MS)	TAL EDI	SW846 8270D	
Microwave Extraction	TAL EDI		SW846 3546
Organochlorine Pesticides (GC)	TAL EDI	SW846 8081B	
Microwave Extraction	TAL EDI		SW846 3546
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL EDI	SW846 8082A	
Microwave Extraction	TAL EDI		SW846 3546
Metals (ICP)	TAL EDI	SW846 6010C	
Preparation, Metals	TAL EDI		SW846 3050B
Mercury (CVAA)	TAL EDI	SW846 7471B	
Preparation, Mercury	TAL EDI		SW846 7471B
Percent Moisture	TAL EDI	EPA Moisture	

### Lab References:

TAL EDI = TestAmerica Edison

### Method References:

EPA = US Environmental Protection Agency

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

## METHOD / ANALYST SUMMARY

Client: New York State D.E.C.

Job Number: 460-112213-1

Method	Analyst	Analyst ID
SW846 8260C	Tupayachi, Audberto	AAT
SW846 8270D	Crocco, Michael	MMC
SW846 8081B	Kapoor, Sita	SAK
SW846 8082A	Patel, Jignesh	JHP
SW846 6010C	Huang, Yixin	YZH
SW846 7471B	Staib, Thomas	TJS
EPA Moisture	Armbruster, Chris	CJA

## SAMPLE SUMMARY

Client: New York State D.E.C.

Job Number: 460-112213-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-112213-1	BISSET_FINETOPSOIL	Solid	04/15/2016 1025	04/15/2016 1530

# **SAMPLE RESULTS**



**Analytical Data**

Client: New York State D.E.C.

Job Number: 460-112213-1

**Client Sample ID: BISSET\_FINETOPSOIL**

Lab Sample ID: 460-112213-1

Date Sampled: 04/15/2016 1025

Client Matrix: Solid

% Moisture: 20.0

Date Received: 04/15/2016 1530

**8260C Volatile Organic Compounds by GC/MS**

Analysis Method: 8260C

Analysis Batch: 460-362882

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-362844

Lab File ID: K52699.D

Dilution: 1.0

Initial Weight/Volume: 5.01 g

Analysis Date: 04/16/2016 1127

Final Weight/Volume: 5 mL

Prep Date: 04/15/2016 2125

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1,1-Trichloroethane		1.2	U	0.47	1.2
1,1,2,2-Tetrachloroethane		1.2	U	0.21	1.2
1,1,2-Trichloro-1,2,2-trifluoroethane		1.2	U	0.55	1.2
1,1,2-Trichloroethane		1.2	U	0.35	1.2
1,1-Dichloroethane		1.2	U	0.42	1.2
1,1-Dichloroethene		1.2	U	0.51	1.2
1,2,3-Trichlorobenzene		1.2	U	0.14	1.2
1,2,4-Trichlorobenzene		1.2	U	0.40	1.2
1,2-Dibromo-3-Chloropropane		1.2	U	0.59	1.2
1,2-Dichlorobenzene		1.2	U	0.17	1.2
1,2-Dichloroethane		1.2	U	0.14	1.2
1,2-Dichloropropane		1.2	U	0.21	1.2
1,3-Dichlorobenzene		1.2	U	0.15	1.2
1,4-Dichlorobenzene		1.2	U	0.16	1.2
1,4-Dioxane		25	U	8.0	25
2-Butanone (MEK)		6.2	U	0.96	6.2
2-Hexanone		6.2	U	1.2	6.2
4-Methyl-2-pentanone (MIBK)		6.2	U	2.8	6.2
Acetone		6.2	U	1.3	6.2
Benzene		1.2	U	0.25	1.2
Bromoform		1.2	U	0.16	1.2
Bromomethane		1.2	U *	0.40	1.2
Carbon disulfide		1.2	U	0.54	1.2
Carbon tetrachloride		1.2	U	0.54	1.2
Chlorobenzene		1.2	U	0.17	1.2
Chlorobromomethane		1.2	U	0.21	1.2
Chlorodibromomethane		1.2	U	0.19	1.2
Chloroethane		1.2	U	0.44	1.2
Chloroform		1.2	U	0.26	1.2
Chloromethane		1.2	U	0.47	1.2
cis-1,2-Dichloroethene		1.2	U	0.27	1.2
cis-1,3-Dichloropropene		1.2	U	0.19	1.2
Cyclohexane		1.2	U	0.57	1.2
Dichlorobromomethane		1.2	U	0.47	1.2
Dichlorodifluoromethane		1.2	U	0.40	1.2
Ethylbenzene		1.2	U	0.22	1.2
Ethylene Dibromide		1.2	U	0.15	1.2
Isopropylbenzene		1.2	U	0.21	1.2
Methyl acetate		6.2	U	1.1	6.2
Methyl tert-butyl ether		1.2	U	0.21	1.2
Methylcyclohexane		1.2	U	0.62	1.2
Methylene Chloride		1.2	U	0.40	1.2
m-Xylene & p-Xylene		1.2	U	0.14	1.2
o-Xylene		1.2	U	0.20	1.2
Styrene		1.2	U	0.19	1.2
Tetrachloroethene		1.2	U	0.35	1.2

## Analytical Data

Client: New York State D.E.C.

Job Number: 460-112213-1

Client Sample ID: BISSET\_FINETOPSOIL

Lab Sample ID: 460-112213-1

Date Sampled: 04/15/2016 1025

Client Matrix: Solid

% Moisture: 20.0

Date Received: 04/15/2016 1530

### 8260C Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analysis Batch: 460-362882

Instrument ID: CVOAMS9

Prep Method: 5035

Prep Batch: 460-362844

Lab File ID: K52699.D

Dilution: 1.0

Initial Weight/Volume: 5.01 g

Analysis Date: 04/16/2016 1127

Final Weight/Volume: 5 mL

Prep Date: 04/15/2016 2125

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Toluene		1.2	U	0.24	1.2
trans-1,2-Dichloroethene		1.2	U	0.49	1.2
trans-1,3-Dichloropropene		1.2	U	0.12	1.2
Trichloroethene		1.2	U	0.32	1.2
Trichlorofluoromethane		1.2	U	0.42	1.2
Vinyl chloride		1.2	U	0.49	1.2

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	110		78 - 135
4-Bromofluorobenzene	100		67 - 126
Dibromofluoromethane (Surr)	104		61 - 149
Toluene-d8 (Surr)	104		73 - 121

**Analytical Data**

Client: New York State D.E.C.

Job Number: 460-112213-1

**Client Sample ID: BISSET\_FINETOPSOIL**

Lab Sample ID: 460-112213-1

Date Sampled: 04/15/2016 1025

Client Matrix: Solid

% Moisture: 20.0

Date Received: 04/15/2016 1530

**8270D Semivolatile Organic Compounds (GC/MS)**

Analysis Method: 8270D

Analysis Batch: 460-363249

Instrument ID: CBNAMS11

Prep Method: 3546

Prep Batch: 460-363167

Lab File ID: z4178869.D

Dilution: 1.0

Initial Weight/Volume: 15.0255 g

Analysis Date: 04/19/2016 0631

Final Weight/Volume: 1 mL

Prep Date: 04/18/2016 1336

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
1,1'-Biphenyl		410	U	35	410
1,2,4,5-Tetrachlorobenzene		410	U	31	410
2,2'-oxybis[1-chloropropane]		410	U	17	410
2,3,4,6-Tetrachlorophenol		410	U	39	410
2,4,5-Trichlorophenol		410	U	41	410
2,4,6-Trichlorophenol		170	U	12	170
2,4-Dichlorophenol		170	U	9.7	170
2,4-Dimethylphenol		410	U	91	410
2,4-Dinitrophenol		330	U	310	330
2,4-Dinitrotoluene		84	U	16	84
2,6-Dinitrotoluene		84	U	22	84
2-Chloronaphthalene		410	U	9.4	410
2-Chlorophenol		410	U	10	410
2-Methylnaphthalene		16	J	9.1	410
2-Methylphenol		410	U	18	410
2-Nitroaniline		410	U	14	410
2-Nitrophenol		410	U	14	410
3,3'-Dichlorobenzidine		170	U	46	170
3-Nitroaniline		410	U	12	410
4,6-Dinitro-2-methylphenol		330	U	110	330
4-Bromophenyl phenyl ether		410	U	13	410
4-Chloro-3-methylphenol		410	U	18	410
4-Chloroaniline		410	U	11	410
4-Chlorophenyl phenyl ether		410	U	12	410
4-Methylphenol		410	U	11	410
4-Nitroaniline		410	U	16	410
4-Nitrophenol		840	U	200	840
Acenaphthene		29	J	10	410
Acenaphthylene		410	U	11	410
Acetophenone		410	U	9.0	410
Anthracene		43	J	39	410
Atrazine		170	U	18	170
Benzaldehyde		410	U	31	410
Benzo[a]anthracene		250		34	41
Benzo[a]pyrene		280		12	41
Benzo[b]fluoranthene		380		16	41
Benzo[g,h,i]perylene		290	J	24	410
Benzo[k]fluoranthene		130		18	41
Bis(2-chloroethoxy)methane		410	U	13	410
Bis(2-chloroethyl)ether		41	U	9.7	41
Bis(2-ethylhexyl) phthalate		300	J	16	410
Butyl benzyl phthalate		410	U	13	410
Caprolactam		410	U	30	410
Carbazole		21	J	10	410
Chrysene		300	J	11	410
Dibenz(a,h)anthracene		84		21	41

# Analytical Data

Client: New York State D.E.C.

Job Number: 460-112213-1

Client Sample ID: BISSET\_FINETOPSOIL

Lab Sample ID: 460-112213-1

Date Sampled: 04/15/2016 1025

Client Matrix: Solid

% Moisture: 20.0

Date Received: 04/15/2016 1530

## 8270D Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270D

Analysis Batch: 460-363249

Instrument ID: CBNAMS11

Prep Method: 3546

Prep Batch: 460-363167

Lab File ID: z4178869.D

Dilution: 1.0

Initial Weight/Volume: 15.0255 g

Analysis Date: 04/19/2016 0631

Final Weight/Volume: 1 mL

Prep Date: 04/18/2016 1336

Injection Volume: 1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Dibenzofuran		19	J	12	410
Diethyl phthalate		410	U	12	410
Dimethyl phthalate		410	U	12	410
Di-n-butyl phthalate		410	U	12	410
Di-n-octyl phthalate		410	U	21	410
Fluoranthene		450		12	410
Fluorene		24	J	9.0	410
Hexachlorobenzene		41	U	17	41
Hexachlorobutadiene		84	U	12	84
Hexachlorocyclopentadiene		410	U	26	410
Hexachloroethane		41	U	15	41
Indeno[1,2,3-cd]pyrene		320		27	41
Isophorone		170	U	8.9	170
Naphthalene		21	J	10	410
Nitrobenzene		41	U	13	41
N-Nitrosodi-n-propylamine		41	U	14	41
N-Nitrosodiphenylamine		410	U	37	410
Pentachlorophenol		330	U	50	330
Phenanthrene		200	J	11	410
Phenol		410	U	13	410
Pyrene		410		19	410
Surrogate		%Rec	Qualifier	Acceptance Limits	
2,4,6-Tribromophenol (Surr)		64		10 - 95	
2-Fluorobiphenyl		82		27 - 84	
2-Fluorophenol (Surr)		62		21 - 84	
Nitrobenzene-d5 (Surr)		76		28 - 92	
Phenol-d5 (Surr)		64		22 - 88	
Terphenyl-d14 (Surr)		77		16 - 114	

## Analytical Data

Client: New York State D.E.C.

Job Number: 460-112213-1

Client Sample ID: BISSET\_FINETOPSOIL

Lab Sample ID: 460-112213-1

Date Sampled: 04/15/2016 1025

Client Matrix: Solid

% Moisture: 20.0

Date Received: 04/15/2016 1530

### 8081B Organochlorine Pesticides (GC)

Analysis Method: 8081B

Analysis Batch: 460-362934

Instrument ID: CPESTGC4

Prep Method: 3546

Prep Batch: 460-362878

Initial Weight/Volume: 15.0117 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 04/16/2016 1756

Injection Volume: 1 uL

Prep Date: 04/16/2016 0419

Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
4,4'-DDD		12		1.1	8.4
4,4'-DDE		11		1.2	8.4
4,4'-DDT		6.1	J	0.86	8.4
Aldrin		8.4	U	1.0	8.4
alpha-BHC		2.5	U	0.76	2.5
beta-BHC		2.5	U	0.81	2.5
Chlordane (technical)		100		37	84
delta-BHC		2.5	U	0.91	2.5
Dieldrin		2.5	U	1.1	2.5
Endosulfan I		8.4	U	1.2	8.4
Endosulfan II		8.4	U	1.3	8.4
Endosulfan sulfate		8.4	U	0.97	8.4
Endrin		8.4	U	1.1	8.4
Endrin aldehyde		8.4	U	1.0	8.4
Endrin ketone		8.4	U	1.2	8.4
gamma-BHC (Lindane)		2.5	U	0.75	2.5
Heptachlor		8.4	U	1.1	8.4
Heptachlor epoxide		8.4	U	1.6	8.4
Methoxychlor		8.4	U	1.8	8.4
Toxaphene		84	U	24	84

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	127		55 - 148
Tetrachloro-m-xylene	121		55 - 139

## Analytical Data

Client: New York State D.E.C.

Job Number: 460-112213-1

**Client Sample ID: BISSET\_FINETOPSOIL**

Lab Sample ID: 460-112213-1

Date Sampled: 04/15/2016 1025

Client Matrix: Solid

% Moisture: 20.0

Date Received: 04/15/2016 1530

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### 8081B Organochlorine Pesticides (GC)

Analysis Method: 8081B

Analysis Batch: 460-362934

Instrument ID: CPESTGC4

Prep Method: 3546

Prep Batch: 460-362878

Initial Weight/Volume: 15.0117 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 04/16/2016 1756

Injection Volume: 1 uL

Prep Date: 04/16/2016 0419

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	120		55 - 148
Tetrachloro-m-xylene	115		55 - 139

## Analytical Data

Client: New York State D.E.C.

Job Number: 460-112213-1

Client Sample ID: BISSET\_FINETOPSOIL

Lab Sample ID: 460-112213-1

Date Sampled: 04/15/2016 1025

Client Matrix: Solid

% Moisture: 20.0

Date Received: 04/15/2016 1530

### 8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-362933

Instrument ID: CPESTGC9

Prep Method: 3546

Prep Batch: 460-362877

Initial Weight/Volume: 15.0117 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 04/16/2016 1756

Injection Volume: 1 uL

Prep Date: 04/16/2016 0349

Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		84	U	11	84
Aroclor 1221		84	U	11	84
Aroclor 1232		84	U	11	84
Aroclor 1242		84	U	11	84
Aroclor 1248		84	U	11	84
Aroclor 1254		84	U	11	84
Aroclor 1260		84	U	11	84
Aroclor 1268		84	U	11	84
Aroclor-1262		84	U	11	84
Polychlorinated biphenyls, Total		84	U	11	84

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	106		47 - 150

## Analytical Data

Client: New York State D.E.C.

Job Number: 460-112213-1

Client Sample ID: **BISSET\_FINETOPSOIL**

Lab Sample ID: 460-112213-1

Date Sampled: 04/15/2016 1025

Client Matrix: Solid

% Moisture: 20.0

Date Received: 04/15/2016 1530

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### 8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A

Analysis Batch: 460-362933

Instrument ID: CPESTGC9

Prep Method: 3546

Prep Batch: 460-362877

Initial Weight/Volume: 15.0117 g

Dilution: 1.0

Final Weight/Volume: 10 mL

Analysis Date: 04/16/2016 1756

Injection Volume: 1 uL

Prep Date: 04/16/2016 0349

Result Type: SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	97		47 - 150

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**Analytical Data**

Client: New York State D.E.C.

Job Number: 460-112213-1

**Client Sample ID: BISSET\_FINETOPSOIL**

Lab Sample ID: 460-112213-1

Date Sampled: 04/15/2016 1025

Client Matrix: Solid

% Moisture: 20.0

Date Received: 04/15/2016 1530

**6010C Metals (ICP)**

Analysis Method: 6010C

Analysis Batch: 460-363175

Instrument ID: ICP4

Prep Method: 3050B

Prep Batch: 460-362853

Lab File ID: 362940.asc

Dilution: 4.0

Initial Weight/Volume: 1.32 g

Analysis Date: 04/18/2016 1619

Final Weight/Volume: 50 mL

Prep Date: 04/15/2016 1810

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		5160		19.5	37.9
Antimony		3.8	U	1.5	3.8
Arsenic		4.3		0.93	2.8
Barium		40.6		1.4	37.9
Beryllium		0.38	U	0.32	0.38
Cadmium		0.76	U	0.39	0.76
Calcium		13500		56.0	947
Chromium		12.0		0.92	1.9
Cobalt		3.7	J	1.1	9.5
Copper		21.7		1.2	4.7
Iron		10500		21.4	28.4
Lead		38.6		0.74	1.9
Magnesium		4540		47.2	947
Manganese		191		0.99	2.8
Nickel		8.4		1.4	7.6
Potassium		621	J	28.7	947
Selenium		3.8	U	1.3	3.8
Silver		1.9	U	0.33	1.9
Sodium		687	J	64.1	947
Thallium		3.8	U	1.7	3.8
Vanadium		19.1		0.95	9.5
Zinc		56.9		1.4	5.7

**7471B Mercury (CVAA)**

Analysis Method: 7471B

Analysis Batch: 460-363133

Instrument ID: LEEMAN5

Prep Method: 7471B

Prep Batch: 460-363043

Lab File ID: 363043HG1.PRN

Dilution: 1.0

Initial Weight/Volume: 0.64 g

Analysis Date: 04/18/2016 0830

Final Weight/Volume: 50 mL

Prep Date: 04/18/2016 0416

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.094		0.014	0.020

## Analytical Data

Client: New York State D.E.C.

Job Number: 460-112213-1

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### General Chemistry

Client Sample ID: BISSET\_FINETOPSOIL

Lab Sample ID: 460-112213-1

Client Matrix: Solid

Date Sampled: 04/15/2016 1025

Date Received: 04/15/2016 1530

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	20.0		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-362808	Analysis Date: 04/15/2016	1606				DryWt Corrected: N
Percent Solids	80.0		%	1.0	1.0	1.0	Moisture
	Analysis Batch: 460-362808	Analysis Date: 04/15/2016	1606				DryWt Corrected: N

## DATA REPORTING QUALIFIERS

Client: New York State D.E.C.

Job Number: 460-112213-1

Lab Section	Qualifier	Description
GC/MS VOA	U	Analyzed for but not detected.
	*	LCS or LCSD is outside acceptance limits.
GC/MS Semi VOA	U	Analyzed for but not detected.
	E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
	*	Duplicate RPD exceeds control limits
	J	Indicates an estimated value.
	*	MS or MSD is outside acceptance limits.
GC Semi VOA	U	Analyzed for but not detected.
	J	Indicates an estimated value.
Metals	U	Indicates analyzed for but not detected.
	4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
	J	Sample result is greater than the MDL but below the CRDL
	N	Spiked sample recovery is not within control limits.

# **QUALITY CONTROL RESULTS**

## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>GC/MS VOA</b>					
<b>Prep Batch: 460-362844</b>					
LB3 460-362844/1-A	Neutral Leach or MeOH Extraction Blank	T	Solid	5035	
460-112213-1	BISSET_FINETOPSOIL	T	Solid	5035	
<b>Analysis Batch:460-362882</b>					
LCS 460-362882/3	Lab Control Sample	T	Solid	8260C	
LCSD 460-362882/4	Lab Control Sample Duplicate	T	Solid	8260C	
MB 460-362882/7	Method Blank	T	Solid	8260C	
LB3 460-362844/1-A	Neutral Leach or MeOH Extraction Blank	T	Solid	8260C	460-362844
460-112213-1	BISSET_FINETOPSOIL	T	Solid	8260C	460-362844
<b>Report Basis</b>					
T = Total					
<b>GC/MS Semi VOA</b>					
<b>Prep Batch: 460-363167</b>					
LCS 460-363167/2-A	Lab Control Sample	T	Solid	3546	
LCS 460-363167/3-A	Lab Control Sample	T	Solid	3546	
MB 460-363167/1-A	Method Blank	T	Solid	3546	
460-112213-1	BISSET_FINETOPSOIL	T	Solid	3546	
460-112270-E-3-B MSDL	Matrix Spike	T	Solid	3546	
460-112270-F-3-B MSDDL	Matrix Spike Duplicate	T	Solid	3546	
<b>Analysis Batch:460-363249</b>					
LCS 460-363167/2-A	Lab Control Sample	T	Solid	8270D	460-363167
LCS 460-363167/3-A	Lab Control Sample	T	Solid	8270D	460-363167
MB 460-363167/1-A	Method Blank	T	Solid	8270D	460-363167
460-112213-1	BISSET_FINETOPSOIL	T	Solid	8270D	460-363167
<b>Analysis Batch:460-363400</b>					
460-112270-E-3-B MSDL	Matrix Spike	T	Solid	8270D	460-363167
460-112270-F-3-B MSDDL	Matrix Spike Duplicate	T	Solid	8270D	460-363167

### Report Basis

T = Total

## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>GC Semi VOA</b>					
<b>Prep Batch: 460-362877</b>					
LCS 460-362877/2-A	Lab Control Sample	T	Solid	3546	
MB 460-362877/1-A	Method Blank	T	Solid	3546	
460-112013-E-10-E MS	Matrix Spike	T	Solid	3546	
460-112013-E-10-F MSD	Matrix Spike Duplicate	T	Solid	3546	
460-112213-1	BISSET_FINETOPSOIL	T	Solid	3546	
<b>Prep Batch: 460-362878</b>					
LCS 460-362878/2-A	Lab Control Sample	T	Solid	3546	
MB 460-362878/1-A	Method Blank	T	Solid	3546	
460-112013-E-10-H MS	Matrix Spike	T	Solid	3546	
460-112013-E-10-I MSD	Matrix Spike Duplicate	T	Solid	3546	
460-112213-1	BISSET_FINETOPSOIL	T	Solid	3546	
<b>Analysis Batch:460-362933</b>					
LCS 460-362877/2-A	Lab Control Sample	T	Solid	8082A	460-362877
MB 460-362877/1-A	Method Blank	T	Solid	8082A	460-362877
460-112013-E-10-E MS	Matrix Spike	T	Solid	8082A	460-362877
460-112013-E-10-F MSD	Matrix Spike Duplicate	T	Solid	8082A	460-362877
460-112213-1	BISSET_FINETOPSOIL	T	Solid	8082A	460-362877
<b>Analysis Batch:460-362934</b>					
LCS 460-362878/2-A	Lab Control Sample	T	Solid	8081B	460-362878
MB 460-362878/1-A	Method Blank	T	Solid	8081B	460-362878
460-112013-E-10-H MS	Matrix Spike	T	Solid	8081B	460-362878
460-112013-E-10-I MSD	Matrix Spike Duplicate	T	Solid	8081B	460-362878
460-112213-1	BISSET_FINETOPSOIL	T	Solid	8081B	460-362878

#### Report Basis

T = Total

## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
<b>Metals</b>					
<b>Prep Batch: 460-362853</b>					
LCSSRM 460-362853/2-A	LCS-Certified Reference Material	T	Solid	3050B	
MB 460-362853/1-A ^2	Method Blank	T	Solid	3050B	
460-112097-A-3-B DU	Duplicate	T	Solid	3050B	
460-112097-A-3-C MS	Matrix Spike	T	Solid	3050B	
460-112213-1	BISSET_FINETOPSOIL	T	Solid	3050B	
<b>Prep Batch: 460-363043</b>					
LCSSRM 460-363043/11-A ^2	LCS-Certified Reference Material	T	Solid	7471B	
MB 460-363043/10-A	Method Blank	T	Solid	7471B	
460-112128-A-1-E DU	Duplicate	T	Solid	7471B	
460-112128-A-1-F MS	Matrix Spike	T	Solid	7471B	
460-112213-1	BISSET_FINETOPSOIL	T	Solid	7471B	
<b>Analysis Batch:460-363133</b>					
LCSSRM 460-363043/11-A ^2	LCS-Certified Reference Material	T	Solid	7471B	460-363043
MB 460-363043/10-A	Method Blank	T	Solid	7471B	460-363043
460-112128-A-1-E DU	Duplicate	T	Solid	7471B	460-363043
460-112128-A-1-F MS	Matrix Spike	T	Solid	7471B	460-363043
460-112213-1	BISSET_FINETOPSOIL	T	Solid	7471B	460-363043
<b>Analysis Batch:460-363175</b>					
LCSSRM 460-362853/2-A	LCS-Certified Reference Material	T	Solid	6010C	460-362853
MB 460-362853/1-A ^2	Method Blank	T	Solid	6010C	460-362853
460-112097-A-3-B DU	Duplicate	T	Solid	6010C	460-362853
460-112097-A-3-C MS	Matrix Spike	T	Solid	6010C	460-362853
460-112213-1	BISSET_FINETOPSOIL	T	Solid	6010C	460-362853

#### Report Basis

T = Total

#### General Chemistry

##### **Analysis Batch:460-362808**

460-112162-A-1 DU	Duplicate	T	Solid	Moisture
460-112213-1	BISSET_FINETOPSOIL	T	Solid	Moisture

#### Report Basis

T = Total

## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### Surrogate Recovery Report

#### 8260C Volatile Organic Compounds by GC/MS

##### Client Matrix: Solid

Lab Sample ID	Client Sample ID	DCA %Rec	BFB %Rec	DBFM %Rec	TOL %Rec
460-112213-1	BISSET_FINETOPSO IL	110	100	104	104
MB 460-362882/7		99	94	93	93
LB3 460-362844/1-A		106	104	102	105
LCS 460-362882/3		104	106	101	107
LCSD 460-362882/4		106	103	100	105

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



## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### Surrogate Recovery Report

#### 8270D Semivolatile Organic Compounds (GC/MS)

##### Client Matrix: Solid

Lab Sample ID	Client Sample ID	TBP %Rec	FBP %Rec	2FP %Rec	NBZ %Rec	PHL %Rec	TPH %Rec
460-112213-1	BISSET_FINETOPSO IL	64	82	62	76	64	77
MB 460-363167/1-A		72	67	64	72	67	80
LCS 460-363167/2-A		86	80	69	79	72	88
LCS 460-363167/3-A		83	79	73	83	75	93
460-112270-E-3-B MS DL		41	63	48	58	44	47
460-112270-F-3-B MSD DL		37	63	49	60	47	48

Surrogate	Acceptance Limits
TBP = 2,4,6-Tribromophenol (Surr)	10-95
FBP = 2-Fluorobiphenyl	27-84
2FP = 2-Fluorophenol (Surr)	21-84
NBZ = Nitrobenzene-d5 (Surr)	28-92
PHL = Phenol-d5 (Surr)	22-88
TPH = Terphenyl-d14 (Surr)	16-114

## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### Surrogate Recovery Report

#### 8081B Organochlorine Pesticides (GC)

##### Client Matrix: Solid

Lab Sample ID	Client Sample ID	DCB1 %Rec	DCB2 %Rec	TCX1 %Rec	TCX2 %Rec
460-112213-1	BISSET_FINETOPSO IL	127	120	115	121
MB 460-362878/1-A		126	123	109	116
LCS 460-362878/2-A		123	127	122	117
460-112013-E-10-H MS		123	126	115	119
460-112013-E-10-I MSD		126	131	116	122

Surrogate	Acceptance Limits
DCB = DCB Decachlorobiphenyl	55-148
TCX = Tetrachloro-m-xylene	55-139

## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### Surrogate Recovery Report

#### 8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

##### Client Matrix: Solid

Lab Sample ID	Client Sample ID	DCB1 %Rec	DCB2 %Rec
460-112213-1	BISSET_FINETOPSO IL	106	97
MB 460-362877/1-A		119	99
LCS 460-362877/2-A		123	97
460-112013-E-10-E MS		120	99
460-112013-E-10-F MSD		133	109

Surrogate

Acceptance Limits

DCB = DCB Decachlorobiphenyl

47-150

## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### Neutral Leach or MeOH Extraction Blank - Batch: 460-362844

Method: 8260C

Preparation: 5035

Lab Sample ID: LB3 460-362844/1-A  
Client Matrix: Solid  
Dilution: 1.0  
Analysis Date: 04/16/2016 0914  
Prep Date: 04/15/2016 2125  
Leach Date: N/A

Analysis Batch: 460-362882  
Prep Batch: 460-362844  
Leach Batch: N/A  
Units: ug/Kg

Instrument ID: CVOAMS9  
Lab File ID: K52694.D  
Initial Weight/Volume: 5 g  
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.38	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.17	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.44	1.0
1,1,2-Trichloroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.34	1.0
1,1-Dichloroethene	1.0	U	0.41	1.0
1,2,3-Trichlorobenzene	1.0	U	0.11	1.0
1,2,4-Trichlorobenzene	1.0	U	0.32	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.47	1.0
1,2-Dichlorobenzene	1.0	U	0.14	1.0
1,2-Dichloroethane	1.0	U	0.11	1.0
1,2-Dichloropropane	1.0	U	0.17	1.0
1,3-Dichlorobenzene	1.0	U	0.12	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
1,4-Dioxane	20	U	6.4	20
2-Butanone (MEK)	5.0	U	0.77	5.0
2-Hexanone	5.0	U	0.94	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	2.2	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.20	1.0
Bromoform	1.0	U	0.13	1.0
Bromomethane	1.0	U	0.32	1.0
Carbon disulfide	1.0	U	0.43	1.0
Carbon tetrachloride	1.0	U	0.43	1.0
Chlorobenzene	1.0	U	0.14	1.0
Chlorobromomethane	1.0	U	0.17	1.0
Chlorodibromomethane	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.35	1.0
Chloroform	1.0	U	0.21	1.0
Chloromethane	1.0	U	0.38	1.0
cis-1,2-Dichloroethene	1.0	U	0.22	1.0
cis-1,3-Dichloropropene	1.0	U	0.15	1.0
Cyclohexane	1.0	U	0.46	1.0
Dichlorobromomethane	1.0	U	0.38	1.0
Dichlorodifluoromethane	1.0	U	0.32	1.0
Ethylbenzene	1.0	U	0.18	1.0
Ethylene Dibromide	1.0	U	0.12	1.0
Isopropylbenzene	1.0	U	0.17	1.0
Methyl acetate	5.0	U	0.90	5.0
Methyl tert-butyl ether	1.0	U	0.17	1.0
Methylcyclohexane	1.0	U	0.50	1.0
Methylene Chloride	1.0	U	0.32	1.0
m-Xylene & p-Xylene	1.0	U	0.11	1.0
o-Xylene	1.0	U	0.16	1.0
Styrene	1.0	U	0.15	1.0

## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### Neutral Leach or MeOH Extraction Blank - Batch: 460-362844

Method: 8260C  
Preparation: 5035

Lab Sample ID:	LB3 460-362844/1-A	Analysis Batch:	460-362882	Instrument ID:	CVOAMS9
Client Matrix:	Solid	Prep Batch:	460-362844	Lab File ID:	K52694.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	04/16/2016 0914	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	04/15/2016 2125				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Tetrachloroethene	1.0	U	0.28	1.0
Toluene	1.0	U	0.19	1.0
trans-1,2-Dichloroethene	1.0	U	0.39	1.0
trans-1,3-Dichloropropene	1.0	U	0.10	1.0
Trichloroethene	1.0	U	0.26	1.0
Trichlorofluoromethane	1.0	U	0.34	1.0
Vinyl chloride	1.0	U	0.39	1.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	106	78 - 135
4-Bromofluorobenzene	104	67 - 126
Dibromofluoromethane (Surr)	102	61 - 149
Toluene-d8 (Surr)	105	73 - 121

## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### Method Blank - Batch: 460-362882

### Method: 8260C Preparation: N/A

Lab Sample ID: MB 460-362882/7  
Client Matrix: Solid  
Dilution: 1.0  
Analysis Date: 04/16/2016 0848  
Prep Date: N/A  
Leach Date: N/A

Analysis Batch: 460-362882  
Prep Batch: N/A  
Leach Batch: N/A  
Units: ug/Kg

Instrument ID: CVOAMS9  
Lab File ID: K52693.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
1,1,1-Trichloroethane	1.0	U	0.38	1.0
1,1,2,2-Tetrachloroethane	1.0	U	0.17	1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	0.44	1.0
1,1,2-Trichloroethane	1.0	U	0.28	1.0
1,1-Dichloroethane	1.0	U	0.34	1.0
1,1-Dichloroethene	1.0	U	0.41	1.0
1,2,3-Trichlorobenzene	1.0	U	0.11	1.0
1,2,4-Trichlorobenzene	1.0	U	0.32	1.0
1,2-Dibromo-3-Chloropropane	1.0	U	0.47	1.0
1,2-Dichlorobenzene	1.0	U	0.14	1.0
1,2-Dichloroethane	1.0	U	0.11	1.0
1,2-Dichloropropane	1.0	U	0.17	1.0
1,3-Dichlorobenzene	1.0	U	0.12	1.0
1,4-Dichlorobenzene	1.0	U	0.13	1.0
1,4-Dioxane	20	U	6.4	20
2-Butanone (MEK)	5.0	U	0.77	5.0
2-Hexanone	5.0	U	0.94	5.0
4-Methyl-2-pentanone (MIBK)	5.0	U	2.2	5.0
Acetone	5.0	U	1.1	5.0
Benzene	1.0	U	0.20	1.0
Bromoform	1.0	U	0.13	1.0
Bromomethane	1.0	U	0.32	1.0
Carbon disulfide	1.0	U	0.43	1.0
Carbon tetrachloride	1.0	U	0.43	1.0
Chlorobenzene	1.0	U	0.14	1.0
Chlorobromomethane	1.0	U	0.17	1.0
Chlorodibromomethane	1.0	U	0.15	1.0
Chloroethane	1.0	U	0.35	1.0
Chloroform	1.0	U	0.21	1.0
Chloromethane	1.0	U	0.38	1.0
cis-1,2-Dichloroethene	1.0	U	0.22	1.0
cis-1,3-Dichloropropene	1.0	U	0.15	1.0
Cyclohexane	1.0	U	0.46	1.0
Dichlorobromomethane	1.0	U	0.38	1.0
Dichlorodifluoromethane	1.0	U	0.32	1.0
Ethylbenzene	1.0	U	0.18	1.0
Ethylene Dibromide	1.0	U	0.12	1.0
Isopropylbenzene	1.0	U	0.17	1.0
Methyl acetate	5.0	U	0.90	5.0
Methyl tert-butyl ether	1.0	U	0.17	1.0
Methylcyclohexane	1.0	U	0.50	1.0
Methylene Chloride	1.0	U	0.32	1.0
m-Xylene & p-Xylene	1.0	U	0.11	1.0
o-Xylene	1.0	U	0.16	1.0
Styrene	1.0	U	0.15	1.0

## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### Method Blank - Batch: 460-362882

Method: 8260C  
Preparation: N/A

Lab Sample ID: MB 460-362882/7  
Client Matrix: Solid  
Dilution: 1.0  
Analysis Date: 04/16/2016 0848  
Prep Date: N/A  
Leach Date: N/A

Analysis Batch: 460-362882  
Prep Batch: N/A  
Leach Batch: N/A  
Units: ug/Kg

Instrument ID: CVOAMS9  
Lab File ID: K52693.D  
Initial Weight/Volume: 5 mL  
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDL	RL
Tetrachloroethene	1.0	U	0.28	1.0
Toluene	1.0	U	0.19	1.0
trans-1,2-Dichloroethene	1.0	U	0.39	1.0
trans-1,3-Dichloropropene	1.0	U	0.10	1.0
Trichloroethene	1.0	U	0.26	1.0
Trichlorofluoromethane	1.0	U	0.34	1.0
Vinyl chloride	1.0	U	0.39	1.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	99	78 - 135
4-Bromofluorobenzene	94	67 - 126
Dibromofluoromethane (Surr)	93	61 - 149
Toluene-d8 (Surr)	93	73 - 121

## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 460-362882

Method: 8260C

Preparation: N/A

LCS Lab Sample ID: LCS 460-362882/3	Analysis Batch: 460-362882	Instrument ID: CVOAMS9
Client Matrix: Solid	Prep Batch: N/A	Lab File ID: K52689.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 04/16/2016 0646	Units: ug/Kg	Final Weight/Volume: 5 mL
Prep Date: N/A		5 mL
Leach Date: N/A		

LCSD Lab Sample ID: LCSD 460-362882/4	Analysis Batch: 460-362882	Instrument ID: CVOAMS9
Client Matrix: Solid	Prep Batch: N/A	Lab File ID: K52690.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 04/16/2016 0713	Units: ug/Kg	Final Weight/Volume: 5 mL
Prep Date: N/A		5 mL
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
1,1,1-Trichloroethane	96	89	78 - 139	7	30		
1,1,2,2-Tetrachloroethane	88	87	64 - 128	2	30		
1,1,2-Trichloro-1,2,2-trifluoroethane	97	89	83 - 136	8	30		
1,1,2-Trichloroethane	89	86	76 - 118	3	30		
1,1-Dichloroethane	101	96	83 - 131	5	30		
1,1-Dichloroethene	88	85	80 - 120	3	30		
1,2,3-Trichlorobenzene	85	83	77 - 116	2	30		
1,2,4-Trichlorobenzene	89	84	77 - 116	6	30		
1,2-Dibromo-3-Chloropropane	85	87	63 - 131	2	30		
1,2-Dichlorobenzene	90	86	80 - 120	5	30		
1,2-Dichloroethane	97	95	75 - 132	2	30		
1,2-Dichloropropane	97	93	77 - 124	4	30		
1,3-Dichlorobenzene	91	86	80 - 120	5	30		
1,4-Dichlorobenzene	90	87	80 - 120	4	30		
1,4-Dioxane	96	87	80 - 128	10	30		
2-Butanone (MEK)	75	72	58 - 150	4	30		
2-Hexanone	88	85	75 - 137	2	30		
4-Methyl-2-pentanone (MIBK)	90	87	81 - 121	3	30		
Acetone	89	81	66 - 150	9	30		
Benzene	99	91	78 - 122	9	30		
Bromoform	85	80	47 - 150	6	30		
Bromomethane	73	75	74 - 125	2	30		*
Carbon disulfide	93	87	82 - 127	7	30		
Carbon tetrachloride	96	90	62 - 150	6	30		
Chlorobenzene	89	84	80 - 120	6	30		
Chlorobromomethane	88	84	73 - 132	5	30		
Chlorodibromomethane	87	83	68 - 132	5	30		
Chloroethane	86	89	63 - 143	4	30		
Chloroform	93	89	80 - 120	4	30		
Chloromethane	103	105	73 - 130	2	30		
cis-1,2-Dichloroethene	89	84	80 - 120	6	30		
cis-1,3-Dichloropropene	92	87	75 - 118	6	30		
Cyclohexane	107	99	77 - 137	8	30		
Dichlorobromomethane	91	86	76 - 130	6	30		
Dichlorodifluoromethane	83	82	73 - 122	1	30		



## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 460-362882

Method: 8260C

Preparation: N/A

LCS Lab Sample ID: LCS 460-362882/3	Analysis Batch: 460-362882	Instrument ID: CVOAMS9
Client Matrix: Solid	Prep Batch: N/A	Lab File ID: K52689.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 04/16/2016 0646	Units: ug/Kg	Final Weight/Volume: 5 mL
Prep Date: N/A		5 mL
Leach Date: N/A		

LCSD Lab Sample ID: LCSD 460-362882/4	Analysis Batch: 460-362882	Instrument ID: CVOAMS9
Client Matrix: Solid	Prep Batch: N/A	Lab File ID: K52690.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 04/16/2016 0713	Units: ug/Kg	Final Weight/Volume: 5 mL
Prep Date: N/A		5 mL
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Ethylbenzene	96	88	80 - 120	8	30		
Ethylene Dibromide	87	86	80 - 120	1	30		
Isopropylbenzene	97	91	80 - 120	7	30		
Methyl acetate	110	110	66 - 150	1	30		
Methyl tert-butyl ether	95	91	80 - 120	4	30		
Methylcyclohexane	98	91	84 - 127	8	30		
Methylene Chloride	89	85	80 - 120	4	30		
m-Xylene & p-Xylene	92	87	80 - 120	6	30		
o-Xylene	94	90	80 - 120	5	30		
Styrene	92	87	80 - 120	6	30		
Tetrachloroethene	92	85	68 - 130	9	30		
Toluene	92	86	80 - 120	7	30		
trans-1,2-Dichloroethene	91	87	86 - 126	5	30		
trans-1,3-Dichloropropene	92	87	73 - 118	6	30		
Trichloroethene	90	85	80 - 120	6	30		
Trichlorofluoromethane	80	81	73 - 134	2	30		
Vinyl chloride	91	93	77 - 130	2	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	104	106	78 - 135
4-Bromofluorobenzene	106	103	67 - 126
Dibromofluoromethane (Surr)	101	100	61 - 149
Toluene-d8 (Surr)	107	105	73 - 121

## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### Method Blank - Batch: 460-363167

### Method: 8270D Preparation: 3546

Lab Sample ID: MB 460-363167/1-A  
Client Matrix: Solid  
Dilution: 1.0  
Analysis Date: 04/19/2016 0318  
Prep Date: 04/18/2016 1336  
Leach Date: N/A

Analysis Batch: 460-363249  
Prep Batch: 460-363167  
Leach Batch: N/A  
Units: ug/Kg

Instrument ID: CBNAMS11  
Lab File ID: z4178861.D  
Initial Weight/Volume: 15.0000 g  
Final Weight/Volume: 1 mL  
Injection Volume: 1 uL

Analyte	Result	Qual	MDL	RL
1,1'-Biphenyl	330	U	28	330
1,2,4,5-Tetrachlorobenzene	330	U	25	330
2,2'-oxybis[1-chloropropane]	330	U	14	330
2,3,4,6-Tetrachlorophenol	330	U	31	330
2,4,5-Trichlorophenol	330	U	33	330
2,4,6-Trichlorophenol	130	U	9.4	130
2,4-Dichlorophenol	130	U	7.8	130
2,4-Dimethylphenol	330	U	73	330
2,4-Dinitrophenol	270	U	250	270
2,4-Dinitrotoluene	67	U	13	67
2,6-Dinitrotoluene	67	U	18	67
2-Chloronaphthalene	330	U	7.5	330
2-Chlorophenol	330	U	8.4	330
2-Methylnaphthalene	330	U	7.3	330
2-Methylphenol	330	U	14	330
2-Nitroaniline	330	U	11	330
2-Nitrophenol	330	U	11	330
3,3'-Dichlorobenzidine	130	U	37	130
3-Nitroaniline	330	U	9.8	330
4,6-Dinitro-2-methylphenol	270	U	88	270
4-Bromophenyl phenyl ether	330	U	10	330
4-Chloro-3-methylphenol	330	U	14	330
4-Chloroaniline	330	U	8.5	330
4-Chlorophenyl phenyl ether	330	U	9.9	330
4-Methylphenol	330	U	9.0	330
4-Nitroaniline	330	U	13	330
4-Nitrophenol	670	U	160	670
Acenaphthene	330	U	8.0	330
Acenaphthylene	330	U	8.5	330
Acetophenone	330	U	7.2	330
Anthracene	330	U	31	330
Atrazine	130	U	15	130
Benzaldehyde	330	U	25	330
Benzo[a]anthracene	33	U	28	33
Benzo[a]pyrene	33	U	10	33
Benzo[b]fluoranthene	33	U	13	33
Benzo[g,h,i]perylene	330	U	19	330
Benzo[k]fluoranthene	33	U	14	33
Bis(2-chloroethoxy)methane	330	U	10	330
Bis(2-chloroethyl)ether	33	U	7.8	33
Bis(2-ethylhexyl) phthalate	330	U	13	330
Butyl benzyl phthalate	330	U	10	330
Caprolactam	330	U	24	330
Carbazole	330	U	8.2	330
Chrysene	330	U	9.0	330

## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### Method Blank - Batch: 460-363167

### Method: 8270D Preparation: 3546

Lab Sample ID: MB 460-363167/1-A  
Client Matrix: Solid  
Dilution: 1.0  
Analysis Date: 04/19/2016 0318  
Prep Date: 04/18/2016 1336  
Leach Date: N/A

Analysis Batch: 460-363249  
Prep Batch: 460-363167  
Leach Batch: N/A  
Units: ug/Kg

Instrument ID: CBNAMS11  
Lab File ID: z4178861.D  
Initial Weight/Volume: 15.0000 g  
Final Weight/Volume: 1 mL  
Injection Volume: 1 uL

Analyte	Result	Qual	MDL	RL
Dibenz(a,h)anthracene	33	U	17	33
Dibenzofuran	330	U	10	330
Diethyl phthalate	330	U	9.4	330
Dimethyl phthalate	330	U	9.6	330
Di-n-butyl phthalate	330	U	9.9	330
Di-n-octyl phthalate	330	U	17	330
Fluoranthene	330	U	9.8	330
Fluorene	330	U	7.2	330
Hexachlorobenzene	33	U	13	33
Hexachlorobutadiene	67	U	9.3	67
Hexachlorocyclopentadiene	330	U	21	330
Hexachloroethane	33	U	12	33
Indeno[1,2,3-cd]pyrene	33	U	22	33
Isophorone	130	U	7.1	130
Naphthalene	330	U	8.4	330
Nitrobenzene	33	U	10	33
N-Nitrosodi-n-propylamine	33	U	11	33
N-Nitrosodiphenylamine	330	U	30	330
Pentachlorophenol	270	U	40	270
Phenanthrene	330	U	8.8	330
Phenol	330	U	11	330
Pyrene	330	U	15	330

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol (Surr)	72	10 - 95
2-Fluorobiphenyl	67	27 - 84
2-Fluorophenol (Surr)	64	21 - 84
Nitrobenzene-d5 (Surr)	72	28 - 92
Phenol-d5 (Surr)	67	22 - 88
Terphenyl-d14 (Surr)	80	16 - 114

## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### Lab Control Sample - Batch: 460-363167

Method: 8270D

Preparation: 3546

Lab Sample ID: LCS 460-363167/2-A  
 Client Matrix: Solid  
 Dilution: 1.0  
 Analysis Date: 04/19/2016 0252  
 Prep Date: 04/18/2016 1336  
 Leach Date: N/A

Analysis Batch: 460-363249  
 Prep Batch: 460-363167  
 Leach Batch: N/A  
 Units: ug/Kg

Instrument ID: CBNAMS11  
 Lab File ID: z4178860.D  
 Initial Weight/Volume: 15.0000 g  
 Final Weight/Volume: 1 mL  
 Injection Volume: 1 uL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1'-Biphenyl	3330	2720	82	64 - 103	
1,2,4,5-Tetrachlorobenzene	3330	2770	83	62 - 109	
2,2'-oxybis[1-chloropropane]	3330	2300	69	42 - 119	
2,3,4,6-Tetrachlorophenol	3330	2880	86	57 - 113	
2,4,5-Trichlorophenol	3330	2600	78	59 - 105	
2,4,6-Trichlorophenol	3330	2800	84	61 - 107	
2,4-Dichlorophenol	3330	2700	81	59 - 99	
2,4-Dimethylphenol	3330	2610	78	60 - 98	
2,4-Dinitrophenol	6670	6230	93	26 - 137	
2,4-Dinitrotoluene	3330	3130	94	61 - 118	
2,6-Dinitrotoluene	3330	3030	91	63 - 112	
2-Chloronaphthalene	3330	2740	82	63 - 102	
2-Chlorophenol	3330	2570	77	58 - 95	
2-Methylnaphthalene	3330	2700	81	64 - 102	
2-Methylphenol	3330	2660	80	56 - 99	
2-Nitroaniline	3330	2890	87	46 - 113	
2-Nitrophenol	3330	2760	83	63 - 103	
3,3'-Dichlorobenzidine	3330	1590	48	18 - 92	
3-Nitroaniline	3330	1570	47	23 - 89	
4,6-Dinitro-2-methylphenol	6670	6310	95	51 - 124	
4-Bromophenyl phenyl ether	3330	3030	91	65 - 114	
4-Chloro-3-methylphenol	3330	2900	87	58 - 108	
4-Chloroaniline	3330	1240	37	10 - 82	
4-Chlorophenyl phenyl ether	3330	2920	88	63 - 107	
4-Methylphenol	3330	2680	80	53 - 103	
4-Nitroaniline	3330	2770	83	44 - 109	
4-Nitrophenol	6670	6830	102	45 - 125	
Acenaphthene	3330	2700	81	59 - 102	
Acenaphthylene	3330	2800	84	63 - 102	
Acetophenone	3330	2710	81	56 - 107	
Anthracene	3330	2980	89	66 - 105	
Benzo[a]anthracene	3330	2860	86	65 - 106	
Benzo[a]pyrene	3330	3020	90	68 - 111	
Benzo[b]fluoranthene	3330	2870	86	67 - 116	
Benzo[g,h,i]perylene	3330	2990	90	49 - 124	
Benzo[k]fluoranthene	3330	2980	89	65 - 114	
Bis(2-chloroethoxy)methane	3330	2760	83	61 - 102	
Bis(2-chloroethyl)ether	3330	2640	79	58 - 102	
Bis(2-ethylhexyl) phthalate	3330	3250	98	60 - 125	
Butyl benzyl phthalate	3330	3170	95	62 - 123	
Carbazole	3330	2910	87	62 - 107	

## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### Lab Control Sample - Batch: 460-363167

**Method: 8270D**  
**Preparation: 3546**

Lab Sample ID:	LCS 460-363167/2-A	Analysis Batch:	460-363249	Instrument ID:	CBNAMS11
Client Matrix:	Solid	Prep Batch:	460-363167	Lab File ID:	z4178860.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.0000 g
Analysis Date:	04/19/2016 0252	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	04/18/2016 1336			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chrysene	3330	2970	89	64 - 105	
Dibenz(a,h)anthracene	3330	3280	98	54 - 126	
Dibenzofuran	3330	2810	84	62 - 102	
Diethyl phthalate	3330	3070	92	61 - 110	
Dimethyl phthalate	3330	2980	89	64 - 108	
Di-n-butyl phthalate	3330	3170	95	62 - 114	
Di-n-octyl phthalate	3330	3200	96	52 - 137	
Fluoranthene	3330	2920	88	59 - 109	
Fluorene	3330	2840	85	65 - 108	
Hexachlorobenzene	3330	3040	91	65 - 117	
Hexachlorobutadiene	3330	2820	85	60 - 105	
Hexachlorocyclopentadiene	3330	2840	85	37 - 119	
Hexachloroethane	3330	2680	80	60 - 94	
Indeno[1,2,3-cd]pyrene	3330	3380	101	50 - 134	
Isophorone	3330	2990	90	60 - 102	
Naphthalene	3330	2690	81	64 - 99	
Nitrobenzene	3330	2840	85	59 - 102	
N-Nitrosodi-n-propylamine	3330	2920	87	56 - 112	
N-Nitrosodiphenylamine	3330	2880	86	71 - 119	
Pentachlorophenol	6670	5820	87	47 - 115	
Phenanthrene	3330	2860	86	66 - 105	
Phenol	3330	2660	80	55 - 99	
Pyrene	3330	2870	86	55 - 126	

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol (Surr)	86	10 - 95
2-Fluorobiphenyl	80	27 - 84
2-Fluorophenol (Surr)	69	21 - 84
Nitrobenzene-d5 (Surr)	79	28 - 92
Phenol-d5 (Surr)	72	22 - 88
Terphenyl-d14 (Surr)	88	16 - 114

## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### Lab Control Sample - Batch: 460-363167

**Method: 8270D**  
**Preparation: 3546**

Lab Sample ID:	LCS 460-363167/3-A	Analysis Batch:	460-363249	Instrument ID:	CBNAM511
Client Matrix:	Solid	Prep Batch:	460-363167	Lab File ID:	z4178862.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.0000 g
Analysis Date:	04/19/2016 0342	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	04/18/2016 1336			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Atrazine	6670	7020	105	41 - 116	
Benzaldehyde	6670	5560	83	55 - 116	
Caprolactam	6670	8630	129	44 - 129	E

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol (Surr)	83	10 - 95
2-Fluorobiphenyl	79	27 - 84
2-Fluorophenol (Surr)	73	21 - 84
Nitrobenzene-d5 (Surr)	83	28 - 92
Phenol-d5 (Surr)	75	22 - 88
Terphenyl-d14 (Surr)	93	16 - 114

## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 460-363167

Method: 8270D  
Preparation: 3546

MS Lab Sample ID: 460-112270-E-3-B MSDL Analysis Batch: 460-363400  
Client Matrix: Solid Prep Batch: 460-363167  
Dilution: 10 Leach Batch: N/A  
Analysis Date: 04/19/2016 2322 Run Type: DL  
Prep Date: 04/18/2016 1336  
Leach Date: N/A

Instrument ID: CBNAMS11  
Lab File ID: z4178908.D  
Initial Weight/Volume: 15.0258 g  
Final Weight/Volume: 1 mL  
Injection Volume: 1 uL

MSD Lab Sample ID: 460-112270-F-3-B MSDDL Analysis Batch: 460-363400  
Client Matrix: Solid Prep Batch: 460-363167  
Dilution: 10 Leach Batch: N/A  
Analysis Date: 04/19/2016 2346 Run Type: DL  
Prep Date: 04/18/2016 1336  
Leach Date: N/A

Instrument ID: CBNAMS11  
Lab File ID: z4178909.D  
Initial Weight/Volume: 15.0225 g  
Final Weight/Volume: 1 mL  
Injection Volume: 1 uL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
1,1'-Biphenyl	64	63	64 - 103	1	30	J	J *
1,2,4,5-Tetrachlorobenzene	60	60	62 - 109	1	30	J *	J *
2,2'-oxybis[1-chloropropane]	49	51	42 - 119	4	30	J	J
2,3,4,6-Tetrachlorophenol	30	26	57 - 113	16	30	J *	J *
2,4,5-Trichlorophenol	41	36	59 - 105	11	30	J *	J *
2,4,6-Trichlorophenol	46	42	61 - 107	10	30	*	*
2,4-Dichlorophenol	51	51	59 - 99	0	30	*	*
2,4-Dimethylphenol	55	60	60 - 98	8	30	J *	J
2,4-Dinitrophenol	0	0	26 - 137	NC	30	U *	U *
2,4-Dinitrotoluene	68	70	61 - 118	3	30		
2,6-Dinitrotoluene	72	69	63 - 112	4	30		
2-Chloronaphthalene	61	61	63 - 102	1	30	J *	J *
2-Chlorophenol	51	50	58 - 95	2	30	J *	J *
2-Methylnaphthalene	48	53	64 - 102	8	30	J *	J *
2-Methylphenol	48	53	56 - 99	11	30	J *	J *
2-Nitroaniline	64	67	46 - 113	4	30	J	J
2-Nitrophenol	52	50	63 - 103	3	30	J *	J *
3,3'-Dichlorobenzidine	32	47	18 - 92	36	30	J	*
3-Nitroaniline	36	44	23 - 89	22	30	J	J
4,6-Dinitro-2-methylphenol	24	23	51 - 124	6	30	J *	J *
4-Bromophenyl phenyl ether	65	70	65 - 114	7	30	J	J
4-Chloro-3-methylphenol	52	55	58 - 108	5	30	J *	J *
4-Chloroaniline	16	19	10 - 82	13	30	J	J
4-Chlorophenyl phenyl ether	61	65	63 - 107	6	30	J *	J
4-Methylphenol	54	56	53 - 103	3	30	J	J
4-Nitroaniline	52	55	44 - 109	6	30	J	J
4-Nitrophenol	40	36	45 - 125	11	30	J *	J *
Acenaphthene	38	42	59 - 102	5	30	J *	J *
Acenaphthylene	60	62	63 - 102	2	30	J *	J *
Acetophenone	53	55	56 - 107	5	30	J *	J *
Anthracene	20	30	66 - 105	8	30	*	*
Atrazine	83	87	41 - 116	5	30		

## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 460-363167

Method: 8270D  
Preparation: 3546

MS Lab Sample ID: 460-112270-E-3-B MSDL Analysis Batch: 460-363400  
Client Matrix: Solid Prep Batch: 460-363167  
Dilution: 10 Leach Batch: N/A  
Analysis Date: 04/19/2016 2322 Run Type: DL  
Prep Date: 04/18/2016 1336  
Leach Date: N/A

Instrument ID: CBNAMS11  
Lab File ID: z4178908.D  
Initial Weight/Volume: 15.0258 g  
Final Weight/Volume: 1 mL  
Injection Volume: 1 uL

MSD Lab Sample ID: 460-112270-F-3-B MSDDL Analysis Batch: 460-363400  
Client Matrix: Solid Prep Batch: 460-363167  
Dilution: 10 Leach Batch: N/A  
Analysis Date: 04/19/2016 2346 Run Type: DL  
Prep Date: 04/18/2016 1336  
Leach Date: N/A

Instrument ID: CBNAMS11  
Lab File ID: z4178909.D  
Initial Weight/Volume: 15.0225 g  
Final Weight/Volume: 1 mL  
Injection Volume: 1 uL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Benzaldehyde	47	47	55 - 116	0	30	J *	J *
Benzo[a]anthracene	-189	-117	65 - 106	12	30	*	*
Benzo[a]pyrene	-171	-70	68 - 111	15	30	*	*
Benzo[b]fluoranthene	-181	-279	67 - 116	8	30	*	*
Benzo[g,h,i]perylene	-219	-195	49 - 124	3	30	*	*
Benzo[k]fluoranthene	-32	45	65 - 114	17	30	*	*
Bis(2-chloroethoxy)methane	62	64	61 - 102	3	30	J	J
Bis(2-chloroethyl)ether	55	56	58 - 102	1	30	*	*
Bis(2-ethylhexyl) phthalate	51	62	60 - 125	8	30	*	
Butyl benzyl phthalate	67	62	62 - 123	3	30		
Caprolactam	55	62	44 - 129	12	30		
Carbazole	50	31	62 - 107	10	30	*	*
Chrysene	-132	-166	64 - 105	3	30	*	*
Dibenz(a,h)anthracene	13	24	54 - 126	4	30	*	*
Dibenzofuran	50	52	62 - 102	3	30	J *	J *
Diethyl phthalate	73	77	61 - 110	5	30	J	J
Dimethyl phthalate	72	79	64 - 108	9	30	J	J
Di-n-butyl phthalate	50	68	62 - 114	19	30	J *	
Di-n-octyl phthalate	41	46	52 - 137	11	30	J *	J *
Fluoranthene	-318	-237	59 - 109	6	30	*	*
Fluorene	42	46	65 - 108	5	30	J *	J *
Hexachlorobenzene	57	65	65 - 117	13	30	*	
Hexachlorobutadiene	63	59	60 - 105	6	30		*
Hexachlorocyclopentadiene	0	0	37 - 119	NC	30	U *	U *
Hexachloroethane	49	51	60 - 94	4	30	*	*
Indeno[1,2,3-cd]pyrene	-196	-178	50 - 134	2	30	*	*
Isophorone	65	68	60 - 102	5	30		
Naphthalene	49	49	64 - 99	0	30	J *	J *
Nitrobenzene	60	62	59 - 102	3	30		
N-Nitrosodi-n-propylamine	58	61	56 - 112	5	30		
N-Nitrosodiphenylamine	69	71	71 - 119	3	30	J *	J
Pentachlorophenol	11	7	47 - 115	46	30	J *	J *



## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 460-363167

Method: 8270D  
Preparation: 3546

MS Lab Sample ID: 460-112270-E-3-B MSDL	Analysis Batch: 460-363400	Instrument ID: CBNAMS11
Client Matrix: Solid	Prep Batch: 460-363167	Lab File ID: z4178908.D
Dilution: 10	Leach Batch: N/A	Initial Weight/Volume: 15.0258 g
Analysis Date: 04/19/2016 2322	Run Type: DL	Final Weight/Volume: 1 mL
Prep Date: 04/18/2016 1336		Injection Volume: 1 uL
Leach Date: N/A		

MSD Lab Sample ID: 460-112270-F-3-B MSDDL	Analysis Batch: 460-363400	Instrument ID: CBNAMS11
Client Matrix: Solid	Prep Batch: 460-363167	Lab File ID: z4178909.D
Dilution: 10	Leach Batch: N/A	Initial Weight/Volume: 15.0225 g
Analysis Date: 04/19/2016 2346	Run Type: DL	Final Weight/Volume: 1 mL
Prep Date: 04/18/2016 1336		Injection Volume: 1 uL
Leach Date: N/A		

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Phenanthrene	-128	-87	66 - 105	9	30	*	*
Phenol	46	53	55 - 99	13	30	J *	J *
Pyrene	-243	-228	55 - 126	2	30	*	*

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2,4,6-Tribromophenol (Surr)	41	37	10 - 95
2-Fluorobiphenyl	63	63	27 - 84
2-Fluorophenol (Surr)	48	49	21 - 84
Nitrobenzene-d5 (Surr)	58	60	28 - 92
Phenol-d5 (Surr)	44	47	22 - 88
Terphenyl-d14 (Surr)	47	48	16 - 114

## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### Method Blank - Batch: 460-362878

### Method: 8081B Preparation: 3546

Lab Sample ID:	MB 460-362878/1-A	Analysis Batch:	460-362934	Instrument ID:	CPESTGC4
Client Matrix:	Solid	Prep Batch:	460-362878	Lab File ID:	P4193366.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.0000 g
Analysis Date:	04/16/2016 1636	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	04/16/2016 0419			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
4,4'-DDD	6.7	U	0.88	6.7
4,4'-DDE	6.7	U	0.97	6.7
4,4'-DDT	6.7	U	0.69	6.7
Aldrin	6.7	U	0.81	6.7
alpha-BHC	2.0	U	0.61	2.0
beta-BHC	2.0	U	0.65	2.0
Chlordane (technical)	67	U	30	67
delta-BHC	2.0	U	0.73	2.0
Dieldrin	2.0	U	0.87	2.0
Endosulfan I	6.7	U	0.93	6.7
Endosulfan II	6.7	U	1.1	6.7
Endosulfan sulfate	6.7	U	0.78	6.7
Endrin	6.7	U	0.85	6.7
Endrin aldehyde	6.7	U	0.83	6.7
Endrin ketone	6.7	U	0.93	6.7
gamma-BHC (Lindane)	2.0	U	0.60	2.0
Heptachlor	6.7	U	0.86	6.7
Heptachlor epoxide	6.7	U	1.3	6.7
Methoxychlor	6.7	U	1.4	6.7
Toxaphene	67	U	20	67

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	126	55 - 148
Tetrachloro-m-xylene	116	55 - 139

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	123	55 - 148
Tetrachloro-m-xylene	109	55 - 139

## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### Lab Control Sample - Batch: 460-362878

**Method: 8081B**  
**Preparation: 3546**

Lab Sample ID:	LCS 460-362878/2-A	Analysis Batch:	460-362934	Instrument ID:	CPESTGC4
Client Matrix:	Solid	Prep Batch:	460-362878	Lab File ID:	P4193367.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.0000 g
Analysis Date:	04/16/2016 1650	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	04/16/2016 0419			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
4,4'-DDD	133	152	114	61 - 140	
4,4'-DDE	133	155	116	61 - 135	
4,4'-DDT	133	150	112	59 - 133	
Aldrin	133	156	117	61 - 133	
alpha-BHC	133	154	115	61 - 137	
beta-BHC	133	153	115	59 - 136	
delta-BHC	133	153	115	60 - 139	
Dieldrin	133	158	119	61 - 137	
Endosulfan I	133	156	117	60 - 135	
Endosulfan II	133	152	114	61 - 130	
Endosulfan sulfate	133	143	107	60 - 129	
Endrin	133	147	110	59 - 133	
Endrin aldehyde	133	155	117	57 - 131	
Endrin ketone	133	158	118	57 - 138	
gamma-BHC (Lindane)	133	149	112	61 - 138	
Heptachlor	133	151	113	61 - 135	
Heptachlor epoxide	133	153	114	61 - 129	
Methoxychlor	133	131	98	60 - 129	
Surrogate	% Rec		Acceptance Limits		
DCB Decachlorobiphenyl	127		55 - 148		
Tetrachloro-m-xylene	122		55 - 139		

### Lab Control Sample - Batch: 460-362878

**Method: 8081B**  
**Preparation: 3546**

Lab Sample ID:	LCS 460-362878/2-A	Analysis Batch:	460-362934	Instrument ID:	CPESTGC4
Client Matrix:	Solid	Prep Batch:	460-362878	Lab File ID:	P4193367.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.0000 g
Analysis Date:	04/16/2016 1650	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	04/16/2016 0419			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
4,4'-DDD	133	146	109	61 - 140	
4,4'-DDE	133	150	112	61 - 135	
4,4'-DDT	133	148	111	59 - 133	
Aldrin	133	150	112	61 - 133	
alpha-BHC	133	153	115	61 - 137	
beta-BHC	133	153	115	59 - 136	

## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### Lab Control Sample - Batch: 460-362878

**Method: 8081B**  
**Preparation: 3546**

Lab Sample ID:	LCS 460-362878/2-A	Analysis Batch:	460-362934	Instrument ID:	CPESTGC4
Client Matrix:	Solid	Prep Batch:	460-362878	Lab File ID:	P4193367.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.0000 g
Analysis Date:	04/16/2016 1650	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	04/16/2016 0419			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
delta-BHC	133	148	111	60 - 139	
Dieldrin	133	152	114	61 - 137	
Endosulfan I	133	152	114	60 - 135	
Endosulfan II	133	151	113	61 - 130	
Endosulfan sulfate	133	141	106	60 - 129	
Endrin	133	140	105	59 - 133	
Endrin aldehyde	133	153	115	57 - 131	
Endrin ketone	133	155	116	57 - 138	
gamma-BHC (Lindane)	133	149	112	61 - 138	
Heptachlor	133	147	111	61 - 135	
Heptachlor epoxide	133	151	113	61 - 129	
Methoxychlor	133	129	97	60 - 129	
Surrogate	% Rec		Acceptance Limits		
DCB Decachlorobiphenyl	123		55 - 148		
Tetrachloro-m-xylene	117		55 - 139		

## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 460-362878

Method: 8081B  
Preparation: 3546

MS Lab Sample ID: 460-112013-E-10-H MS	Analysis Batch: 460-362934	Instrument ID: CPESTGC4
Client Matrix: Solid	Prep Batch: 460-362878	Lab File ID: P4193368.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 15.0111 g
Analysis Date: 04/16/2016 1703		Final Weight/Volume: 10 mL
Prep Date: 04/16/2016 0419		Injection Volume: 1 uL
Leach Date: N/A		Column ID: PRIMARY

MSD Lab Sample ID: 460-112013-E-10-I MSD	Analysis Batch: 460-362934	Instrument ID: CPESTGC4
Client Matrix: Solid	Prep Batch: 460-362878	Lab File ID: P4193369.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 15.0109 g
Analysis Date: 04/16/2016 1716		Final Weight/Volume: 10 mL
Prep Date: 04/16/2016 0419		Injection Volume: 1 uL
Leach Date: N/A		Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
4,4'-DDD	116	118	61 - 140	1	30		
4,4'-DDE	114	116	61 - 135	2	30		
4,4'-DDT	118	122	59 - 133	3	30		
Aldrin	117	119	61 - 133	2	30		
alpha-BHC	116	120	61 - 137	3	30		
beta-BHC	115	117	59 - 136	2	30		
delta-BHC	118	120	60 - 139	2	30		
Dieldrin	119	119	61 - 137	0	30		
Endosulfan I	114	114	60 - 135	1	30		
Endosulfan II	116	120	61 - 130	3	30		
Endosulfan sulfate	116	119	60 - 129	2	30		
Endrin	113	113	59 - 133	0	30		
Endrin aldehyde	120	124	57 - 131	3	30		
Endrin ketone	120	126	57 - 138	5	30		
gamma-BHC (Lindane)	113	116	61 - 138	3	30		
Heptachlor	114	117	61 - 135	2	30		
Heptachlor epoxide	114	116	61 - 129	1	30		
Methoxychlor	120	123	60 - 129	2	30		
Surrogate	MS % Rec		MSD % Rec	Acceptance Limits			
DCB Decachlorobiphenyl	126		131	55 - 148			
Tetrachloro-m-xylene	119		122	55 - 139			

## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 460-362878

Method: 8081B  
Preparation: 3546

MS Lab Sample ID: 460-112013-E-10-H MS	Analysis Batch: 460-362934	Instrument ID: CPESTGC4
Client Matrix: Solid	Prep Batch: 460-362878	Lab File ID: P4193368.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 15.0111 g
Analysis Date: 04/16/2016 1703		Final Weight/Volume: 10 mL
Prep Date: 04/16/2016 0419		Injection Volume: 1 uL
Leach Date: N/A		Column ID: SECONDARY

MSD Lab Sample ID: 460-112013-E-10-I MSD	Analysis Batch: 460-362934	Instrument ID: CPESTGC4
Client Matrix: Solid	Prep Batch: 460-362878	Lab File ID: P4193369.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 15.0109 g
Analysis Date: 04/16/2016 1716		Final Weight/Volume: 10 mL
Prep Date: 04/16/2016 0419		Injection Volume: 1 uL
Leach Date: N/A		Column ID: SECONDARY

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
4,4'-DDD	114	116	61 - 140	2	30		
4,4'-DDE	113	114	61 - 135	1	30		
4,4'-DDT	116	117	59 - 133	0	30		
Aldrin	113	114	61 - 133	1	30		
alpha-BHC	116	118	61 - 137	1	30		
beta-BHC	114	116	59 - 136	2	30		
delta-BHC	114	115	60 - 139	1	30		
Dieldrin	112	114	61 - 137	2	30		
Endosulfan I	112	114	60 - 135	2	30		
Endosulfan II	114	116	61 - 130	1	30		
Endosulfan sulfate	106	110	60 - 129	3	30		
Endrin	107	111	59 - 133	4	30		
Endrin aldehyde	116	119	57 - 131	2	30		
Endrin ketone	115	119	57 - 138	3	30		
gamma-BHC (Lindane)	113	114	61 - 138	1	30		
Heptachlor	111	112	61 - 135	1	30		
Heptachlor epoxide	112	114	61 - 129	2	30		
Methoxychlor	106	110	60 - 129	4	30		
Surrogate	MS % Rec		MSD % Rec	Acceptance Limits			
DCB Decachlorobiphenyl	123		126	55 - 148			
Tetrachloro-m-xylene	115		116	55 - 139			

## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### Method Blank - Batch: 460-362877

### Method: 8082A Preparation: 3546

Lab Sample ID: MB 460-362877/1-A  
Client Matrix: Solid  
Dilution: 1.0  
Analysis Date: 04/16/2016 1608  
Prep Date: 04/16/2016 0349  
Leach Date: N/A

Analysis Batch: 460-362933  
Prep Batch: 460-362877  
Leach Batch: N/A  
Units: ug/Kg

Instrument ID: CPESTGC9  
Lab File ID: 9F001281.D  
Initial Weight/Volume: 15.0000 g  
Final Weight/Volume: 10 mL  
Injection Volume: 1 uL  
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
Aroclor 1016	67	U	8.9	67
Aroclor 1221	67	U	8.9	67
Aroclor 1232	67	U	8.9	67
Aroclor 1242	67	U	8.9	67
Aroclor 1248	67	U	8.9	67
Aroclor 1254	67	U	9.2	67
Aroclor 1260	67	U	9.2	67
Aroclor 1268	67	U	9.2	67
Aroclor-1262	67	U	9.2	67
Polychlorinated biphenyls, Total	67	U	9.2	67

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	119	47 - 150
Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	99	47 - 150

## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### Lab Control Sample - Batch: 460-362877

**Method: 8082A**  
**Preparation: 3546**

Lab Sample ID:	LCS 460-362877/2-A	Analysis Batch:	460-362933	Instrument ID:	CPESTGC9
Client Matrix:	Solid	Prep Batch:	460-362877	Lab File ID:	9F001282.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.0000 g
Analysis Date:	04/16/2016 1626	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	04/16/2016 0349			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor 1016	333	393	118	70 - 149	
Aroclor 1260	333	392	117	71 - 150	
Surrogate	% Rec		Acceptance Limits		
DCB Decachlorobiphenyl	123		47 - 150		

### Lab Control Sample - Batch: 460-362877

**Method: 8082A**  
**Preparation: 3546**

Lab Sample ID:	LCS 460-362877/2-A	Analysis Batch:	460-362933	Instrument ID:	CPESTGC9
Client Matrix:	Solid	Prep Batch:	460-362877	Lab File ID:	9F001282.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	15.0000 g
Analysis Date:	04/16/2016 1626	Units:	ug/Kg	Final Weight/Volume:	10 mL
Prep Date:	04/16/2016 0349			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	SECONDARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor 1016	333	348	104	70 - 149	
Aroclor 1260	333	347	104	71 - 150	
Surrogate	% Rec		Acceptance Limits		
DCB Decachlorobiphenyl	97		47 - 150		



## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 460-362877

Method: 8082A  
Preparation: 3546

MS Lab Sample ID: 460-112013-E-10-E MS	Analysis Batch: 460-362933	Instrument ID: CPESTGC9
Client Matrix: Solid	Prep Batch: 460-362877	Lab File ID: 9F001283.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 15.0112 g
Analysis Date: 04/16/2016 1644		Final Weight/Volume: 10 mL
Prep Date: 04/16/2016 0349		Injection Volume: 1 uL
Leach Date: N/A		Column ID: PRIMARY

MSD Lab Sample ID: 460-112013-E-10-F MSD	Analysis Batch: 460-362933	Instrument ID: CPESTGC9
Client Matrix: Solid	Prep Batch: 460-362877	Lab File ID: 9F001284.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 15.0110 g
Analysis Date: 04/16/2016 1702		Final Weight/Volume: 10 mL
Prep Date: 04/16/2016 0349		Injection Volume: 1 uL
Leach Date: N/A		Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Aroclor 1016	113	126	70 - 149	11	30		
Aroclor 1260	113	125	71 - 150	10	30		
Surrogate	MS % Rec		MSD % Rec	Acceptance Limits			
DCB Decachlorobiphenyl	120		133	47 - 150			

### Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 460-362877

Method: 8082A  
Preparation: 3546

MS Lab Sample ID: 460-112013-E-10-E MS	Analysis Batch: 460-362933	Instrument ID: CPESTGC9
Client Matrix: Solid	Prep Batch: 460-362877	Lab File ID: 9F001283.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 15.0112 g
Analysis Date: 04/16/2016 1644		Final Weight/Volume: 10 mL
Prep Date: 04/16/2016 0349		Injection Volume: 1 uL
Leach Date: N/A		Column ID: SECONDARY

MSD Lab Sample ID: 460-112013-E-10-F MSD	Analysis Batch: 460-362933	Instrument ID: CPESTGC9
Client Matrix: Solid	Prep Batch: 460-362877	Lab File ID: 9F001284.D
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 15.0110 g
Analysis Date: 04/16/2016 1702		Final Weight/Volume: 10 mL
Prep Date: 04/16/2016 0349		Injection Volume: 1 uL
Leach Date: N/A		Column ID: SECONDARY

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Aroclor 1016	108	118	70 - 149	8	30		
Aroclor 1260	102	114	71 - 150	12	30		
Surrogate	MS % Rec		MSD % Rec	Acceptance Limits			
DCB Decachlorobiphenyl	99		109	47 - 150			

## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### Method Blank - Batch: 460-362853

Method: 6010C

Preparation: 3050B

Lab Sample ID: MB 460-362853/1-A ^2  
Client Matrix: Solid  
Dilution: 2.0  
Analysis Date: 04/18/2016 1503  
Prep Date: 04/15/2016 1810  
Leach Date: N/A

Analysis Batch: 460-363175  
Prep Batch: 460-362853  
Leach Batch: N/A  
Units: mg/Kg

Instrument ID: ICP4  
Lab File ID: 362940.asc  
Initial Weight/Volume: 1.00 g  
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Aluminum	20.0	U	10.3	20.0
Antimony	2.0	U	0.79	2.0
Arsenic	1.5	U	0.49	1.5
Barium	20.0	U	0.72	20.0
Beryllium	0.20	U	0.17	0.20
Cadmium	0.40	U	0.21	0.40
Calcium	500	U	29.6	500
Chromium	1.0	U	0.48	1.0
Cobalt	5.0	U	0.58	5.0
Copper	2.5	U	0.65	2.5
Iron	15.0	U	11.3	15.0
Lead	1.0	U	0.39	1.0
Magnesium	500	U	25.0	500
Manganese	1.5	U	0.53	1.5
Nickel	4.0	U	0.73	4.0
Potassium	500	U	15.2	500
Selenium	2.0	U	0.69	2.0
Silver	1.0	U	0.18	1.0
Sodium	500	U	33.9	500
Thallium	2.0	U	0.89	2.0
Vanadium	5.0	U	0.50	5.0
Zinc	3.0	U	0.73	3.0

## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### LCS-Certified Reference Material - Batch: 460-362853

Method: 6010C

Preparation: 3050B

Lab Sample ID: LCSSRM 460-362853/2-~~A~~ Analysis Batch: 460-363175  
 Client Matrix: Solid Prep Batch: 460-362853  
 Dilution: 4.0 Leach Batch: N/A  
 Analysis Date: 04/18/2016 1520 Units: mg/Kg  
 Prep Date: 04/15/2016 1810  
 Leach Date: N/A

Instrument ID: ICP4  
 Lab File ID: 362940.asc  
 Initial Weight/Volume: 1.01 g  
 Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	8080	6857	84.9	51.1 - 148.5	
Antimony	123	67.13	54.6	1.0 - 200.0	
Arsenic	145	136.7	94.3	79.3 - 121.4	
Barium	209	215.0	102.9	83.3 - 117.2	
Beryllium	97.3	95.39	98.0	82.6 - 117.2	
Cadmium	87.6	90.99	103.9	82.6 - 117.6	
Calcium	5690	5549	97.5	81.0 - 118.8	
Chromium	143	152.4	106.5	79.7 - 119.6	
Cobalt	154	167.4	108.7	83.8 - 115.6	
Copper	173	175.9	101.7	81.5 - 117.9	
Iron	15000	13240	88.3	46.8 - 154.0	
Lead	146	147.6	101.1	81.5 - 118.5	
Magnesium	2640	2360	89.4	76.5 - 123.5	
Manganese	309	309.1	100.0	81.6 - 118.8	
Nickel	129	146.6	113.6	82.9 - 117.1	
Potassium	2400	2174	90.6	71.7 - 128.3	
Selenium	178	174.9	98.2	78.7 - 121.3	
Silver	31.3	28.65	91.5	75.1 - 124.9	
Sodium	869	825.5	95.0	72.7 - 126.6	J
Thallium	141	151.7	107.6	79.4 - 121.3	
Vanadium	115	111.3	96.8	77.6 - 122.6	
Zinc	194	195.1	100.6	82.0 - 118.0	

## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### Matrix Spike - Batch: 460-362853

Method: 6010C  
Preparation: 3050B

Lab Sample ID: 460-112097-A-3-C MS  
Client Matrix: Solid  
Dilution: 4.0  
Analysis Date: 04/18/2016 1535  
Prep Date: 04/15/2016 1810  
Leach Date: N/A

Analysis Batch: 460-363175  
Prep Batch: 460-362853  
Leach Batch: N/A  
Units: mg/Kg

Instrument ID: ICP4  
Lab File ID: 362940.asc  
Initial Weight/Volume: 1.29 g  
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	15700	183	17750	1109	75 - 125	4
Antimony	3.8 U	45.8	16.76	37	75 - 125	N
Arsenic	9.1	183	175.3	91	75 - 125	
Barium	41.9	183	223.0	99	75 - 125	
Beryllium	0.78	4.58	5.18	96	75 - 125	
Cadmium	0.76 U	4.58	4.10	90	75 - 125	
Calcium	1090	1830	2810	94	75 - 125	
Chromium	29.5	18.3	47.83	100	75 - 125	
Cobalt	7.0 J	45.8	50.98	96	75 - 125	
Copper	12.4	22.9	34.50	97	75 - 125	
Iron	24900	91.7	24150	-864	75 - 125	4
Lead	10.6	45.8	54.14	95	75 - 125	
Magnesium	2620	1830	4356	94	75 - 125	
Manganese	256	45.8	279.7	51	75 - 125	4
Nickel	13.5	45.8	60.17	102	75 - 125	
Potassium	1370	1830	3081	93	75 - 125	
Selenium	1.6 J	183	170.4	92	75 - 125	
Silver	1.9 U	4.58	3.80	83	75 - 125	
Sodium	71.5 J	1830	1690	88	75 - 125	
Thallium	3.8 U	183	180.3	98	75 - 125	
Vanadium	44.6	45.8	88.12	95	75 - 125	
Zinc	32.0	45.8	76.07	96	75 - 125	

## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

**Duplicate - Batch: 460-362853**

**Method: 6010C**  
**Preparation: 3050B**

Lab Sample ID: 460-112097-A-3-B DU  
Client Matrix: Solid  
Dilution: 4.0  
Analysis Date: 04/18/2016 1523  
Prep Date: 04/15/2016 1810  
Leach Date: N/A

Analysis Batch: 460-363175  
Prep Batch: 460-362853  
Leach Batch: N/A  
Units: mg/Kg

Instrument ID: ICP4  
Lab File ID: 362940.asc  
Initial Weight/Volume: 1.28 g  
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Aluminum	15700		15610	0.7	20	
Antimony	3.8	U	3.7	NC	20	U
Arsenic	9.1		9.02	0.4	20	
Barium	41.9		41.44	1	20	
Beryllium	0.78		0.774	1	20	
Cadmium	0.76	U	0.74	NC	20	U
Calcium	1090		1077	2	20	
Chromium	29.5		28.94	2	20	
Cobalt	7.0	J	6.94	0.9	20	J
Copper	12.4		12.22	1	20	
Iron	24900		24640	1	20	
Lead	10.6		10.61	0.4	20	
Magnesium	2620		2588	1	20	
Manganese	256		252.8	1	20	
Nickel	13.5		13.42	0.8	20	
Potassium	1370		1356	1	20	
Selenium	1.6	J	1.40	15	20	J
Silver	1.9	U	1.8	NC	20	U
Sodium	71.5	J	70.99	0.7	20	J
Thallium	3.8	U	3.7	NC	20	U
Vanadium	44.6		43.86	2	20	
Zinc	32.0		31.61	1	20	

## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

### Method Blank - Batch: 460-363043

**Method: 7471B**  
**Preparation: 7471B**

Lab Sample ID:	MB 460-363043/10-A	Analysis Batch:	460-363133	Instrument ID:	LEEMAN5
Client Matrix:	Solid	Prep Batch:	460-363043	Lab File ID:	363043HG1.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	04/18/2016 0756	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	04/18/2016 0416				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.017	U	0.012	0.017

### LCS-Certified Reference Material - Batch: 460-363043

**Method: 7471B**  
**Preparation: 7471B**

Lab Sample ID:	LCSSRM 460-363043/11-	Analysis Batch:	460-363133	Instrument ID:	LEEMAN5
Client Matrix:	Solid	Prep Batch:	460-363043	Lab File ID:	363043HG1.PRN
Dilution:	20	Leach Batch:	N/A	Initial Weight/Volume:	0.60 g
Analysis Date:	04/18/2016 0758	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	04/18/2016 0416				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	12.3	12.30	100.0	71.5 - 128.5	

### Matrix Spike - Batch: 460-363043

**Method: 7471B**  
**Preparation: 7471B**

Lab Sample ID:	460-112128-A-1-F MS	Analysis Batch:	460-363133	Instrument ID:	LEEMAN5
Client Matrix:	Solid	Prep Batch:	460-363043	Lab File ID:	363043HG1.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.65 g
Analysis Date:	04/18/2016 0804	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	04/18/2016 0416				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.018 U	0.0884	0.0991	112	75 - 125	

## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

**Duplicate - Batch: 460-363043**

**Method: 7471B**

**Preparation: 7471B**

Lab Sample ID: 460-112128-A-1-E DU  
Client Matrix: Solid  
Dilution: 1.0  
Analysis Date: 04/18/2016 0802  
Prep Date: 04/18/2016 0416  
Leach Date: N/A

Analysis Batch: 460-363133  
Prep Batch: 460-363043  
Leach Batch: N/A  
Units: mg/Kg

Instrument ID: LEEMAN5  
Lab File ID: 363043HG1.PRN  
Initial Weight/Volume: 0.65 g  
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Mercury	0.018	U	0.018	NC	20	U

## Quality Control Results

Client: New York State D.E.C.

Job Number: 460-112213-1

**Duplicate - Batch: 460-362808**

**Method: Moisture  
Preparation: N/A**

Lab Sample ID:	460-112162-A-1 DU	Analysis Batch:	460-362808	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	04/15/2016 1606	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	17.2	16.9	2	20	
Percent Solids	82.8	83.1	0.4	20	



# TestAmerica

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## CHAIN OF CUS

460-112213 Chain of Custody



777 New Durham Road  
Edison, New Jersey 08817  
Phone: (732) 549-3900 Fax: (732) 549-3679

Page 1 of 1

Name (for report and invoice)		Company		Address		City		State		Zip		Phone		Fax		EPA Method		Job No:		Project No:	
IAN HOFMANN		EPA Environmental Assessment		225 ATLANTIC AVENUE		PATRICKSON		NY		11222		631-447-6400		631-447-6497		8260 VOCs		112213			
P.O. #		Analysis Turnaround Time		Rush Charges Authorized For:		Standard		1 Week		2 Week		Other		24 HR		EPA METHOD 8260 VOCs					
SALES E130150		Standard		1 Week		2 Week		Other		24 HR		EPA METHOD 8260 VOCs		EPA METHOD 8260 VOCs		EPA METHOD 8260 VOCs					
Site/Project Identification		State (Location of site):		Regulatory Program:		DKOP:		LAB USE ONLY		Project No:											
DEE-ELMONT 546		NJ		NJDEP		Other															
Sample Identification		Date		Time		Matrix		No. of Cont.		EPA METHOD		8260 VOCs		EPA METHOD 8260 VOCs		EPA METHOD 8260 VOCs					
BISSET FIVE TSPSOL		4/14/16		1025		S		5		EPA METHOD 8260 VOCs		8260 VOCs		8260 VOCs		8260 VOCs					
Preservation Used:		1 = ICE, 2 = HCl, 3 = H <sub>2</sub> SO <sub>4</sub> , 4 = HNO <sub>3</sub> , 5 = NaOH		Soil:		Water:															
Special Instructions		CAREGIVER A		DECONTAMINATE: BY 8070 FOUR TAR																	
Relinquished by		Company		Date / Time		Received by		Company		Water Metals Filtered (Yes/No)?											
E.A.R.		E.A.R.		4/15/16 11:20		E.A.R.		E.A.R.													
Relinquished by		Company		Date / Time		Received by		Company													
I.H.		I.H.		4/15/16 15:30		I.H.		I.H.													
Relinquished by		Company		Date / Time		Received by		Company													
Company		Company		Date / Time		Received by		Company													
Company		Company		Date / Time		Received by		Company													

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RAW		CONNECTED		RAW		CONNECTED		RAW		CONNECTED		
Cooler #1:	12.0°C	22.0°C			Cooler #4:		°C			Cooler #7:		°C
Cooler #2:		°C		°C	Cooler #5:		°C		°C	Cooler #8:		°C
Cooler #3:		°C		°C	Cooler #6:		°C		°C	Cooler #9:		°C

RAW		CONNECTED		RAW		CONNECTED		RAW		CONNECTED		
Cooler #1:	12.0°C	22.0°C			Cooler #4:		°C			Cooler #7:		°C
Cooler #2:		°C		°C	Cooler #5:		°C		°C	Cooler #8:		°C
Cooler #3:		°C		°C	Cooler #6:		°C		°C	Cooler #9:		°C

[illegible]

**Sample No(s).-adjusted:**

Preservative Name/Conc.:

**Volume of Preservative used (ml):**

**Lot # of Preservative(s):**

**Expiration Date:**

*The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.*

**Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.**

EDS-M-038, Rev 4, 06/09/2014

**Initials:**

Date:

## Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 460-112213-1

**Login Number: 112213**  
**List Number: 1**  
**Creator: Rivera, Kenneth**

**List Source: TestAmerica Edison**

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.2°C, IR #6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.