OSPREY ENVIRONMENTAL ENGINEERING, LLC.
146 EAST MAIN STREET . CLINTON, CT 06413
PHONE: 860.669.8651

Mr. Scott Bartlett, Superintendent, Director of Public Works Operations
Fairfield Department of Public Works
725 Old Post Road
Fairfield, CT 06824

11 May 2018

Re: Air Sampling During Earth Moving Activities
Aggregate Recycling Yard Berm Project, Fairfield, CT
Collection date: 03 May 2018

Per your request samples were collected from the area downwind of earth moving activities at the above referenced location. Air samples were collected over a 5.3-hour period from 11:08 am to 4:28 pm. Sample containers (glass ampoules containing sorbent materials and glass filter cassettes) were supplied by York Analytical Laboratory. Samples were collected using personal monitoring pumps with flow rates ranging from 2.4 to 2.9 ml/minute depending on the media being used. Flow rates were calibrated using a Mesalabs Defender 510 air calibration unit. The samples were submitted to York for CT DEP ETPH Method, lead and arsenic for 40 CFR 50 App. G Method, and PCBs for EPA Method TO-4/TO-10A/TO-13. The following is a summary of results.

Parameter → ***Concentration (mg/m^3)*** **↓**	*** PEL**	**Sample Result**
PCBs	0.50	ND<0.000962
ETPH	NE	ND<1.29
Arsenic	0.01	ND<0.0002
Lead	0.05	ND<0.00015

*ND = not detected above analytical threshold NE = not established * Reference for PCB PEL is OSHA, Arsenic & lead are NIOSH*

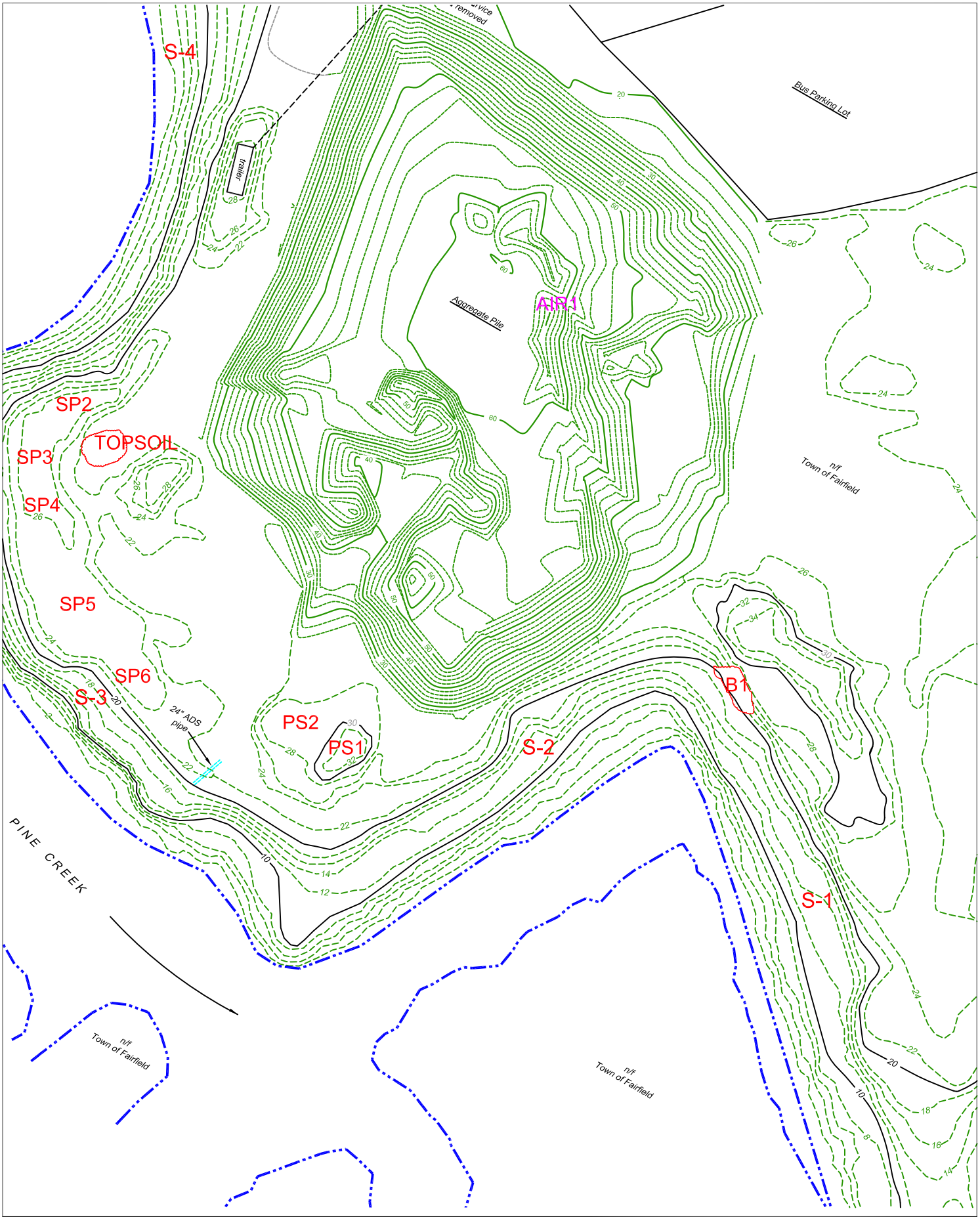
Note: lab results are in ug/m^3 and air standards are in mg/m^3 (1 ug/m3 = 0.001 mg/m^3) . Lab values have been converted to mg/m^3 .

All air results were below applicable Permissible Exposure Limits, where standards have been established.

Should you have any questions regarding the above, please contact me.

Sincerely,
Osprey Environmental Engineering, LLC.

Robert Grabarek, P.E., L.S., LEP
President



A–4

AGGREGATE YARD SOIL SAMPLES
DEPARTMENT OF PUBLIC WORKS FACILITY
90 ROD HIGHWAY, FAIRFIELD, CT

OSPREY
ENVIRONMENTAL ENGINEERING, LLC
146 East Main Street
Clinton, CT 06413
Phone (860) 669-8651

DRAWN BY: RJC
SCALE: 1"=100'
DATE: 05.011.18
REVISIONS:

Technical Report

prepared for:

Osprey Environmental Eng., LLC
146 East Main Street
Clinton CT, 06413-2133
Attention: R. Grabarek

Report Date: 05/11/2018
Client Project ID: FF AY
York Project (SDG) No.: 18E0213

Report Date: 05/11/2018
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Osprey Environmental Eng., LLC
146 East Main Street
Clinton CT, 06413-2133
Attention: R. Grabarek

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on May 03, 2018 and listed below. The project was identified as your project: **FF AY**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
18E0213-01	FAY ETPH	Air	05/03/2018	05/03/2018
18E0213-02	FAY Pb As	Air	05/03/2018	05/03/2018
18E0213-03	FAY PCB	Air	05/03/2018	05/03/2018

General Notes for York Project (SDG) No.: 18E0213

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By: 

Date: 05/11/2018

Benjamin Gulizia
Laboratory Director

Sample Information

Client Sample ID: FAY ETPH **York Sample ID:** 18E0213-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18E0213	FF AY	Air	May 3, 2018 3:00 pm	05/03/2018

Extractable Total Petroleum Hydrocarbons (ETPH)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: PREP of Air Media Tubes for PCB/PEST

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
CT ETPH	ETPH (Extractable Total Petroleum Hydrocarbons)	ND		ug/m³	1290	1	CT DEP ETPH Certifications:	05/09/2018 12:12	05/10/2018 05:10	LAB

	Surrogate Recoveries	Result	Acceptance Range
3386-33-2	*Surrogate: 1-Chlorooctadecane*	*51.0 %*	*50-150*

Sample Information

Client Sample ID: FAY Pb As **York Sample ID:** 18E0213-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18E0213	FF AY	Air	May 3, 2018 3:00 pm	05/03/2018

Arsenic, Air Filter Media

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Air Filter Media Digestion-Metals

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		ug/m³	0.2000	1	40 CFR 50 App. G Certifications:	05/09/2018 09:41	05/10/2018 13:06	KML

Lead, Air filter media

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Air Filter Media Digestion-Metals

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	ND		ug/m³	0.1500	1	40 CFR 50 App. G Certifications:	05/09/2018 09:41	05/10/2018 13:06	KML

Sample Information

Client Sample ID: FAY PCB **York Sample ID:** 18E0213-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18E0213	FF AY	Air	May 3, 2018 3:00 pm	05/03/2018

Polychlorinated Biphenyls(PCB) in AIR

Log-in Notes:

Sample Notes:

Sample Prepared by Method: PREP of Air Media Tubes for PCB/PEST

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst

Sample Information

Client Sample ID: FAY PCB

York Sample ID: 18E0213-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18E0213	FF AY	Air	May 3, 2018 3:00 pm	05/03/2018

Polychlorinated Biphenyls(PCB) in AIR

Log-in Notes:

Sample Notes:

Sample Prepared by Method: PREP of Air Media Tubes for PCB/PEST

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		ug/m³	0.962	0.962	1	EPA TO-4/TO-10A/TO-13 Certifications:	05/09/2018 04:35	05/09/2018 18:22	LAB
11104-28-2	Aroclor 1221	ND		ug/m³	0.962	0.962	1	EPA TO-4/TO-10A/TO-13 Certifications:	05/09/2018 04:35	05/09/2018 18:22	LAB
11141-16-5	Aroclor 1232	ND		ug/m³	0.962	0.962	1	EPA TO-4/TO-10A/TO-13 Certifications:	05/09/2018 04:35	05/09/2018 18:22	LAB
53469-21-9	Aroclor 1242	ND		ug/m³	0.962	0.962	1	EPA TO-4/TO-10A/TO-13 Certifications:	05/09/2018 04:35	05/09/2018 18:22	LAB
12672-29-6	Aroclor 1248	ND		ug/m³	0.962	0.962	1	EPA TO-4/TO-10A/TO-13 Certifications:	05/09/2018 04:35	05/09/2018 18:22	LAB
11097-69-1	Aroclor 1254	ND		ug/m³	0.962	0.962	1	EPA TO-4/TO-10A/TO-13 Certifications:	05/09/2018 04:35	05/09/2018 18:22	LAB
11096-82-5	Aroclor 1260	ND		ug/m³	0.962	0.962	1	EPA TO-4/TO-10A/TO-13 Certifications:	05/09/2018 04:35	05/09/2018 18:22	LAB

	Surrogate Recoveries	Result	Acceptance Range
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*88.1 %*	*30-150*
2051-24-3	*Surrogate: Decachlorobiphenyl*	*110 %*	*30-150*

Sample and Data Qualifiers Relating to This Work Order

Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

York Analytical Laboratories, Inc.
120 Research Drive, Stratford, CT 06615
132-02 89th Ave Queens, NY 11418
clientservices@yorklab.com
www.yorklab.com

Field Chain-of-Custody Record - AIR

YORK Project No. 18E0213

NOTE: YORK's Standard Terms & Conditions are listed on the back side of this document. This document serves as your written authorization for YORK to proceed with the analyses requested below. Your signature binds you to YORK's Standard Terms & Conditions.

YOUR Information	Report To:	Invoice To:	YOUR Project Number	Turn-Around Time
Company: OSIRIS	Company: R GRABARZ	Company: OSIRIS	FF	RUSH - Next Day
Address:	Address:	Address:	YOUR Project Name: AY	RUSH - Two Day X
Phone:	Phone:	Phone:		RUSH - Three Day
Contact:	Contact:	Contact:		RUSH - Four Day
E-mail:	E-mail:	E-mail:	YOUR PO#:	Standard (5-7 Day)

Please print clearly and legibly. All information must be complete. Samples will not be logged in and the turn-around-time clock will not begin until any questions by YORK are resolved.

Samples Collected by: (print your name above and sign below)

Air Matrix Codes

- AI - Indoor Ambient Air
- AO - Outdoor Amb. Air
- AE - Vapor Extraction Well/ Process Gas/Effluent
- AS - Soil Vapor/Sub-Slab

Samples From

- New York
- New Jersey
- Connecticut
- Pennsylvania
- Other

Report / EDD Type (circle selections)

Summary Report	CT RCP	Standard Excel EDD
QA Report	CT RCP DQA/DUE	EQuIS (Standard)
NY ASP A Package	NJDEP Reduced Deliv.	NYSDEC EQuIS
NY ASP B Package	NJDKQP	NJDEP SRP HazSite
Other:		

YORK Reg. Comp.

Compared to the following Regulation(s): (please fill in)

Certified Canisters: Batch ___ Individual ___

Please enter the following REQUIRED Field Data

Reporting Units: ug/m³ ___ ppbv ___ ppmv ___

Sample Identification	Date/Time Sampled	Air Matrix	Canister Vacuum Before Sampling (in Hg)	Canister Vacuum After Sampling (in Hg)	Canister ID	Flow Cont. ID	Analysis Requested
FAY ETPH	5/3/18		5 Hours	20 min	Flow	2.9 l/m	ETPH
FAY PB AS						2.4	PB AS
FAY PCB						2 l/m	PCBs

Comments:

Detection Limits Required

≤ 1 ug/m³ ____ NYSDEC V1 Limits ____

Routine Survey ____ Other ____

Sampling Media

- 6 Liter Canister
- Tedlar Bag

Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time
Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time
Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Received in LAB by	Date/Time
				TC	5/3/18 1730