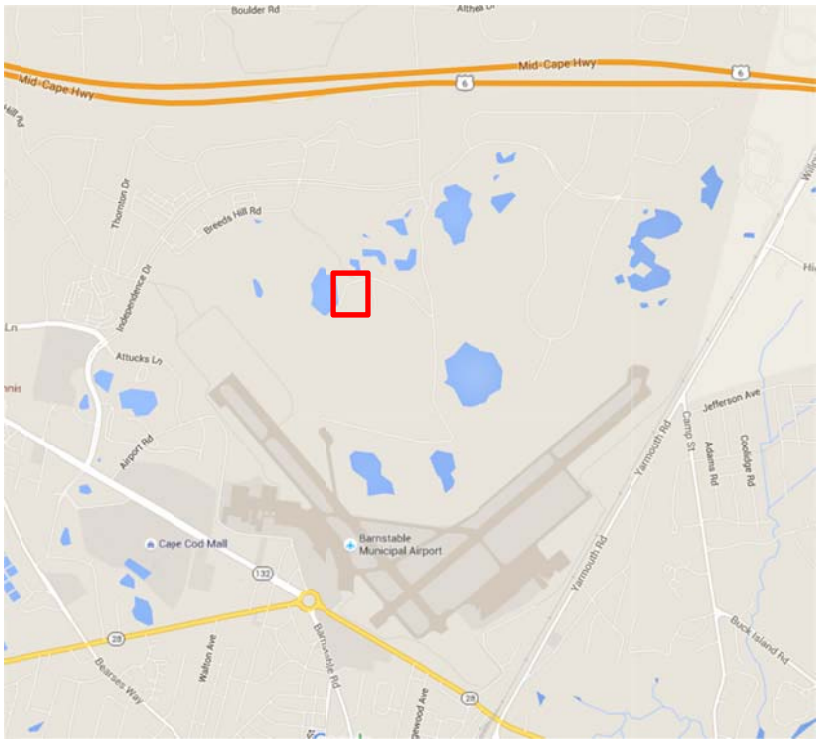
DESCRIPTION / SOURCE OF RELEASE:

The Barnstable County Fire Training Academy has been in use since the 1950's. The site has been the subject of a continuous cleanup program under the MCP. Recently the presence of Perfluorinated compounds has been identified at the site and in groundwater. While there is a broad are of low level soil contamination, this soil removal project is targeted to a PFC hot spot initially identified in April 2015. The hot spot is the source of high PFOS concentrations in groundwater. The highest initial concentration was 4.9 mg/kg in soil. Twenty soil samples indicated a range of 2.0 mg/kg to 0.011 mg/kg with an average of 0.41 mg/kg. There is no federal or state regulatory limit for PFC or specifically PFOS, in soil. Minnesota and Norwegian agencies have established a cleanup level of 6 mg/kg. The source of the release is Aqueous film forming foam (AFFF) that contains PFC and specifically PFOS. The soil proposed for removal has a small 10 x2 ft sump that receives runoff from the fire training academy. The depth to groundwater is approximately 12 ft. Detailed soil boring and sampling was conducted in January 2016 to determine the extent of soil contamination for removal. This contaminate has no visual or olfactory distinction. The extent of contamination can only be determined by laboratory analysis. Each analysis cost $400 on the open laboratory market. The soil investigation included 20 soil samples. A single grab samples was taken for the required suite of analyses required by the Bourne facility for typical soil contaminants including VOC, SVOC, PCP, TPH and metals. The results of the investigation are described below.

LOCUS OF SITE



SITE DIAGRAM:

Area to be excavated. Approximately 20 x 20 x10 ft

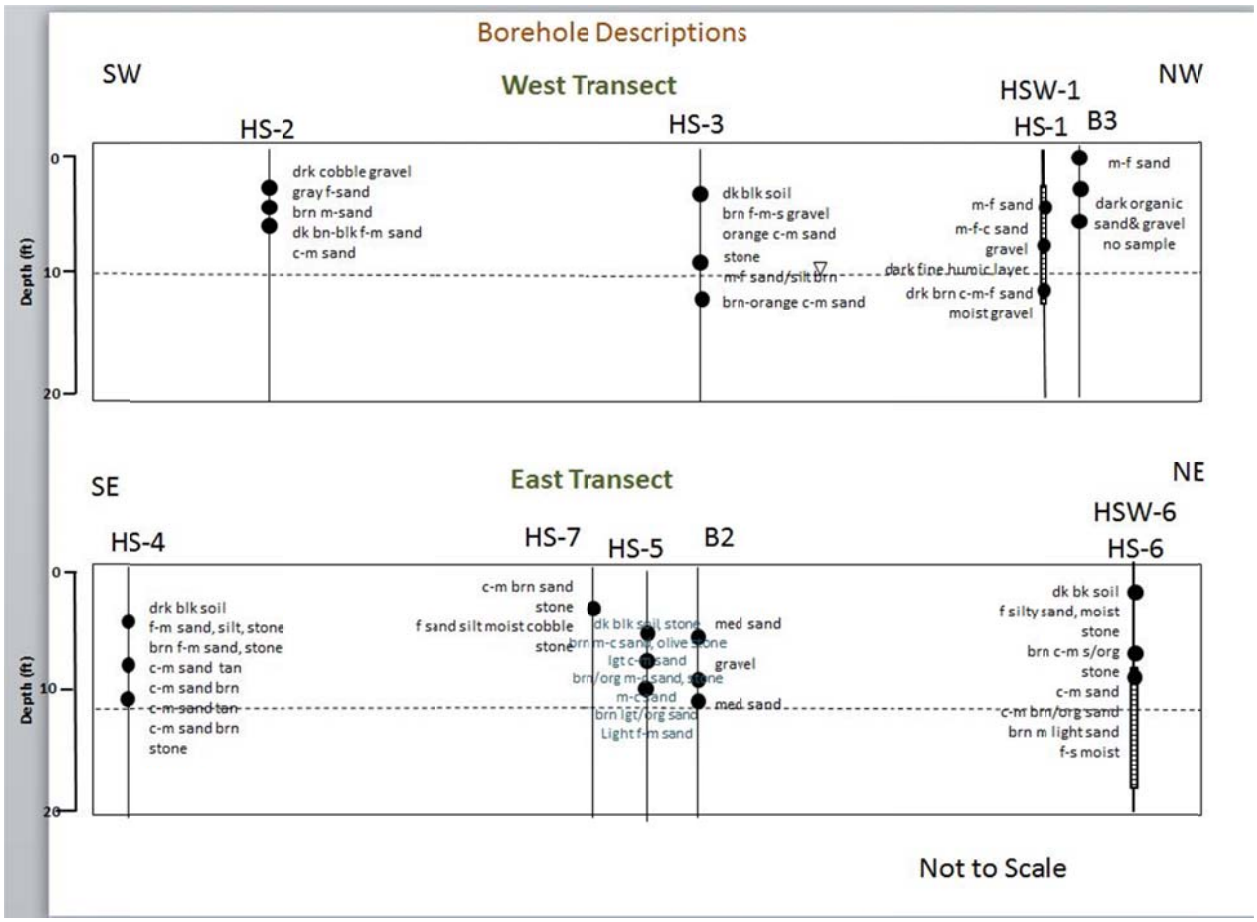
The surface is covered by pavement that could be included or removed from the excavated soil. The soil grades from silty medium sand to coarse to medium sand with gravel and some cobble.

Statistics for PFOS and PFOA laboratory results from 20 soil samples for Perfluorinated Compounds

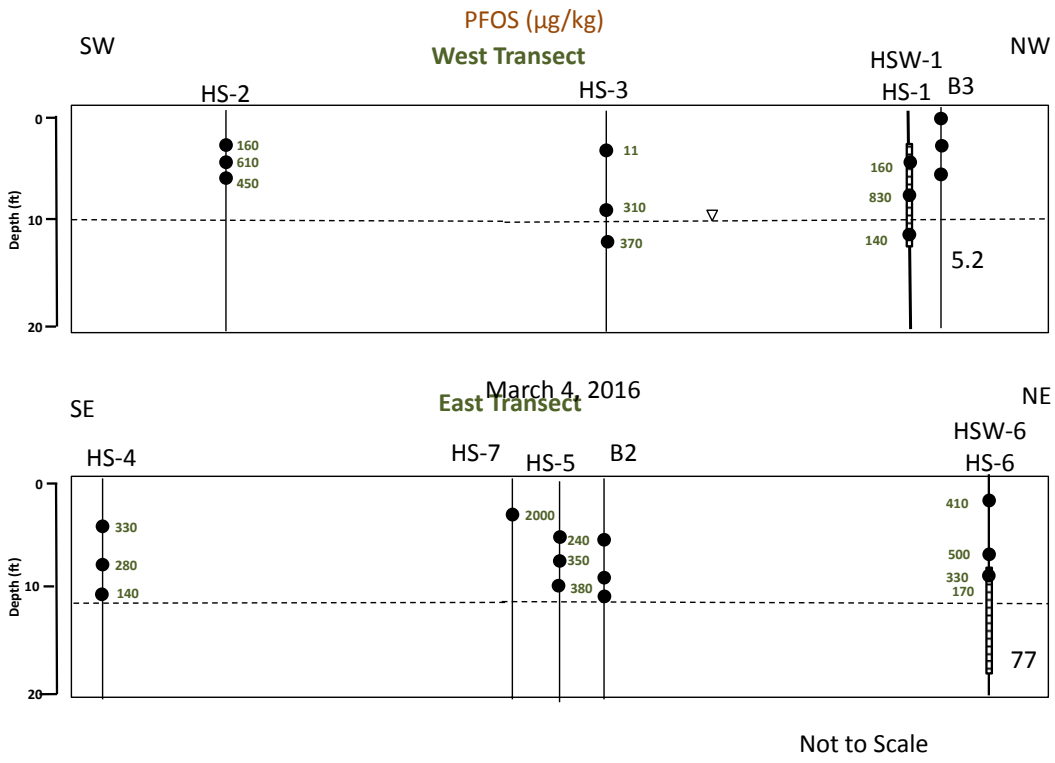
Compound	Max Concentration	Min Concentration	Average Concentration
PFOS	2000.0	330.0	408.6
PFOA	3.7	0.32	0.54

Laboratory Results for 16 Perfluorinated Compounds in soil samples is attached.

Cross Sections of Hot Spot Soil investigation showing material characterization



Cross Section of Hot Spot Soil investigation showing PFOS concentrations in ug/l at different levels



Soil Borings available on request

Flagged site for soil investigation

Power Probe for Investigation

Continuous Soil Cores for sampling

ANALYTICAL REPORT

Lab Number:	L1601889
Client:	Barnstable County Lab 3225 Main Street Barnstable, MA 02630
ATTN:	Tom Cambareri
Phone:	(508) 362-3828
Project Name:	BFTA
Project Number:	Not Specified
Report Date:	01/29/16

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), VA (460195), MD (348), IL (200077), NC (666), TX (T104704476), DOD (L2217), USDA (Permit #P-330-11-00240).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: BFTA
Project Number: Not Specified

Lab Number: L1601889
Report Date: 01/29/16

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1601889-01	HS-3	SOIL	BARNSTABLE	01/21/16 11:20	01/22/16

Project Name: BFTA
Project Number: Not Specified

Lab Number: L1601889
Report Date: 01/29/16

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: BFTA
Project Number: Not Specified

Lab Number: L1601889
Report Date: 01/29/16

Case Narrative (continued)

Report Submission

The requested analyses were provided by the client.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Cristin Walker

Title: Technical Director/Representative Date: 01/29/16

ORGANICS

VOLATILES

Project Name: BFTA
Project Number: Not Specified
Lab Number: L1601889
Report Date: 01/29/16

SAMPLE RESULTS

Lab ID: L1601889-01
Client ID: HS-3
Sample Location: BARNSTABLE
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 01/26/16 14:57
Analyst: BN
Percent Solids: 95%

Date Collected: 01/21/16 11:20
Date Received: 01/22/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
Methylene chloride	ND		ug/kg	10	--	1
1,1-Dichloroethane	ND		ug/kg	1.6	--	1
Chloroform	ND		ug/kg	1.6	--	1
Carbon tetrachloride	ND		ug/kg	1.0	--	1
1,2-Dichloropropane	ND		ug/kg	3.7	--	1
Dibromochloromethane	ND		ug/kg	1.0	--	1
1,1,2-Trichloroethane	ND		ug/kg	1.6	--	1
Tetrachloroethene	ND		ug/kg	1.0	--	1
Chlorobenzene	ND		ug/kg	1.0	--	1
Trichlorofluoromethane	ND		ug/kg	5.3	--	1
1,2-Dichloroethane	ND		ug/kg	1.0	--	1
1,1,1-Trichloroethane	ND		ug/kg	1.0	--	1
Bromodichloromethane	ND		ug/kg	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	--	1
cis-1,3-Dichloropropene	ND		ug/kg	1.0	--	1
1,3-Dichloropropene, Total	ND		ug/kg	1.0	--	1
1,1-Dichloropropene	ND		ug/kg	5.3	--	1
Bromoform	ND		ug/kg	4.2	--	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	--	1
Benzene	ND		ug/kg	1.0	--	1
Toluene	ND		ug/kg	1.6	--	1
Ethylbenzene	ND		ug/kg	1.0	--	1
Chloromethane	ND		ug/kg	5.3	--	1
Bromomethane	ND		ug/kg	2.1	--	1
Vinyl chloride	ND		ug/kg	2.1	--	1
Chloroethane	ND		ug/kg	2.1	--	1
1,1-Dichloroethene	ND		ug/kg	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	--	1
Trichloroethene	ND		ug/kg	1.0	--	1
1,2-Dichlorobenzene	ND		ug/kg	5.3	--	1

Project Name: BFTA **Lab Number:** L1601889

Project Number: Not Specified **Report Date:** 01/29/16

SAMPLE RESULTS

Lab ID: L1601889-01 Date Collected: 01/21/16 11:20

Client ID: HS-3 Date Received: 01/22/16

Sample Location: BARNSTABLE Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	5.3	--	1
1,4-Dichlorobenzene	ND		ug/kg	5.3	--	1
Methyl tert butyl ether	ND		ug/kg	2.1	--	1
p/m-Xylene	ND		ug/kg	2.1	--	1
o-Xylene	ND		ug/kg	2.1	--	1
Xylenes, Total	ND		ug/kg	2.1	--	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	--	1
1,2-Dichloroethene, Total	ND		ug/kg	1.0	--	1
Dibromomethane	ND		ug/kg	10	--	1
1,4-Dichlorobutane	ND		ug/kg	10	--	1
1,2,3-Trichloropropane	ND		ug/kg	10	--	1
Styrene	ND		ug/kg	2.1	--	1
Dichlorodifluoromethane	ND		ug/kg	10	--	1
Acetone	ND		ug/kg	38	--	1
Carbon disulfide	ND		ug/kg	10	--	1
2-Butanone	ND		ug/kg	10	--	1
Vinyl acetate	ND		ug/kg	10	--	1
4-Methyl-2-pentanone	ND		ug/kg	10	--	1
2-Hexanone	ND		ug/kg	10	--	1
Ethyl methacrylate	ND		ug/kg	10	--	1
Acrylonitrile	ND		ug/kg	4.2	--	1
Bromochloromethane	ND		ug/kg	5.3	--	1
Tetrahydrofuran	ND		ug/kg	21	--	1
2,2-Dichloropropane	ND		ug/kg	5.3	--	1
1,2-Dibromoethane	ND		ug/kg	4.2	--	1
1,3-Dichloropropane	ND		ug/kg	5.3	--	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	--	1
Bromobenzene	ND		ug/kg	5.3	--	1
n-Butylbenzene	ND		ug/kg	1.0	--	1
sec-Butylbenzene	ND		ug/kg	1.0	--	1
tert-Butylbenzene	ND		ug/kg	5.3	--	1
o-Chlorotoluene	ND		ug/kg	5.3	--	1
p-Chlorotoluene	ND		ug/kg	5.3	--	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.3	--	1
Hexachlorobutadiene	ND		ug/kg	5.3	--	1
Isopropylbenzene	ND		ug/kg	1.0	--	1
p-Isopropyltoluene	ND		ug/kg	1.0	--	1
Naphthalene	ND		ug/kg	5.3	--	1
n-Propylbenzene	ND		ug/kg	1.0	--	1

Project Name: BFTA **Lab Number:** L1601889

Project Number: Not Specified **Report Date:** 01/29/16

SAMPLE RESULTS

Lab ID: L1601889-01 Date Collected: 01/21/16 11:20

Client ID: HS-3 Date Received: 01/22/16

Sample Location: BARNSTABLE Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-5035 - Westborough Lab						
1,2,3-Trichlorobenzene	ND		ug/kg	5.3	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.3	--	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.3	--	1
1,2,4-Trimethylbenzene	ND		ug/kg	5.3	--	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.3	--	1
Ethyl ether	ND		ug/kg	5.3	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	103		70-130

Project Name: BFTA
Project Number: Not Specified

Lab Number: L1601889
Report Date: 01/29/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/26/16 09:03
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-5035 - Westborough Lab for sample(s): 01 Batch: WG860389-3					
Methylene chloride	ND		ug/kg	10	--
1,1-Dichloroethane	ND		ug/kg	1.5	--
Chloroform	ND		ug/kg	1.5	--
Carbon tetrachloride	ND		ug/kg	1.0	--
1,2-Dichloropropane	ND		ug/kg	3.5	--
Dibromochloromethane	ND		ug/kg	1.0	--
1,1,2-Trichloroethane	ND		ug/kg	1.5	--
2-Chloroethylvinyl ether	ND		ug/kg	20	--
Tetrachloroethene	ND		ug/kg	1.0	--
Chlorobenzene	ND		ug/kg	1.0	--
Trichlorofluoromethane	ND		ug/kg	5.0	--
1,2-Dichloroethane	ND		ug/kg	1.0	--
1,1,1-Trichloroethane	ND		ug/kg	1.0	--
Bromodichloromethane	ND		ug/kg	1.0	--
trans-1,3-Dichloropropene	ND		ug/kg	1.0	--
cis-1,3-Dichloropropene	ND		ug/kg	1.0	--
1,3-Dichloropropene, Total	ND		ug/kg	1.0	--
1,1-Dichloropropene	ND		ug/kg	5.0	--
Bromoform	ND		ug/kg	4.0	--
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	--
Benzene	ND		ug/kg	1.0	--
Toluene	ND		ug/kg	1.5	--
Ethylbenzene	ND		ug/kg	1.0	--
Chloromethane	ND		ug/kg	5.0	--
Bromomethane	ND		ug/kg	2.0	--
Vinyl chloride	ND		ug/kg	2.0	--
Chloroethane	ND		ug/kg	2.0	--
1,1-Dichloroethene	ND		ug/kg	1.0	--
trans-1,2-Dichloroethene	ND		ug/kg	1.5	--

Project Name: BFTA
Project Number: Not Specified

Lab Number: L1601889
Report Date: 01/29/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/26/16 09:03
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-5035 - Westborough Lab for sample(s): 01 Batch: WG860389-3					
Trichloroethene	ND		ug/kg	1.0	--
1,2-Dichlorobenzene	ND		ug/kg	5.0	--
1,3-Dichlorobenzene	ND		ug/kg	5.0	--
1,4-Dichlorobenzene	ND		ug/kg	5.0	--
Methyl tert butyl ether	ND		ug/kg	2.0	--
p/m-Xylene	ND		ug/kg	2.0	--
o-Xylene	ND		ug/kg	2.0	--
Xylenes, Total	ND		ug/kg	2.0	--
cis-1,2-Dichloroethene	ND		ug/kg	1.0	--
1,2-Dichloroethene, Total	ND		ug/kg	1.0	--
Dibromomethane	ND		ug/kg	10	--
1,4-Dichlorobutane	ND		ug/kg	10	--
1,2,3-Trichloropropane	ND		ug/kg	10	--
Styrene	ND		ug/kg	2.0	--
Dichlorodifluoromethane	ND		ug/kg	10	--
Acetone	ND		ug/kg	36	--
Carbon disulfide	ND		ug/kg	10	--
2-Butanone	ND		ug/kg	10	--
Vinyl acetate	ND		ug/kg	10	--
4-Methyl-2-pentanone	ND		ug/kg	10	--
2-Hexanone	ND		ug/kg	10	--
Ethyl methacrylate	ND		ug/kg	10	--
Acrolein	ND		ug/kg	25	--
Acrylonitrile	ND		ug/kg	4.0	--
Bromochloromethane	ND		ug/kg	5.0	--
Tetrahydrofuran	ND		ug/kg	20	--
2,2-Dichloropropane	ND		ug/kg	5.0	--
1,2-Dibromoethane	ND		ug/kg	4.0	--
1,3-Dichloropropane	ND		ug/kg	5.0	--

Project Name: BFTA
Project Number: Not Specified

Lab Number: L1601889
Report Date: 01/29/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/26/16 09:03
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-5035 - Westborough Lab for sample(s): 01 Batch: WG860389-3					
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	--
Bromobenzene	ND		ug/kg	5.0	--
n-Butylbenzene	ND		ug/kg	1.0	--
sec-Butylbenzene	ND		ug/kg	1.0	--
tert-Butylbenzene	ND		ug/kg	5.0	--
1,3,5-Trichlorobenzene	ND		ug/kg	4.0	--
o-Chlorotoluene	ND		ug/kg	5.0	--
p-Chlorotoluene	ND		ug/kg	5.0	--
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.0	--
Hexachlorobutadiene	ND		ug/kg	5.0	--
Isopropylbenzene	ND		ug/kg	1.0	--
p-Isopropyltoluene	ND		ug/kg	1.0	--
Naphthalene	ND		ug/kg	5.0	--
n-Propylbenzene	ND		ug/kg	1.0	--
1,2,3-Trichlorobenzene	ND		ug/kg	5.0	--
1,2,4-Trichlorobenzene	ND		ug/kg	5.0	--
1,3,5-Trimethylbenzene	ND		ug/kg	5.0	--
1,2,4-Trimethylbenzene	ND		ug/kg	5.0	--
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	--
Ethyl ether	ND		ug/kg	5.0	--
Methyl Acetate	ND		ug/kg	20	--
Ethyl Acetate	ND		ug/kg	20	--
Isopropyl Ether	ND		ug/kg	4.0	--
Cyclohexane	ND		ug/kg	20	--
Tert-Butyl Alcohol	ND		ug/kg	100	--
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.0	--
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.0	--
1,4-Dioxane	ND		ug/kg	100	--
Methyl cyclohexane	ND		ug/kg	4.0	--

Project Name: BFTA
Project Number: Not Specified

Lab Number: L1601889
Report Date: 01/29/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/26/16 09:03
Analyst: BN

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-5035 - Westborough Lab for sample(s): 01 Batch: WG860389-3					
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/kg	20	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	98		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: BFTA
Project Number: Not Specified

Lab Number: L1601889
Report Date: 01/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-5035 - Westborough Lab Associated sample(s): 01 Batch: WG860389-1 WG860389-2								
Methylene chloride	92		96		70-130	4		30
1,1-Dichloroethane	102		105		70-130	3		30
Chloroform	100		104		70-130	4		30
Carbon tetrachloride	109		109		70-130	0		30
1,2-Dichloropropane	99		102		70-130	3		30
Dibromochloromethane	96		100		70-130	4		30
1,1,2-Trichloroethane	96		101		70-130	5		30
2-Chloroethylvinyl ether	80		84		70-130	5		30
Tetrachloroethene	106		108		70-130	2		30
Chlorobenzene	102		105		70-130	3		30
Trichlorofluoromethane	95		92		70-139	3		30
1,2-Dichloroethane	99		104		70-130	5		30
1,1,1-Trichloroethane	109		110		70-130	1		30
Bromodichloromethane	99		103		70-130	4		30
trans-1,3-Dichloropropene	99		103		70-130	4		30
cis-1,3-Dichloropropene	100		102		70-130	2		30
1,1-Dichloropropene	108		109		70-130	1		30
Bromoform	92		98		70-130	6		30
1,1,2,2-Tetrachloroethane	95		99		70-130	4		30
Benzene	102		104		70-130	2		30
Toluene	99		103		70-130	4		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: BFTA
Project Number: Not Specified

Lab Number: L1601889
Report Date: 01/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-5035 - Westborough Lab Associated sample(s): 01 Batch: WG860389-1 WG860389-2								
Ethylbenzene	102		106		70-130	4		30
Chloromethane	109		107		52-130	2		30
Bromomethane	105		102		57-147	3		30
Vinyl chloride	106		107		67-130	1		30
Chloroethane	98		97		50-151	1		30
1,1-Dichloroethene	106		108		65-135	2		30
trans-1,2-Dichloroethene	102		104		70-130	2		30
Trichloroethene	104		106		70-130	2		30
1,2-Dichlorobenzene	99		103		70-130	4		30
1,3-Dichlorobenzene	102		104		70-130	2		30
1,4-Dichlorobenzene	102		104		70-130	2		30
Methyl tert butyl ether	93		99		66-130	6		30
p/m-Xylene	102		106		70-130	4		30
o-Xylene	101		105		70-130	4		30
cis-1,2-Dichloroethene	98		102		70-130	4		30
Dibromomethane	99		101		70-130	2		30
1,4-Dichlorobutane	103		106		70-130	3		30
1,2,3-Trichloropropane	100		102		68-130	2		30
Styrene	103		107		70-130	4		30
Dichlorodifluoromethane	119		119		30-146	0		30
Acetone	103		110		54-140	7		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: BFTA
Project Number: Not Specified

Lab Number: L1601889
Report Date: 01/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-5035 - Westborough Lab Associated sample(s): 01 Batch: WG860389-1 WG860389-2								
Carbon disulfide	107		104		59-130	3		30
2-Butanone	98		97		70-130	1		30
Vinyl acetate	97		102		70-130	5		30
4-Methyl-2-pentanone	85		88		70-130	3		30
2-Hexanone	88		92		70-130	4		30
Ethyl methacrylate	90		95		70-130	5		30
Acrolein	98		98		70-130	0		30
Acrylonitrile	101		105		70-130	4		30
Bromochloromethane	101		108		70-130	7		30
Tetrahydrofuran	93		92		66-130	1		30
2,2-Dichloropropane	111		113		70-130	2		30
1,2-Dibromoethane	95		99		70-130	4		30
1,3-Dichloropropane	98		102		69-130	4		30
1,1,1,2-Tetrachloroethane	100		102		70-130	2		30
Bromobenzene	98		102		70-130	4		30
n-Butylbenzene	113		113		70-130	0		30
sec-Butylbenzene	109		110		70-130	1		30
tert-Butylbenzene	104		106		70-130	2		30
1,3,5-Trichlorobenzene	105		108		70-139	3		30
o-Chlorotoluene	107		107		70-130	0		30
p-Chlorotoluene	105		107		70-130	2		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: BFTA
Project Number: Not Specified

Lab Number: L1601889
Report Date: 01/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-5035 - Westborough Lab Associated sample(s): 01 Batch: WG860389-1 WG860389-2								
1,2-Dibromo-3-chloropropane	92		95		68-130	3		30
Hexachlorobutadiene	111		111		67-130	0		30
Isopropylbenzene	104		106		70-130	2		30
p-Isopropyltoluene	106		109		70-130	3		30
Naphthalene	93		97		70-130	4		30
n-Propylbenzene	106		108		70-130	2		30
1,2,3-Trichlorobenzene	100		105		70-130	5		30
1,2,4-Trichlorobenzene	101		105		70-130	4		30
1,3,5-Trimethylbenzene	106		108		70-130	2		30
1,2,4-Trimethylbenzene	104		107		70-130	3		30
trans-1,4-Dichloro-2-butene	100		103		70-130	3		30
Halothane	107		111		70-130	4		20
Ethyl ether	88		92		67-130	4		30
Methyl Acetate	97		101		65-130	4		30
Ethyl Acetate	95		100		70-130	5		30
Isopropyl Ether	97		102		66-130	5		30
Cyclohexane	114		115		70-130	1		30
Tert-Butyl Alcohol	92		98		70-130	6		30
Ethyl-Tert-Butyl-Ether	96		100		70-130	4		30
Tertiary-Amyl Methyl Ether	95		100		70-130	5		30
1,4-Dioxane	87		92		65-136	6		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: BFTA

Project Number: Not Specified

Lab Number: L1601889

Report Date: 01/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-5035 - Westborough Lab Associated sample(s): 01 Batch: WG860389-1 WG860389-2								
Methyl cyclohexane	111		112		70-130	1		30
1,1,2-Trichloro-1,2,2-Trifluoroethane	114		114		70-130	0		30
1,4-Diethylbenzene	106		108		70-130	2		30
4-Ethyltoluene	105		107		70-130	2		30
1,2,4,5-Tetramethylbenzene	98		102		70-130	4		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	101		100		70-130
Toluene-d8	100		101		70-130
4-Bromofluorobenzene	100		99		70-130
Dibromofluoromethane	98		97		70-130

SEMIVOLATILES

Project Name: BFTA
Lab Number: L1601889
Project Number: Not Specified
Report Date: 01/29/16

SAMPLE RESULTS

Lab ID: L1601889-01
Client ID: HS-3
Sample Location: BARNSTABLE
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 01/29/16 02:34
Analyst: JB
Percent Solids: 95%

Date Collected: 01/21/16 11:20
Date Received: 01/22/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 01/27/16 20:24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	--	1
Benzidine	ND		ug/kg	580	--	1
1,2,4-Trichlorobenzene	ND		ug/kg	170	--	1
Hexachlorobenzene	ND		ug/kg	100	--	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	--	1
2-Chloronaphthalene	ND		ug/kg	170	--	1
1,2-Dichlorobenzene	ND		ug/kg	170	--	1
1,3-Dichlorobenzene	ND		ug/kg	170	--	1
1,4-Dichlorobenzene	ND		ug/kg	170	--	1
3,3'-Dichlorobenzidine	ND		ug/kg	170	--	1
2,4-Dinitrotoluene	ND		ug/kg	170	--	1
2,6-Dinitrotoluene	ND		ug/kg	170	--	1
Azobenzene	ND		ug/kg	170	--	1
Fluoranthene	ND		ug/kg	100	--	1
4-Chlorophenyl phenyl ether	ND		ug/kg	170	--	1
4-Bromophenyl phenyl ether	ND		ug/kg	170	--	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	210	--	1
Bis(2-chloroethoxy)methane	ND		ug/kg	190	--	1
Hexachlorobutadiene	ND		ug/kg	170	--	1
Hexachlorocyclopentadiene	ND		ug/kg	500	--	1
Hexachloroethane	ND		ug/kg	140	--	1
Isophorone	ND		ug/kg	160	--	1
Naphthalene	ND		ug/kg	170	--	1
Nitrobenzene	ND		ug/kg	160	--	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	140	--	1
n-Nitrosodi-n-propylamine	ND		ug/kg	170	--	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	170	--	1
Butyl benzyl phthalate	ND		ug/kg	170	--	1
Di-n-butylphthalate	ND		ug/kg	170	--	1
Di-n-octylphthalate	ND		ug/kg	170	--	1

Project Name: BFTA **Lab Number:** L1601889

Project Number: Not Specified **Report Date:** 01/29/16

SAMPLE RESULTS

Lab ID: L1601889-01 Date Collected: 01/21/16 11:20

Client ID: HS-3 Date Received: 01/22/16

Sample Location: BARNSTABLE Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	170	--	1
Dimethyl phthalate	ND		ug/kg	170	--	1
Benzo(a)anthracene	ND		ug/kg	100	--	1
Benzo(a)pyrene	ND		ug/kg	140	--	1
Benzo(b)fluoranthene	ND		ug/kg	100	--	1
Benzo(k)fluoranthene	ND		ug/kg	100	--	1
Chrysene	ND		ug/kg	100	--	1
Acenaphthylene	ND		ug/kg	140	--	1
Anthracene	ND		ug/kg	100	--	1
Benzo(ghi)perylene	ND		ug/kg	140	--	1
Fluorene	ND		ug/kg	170	--	1
Phenanthrene	ND		ug/kg	100	--	1
Dibenzo(a,h)anthracene	ND		ug/kg	100	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	140	--	1
Pyrene	ND		ug/kg	100	--	1
Biphenyl	ND		ug/kg	400	--	1
Aniline	ND		ug/kg	210	--	1
4-Chloroaniline	ND		ug/kg	170	--	1
1-Methylnaphthalene	ND		ug/kg	170	--	1
2-Nitroaniline	ND		ug/kg	170	--	1
3-Nitroaniline	ND		ug/kg	170	--	1
4-Nitroaniline	ND		ug/kg	170	--	1
Dibenzofuran	ND		ug/kg	170	--	1
2-Methylnaphthalene	ND		ug/kg	210	--	1
n-Nitrosodimethylamine	ND		ug/kg	350	--	1
2,4,6-Trichlorophenol	ND		ug/kg	100	--	1
P-Chloro-M-Cresol	ND		ug/kg	170	--	1
2-Chlorophenol	ND		ug/kg	170	--	1
2,4-Dichlorophenol	ND		ug/kg	160	--	1
2,4-Dimethylphenol	ND		ug/kg	170	--	1
2-Nitrophenol	ND		ug/kg	380	--	1
4-Nitrophenol	ND		ug/kg	240	--	1
2,4-Dinitrophenol	ND		ug/kg	840	--	1
4,6-Dinitro-o-cresol	ND		ug/kg	450	--	1
Pentachlorophenol	ND		ug/kg	140	--	1
Phenol	ND		ug/kg	170	--	1
2-Methylphenol	ND		ug/kg	170	--	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	250	--	1
2,4,5-Trichlorophenol	ND		ug/kg	170	--	1

Project Name: BFTA **Lab Number:** L1601889

Project Number: Not Specified **Report Date:** 01/29/16

SAMPLE RESULTS

Lab ID: L1601889-01 Date Collected: 01/21/16 11:20

Client ID: HS-3 Date Received: 01/22/16

Sample Location: BARNSTABLE Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzoic Acid	ND		ug/kg	560	--	1
Benzyl Alcohol	ND		ug/kg	170	--	1
Carbazole	ND		ug/kg	170	--	1
Pyridine	ND		ug/kg	700	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	107		25-120
Phenol-d6	114		10-120
Nitrobenzene-d5	114		23-120
2-Fluorobiphenyl	110		30-120
2,4,6-Tribromophenol	98		10-136
4-Terphenyl-d14	112		18-120

Project Name: BFTA
Project Number: Not Specified

Lab Number: L1601889
Report Date: 01/29/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 01/28/16 18:52
Analyst: JB

Extraction Method: EPA 3546
Extraction Date: 01/27/16 20:24

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG860822-1					
Acenaphthene	ND		ug/kg	130	--
Benzidine	ND		ug/kg	530	--
1,2,4-Trichlorobenzene	ND		ug/kg	160	--
Hexachlorobenzene	ND		ug/kg	97	--
Bis(2-chloroethyl)ether	ND		ug/kg	140	--
2-Chloronaphthalene	ND		ug/kg	160	--
1,2-Dichlorobenzene	ND		ug/kg	160	--
1,3-Dichlorobenzene	ND		ug/kg	160	--
1,4-Dichlorobenzene	ND		ug/kg	160	--
3,3'-Dichlorobenzidine	ND		ug/kg	160	--
2,4-Dinitrotoluene	ND		ug/kg	160	--
2,6-Dinitrotoluene	ND		ug/kg	160	--
Azobenzene	ND		ug/kg	160	--
Fluoranthene	ND		ug/kg	97	--
4-Chlorophenyl phenyl ether	ND		ug/kg	160	--
4-Bromophenyl phenyl ether	ND		ug/kg	160	--
Bis(2-chloroisopropyl)ether	ND		ug/kg	190	--
Bis(2-chloroethoxy)methane	ND		ug/kg	170	--
Hexachlorobutadiene	ND		ug/kg	160	--
Hexachlorocyclopentadiene	ND		ug/kg	460	--
Hexachloroethane	ND		ug/kg	130	--
Isophorone	ND		ug/kg	140	--
Naphthalene	ND		ug/kg	160	--
Nitrobenzene	ND		ug/kg	140	--
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	130	--
n-Nitrosodi-n-propylamine	ND		ug/kg	160	--
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	160	--
Butyl benzyl phthalate	ND		ug/kg	160	--
Di-n-butylphthalate	ND		ug/kg	160	--

Project Name: BFTA
Project Number: Not Specified

Lab Number: L1601889
Report Date: 01/29/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 01/28/16 18:52
Analyst: JB

Extraction Method: EPA 3546
Extraction Date: 01/27/16 20:24

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG860822-1					
Di-n-octylphthalate	ND		ug/kg	160	--
Diethyl phthalate	ND		ug/kg	160	--
Dimethyl phthalate	ND		ug/kg	160	--
Benzo(a)anthracene	ND		ug/kg	97	--
Benzo(a)pyrene	ND		ug/kg	130	--
Benzo(b)fluoranthene	ND		ug/kg	97	--
Benzo(k)fluoranthene	ND		ug/kg	97	--
Chrysene	ND		ug/kg	97	--
Acenaphthylene	ND		ug/kg	130	--
Anthracene	ND		ug/kg	97	--
Benzo(ghi)perylene	ND		ug/kg	130	--
Fluorene	ND		ug/kg	160	--
Phenanthrene	ND		ug/kg	97	--
Dibenzo(a,h)anthracene	ND		ug/kg	97	--
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	130	--
Pyrene	ND		ug/kg	97	--
Biphenyl	ND		ug/kg	370	--
Aniline	ND		ug/kg	190	--
4-Chloroaniline	ND		ug/kg	160	--
1-Methylnaphthalene	ND		ug/kg	160	--
2-Nitroaniline	ND		ug/kg	160	--
3-Nitroaniline	ND		ug/kg	160	--
4-Nitroaniline	ND		ug/kg	160	--
Dibenzofuran	ND		ug/kg	160	--
2-Methylnaphthalene	ND		ug/kg	190	--
n-Nitrosodimethylamine	ND		ug/kg	320	--
2,4,6-Trichlorophenol	ND		ug/kg	97	--
P-Chloro-M-Cresol	ND		ug/kg	160	--
2-Chlorophenol	ND		ug/kg	160	--

Project Name: BFTA
Project Number: Not Specified

Lab Number: L1601889
Report Date: 01/29/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 01/28/16 18:52
Analyst: JB

Extraction Method: EPA 3546
Extraction Date: 01/27/16 20:24

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG860822-1					
2,4-Dichlorophenol	ND		ug/kg	140	--
2,4-Dimethylphenol	ND		ug/kg	160	--
2-Nitrophenol	ND		ug/kg	350	--
4-Nitrophenol	ND		ug/kg	230	--
2,4-Dinitrophenol	ND		ug/kg	780	--
4,6-Dinitro-o-cresol	ND		ug/kg	420	--
Pentachlorophenol	ND		ug/kg	130	--
Phenol	ND		ug/kg	160	--
2-Methylphenol	ND		ug/kg	160	--
3-Methylphenol/4-Methylphenol	ND		ug/kg	230	--
2,4,5-Trichlorophenol	ND		ug/kg	160	--
Benzoic Acid	ND		ug/kg	520	--
Benzyl Alcohol	ND		ug/kg	160	--
Carbazole	ND		ug/kg	160	--
Pyridine	ND		ug/kg	650	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	84		25-120
Phenol-d6	86		10-120
Nitrobenzene-d5	86		23-120
2-Fluorobiphenyl	87		30-120
2,4,6-Tribromophenol	101		10-136
4-Terphenyl-d14	99		18-120

Lab Control Sample Analysis
Batch Quality Control

Project Name: BFTA
Project Number: Not Specified

Lab Number: L1601889
Report Date: 01/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG860822-2 WG860822-3								
Acenaphthene	92		106		31-137	14		50
Benzidine	43		47		10-66	9		50
1,2,4-Trichlorobenzene	81		90		38-107	11		50
Hexachlorobenzene	96		104		40-140	8		50
Bis(2-chloroethyl)ether	82		90		40-140	9		50
2-Chloronaphthalene	87		98		40-140	12		50
1,2-Dichlorobenzene	83		92		40-140	10		50
1,3-Dichlorobenzene	82		91		40-140	10		50
1,4-Dichlorobenzene	82		89		28-104	8		50
3,3'-Dichlorobenzidine	59		68		40-140	14		50
2,4-Dinitrotoluene	**110**	Q	**120**	Q	28-89	9		50
2,6-Dinitrotoluene	97		105		40-140	8		50
Azobenzene	94		105		40-140	11		50
Fluoranthene	99		109		40-140	10		50
4-Chlorophenyl phenyl ether	93		103		40-140	10		50
4-Bromophenyl phenyl ether	94		105		40-140	11		50
Bis(2-chloroisopropyl)ether	74		82		40-140	10		50
Bis(2-chloroethoxy)methane	86		97		40-117	12		50
Hexachlorobutadiene	82		89		40-140	8		50
Hexachlorocyclopentadiene	108		116		40-140	7		50
Hexachloroethane	83		92		40-140	10		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: BFTA
Project Number: Not Specified

Lab Number: L1601889
Report Date: 01/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG860822-2 WG860822-3								
Isophorone	82		94		40-140	14		50
Naphthalene	87		95		40-140	9		50
Nitrobenzene	86		92		40-140	7		50
NitrosoDiPhenylAmine(NDPA)/DPA	95		104		36-157	9		50
n-Nitrosodi-n-propylamine	83		94		32-121	12		50
Bis(2-Ethylhexyl)phthalate	104		113		40-140	8		50
Butyl benzyl phthalate	102		114		40-140	11		50
Di-n-butylphthalate	104		114		40-140	9		50
Di-n-octylphthalate	103		115		40-140	11		50
Diethyl phthalate	97		108		40-140	11		50
Dimethyl phthalate	94		104		40-140	10		50
Benzo(a)anthracene	95		104		40-140	9		50
Benzo(a)pyrene	94		102		40-140	8		50
Benzo(b)fluoranthene	88		99		40-140	12		50
Benzo(k)fluoranthene	97		100		40-140	3		50
Chrysene	98		108		40-140	10		50
Acenaphthylene	90		99		40-140	10		50
Anthracene	104		116		40-140	11		50
Benzo(ghi)perylene	94		105		40-140	11		50
Fluorene	95		106		40-140	11		50
Phenanthrene	97		106		40-140	9		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: BFTA
Project Number: Not Specified

Lab Number: L1601889
Report Date: 01/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG860822-2 WG860822-3								
Dibenzo(a,h)anthracene	92		101		40-140	9		50
Indeno(1,2,3-cd)Pyrene	92		100		40-140	8		50
Pyrene	99		110		35-142	11		50
Biphenyl	94		**107**	Q	54-104	13		50
Aniline	46		52		40-140	12		50
4-Chloroaniline	55		63		40-140	14		50
1-Methylnaphthalene	87		94		26-130	8		50
2-Nitroaniline	102		112		47-134	9		50
3-Nitroaniline	74		86		26-129	15		50
4-Nitroaniline	100		112		41-125	11		50
Dibenzofuran	92		103		40-140	11		50
2-Methylnaphthalene	88		97		40-140	10		50
n-Nitrosodimethylamine	74		80		22-100	8		50
2,4,6-Trichlorophenol	88		99		30-130	12		50
P-Chloro-M-Cresol	96		**106**	Q	26-103	10		50
2-Chlorophenol	90		100		25-102	11		50
2,4-Dichlorophenol	92		103		30-130	11		50
2,4-Dimethylphenol	93		110		30-130	17		50
2-Nitrophenol	96		107		30-130	11		50
4-Nitrophenol	109		**122**	Q	11-114	11		50
2,4-Dinitrophenol	88		103		4-130	16		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: BFTA
Project Number: Not Specified

Lab Number: L1601889
Report Date: 01/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG860822-2 WG860822-3								
4,6-Dinitro-o-cresol	100		115		10-130	14		50
Pentachlorophenol	94		109		17-109	15		50
Phenol	81		**91**	Q	26-90	12		50
2-Methylphenol	93		103		30-130.	10		50
3-Methylphenol/4-Methylphenol	93		107		30-130	14		50
2,4,5-Trichlorophenol	86		96		30-130	11		50
Benzoic Acid	48		52		10-110	8		50
Benzyl Alcohol	85		96		40-140	12		50
Carbazole	97		108		54-128	11		50
Pyridine	54		58		10-93	7		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	87		94		25-120
Phenol-d6	89		97		10-120
Nitrobenzene-d5	88		94		23-120
2-Fluorobiphenyl	88		95		30-120
2,4,6-Tribromophenol	99		110		10-136
4-Terphenyl-d14	97		104		18-120

PETROLEUM HYDROCARBONS

Project Name: BFTA
Lab Number: L1601889
Project Number: Not Specified
Report Date: 01/29/16

SAMPLE RESULTS

Lab ID: L1601889-01
Client ID: HS-3
Sample Location: BARNSTABLE
Matrix: Soil
Analytical Method: 1,8015C(M)
Analytical Date: 01/28/16 12:10
Analyst: DG
Percent Solids: 95%

Date Collected: 01/21/16 11:20
Date Received: 01/22/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 01/27/16 20:35

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbon Quantitation - Westborough Lab						
TPH	ND		ug/kg	33200	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	95		40-140

Project Name: BFTA
Project Number: Not Specified

Lab Number: L1601889
Report Date: 01/29/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8015C(M)
Analytical Date: 01/28/16 11:33
Analyst: SR

Extraction Method: EPA 3546
Extraction Date: 01/27/16 20:35

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbon Quantitation - Westborough Lab for sample(s): 01 Batch: WG860825-1					
TPH	ND		ug/kg	31300	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	83		40-140

Lab Control Sample Analysis

Batch Quality Control

Project Name: BFTA

Project Number: Not Specified

Lab Number: L1601889

Report Date: 01/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 01 Batch: WG860825-2								
TPH	74		-		40-140	-		40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
o-Terphenyl	79				40-140

Lab Duplicate Analysis
Batch Quality Control

Project Name: BFTA
Project Number: Not Specified

Lab Number: L1601889
Report Date: 01/29/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Petroleum Hydrocarbon Quantitation - Westborough Lab	Associated sample(s): 01	QC Batch ID: WG860825-3		QC Sample: L1601889-01		Client ID: HS-3
TPH	ND	ND	ug/kg	NC		40

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	95		93		40-140

PCBS

Project Name: BFTA
Project Number: Not Specified
Lab Number: L1601889
Report Date: 01/29/16

SAMPLE RESULTS

Lab ID: L1601889-01
Client ID: HS-3
Sample Location: BARNSTABLE
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 01/27/16 20:03
Analyst: JW
Percent Solids: 95%

Date Collected: 01/21/16 11:20
Date Received: 01/22/16
Field Prep: Not Specified
Extraction Method: EPA 3546
Extraction Date: 01/26/16 11:30
Cleanup Method: EPA 3665A
Cleanup Date: 01/27/16
Cleanup Method: EPA 3660B
Cleanup Date: 01/27/16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	33.0	--	1	A
Aroclor 1221	ND		ug/kg	33.0	--	1	A
Aroclor 1232	ND		ug/kg	33.0	--	1	A
Aroclor 1242	ND		ug/kg	33.0	--	1	A
Aroclor 1248	ND		ug/kg	33.0	--	1	A
Aroclor 1254	ND		ug/kg	33.0	--	1	A
Aroclor 1260	ND		ug/kg	33.0	--	1	A
Aroclor 1262	ND		ug/kg	33.0	--	1	A
Aroclor 1268	ND		ug/kg	33.0	--	1	A
PCBs, Total	ND		ug/kg	33.0	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	83		30-150	A
Decachlorobiphenyl	95		30-150	A
2,4,5,6-Tetrachloro-m-xylene	83		30-150	B
Decachlorobiphenyl	90		30-150	B

Project Name: BFTA
Project Number: Not Specified

Lab Number: L1601889
Report Date: 01/29/16

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 01/27/16 20:30
Analyst: JW

Extraction Method: EPA 3546
Extraction Date: 01/26/16 11:30
Cleanup Method: EPA 3665A
Cleanup Date: 01/27/16
Cleanup Method: EPA 3660B
Cleanup Date: 01/27/16

Parameter	Result	Qualifier	Units	RL	MDL	Column
PCB by GC - Westborough Lab for sample(s): 01 Batch: WG860316-1						
Aroclor 1016	ND		ug/kg	32.1	--	A
Aroclor 1221	ND		ug/kg	32.1	--	A
Aroclor 1232	ND		ug/kg	32.1	--	A
Aroclor 1242	ND		ug/kg	32.1	--	A
Aroclor 1248	ND		ug/kg	32.1	--	A
Aroclor 1254	ND		ug/kg	32.1	--	A
Aroclor 1260	ND		ug/kg	32.1	--	A
Aroclor 1262	ND		ug/kg	32.1	--	A
Aroclor 1268	ND		ug/kg	32.1	--	A
PCBs, Total	ND		ug/kg	32.1	--	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	83		30-150	A
Decachlorobiphenyl	94		30-150	A
2,4,5,6-Tetrachloro-m-xylene	87		30-150	B
Decachlorobiphenyl	96		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: BFTA

Project Number: Not Specified

Lab Number: L1601889

Report Date: 01/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
PCB by GC - Westborough Lab Associated sample(s): 01 Batch: WG860316-2 WG860316-3									
Aroclor 1016	80		100		40-140	22		50	A
Aroclor 1260	76		103		40-140	30		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	89		104		30-150	A
Decachlorobiphenyl	103		130		30-150	A
2,4,5,6-Tetrachloro-m-xylene	94		112		30-150	B
Decachlorobiphenyl	104		132		30-150	B

METALS

Project Name: BFTA
Project Number: Not Specified
Lab Number: L1601889
Report Date: 01/29/16

SAMPLE RESULTS

Lab ID: L1601889-01
Client ID: HS-3
Sample Location: BARNSTABLE
Matrix: Soil
Percent Solids: 95%

Date Collected: 01/21/16 11:20
Date Received: 01/22/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	0.98		mg/kg	0.41	--	1	01/23/16 02:48	01/25/16 10:57	EPA 3050B	1,6010C	PS
Barium, Total	2.7		mg/kg	0.41	--	1	01/23/16 02:48	01/25/16 10:57	EPA 3050B	1,6010C	PS
Cadmium, Total	ND		mg/kg	0.41	--	1	01/23/16 02:48	01/25/16 10:57	EPA 3050B	1,6010C	PS
Chromium, Total	2.0		mg/kg	0.41	--	1	01/23/16 02:48	01/25/16 10:57	EPA 3050B	1,6010C	PS
Lead, Total	ND		mg/kg	2.0	--	1	01/23/16 02:48	01/25/16 10:57	EPA 3050B	1,6010C	PS
Mercury, Total	ND		mg/kg	0.07	--	1	01/23/16 09:15	01/26/16 15:07	EPA 7471B	1,7471B	DB
Selenium, Total	ND		mg/kg	0.82	--	1	01/23/16 02:48	01/25/16 10:57	EPA 3050B	1,6010C	PS
Silver, Total	ND		mg/kg	0.41	--	1	01/23/16 02:48	01/25/16 10:57	EPA 3050B	1,6010C	PS

Project Name: BFTA
Project Number: Not Specified
Lab Number: L1601889
Report Date: 01/29/16

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG859694-1										
Arsenic, Total	ND		mg/kg	0.40	--	1	01/23/16 02:48	01/25/16 10:22	1,6010C	PS
Barium, Total	ND		mg/kg	0.40	--	1	01/23/16 02:48	01/25/16 10:22	1,6010C	PS
Cadmium, Total	ND		mg/kg	0.40	--	1	01/23/16 02:48	01/25/16 10:22	1,6010C	PS
Chromium, Total	ND		mg/kg	0.40	--	1	01/23/16 02:48	01/25/16 10:22	1,6010C	PS
Lead, Total	ND		mg/kg	2.0	--	1	01/23/16 02:48	01/25/16 10:22	1,6010C	PS
Selenium, Total	ND		mg/kg	0.80	--	1	01/23/16 02:48	01/25/16 10:22	1,6010C	PS
Silver, Total	ND		mg/kg	0.40	--	1	01/23/16 02:48	01/25/16 10:22	1,6010C	PS

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG859712-1										
Mercury, Total	ND		mg/kg	0.08	--	1	01/23/16 09:15	01/26/16 14:54	1,7471B	DB

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis

Batch Quality Control

Project Name: BFTA

Project Number: Not Specified

Lab Number: L1601889

Report Date: 01/29/16

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG859694-2 SRM Lot Number: D088-540								
Arsenic, Total	88		-		79-121	-		
Barium, Total	88		-		83-117	-		
Cadmium, Total	86		-		83-117	-		
Chromium, Total	88		-		80-120	-		
Lead, Total	85		-		81-117	-		
Selenium, Total	81		-		78-122	-		
Silver, Total	88		-		75-124	-		
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG859712-2 SRM Lot Number: D088-540								
Mercury, Total	118		-		72-128	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: BFTA
Project Number: Not Specified

Lab Number: L1601889
Report Date: 01/29/16

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG859694-4 QC Sample: L1601917-01 Client ID: MS Sample												
Arsenic, Total	2.3	11.1	9.9	**68**	Q	-	-		75-125	-		20
Barium, Total	34	185	160	**68**	Q	-	-		75-125	-		20
Cadmium, Total	ND	4.73	2.7	**57**	Q	-	-		75-125	-		20
Chromium, Total	11	18.5	24	**70**	Q	-	-		75-125	-		20
Lead, Total	9.7	47.3	36	**56**	Q	-	-		75-125	-		20
Selenium, Total	ND	11.1	6.5	**58**	Q	-	-		75-125	-		20
Silver, Total	ND	27.8	20	**72**	Q	-	-		75-125	-		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG859712-4 QC Sample: L1601924-01 Client ID: MS Sample												
Mercury, Total	ND	0.151	0.22	**146**	Q	-	-		80-120	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: BFTA
Project Number: Not Specified

Lab Number: L1601889
Report Date: 01/29/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG859694-3 QC Sample: L1601917-01 Client ID: DUP Sample						
Lead, Total	9.7	7.6	mg/kg	**24**	Q	20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG859712-3 QC Sample: L1601924-01 Client ID: DUP Sample						
Mercury, Total	ND	ND	mg/kg	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: BFTA
Project Number: Not Specified

Lab Number: L1601889
Report Date: 01/29/16

SAMPLE RESULTS

Lab ID: L1601889-01
Client ID: HS-3
Sample Location: BARNSTABLE
Matrix: Soil

Date Collected: 01/21/16 11:20
Date Received: 01/22/16
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	95.0		%	0.100	NA	1	-	01/22/16 18:28	30,2540G	KE

Lab Duplicate Analysis
Batch Quality Control

Project Name: BFTA
Project Number: Not Specified

Lab Number: L1601889
Report Date: 01/29/16

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG859651-1 QC Sample: L1601799-01 Client ID: DUP Sample						
Solids, Total	89.6	90.5	%	1		20

Project Name: BFTA
Project Number: Not Specified

Lab Number: L1601889
Report Date: 01/29/16

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: 01/22/2016 14:18

Cooler Information Custody Seal

Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1601889-01A	Vial MeOH preserved	A	N/A	5.1	Y	Absent	8260HLW(14)
L1601889-01B	Vial water preserved	A	N/A	5.1	Y	Absent	8260HLW(14)
L1601889-01C	Vial water preserved	A	N/A	5.1	Y	Absent	8260HLW(14)
L1601889-01D	Plastic 2oz unpreserved for TS	A	N/A	5.1	Y	Absent	TS(7)
L1601889-01E	Glass 250ml/8oz unpreserved	A	N/A	5.1	Y	Absent	8270TCL(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PCB-8082(14),PB-TI(180),SE-TI(180),HG-T(28),TPH-DRO-D(14),CD-TI(180)

*Values in parentheses indicate holding time in days

Project Name:	BFTA	**Lab Number:**	L1601889
Project Number:	Not Specified	**Report Date:**	01/29/16

GLOSSARY

Acronyms

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

Report Format: Data Usability Report

Project Name:	BFTA	**Lab Number:**	L1601889
Project Number:	Not Specified	**Report Date:**	01/29/16

Data Qualifiers

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

Project Name:	BFTA	**Lab Number:**	L1601889
Project Number:	Not Specified	**Report Date:**	01/29/16

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 524.2: 1,2-Dibromo-3-chloropropane, 1,2-Dibromoethane, m/p-xylene, o-xylene
EPA 624: 2-Butanone (MEK), 1,4-Dioxane, tert-Amylmethyl Ether, tert-Butyl Alcohol, m/p-xylene, o-xylene
EPA 625: Aniline, Benzoic Acid, Benzyl Alcohol, 4-Chloroaniline, 3-Methylphenol, 4-Methylphenol.
EPA 1010A: NPW: Ignitability
EPA 6010C: NPW: Strontium; SCM: Strontium
EPA 8151A: NPW: 2,4-DB, Dicamba, Dichloroprop, MCPA, MCPP; SCM: 2,4-DB, Dichloroprop, MCPA, MCPP
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene, Isopropanol; SCM: Iodomethane (methyl iodide), Methyl methacrylate (soil); 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Pentachloronitrobenzene, 1-Methylnaphthalene, Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 9010: NPW: Amenable Cyanide Distillation, Total Cyanide Distillation
EPA 9038: NPW: Sulfate
EPA 9050A: NPW: Specific Conductance
EPA 9056: NPW: Chloride, Nitrate, Sulfate
EPA 9065: NPW: Phenols
EPA 9251: NPW: Chloride
SM3500: NPW: Ferrous Iron
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; SCM: Total Phosphorus, TKN, NO2, NO3.
SM5310C: DW: Dissolved Organic Carbon

Mansfield Facility
EPA 8270D: NPW: Biphenyl; SCM: Biphenyl
EPA 2540D: TSS
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water
EPA 200.8: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl; **EPA 200.7**: Ba,Be,Ca,Cd,Cr,Cu,Na; **EPA 245.1:** Mercury;
EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**
EPA 332: Perchlorate.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water
EPA 200.8: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn;
EPA 200.7: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn;
EPA 245.1, SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**
EPA 624: Volatile Halocarbons & Aromatics,
EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF**.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

INORGANICS
&
MISCELLANEOUS

PERFLUORINATED COMPOUNDS

CHAIN OF CUSTODY

PAGE_____ OF _____

ALPHA ANALYTICAL
8 Walkup Drive
Westboro, MA 01581
Tel: 508-898-9220

320 Forbes Blvd
Mansfield, MA 02048
Tel: 508-822-9300

Date Rec'd in Lab: 11/22/16

ALPHA Job #: L1601889

Client Information

Client: Cape Cod Commission
Address: 3225 Main St
Barnstable, MA
Phone: 508 362 3828
Email: tcamburer, a capecodcommission.org
Additional Project Information:

Project Information

Project Name: BFTA
Project Location: Barnstable
Project #:
Project Manager: Tom Camburer
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due:

Report Information - Data Deliverables

☐ ADEx ☐ EMAIL

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements & Project Information Requirements

☐ Yes ☐ No MA MCP Analytical Methods ☐ Yes ☐ No CT RCP Analytical Methods
☐ Yes ☐ No Matrix Spike Required on this SDG? (Required for MCP Inorganics)
☐ Yes ☐ No GW1 Standards (Info Required for Metals & EPH with Targets)
☐ Yes ☐ No NPDES RGP
☐ Other State /Fed Program _____ Criteria _____

ANALYSIS

VOC: ~~8260~~ ☐ 624 ☐ 524.2
SVOC: ☐ ABN ☐ PAH
METALS: ☐ MCP 13 ☐ MCP 14 ☐ RCP 15
METALS: ☐ RCRA5 ☐ RCRA8 ☐ PP13
EPH: ☐ Ranges & Targets ☐ Ranges Only
VPH: ☐ Ranges & Targets ☐ Ranges Only
☐ PCB ☐ PEST
TPH: ☐ Quant Only ☐ Fingerprint
8260 HLW waters preserved
8260 HLW MeOH preserved
Total Solids
total Hg TCLP Metals Pb
TPH - DRO - DTPH

SAMPLE INFO

Filtration
☐ Field
☐ Lab to do
Preservation
☐ Lab to do

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler Initials	VOC: ~~8260~~	SVOC:	METALS:	METALS:	EPH:	VPH:	PCB	TPH:	8260 HLW waters preserved	8260 HLW MeOH preserved	Total Solids	total Hg TCLP Metals Pb	TPH - DRO - DTPH	Sample Comments	TOTAL # BOTTLES
01889 -01	HS - 3	11/21/16	1120	Soil	team	~~X~~								2	1	1	1			

Container Type
P= Plastic
A= Amber glass
V= Vial
G= Glass
B= Bacteria cup
C= Cube
O= Other
E= Encore
D= BOD Bottle

Preservative
A= None
B= HCl
C= HNO_3
D= H_2SO_4
E= NaOH
F= MeOH
G= $NaHSO_4$
H = $Na_2S_2O_3$
I= Ascorbic Acid
J = NH_4Cl
K= Zn Acetate
O= Other

Container Type	
Preservative	

Relinquished By:	Date/Time	Received By:	Date/Time
	11/21/16 1355	V. Tavares	11/21/16 1355
		Dan Chuang	11/22/16 1050

All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 12-Mar-2012)

Maxxam Analytics International Corporation o/a Maxxam Analytics
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel:(905) 817-5700 Toll-Free:(800) 563-6266 Fax:(905) 817-5777 www.maxxam.ca

CHAIN OF CUSTODY RECORD

Page 1 of 3

INVOICE TO:
Company Name: #29803 Cape Cod Comission
Attention: Tom Cambareri
Address: 3225 Main Street
Barnstable MA 02630
Tel: (508) 362-3828 x1234 Fax:
Email: tcambareri@capecodcommission.org

REPORT TO:
Company Name: Cape Cod Commission
Attention: Tom Cambareri
Address: 3225 MAIN STREET
BARNSTABLE MA 02630
Tel: 508 362 3828 x1234 Fax: 508-362-3136
Email: TCAMBARERI@capecodcommission.org

PROJECT INFORMATION:
Quotation #:
P.O. #:
Project:
Project Name: BFTA
Site #:
Sampled By:

Laboratory Use Only:
Maxxam Job #:
Bottle Order #: 526180
COC #: C#526180-01-01
Project Manager: Melissa DiGrazia

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011): Table 1, Table 2, Table 3, Table ___; Bas/Park, Ind/Comm, Agri/Other, Medium/Fine, Coarse, For RSC
Other Regulations: CCME, Reg 558, MISA, PWQO, Other; Sanitary Sewer Bylaw, Storm Sewer Bylaw, Municipality
Special Instructions
Include Criteria on Certificate of Analysis (Y/N)?

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)
Field Filtered (please circle): Metals / Hg / Cr VI

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects
Regular (Standard) TAT: ☒
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.
Job Specific Rush TAT (if applies to entire submission)
Date Required: Time Required:
Rush Confirmation Number: (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered	Metals / Hg / Cr VI	# of Bottles	Comments
1		HS-2 0-4	1/21/16	1040	soil		537 PFCs	1	
2		HS-2 4	1/21/16	1040	soil		537 PFCs		
3		HS-2 6	1/21/16	1040	soil		537 PFCs		
4		HS-3 0-4	1/21/16	1110	soil		537 PFCs		
5		HS-3 4-8	1/21/16	1110	soil		537 PFCs		
6		HS-3 8-12	1/21/16	1110	soil		537 PFCs		
7		HS-1 0-4	1/21/16	0940	soil		537 PFCs		
8		HS-1 4-8	1/21/16	0940	soil		537 PFCs		
9		HS-1 8-12	1/21/16	0940	soil		537 PFCs		
10		HS-4 4	1/21/16	1140	soil		537 PFCs	V	

28-Jan-16 14:20
Melissa DiGrazia
B618227
SEL ENV-623

International Solid Sample
Heat Treat Required
High Risk material
Controlled Storage and Disposal

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	1/26/16	1615		2016/01/28	14:20	

Laboratory Use Only
Time Sensitive
Temperature (°C) on Receipt: 5.1/5.6/5.4
Custody Seal: Present ✓ Intact ✓ — Yes / No

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxam Yellow: Client

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Maxxam Analytics International Corporation o/a Maxxam Analytics
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel:(905) 817-5700 Toll-Free:(800) 563-6266 Fax:(905) 817-5777 www.maxxam.ca

CHAIN OF CUSTODY RECORD

Page 2 of 3

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#29803 Cape Cod Comission	Company Name:	Cape Cod Commission	Quotation #:		Maxxam Job #:	Bottle Order #:
Attention:	Tom Cambareri	Attention:	Tom Cambareri	P.O. #:			528190
Address:	3225 Main Street Barnstable MA 02630	Address:	3225 MAIN STREET BARNSTABLE, MA 02630	Project:		COC #:	Project Manager:
Tel:	(508) 362-3828 x1234 Fax:	Tel:	508 362 3828 x1234 Fax: 508-362-3136	Project Name:	BFTA	C#528190-01-01	Melisse DiGrazia
Email:	tcambareri@capecodcommission.org	Email:	Tcambareri@capecodcommission.org	Site #:			
				Sampled By:			

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☐ Table 1 ☐ Res/Park ☐ Medium/Fine ☐ Table 2 ☐ Ind/Comm ☐ Coarse ☐ Table 3 ☐ Agri/Other ☐ For RSC ☐ Table ___	☐ CCME ☐ Sanitary Sewer Bylaw ☐ Reg 558 ☐ Storm Sewer Bylaw ☐ MISA Municipality ___ ☐ PWQO ☐ Other ___	

Include Criteria on Certificate of Analysis (Y/N)? ___

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☒
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ ☐
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	537/PFC	# of Bottles	Comments
1		HS-4 8	1/21/16	1140	soil		537/PFC	1	
2		HS-4 8-12	1/21/16	1140	soil		537/PFC		
3		HS-7 3-4	1/21/16	1310	soil		537/PFC		
4		HS-5 4-8 TOP	1/21/16	1210	soil		537/PFC		
5		HS-5 4-8 MID	1/21/16	1210	soil		537/PFC		
6		HS-5 8-12	1/21/16	1210	soil		537/PFC		
7		HS-6 0-4	1/21/16	1210	soil		537/PFC		
8		HS-6 4-8	1/21/16	1210	soil		537/PFC		
9		HS-6 8-12	1/21/16	1210	soil		537/PFC		
10		HS-6 12	1/21/16	1210	soil		537/PFC		

International Solid Sample
Heat Treat Required
High Risk material
Controlled Storage and Disposal

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only				
	1/26/16	1615		2016/01/28	14:20		Time Sensitive	Temperature (°C) on Receipt	Custody Seal	Yes	No
								5.1/5.6/5.4	Present	✓	
									Intact	✓	

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxam Yellow: Client

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Maxxam Analytics International Corporation o/a Maxxam Analytics
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel:(905) 817-5700 Toll-Free:(800) 563-6266 Fax:(905) 817-5777 www.maxxam.ca

CHAIN OF CUSTODY RECORD

Page 3 of 3

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#29803 Cape Cod Comission	Company Name:	Cape Cod Commission	Quotation #:		Maxxam Job #:	Bottle Order #:
Attention:	Tom Cambareri	Attention:	Tom Cambareri	P.O. #:			528190
Address:	3225 Main Street Barnstable MA 02630	Address:	3225 MAIN STREET BARNSTABLE MA 02630	Project:		COC #:	Project Manager:
Tel:	(508) 362-3828 x1234 Fax:	Tel:	508 362 3828 x1234 Fax: 508 362 3136	Project Name:	BFTA	C#528190-01-01	Melissa DiGrazia
Email:	tcambareri@capecodcommission.org	Email:	TCAMBAREI@capecodcommission.org	Site #:			
				Sampled By:			

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☐ Table 1 ☐ Res/Park ☐ Medium/Fine ☐ Table 2 ☐ Ind/Comm ☐ Coarse ☐ Table 3 ☐ Agri/Other ☐ For RSC ☐ Table ___	☐ CCME ☐ Sanitary Sewer Bylaw ☐ Reg 558 ☐ Storm Sewer Bylaw ☐ MISA Municipality ___ ☐ PWQO ☐ Other ___	

Include Criteria on Certificate of Analysis (Y/N)? ___

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:
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Regular (Standard) TAT: ☒
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ ☐
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	537 PFCs	# of Bottles	Comments
1		PFW-2	1/21/16	2:15 PM	water		537 PFCs	1	
2		PRW-4	1/21/16	1:30 PM	water		537 PFCs		
3		MSW-6	1/21/16	1540	water		537 PFCs		
4		MID PT	1/21/16	1:30 PM	water		537 PFCs		
5		MSW-1	1/21/16	1500	water		537 PFCs		
6									
7									
8									
9									
10									

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only				
	1/26/16	1615		16/01/28	14:20		Time Sensitive	Temperature (°C) on Receipt	Custody Seal	Yes	No
								5.1/5.6/5.4	Present	✓	
									Intact	✓	

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxam Yellow: Client

Maxxam
A Bureau Veritas Group Company

Your Project #: BFTA
Your C.O.C. #: 528190-01-01

Attention:Tom Cambareri

Cape Cod Comission
Cape Cod Commission
3225 Main Street
Barnstable, MA
USA 02630

Report Date: 2016/02/10
Report #: R3891122
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B618227
Received: 2016/01/28, 14:20

Sample Matrix: Soil
Samples Received: 20

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Moisture	20	N/A	2016/02/05	CAM SOP-00445	Carter 2nd ed 51.2 m
PFOS and PFOA in soil	20	2016/02/01	2016/02/01	CAM SOP-00894	EPA537 m

Sample Matrix: Water
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
PFOS and PFOA in water	4	2016/01/29	2016/02/01	CAM SOP-00894	EPA 537 m
PFOS and PFOA in water	1	2016/02/03	2016/02/04	CAM SOP-00894	EPA 537 m

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Melissa DiGrazia, Project Manager - ATUT
Email: MDiGrazia@maxxam.ca
Phone# (905) 817-5700
==========
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B618227
Report Date: 2016/02/10

Cape Cod Comission
Client Project #: BFTA

RESULTS OF ANALYSES OF SOIL

Maxxam ID		BSX867			BSX868			BSX869			
Sampling Date		2016/01/21 10:40			2016/01/21 10:40			2016/01/21 10:40			
COC Number		528190-01-01			528190-01-01			528190-01-01			
	UNITS	HS-2 0-4	RDL	MDL	HS-2 4	RDL	MDL	HS-2 6	RDL	MDL	QC Batch
Moisture	%	14	1.0	0.50	18	1.0	0.50	5.2	1.0	0.50	4372577
6:2 Fluorotelomer sulfonate	ug/kg	0.60	1	0.25	1.1	1	0.25	0.34	1	0.25	4365440
8:2 Fluorotelomer sulfonate	ug/kg	28	1	0.21	49	1	0.21	20	1	0.21	4365440
N-ethylperfluorooctane sulfonamide	ug/kg	<0.39	1	0.39	<0.39	1	0.39	<0.39	1	0.39	4365440
N-ethylperfluorooctane sulfonamidoe	ug/kg	<0.29	1	0.29	<0.29	1	0.29	<0.29	1	0.29	4365440
N-methylperfluorooctane sulfonamide	ug/kg	<0.25	1	0.25	<0.25	1	0.25	<0.25	1	0.25	4365440
N-methylperfluorooctanesulfonamidol	ug/kg	<0.2	1	0.2	<0.2	1	0.2	<0.2	1	0.2	4365440
Perfluorobutane Sulfonate (PFBS)	ug/kg	<0.25	1	0.25	<0.25	1	0.25	<0.25	1	0.25	4365440
Perfluorobutanoic acid	ug/kg	<0.23	1	0.23	<0.23	1	0.23	<0.23	1	0.23	4365440
Perfluorodecane Sulfonate	ug/kg	12	1	0.2	28	1	0.2	1.5	1	0.2	4365440
Perfluorodecanoic Acid (PFDA)	ug/kg	2.0	1	0.28	2.6	1	0.28	1.2	1	0.28	4365440
Perfluorododecanoic Acid (PFDoA)	ug/kg	3.7	1	0.24	8.0	1	0.24	<0.24	1	0.24	4365440
Perfluoroheptane sulfonate	ug/kg	0.85	1	0.15	0.92	1	0.15	0.75	1	0.15	4365440
Perfluoroheptanoic Acid (PFHpA)	ug/kg	<0.18	1	0.18	0.24	1	0.18	<0.18	1	0.18	4365440
Perfluorohexane Sulfonate (PFHxS)	ug/kg	2.4	1	0.19	4.6	1	0.19	1.5	1	0.19	4365440
Perfluorohexanoic Acid (PFHxA)	ug/kg	0.41	1	0.21	0.70	1	0.21	0.42	1	0.21	4365440
Perfluoro-n-Octanoic Acid (PFOA)	ug/kg	0.30	1	0.12	0.57	1	0.12	0.21	1	0.12	4365440
Perfluorononanoic Acid (PFNA)	ug/kg	1.1	1	0.14	1.6	1	0.14	0.81	1	0.14	4365440
Perfluorooctane Sulfonamide (PFOSA)	ug/kg	7.3	1	0.17	11	1	0.17	0.64	1	0.17	4365440
Perfluorooctane Sulfonate (PFOS)	ug/kg	160 (1)	10	0.16	610 (1)	100	16	450 (1)	10	1.6	4365440
Perfluoropentanoic Acid (PFPeA)	ug/kg	<0.21	1	0.21	0.46	1	0.21	0.30	1	0.21	4365440
Perfluorotetradecanoic Acid	ug/kg	0.37	1	0.22	0.25	1	0.22	<0.22	1	0.22	4365440
Perfluorotridecanoic Acid	ug/kg	7.3	1	0.25	7.2	1	0.25	0.44	1	0.25	4365440
Perfluoroundecanoic Acid (PFUnA)	ug/kg	30	1	0.26	200 (1)	100	26	62 (1)	10	2.6	4365440
Surrogate Recovery (%)											
13C4-Perfluorooctanesulfonate	%	116	N/A	N/A	105	N/A	N/A	108	N/A	N/A	4365440
13C4-Perfluorooctanoic acid	%	85	N/A	N/A	95	N/A	N/A	102	N/A	N/A	4365440
13C8-Perfluorooctanesulfonamide	%	81	N/A	N/A	85	N/A	N/A	82	N/A	N/A	4365440

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Due to high concentration of the target analyte, sample required dilution. Detection limit was adjusted accordingly.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B618227
Report Date: 2016/02/10

Cape Cod Comission
Client Project #: BFTA

RESULTS OF ANALYSES OF SOIL

Maxxam ID		BSX870			BSX871	BSX872			
Sampling Date		2016/01/21 11:10			2016/01/21 11:10	2016/01/21 11:10			
COC Number		528190-01-01			528190-01-01	528190-01-01			
	UNITS	HS-3 0-4	RDL	MDL	HS-3 4-8	HS-3 8-12	RDL	MDL	QC Batch
Moisture	%	8.1	1.0	0.50	4.1	6.8	1.0	0.50	4372577
6:2 Fluorotelomer sulfonate	ug/kg	0.42	1	0.25	0.68	0.49	1	0.25	4365440
8:2 Fluorotelomer sulfonate	ug/kg	3.4	1	0.21	13	20	1	0.21	4365440
N-ethylperfluorooctane sulfonamide	ug/kg	<0.39	1	0.39	<0.39	<0.39	1	0.39	4365440
N-ethylperfluorooctane sulfonamidoe	ug/kg	<0.29	1	0.29	<0.29	<0.29	1	0.29	4365440
N-methylperfluorooctane sulfonamide	ug/kg	<0.25	1	0.25	<0.25	<0.25	1	0.25	4365440
N-methylperfluorooctanesulfonamidol	ug/kg	<0.2	1	0.2	<0.2	<0.2	1	0.2	4365440
Perfluorobutane Sulfonate (PFBS)	ug/kg	<0.25	1	0.25	<0.25	<0.25	1	0.25	4365440
Perfluorobutanoic acid	ug/kg	<0.23	1	0.23	<0.23	<0.23	1	0.23	4365440
Perfluorodecane Sulfonate	ug/kg	7.5	1	0.2	1.2	2.2	1	0.2	4365440
Perfluorodecanoic Acid (PFDA)	ug/kg	<0.28	1	0.28	1.1	1.4	1	0.28	4365440
Perfluorododecanoic Acid (PFDoA)	ug/kg	2.5	1	0.24	<0.24	0.92	1	0.24	4365440
Perfluoroheptane sulfonate	ug/kg	<0.15	1	0.15	0.55	<0.15	1	0.15	4365440
Perfluoroheptanoic Acid (PFHpA)	ug/kg	<0.18	1	0.18	<0.18	<0.18	1	0.18	4365440
Perfluorohexane Sulfonate (PFHxS)	ug/kg	0.59	1	0.19	0.88	0.71	1	0.19	4365440
Perfluorohexanoic Acid (PFHxA)	ug/kg	0.31	1	0.21	0.24	0.28	1	0.21	4365440
Perfluoro-n-Octanoic Acid (PFOA)	ug/kg	<0.12	1	0.12	<0.12	<0.12	1	0.12	4365440
Perfluorononanoic Acid (PFNA)	ug/kg	0.42	1	0.14	0.49	0.39	1	0.14	4365440
Perfluorooctane Sulfonamide (PFOSA)	ug/kg	5.7	1	0.17	0.55	1.4	1	0.17	4365440
Perfluorooctane Sulfonate (PFOS)	ug/kg	11	1	0.16	310 (1)	370 (1)	100	16	4365440
Perfluoropentanoic Acid (PFPeA)	ug/kg	<0.21	1	0.21	<0.21	<0.21	1	0.21	4365440
Perfluorotetradecanoic Acid	ug/kg	2.7	1	0.22	<0.22	0.64	1	0.22	4365440
Perfluorotridecanoic Acid	ug/kg	3.6	1	0.25	0.65	8.9	1	0.25	4365440
Perfluoroundecanoic Acid (PFUnA)	ug/kg	1.2	1	0.26	13	10	1	0.26	4365440
Surrogate Recovery (%)									
13C4-Perfluorooctanesulfonate	%	95	N/A	N/A	93	88	N/A	N/A	4365440
13C4-Perfluorooctanoic acid	%	96	N/A	N/A	94	100	N/A	N/A	4365440
13C8-Perfluorooctanesulfonamide	%	90	N/A	N/A	78	92	N/A	N/A	4365440

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Due to high concentration of the target analyte, sample required dilution. Detection limit was adjusted accordingly.

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Maxxam Job #: B618227
Report Date: 2016/02/10

Cape Cod Comission
Client Project #: BFTA

RESULTS OF ANALYSES OF SOIL

Maxxam ID		BSX873			BSX874			BSX875			
Sampling Date		2016/01/21 09:40			2016/01/21 09:40			2016/01/21 09:40			
COC Number		528190-01-01			528190-01-01			528190-01-01			
	UNITS	HS-1 0-4	RDL	MDL	HS-1 4-8	RDL	MDL	HS-1 8-12	RDL	MDL	QC Batch
Moisture	%	12	1.0	0.50	25	1.0	0.50	11	1.0	0.50	4372577
6:2 Fluorotelomer sulfonate	ug/kg	1.4	1	0.25	2.4	1	0.25	1.1	1	0.25	4365440
8:2 Fluorotelomer sulfonate	ug/kg	13	1	0.21	31	1	0.21	7.8	1	0.21	4365440
N-ethylperfluorooctane sulfonamide	ug/kg	<0.39	1	0.39	<0.39	1	0.39	<0.39	1	0.39	4365440
N-ethylperfluorooctane sulfonamidoe	ug/kg	<0.29	1	0.29	<0.29	1	0.29	<0.29	1	0.29	4365440
N-methylperfluorooctane sulfonamide	ug/kg	<0.25	1	0.25	<0.25	1	0.25	<0.25	1	0.25	4365440
N-methylperfluorooctanesulfonamidol	ug/kg	<0.2	1	0.2	<0.2	1	0.2	<0.2	1	0.2	4365440
Perfluorobutane Sulfonate (PFBS)	ug/kg	<0.25	1	0.25	<0.25	1	0.25	<0.25	1	0.25	4365440
Perfluorobutanoic acid	ug/kg	<0.23	1	0.23	<0.23	1	0.23	<0.23	1	0.23	4365440
Perfluorodecane Sulfonate	ug/kg	7.8	1	0.2	7.8	1	0.2	0.9	1	0.2	4365440
Perfluorodecanoic Acid (PFDA)	ug/kg	0.72	1	0.28	3.0	1	0.28	0.54	1	0.28	4365440
Perfluorododecanoic Acid (PFDoA)	ug/kg	3.2	1	0.24	1.3	1	0.24	0.32	1	0.24	4365440
Perfluoroheptane sulfonate	ug/kg	0.61	1	0.15	1.8	1	0.15	0.56	1	0.15	4365440
Perfluoroheptanoic Acid (PFHpA)	ug/kg	<0.18	1	0.18	<0.18	1	0.18	<0.18	1	0.18	4365440
Perfluorohexane Sulfonate (PFHxS)	ug/kg	1.7	1	0.19	5.3	1	0.19	1.4	1	0.19	4365440
Perfluorohexanoic Acid (PFHxA)	ug/kg	0.24	1	0.21	0.42	1	0.21	0.45	1	0.21	4365440
Perfluoro-n-Octanoic Acid (PFOA)	ug/kg	0.38	1	0.12	1.0	1	0.12	0.23	1	0.12	4365440
Perfluorononanoic Acid (PFNA)	ug/kg	0.77	1	0.14	1.2	1	0.14	0.47	1	0.14	4365440
Perfluorooctane Sulfonamide (PFOSA)	ug/kg	5.5	1	0.17	3.5	1	0.17	0.48	1	0.17	4365440
Perfluorooctane Sulfonate (PFOS)	ug/kg	160 (1)	10	1.6	830 (1)	100	16	140 (1)	10	1.6	4365440
Perfluoropentanoic Acid (PFPeA)	ug/kg	<0.21	1	0.21	<0.21	1	0.21	<0.21	1	0.21	4365440
Perfluorotetradecanoic Acid	ug/kg	0.79	1	0.22	0.29	1	0.22	<0.22	1	0.22	4365440
Perfluorotridecanoic Acid	ug/kg	30	1	0.25	6.1	1	0.25	1.3	1	0.25	4365440
Perfluoroundecanoic Acid (PFUnA)	ug/kg	13	1	0.26	66 (1)	10	2.6	10	1	0.26	4365440
Surrogate Recovery (%)											
13C4-Perfluorooctanesulfonate	%	116	N/A	N/A	88	N/A	N/A	94	N/A	N/A	4365440
13C4-Perfluorooctanoic acid	%	91	N/A	N/A	96	N/A	N/A	108	N/A	N/A	4365440
13C8-Perfluorooctanesulfonamide	%	74	N/A	N/A	99	N/A	N/A	93	N/A	N/A	4365440

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Maxxam Job #: B618227
Report Date: 2016/02/10

Cape Cod Comission
Client Project #: BFTA

RESULTS OF ANALYSES OF SOIL

Maxxam ID		BSX876	BSX877			BSX878			
Sampling Date		2016/01/21 11:40	2016/01/21 11:40			2016/01/21 11:40			
COC Number		528190-01-01	528190-01-01			528190-01-01			
	UNITS	HS-4 4	HS-4 8	RDL	MDL	HS-4 8-12	RDL	MDL	QC Batch
Moisture	%	7.8	3.8	1.0	0.50	2.7	1.0	0.50	4372577
6:2 Fluorotelomer sulfonate	ug/kg	2.2	4.3	1	0.25	7.3	1	0.25	4365440
8:2 Fluorotelomer sulfonate	ug/kg	43	28	1	0.21	15	1	0.21	4365440
N-ethylperfluorooctane sulfonamide	ug/kg	<0.39	<0.39	1	0.39	<0.39	1	0.39	4365440
N-ethylperfluorooctane sulfonamidoe	ug/kg	<0.29	<0.29	1	0.29	<0.29	1	0.29	4365440
N-methylperfluorooctane sulfonamide	ug/kg	<0.25	<0.25	1	0.25	<0.25	1	0.25	4365440
N-methylperfluorooctanesulfonamidol	ug/kg	<0.2	<0.2	1	0.2	<0.2	1	0.2	4365440
Perfluorobutane Sulfonate (PFBS)	ug/kg	<0.25	<0.25	1	0.25	<0.25	1	0.25	4365440
Perfluorobutanoic acid	ug/kg	<0.23	<0.23	1	0.23	<0.23	1	0.23	4365440
Perfluorodecane Sulfonate	ug/kg	1.5	0.8	1	0.2	1.1	1	0.2	4365440
Perfluorodecanoic Acid (PFDA)	ug/kg	1.7	1.0	1	0.28	0.62	1	0.28	4365440
Perfluorododecanoic Acid (PFDoA)	ug/kg	0.49	0.32	1	0.24	0.50	1	0.24	4365440
Perfluoroheptane sulfonate	ug/kg	0.65	2.8	1	0.15	5.5	1	0.15	4365440
Perfluoroheptanoic Acid (PFHpA)	ug/kg	<0.18	<0.18	1	0.18	0.41	1	0.18	4365440
Perfluorohexane Sulfonate (PFHxS)	ug/kg	1.4	4.5	1	0.19	6.4	1	0.19	4365440
Perfluorohexanoic Acid (PFHxA)	ug/kg	0.34	0.32	1	0.21	0.57	1	0.21	4365440
Perfluoro-n-Octanoic Acid (PFOA)	ug/kg	0.34	0.66	1	0.12	0.77	1	0.12	4365440
Perfluorononanoic Acid (PFNA)	ug/kg	0.84	1.0	1	0.14	1.0	1	0.14	4365440
Perfluorooctane Sulfonamide (PFOSA)	ug/kg	2.3	0.85	1	0.17	1.5	1	0.17	4365440
Perfluorooctane Sulfonate (PFOS)	ug/kg	330 (1)	280 (1)	100	16	140 (1)	10	1.6	4365440
Perfluoropentanoic Acid (PFPeA)	ug/kg	<0.21	<0.21	1	0.21	<0.21	1	0.21	4365440
Perfluorotetradecanoic Acid	ug/kg	<0.22	<0.22	1	0.22	<0.22	1	0.22	4365440
Perfluorotridecanoic Acid	ug/kg	1.6	1.3	1	0.25	4.5	1	0.25	4365440
Perfluoroundecanoic Acid (PFUnA)	ug/kg	37	18	1	0.26	20	1	0.26	4365440
Surrogate Recovery (%)									
13C4-Perfluorooctanesulfonate	%	98	99	N/A	N/A	110	N/A	N/A	4365440
13C4-Perfluorooctanoic acid	%	95	97	N/A	N/A	111	N/A	N/A	4365440
13C8-Perfluorooctanesulfonamide	%	86	93	N/A	N/A	87	N/A	N/A	4365440

RDL = Reportable Detection Limit
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Maxxam Job #: B618227
Report Date: 2016/02/10

Cape Cod Comission
Client Project #: BFTA

RESULTS OF ANALYSES OF SOIL

Maxxam ID		BSX879	BSX879			BSX880	BSX881			
Sampling Date		2016/01/21 13:10	2016/01/21 13:10			2016/01/21 12:10	2016/01/21 12:10			
COC Number		528190-01-01	528190-01-01			528190-01-01	528190-01-01			
	UNITS	HS-7 3-4	HS-7 3-4 Lab-Dup	RDL	MDL	HS-5 4-8TOP	HS-5 4-8MID	RDL	MDL	QC Batch
Moisture	%	13	11	1.0	0.50	6.2	3.6	1.0	0.50	4372577
6:2 Fluorotelomer sulfonate	ug/kg	1.9	N/A	1	0.25	2.2	1.8	1	0.25	4365440
8:2 Fluorotelomer sulfonate	ug/kg	350 (1)	N/A	100	21	23	27	1	0.21	4365440
N-ethylperfluorooctane sulfonamide	ug/kg	<0.39	N/A	1	0.39	<0.39	<0.39	1	0.39	4365440
N-ethylperfluorooctane sulfonamidoe	ug/kg	<0.29	N/A	1	0.29	<0.29	<0.29	1	0.29	4365440
N-methylperfluorooctane sulfonamide	ug/kg	<0.25	N/A	1	0.25	<0.25	<0.25	1	0.25	4365440
N-methylperfluorooctanesulfonamidol	ug/kg	<0.2	N/A	1	0.2	<0.2	<0.2	1	0.2	4365440
Perfluorobutane Sulfonate (PFBS)	ug/kg	<0.25	N/A	1	0.25	<0.25	<0.25	1	0.25	4365440
Perfluorobutanoic acid	ug/kg	<0.23	N/A	1	0.23	<0.23	<0.23	1	0.23	4365440
Perfluorodecane Sulfonate	ug/kg	2.8	N/A	1	0.2	0.7	0.8	1	0.2	4365440
Perfluorodecanoic Acid (PFDA)	ug/kg	16	N/A	1	0.28	1.2	1.6	1	0.28	4365440
Perfluorododecanoic Acid (PFDoA)	ug/kg	<0.24	N/A	1	0.24	<0.24	0.35	1	0.24	4365440
Perfluoroheptane sulfonate	ug/kg	0.96	N/A	1	0.15	0.70	1.1	1	0.15	4365440
Perfluoroheptanoic Acid (PFHpA)	ug/kg	<0.18	N/A	1	0.18	<0.18	<0.18	1	0.18	4365440
Perfluorohexane Sulfonate (PFHxS)	ug/kg	5.3	N/A	1	0.19	1.7	1.3	1	0.19	4365440
Perfluorohexanoic Acid (PFHxA)	ug/kg	0.95	N/A	1	0.21	0.33	0.26	1	0.21	4365440
Perfluoro-n-Octanoic Acid (PFOA)	ug/kg	0.50	N/A	1	0.12	0.25	0.22	1	0.12	4365440
Perfluorononanoic Acid (PFNA)	ug/kg	1.7	N/A	1	0.14	1.3	0.68	1	0.14	4365440
Perfluorooctane Sulfonamide (PFOSA)	ug/kg	1.2	N/A	1	0.17	1.0	0.93	1	0.17	4365440
Perfluorooctane Sulfonate (PFOS)	ug/kg	2000 (1)	N/A	100	16	240 (1)	350 (1)	100	16	4365440
Perfluoropentanoic Acid (PFPeA)	ug/kg	0.42	N/A	1	0.21	<0.21	<0.21	1	0.21	4365440
Perfluorotetradecanoic Acid	ug/kg	<0.22	N/A	1	0.22	<0.22	<0.22	1	0.22	4365440
Perfluorotridecanoic Acid	ug/kg	0.34	N/A	1	0.25	0.98	1.5	1	0.25	4365440
Perfluoroundecanoic Acid (PFUnA)	ug/kg	260 (1)	N/A	100	26	28	13	1	0.26	4365440
Surrogate Recovery (%)										
13C4-Perfluorooctanesulfonate	%	90	N/A	N/A	N/A	99	96	N/A	N/A	4365440
13C4-Perfluorooctanoic acid	%	102	N/A	N/A	N/A	99	104	N/A	N/A	4365440
13C8-Perfluorooctanesulfonamide	%	84	N/A	N/A	N/A	86	89	N/A	N/A	4365440

RDL = Reportable Detection Limit
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N/A = Not Applicable
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Maxxam Job #: B618227
Report Date: 2016/02/10

Cape Cod Comission
Client Project #: BFTA

RESULTS OF ANALYSES OF SOIL

Maxxam ID		BSX882	BSX883	BSX884	BSX885	BSX885			
Sampling Date		2016/01/21 12:10	2016/01/21 12:10	2016/01/21 12:10	2016/01/21 12:10	2016/01/21 12:10			
COC Number		528190-01-01	528190-01-01	528190-01-01	528190-01-01	528190-01-01			
	UNITS	HS-5 8-12	HS-6 0-4	HS-6 4-8	HS-6 8-12	HS-6 8-12 Lab-Dup	RDL	MDL	QC Batch
Moisture	%	4.1	10	3.0	4.6	N/A	1.0	0.50	4372577
6:2 Fluorotelomer sulfonate	ug/kg	1.6	11	4.6	6.3	5.7	1	0.25	4365440
8:2 Fluorotelomer sulfonate	ug/kg	26	18	27	21	19	1	0.21	4365440
N-ethylperfluorooctane sulfonamide	ug/kg	<0.39	<0.39	<0.39	<0.39	<0.39	1	0.39	4365440
N-ethylperfluorooctane sulfonamidoe	ug/kg	<0.29	<0.29	<0.29	<0.29	<0.29	1	0.29	4365440
N-methylperfluorooctane sulfonamide	ug/kg	<0.25	<0.25	<0.25	<0.25	<0.25	1	0.25	4365440
N-methylperfluorooctanesulfonamidol	ug/kg	<0.2	<0.2	<0.2	<0.2	<0.2	1	0.2	4365440
Perfluorobutane Sulfonate (PFBS)	ug/kg	<0.25	<0.25	<0.25	<0.25	<0.25	1	0.25	4365440
Perfluorobutanoic acid	ug/kg	<0.23	<0.23	<0.23	<0.23	<0.23	1	0.23	4365440
Perfluorodecane Sulfonate	ug/kg	0.4	1.3	0.7	0.5	0.5	1	0.2	4365440
Perfluorodecanoic Acid (PFDA)	ug/kg	1.2	1.9	1.2	1.1	0.92	1	0.28	4365440
Perfluorododecanoic Acid (PFDoA)	ug/kg	<0.24	0.33	<0.24	<0.24	<0.24	1	0.24	4365440
Perfluoroheptane sulfonate	ug/kg	0.77	1.3	4.3	1.1	1.3	1	0.15	4365440
Perfluoroheptanoic Acid (PFHpA)	ug/kg	<0.18	0.46	<0.18	<0.18	<0.18	1	0.18	4365440
Perfluorohexane Sulfonate (PFHxS)	ug/kg	1.5	9.2	3.7	4.5	4.8	1	0.19	4365440
Perfluorohexanoic Acid (PFHxA)	ug/kg	<0.21	1.4	0.32	0.37	0.34	1	0.21	4365440
Perfluoro-n-Octanoic Acid (PFOA)	ug/kg	0.22	3.7	0.62	0.89	0.90	1	0.12	4365440
Perfluorononanoic Acid (PFNA)	ug/kg	0.75	5.7	1.3	0.51	0.55	1	0.14	4365440
Perfluorooctane Sulfonamide (PFOSA)	ug/kg	<0.17	5.9	0.71	0.24	0.23	1	0.17	4365440
Perfluorooctane Sulfonate (PFOS)	ug/kg	380 (1)	410 (1)	500 (1)	330 (1)	360 (1)	100	16	4365440
Perfluoropentanoic Acid (PFPeA)	ug/kg	<0.21	<0.21	<0.21	<0.21	<0.21	1	0.21	4365440
Perfluorotetradecanoic Acid	ug/kg	<0.22	0.23	<0.22	<0.22	<0.22	1	0.22	4365440
Perfluorotridecanoic Acid	ug/kg	0.56	45	0.34	0.40	0.48	1	0.25	4365440
Perfluoroundecanoic Acid (PFUnA)	ug/kg	1.6	26	15	5.4	5.6	1	0.26	4365440
Surrogate Recovery (%)									
13C4-Perfluorooctanesulfonate	%	103	98	90	72	66	N/A	N/A	4365440
13C4-Perfluorooctanoic acid	%	110	84	94	98	98	N/A	N/A	4365440
13C8-Perfluorooctanesulfonamide	%	83	75	89	86	91	N/A	N/A	4365440

RDL = Reportable Detection Limit
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N/A = Not Applicable
(1) Due to high concentration of the target analyte, sample required dilution. Detection limit was adjusted accordingly.

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Maxxam Job #: B618227
Report Date: 2016/02/10

Cape Cod Comission
Client Project #: BFTA

RESULTS OF ANALYSES OF SOIL

Maxxam ID		BSX886			
Sampling Date		2016/01/21 12:10			
COC Number		528190-01-01			
	UNITS	**HS-6 12**	**RDL**	**MDL**	**QC Batch**
Moisture	%	10	1.0	0.50	4372577
6:2 Fluorotelomer sulfonate	ug/kg	1.9	1	0.25	4365440
8:2 Fluorotelomer sulfonate	ug/kg	8.3	1	0.21	4365440
N-ethylperfluorooctane sulfonamide	ug/kg	<0.39	1	0.39	4365440
N-ethylperfluorooctane sulfonamidoe	ug/kg	<0.29	1	0.29	4365440
N-methylperfluorooctane sulfonamide	ug/kg	<0.25	1	0.25	4365440
N-methylperfluorooctanesulfonamidol	ug/kg	<0.2	1	0.2	4365440
Perfluorobutane Sulfonate (PFBS)	ug/kg	0.54	1	0.25	4365440
Perfluorobutanoic acid	ug/kg	<0.23	1	0.23	4365440
Perfluorodecane Sulfonate	ug/kg	1.4	1	0.2	4365440
Perfluorodecanoic Acid (PFDA)	ug/kg	0.47	1	0.28	4365440
Perfluorododecanoic Acid (PFDoA)	ug/kg	<0.24	1	0.24	4365440
Perfluoroheptane sulfonate	ug/kg	<0.15	1	0.15	4365440
Perfluoroheptanoic Acid (PFHpA)	ug/kg	0.41	1	0.18	4365440
Perfluorohexane Sulfonate (PFHxS)	ug/kg	1.4	1	0.19	4365440
Perfluorohexanoic Acid (PFHxA)	ug/kg	3.1	1	0.21	4365440
Perfluoro-n-Octanoic Acid (PFOA)	ug/kg	<0.12	1	0.12	4365440
Perfluorononanoic Acid (PFNA)	ug/kg	0.30	1	0.14	4365440
Perfluorooctane Sulfonamide (PFOSA)	ug/kg	0.76	1	0.17	4365440
Perfluorooctane Sulfonate (PFOS)	ug/kg	170 (1)	10	1.6	4365440
Perfluoropentanoic Acid (PFPeA)	ug/kg	0.99	1	0.21	4365440
Perfluorotetradecanoic Acid	ug/kg	<0.22	1	0.22	4365440
Perfluorotridecanoic Acid	ug/kg	<0.25	1	0.25	4365440
Perfluoroundecanoic Acid (PFUnA)	ug/kg	13	1	0.26	4365440
Surrogate Recovery (%)					
13C4-Perfluorooctanesulfonate	%	94	N/A	N/A	4365440
13C4-Perfluorooctanoic acid	%	97	N/A	N/A	4365440
13C8-Perfluorooctanesulfonamide	%	82	N/A	N/A	4365440

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Due to high concentration of the target analyte, sample required dilution. Detection limit was adjusted accordingly.

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Maxxam Job #: B618227
Report Date: 2016/02/10

Cape Cod Comission
Client Project #: BFTA

RESULTS OF ANALYSES OF WATER

Maxxam ID		BSX887	BSX887				BSX888			
Sampling Date		2016/01/21 14:15	2016/01/21 14:15				2016/01/21 13:30			
COC Number		528190-01-01	528190-01-01				528190-01-01			
	UNITS	PFW-2	PFW-2 Lab-Dup	RDL	MDL	QC Batch	PRW-4	RDL	MDL	QC Batch
6:2 Fluorotelomer sulfonate	ug/L	5.5	4.9	0.80	0.21	4364195	0.43	0.020	0.0065	4368596
8:2 Fluorotelomer sulfonate	ug/L	1.3	1.2	0.80	0.28	4364195	0.17	0.020	0.0055	4368596
N-ethylperfluorooctane sulfonamide	ug/L	<0.28	<0.28	0.80	0.28	4364195	<0.0053	0.020	0.0053	4368596
N-ethylperfluorooctane sulfonamidoe	ug/L	<0.29	<0.29	0.80	0.29	4364195	<0.0049	0.020	0.0049	4368596
N-methylperfluorooctane sulfonamide	ug/L	<0.15	<0.15	0.80	0.15	4364195	<0.0040	0.020	0.0040	4368596
N-methylperfluorooctanesulfonamidol	ug/L	<0.30	<0.30	0.80	0.30	4364195	<0.0061	0.020	0.0061	4368596
Perfluorobutane Sulfonate (PFBS)	ug/L	0.64	0.70	0.80	0.23	4364195	0.14	0.020	0.0019	4368596
Perfluorobutanoic acid	ug/L	0.52	0.71	0.80	0.20	4364195	0.063	0.020	0.0066	4368596
Perfluorodecane Sulfonate	ug/L	0.25	<0.22	0.80	0.22	4364195	<0.0043	0.020	0.0043	4368596
Perfluorodecanoic Acid (PFDA)	ug/L	<0.20	<0.20	0.80	0.20	4364195	0.013	0.020	0.0066	4368596
Perfluorododecanoic Acid (PFDoA)	ug/L	<0.16	<0.16	0.80	0.16	4364195	<0.0057	0.020	0.0057	4368596
Perfluoroheptane sulfonate	ug/L	0.80	0.60	0.80	0.27	4364195	0.15	0.020	0.0036	4368596
Perfluoroheptanoic Acid (PFHpA)	ug/L	0.71	0.70	0.80	0.27	4364195	0.13	0.020	0.0047	4368596
Perfluorohexane Sulfonate (PFHxS)	ug/L	4.4	4.5	0.80	0.16	4364195	1.8 (1)	0.80	0.16	4364195
Perfluorohexanoic Acid (PFHxA)	ug/L	2.3	2.3	0.80	0.17	4364195	0.37	0.020	0.0046	4368596
Perfluoro-n-Octanoic Acid (PFOA)	ug/L	1.1	1.1	0.80	0.20	4364195	0.16	0.020	0.0053	4368596
Perfluorononanoic Acid (PFNA)	ug/L	0.56	0.59	0.80	0.19	4364195	0.061	0.020	0.0046	4368596
Perfluorooctane Sulfonamide (PFOSA)	ug/L	<0.23	<0.23	0.80	0.23	4364195	0.013	0.020	0.0058	4368596
Perfluorooctane Sulfonate (PFOS)	ug/L	39	40	0.80	0.14	4364195	5.2 (1)	0.80	0.14	4364195
Perfluoropentanoic Acid (PFPeA)	ug/L	1.3	1.4	0.80	0.21	4364195	0.23	0.020	0.0036	4368596
Perfluorotetradecanoic Acid	ug/L	<0.20	<0.20	0.80	0.20	4364195	<0.0052	0.020	0.0052	4368596
Perfluorotridecanoic Acid	ug/L	<0.30	<0.30	0.80	0.30	4364195	<0.0032	0.020	0.0032	4368596
Perfluoroundecanoic Acid (PFUnA)	ug/L	0.84	0.82	0.80	0.14	4364195	0.075	0.020	0.0037	4368596
Surrogate Recovery (%)										
13C4-Perfluorooctanesulfonate	%	105	100	N/A	N/A	4364195	109	N/A	N/A	4364195
13C4-Perfluorooctanoic acid	%	99	107	N/A	N/A	4364195	91	N/A	N/A	4368596
13C8-Perfluorooctanesulfonamide	%	104	103	N/A	N/A	4364195	82	N/A	N/A	4368596

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Due to high concentration of the target analyte, sample required dilution. Detection limit was adjusted accordingly.

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Maxxam Job #: B618227
Report Date: 2016/02/10

Cape Cod Comission
Client Project #: BFTA

RESULTS OF ANALYSES OF WATER

Maxxam ID		BSX889				BSX890			
Sampling Date		2016/01/21 15:40				2016/01/21 13:30			
COC Number		528190-01-01				528190-01-01			
	UNITS	HSW-6	RDL	MDL	QC Batch	MID PT	RDL	MDL	QC Batch
6:2 Fluorotelomer sulfonate	ug/L	2.9	0.80	0.21	4364195	0.038	0.020	0.0065	4368596
8:2 Fluorotelomer sulfonate	ug/L	3.7	0.80	0.28	4364195	0.016	0.020	0.0055	4368596
N-ethylperfluorooctane sulfonamide	ug/L	<0.28	0.80	0.28	4364195	<0.0053	0.020	0.0053	4368596
N-ethylperfluorooctane sulfonamidoe	ug/L	<0.29	0.80	0.29	4364195	<0.0049	0.020	0.0049	4368596
N-methylperfluorooctane sulfonamide	ug/L	<0.15	0.80	0.15	4364195	<0.0040	0.020	0.0040	4368596
N-methylperfluorooctanesulfonamidol	ug/L	<0.30	0.80	0.30	4364195	<0.0061	0.020	0.0061	4368596
Perfluorobutane Sulfonate (PFBS)	ug/L	<0.23	0.80	0.23	4364195	0.014	0.020	0.0019	4368596
Perfluorobutanoic acid	ug/L	0.42	0.80	0.20	4364195	0.016	0.020	0.0066	4368596
Perfluorodecane Sulfonate	ug/L	<0.22	0.80	0.22	4364195	<0.0043	0.020	0.0043	4368596
Perfluorodecanoic Acid (PFDA)	ug/L	<0.20	0.80	0.20	4364195	<0.0066	0.020	0.0066	4368596
Perfluorododecanoic Acid (PFDoA)	ug/L	<0.16	0.80	0.16	4364195	0.0077	0.020	0.0057	4368596
Perfluoroheptane sulfonate	ug/L	0.55	0.80	0.27	4364195	0.017	0.020	0.0036	4368596
Perfluoroheptanoic Acid (PFHpA)	ug/L	0.62	0.80	0.27	4364195	0.017	0.020	0.0047	4368596
Perfluorohexane Sulfonate (PFHxS)	ug/L	3.7	0.80	0.16	4364195	0.093	0.020	0.0040	4368596
Perfluorohexanoic Acid (PFHxA)	ug/L	1.5	0.80	0.17	4364195	0.056	0.020	0.0046	4368596
Perfluoro-n-Octanoic Acid (PFOA)	ug/L	0.94	0.80	0.20	4364195	0.016	0.020	0.0053	4368596
Perfluorononanoic Acid (PFNA)	ug/L	0.54	0.80	0.19	4364195	0.0059	0.020	0.0046	4368596
Perfluorooctane Sulfonamide (PFOSA)	ug/L	<0.23	0.80	0.23	4364195	<0.0058	0.020	0.0058	4368596
Perfluorooctane Sulfonate (PFOS)	ug/L	77	8.0	1.4	4364195	0.27	0.020	0.0033	4368596
Perfluoropentanoic Acid (PFPeA)	ug/L	0.86	0.80	0.21	4364195	0.038	0.020	0.0036	4368596
Perfluorotetradecanoic Acid	ug/L	<0.20	0.80	0.20	4364195	0.0068	0.020	0.0052	4368596
Perfluorotridecanoic Acid	ug/L	0.44	0.80	0.30	4364195	0.0051	0.020	0.0032	4368596
Perfluoroundecanoic Acid (PFUnA)	ug/L	1.1	0.80	0.14	4364195	0.0069	0.020	0.0037	4368596
Surrogate Recovery (%)									
13C4-Perfluorooctanesulfonate	%	106	N/A	N/A	4364195	86	N/A	N/A	4368596
13C4-Perfluorooctanoic acid	%	91	N/A	N/A	4364195	91	N/A	N/A	4368596
13C8-Perfluorooctanesulfonamide	%	96	N/A	N/A	4364195	88	N/A	N/A	4368596

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

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Maxxam Job #: B618227
Report Date: 2016/02/10

Cape Cod Comission
Client Project #: BFTA

RESULTS OF ANALYSES OF WATER

Maxxam ID		BSX891			
Sampling Date		2016/01/21 15:00			
COC Number		528190-01-01			
	UNITS	HSW-1	RDL	MDL	QC Batch
6:2 Fluorotelomer sulfonate	ug/L	8.8	0.80	0.21	4364195
8:2 Fluorotelomer sulfonate	ug/L	4.2	0.80	0.28	4364195
N-ethylperfluorooctane sulfonamide	ug/L	<0.28	0.80	0.28	4364195
N-ethylperfluorooctane sulfonamidoe	ug/L	<0.29	0.80	0.29	4364195
N-methylperfluorooctane sulfonamide	ug/L	<0.15	0.80	0.15	4364195
N-methylperfluorooctanesulfonamidol	ug/L	<0.30	0.80	0.30	4364195
Perfluorobutane Sulfonate (PFBS)	ug/L	0.78	0.80	0.23	4364195
Perfluorobutanoic acid	ug/L	0.82	0.80	0.20	4364195
Perfluorodecane Sulfonate	ug/L	<0.22	0.80	0.22	4364195
Perfluorodecanoic Acid (PFDA)	ug/L	0.54	0.80	0.20	4364195
Perfluorododecanoic Acid (PFDoA)	ug/L	<0.16	0.80	0.16	4364195
Perfluoroheptane sulfonate	ug/L	0.90	0.80	0.27	4364195
Perfluoroheptanoic Acid (PFHpA)	ug/L	0.94	0.80	0.27	4364195
Perfluorohexane Sulfonate (PFHxS)	ug/L	7.4	0.80	0.16	4364195
Perfluorohexanoic Acid (PFHxA)	ug/L	3.3	0.80	0.17	4364195
Perfluoro-n-Octanoic Acid (PFOA)	ug/L	1.7	0.80	0.20	4364195
Perfluorononanoic Acid (PFNA)	ug/L	0.77	0.80	0.19	4364195
Perfluorooctane Sulfonamide (PFOSA)	ug/L	<0.23	0.80	0.23	4364195
Perfluorooctane Sulfonate (PFOS)	ug/L	110	8.0	1.4	4364195
Perfluoropentanoic Acid (PFPeA)	ug/L	1.7	0.80	0.21	4364195
Perfluorotetradecanoic Acid	ug/L	<0.20	0.80	0.20	4364195
Perfluorotridecanoic Acid	ug/L	<0.30	0.80	0.30	4364195
Perfluoroundecanoic Acid (PFUnA)	ug/L	1.4	0.80	0.14	4364195
Surrogate Recovery (%)					
13C4-Perfluorooctanesulfonate	%	118	N/A	N/A	4364195
13C4-Perfluorooctanoic acid	%	100	N/A	N/A	4364195
13C8-Perfluorooctanesulfonamide	%	106	N/A	N/A	4364195

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

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TEST SUMMARY

Maxxam ID: BSX867 **Collected:** 2016/01/21
Sample ID: HS-2 0-4 **Shipped:**
Matrix: Soil **Received:** 2016/01/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	4372577	N/A	2016/02/05	Chun Yan
PFOS and PFOA in soil	LCMS	4365440	2016/02/01	2016/02/01	Colm McNamara

Maxxam ID: BSX868 **Collected:** 2016/01/21
Sample ID: HS-2 4 **Shipped:**
Matrix: Soil **Received:** 2016/01/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	4372577	N/A	2016/02/05	Chun Yan
PFOS and PFOA in soil	LCMS	4365440	2016/02/01	2016/02/01	Colm McNamara

Maxxam ID: BSX869 **Collected:** 2016/01/21
Sample ID: HS-2 6 **Shipped:**
Matrix: Soil **Received:** 2016/01/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	4372577	N/A	2016/02/05	Chun Yan
PFOS and PFOA in soil	LCMS	4365440	2016/02/01	2016/02/01	Colm McNamara

Maxxam ID: BSX870 **Collected:** 2016/01/21
Sample ID: HS-3 0-4 **Shipped:**
Matrix: Soil **Received:** 2016/01/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	4372577	N/A	2016/02/05	Chun Yan
PFOS and PFOA in soil	LCMS	4365440	2016/02/01	2016/02/01	Colm McNamara

Maxxam ID: BSX871 **Collected:** 2016/01/21
Sample ID: HS-3 4-8 **Shipped:**
Matrix: Soil **Received:** 2016/01/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	4372577	N/A	2016/02/05	Chun Yan
PFOS and PFOA in soil	LCMS	4365440	2016/02/01	2016/02/01	Colm McNamara

Maxxam ID: BSX872 **Collected:** 2016/01/21
Sample ID: HS-3 8-12 **Shipped:**
Matrix: Soil **Received:** 2016/01/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	4372577	N/A	2016/02/05	Chun Yan
PFOS and PFOA in soil	LCMS	4365440	2016/02/01	2016/02/01	Colm McNamara

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TEST SUMMARY

Maxxam ID: BSX873 **Collected:** 2016/01/21
Sample ID: HS-1 0-4 **Shipped:**
Matrix: Soil **Received:** 2016/01/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	4372577	N/A	2016/02/05	Chun Yan
PFOS and PFOA in soil	LCMS	4365440	2016/02/01	2016/02/01	Colm McNamara

Maxxam ID: BSX874 **Collected:** 2016/01/21
Sample ID: HS-1 4-8 **Shipped:**
Matrix: Soil **Received:** 2016/01/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	4372577	N/A	2016/02/05	Chun Yan
PFOS and PFOA in soil	LCMS	4365440	2016/02/01	2016/02/01	Colm McNamara

Maxxam ID: BSX875 **Collected:** 2016/01/21
Sample ID: HS-1 8-12 **Shipped:**
Matrix: Soil **Received:** 2016/01/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	4372577	N/A	2016/02/05	Chun Yan
PFOS and PFOA in soil	LCMS	4365440	2016/02/01	2016/02/01	Colm McNamara

Maxxam ID: BSX876 **Collected:** 2016/01/21
Sample ID: HS-4 4 **Shipped:**
Matrix: Soil **Received:** 2016/01/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	4372577	N/A	2016/02/05	Chun Yan
PFOS and PFOA in soil	LCMS	4365440	2016/02/01	2016/02/01	Colm McNamara

Maxxam ID: BSX877 **Collected:** 2016/01/21
Sample ID: HS-4 8 **Shipped:**
Matrix: Soil **Received:** 2016/01/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	4372577	N/A	2016/02/05	Chun Yan
PFOS and PFOA in soil	LCMS	4365440	2016/02/01	2016/02/01	Colm McNamara

Maxxam ID: BSX878 **Collected:** 2016/01/21
Sample ID: HS-4 8-12 **Shipped:**
Matrix: Soil **Received:** 2016/01/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	4372577	N/A	2016/02/05	Chun Yan
PFOS and PFOA in soil	LCMS	4365440	2016/02/01	2016/02/01	Colm McNamara

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Maxxam Job #: B618227
Report Date: 2016/02/10

Cape Cod Comission
Client Project #: BFTA

TEST SUMMARY

Maxxam ID: BSX879
Sample ID: HS-7 3-4
Matrix: Soil

Collected: 2016/01/21
Shipped:
Received: 2016/01/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	4372577	N/A	2016/02/05	Chun Yan
PFOS and PFOA in soil	LCMS	4365440	2016/02/01	2016/02/01	Colm McNamara

Maxxam ID: BSX879 Dup
Sample ID: HS-7 3-4
Matrix: Soil

Collected: 2016/01/21
Shipped:
Received: 2016/01/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	4372577	N/A	2016/02/05	Chun Yan

Maxxam ID: BSX880
Sample ID: HS-5 4-8TOP
Matrix: Soil

Collected: 2016/01/21
Shipped:
Received: 2016/01/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	4372577	N/A	2016/02/05	Chun Yan
PFOS and PFOA in soil	LCMS	4365440	2016/02/01	2016/02/01	Colm McNamara

Maxxam ID: BSX881
Sample ID: HS-5 4-8MID
Matrix: Soil

Collected: 2016/01/21
Shipped:
Received: 2016/01/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	4372577	N/A	2016/02/05	Chun Yan
PFOS and PFOA in soil	LCMS	4365440	2016/02/01	2016/02/01	Colm McNamara

Maxxam ID: BSX882
Sample ID: HS-5 8-12
Matrix: Soil

Collected: 2016/01/21
Shipped:
Received: 2016/01/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	4372577	N/A	2016/02/05	Chun Yan
PFOS and PFOA in soil	LCMS	4365440	2016/02/01	2016/02/01	Colm McNamara

Maxxam ID: BSX883
Sample ID: HS-6 0-4
Matrix: Soil

Collected: 2016/01/21
Shipped:
Received: 2016/01/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	4372577	N/A	2016/02/05	Chun Yan
PFOS and PFOA in soil	LCMS	4365440	2016/02/01	2016/02/01	Colm McNamara

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TEST SUMMARY

Maxxam ID: BSX884 **Collected:** 2016/01/21
Sample ID: HS-6 4-8 **Shipped:**
Matrix: Soil **Received:** 2016/01/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	4372577	N/A	2016/02/05	Chun Yan
PFOS and PFOA in soil	LCMS	4365440	2016/02/01	2016/02/01	Colm McNamara

Maxxam ID: BSX885 **Collected:** 2016/01/21
Sample ID: HS-6 8-12 **Shipped:**
Matrix: Soil **Received:** 2016/01/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	4372577	N/A	2016/02/05	Chun Yan
PFOS and PFOA in soil	LCMS	4365440	2016/02/01	2016/02/01	Colm McNamara

Maxxam ID: BSX885 Dup **Collected:** 2016/01/21
Sample ID: HS-6 8-12 **Shipped:**
Matrix: Soil **Received:** 2016/01/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in soil	LCMS	4365440	2016/02/01	2016/02/01	Colm McNamara

Maxxam ID: BSX886 **Collected:** 2016/01/21
Sample ID: HS-6 12 **Shipped:**
Matrix: Soil **Received:** 2016/01/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	4372577	N/A	2016/02/05	Chun Yan
PFOS and PFOA in soil	LCMS	4365440	2016/02/01	2016/02/01	Colm McNamara

Maxxam ID: BSX887 **Collected:** 2016/01/21
Sample ID: PFW-2 **Shipped:**
Matrix: Water **Received:** 2016/01/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water	LCMS	4364195	2016/01/29	2016/02/01	Colm McNamara

Maxxam ID: BSX887 Dup **Collected:** 2016/01/21
Sample ID: PFW-2 **Shipped:**
Matrix: Water **Received:** 2016/01/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water	LCMS	4364195	2016/01/29	2016/02/01	Colm McNamara

Maxxam ID: BSX888 **Collected:** 2016/01/21
Sample ID: PRW-4 **Shipped:**
Matrix: Water **Received:** 2016/01/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water	LCMS	4368596	2016/02/03	2016/02/04	Colm McNamara

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Maxxam Job #: B618227
Report Date: 2016/02/10

Cape Cod Comission
Client Project #: BFTA

TEST SUMMARY

Maxxam ID: BSX889
Sample ID: HSW-6
Matrix: Water

Collected: 2016/01/21
Shipped:
Received: 2016/01/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water	LCMS	4364195	2016/01/29	2016/02/01	Colm McNamara

Maxxam ID: BSX890
Sample ID: MID PT
Matrix: Water

Collected: 2016/01/21
Shipped:
Received: 2016/01/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water	LCMS	4368596	2016/02/03	2016/02/04	Colm McNamara

Maxxam ID: BSX891
Sample ID: HSW-1
Matrix: Water

Collected: 2016/01/21
Shipped:
Received: 2016/01/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PFOS and PFOA in water	LCMS	4364195	2016/01/29	2016/02/01	Colm McNamara

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GENERAL COMMENTS

Sample BSX887-01 : Perfluorinated Compounds (PFCs): Due to high concentrations of the target analytes, sample required dilution. Detection limits were adjusted accordingly.

Sample BSX889-01 : Perfluorinated Compounds (PFCs): Due to high concentrations of the target analytes, sample required dilution. Detection limits were adjusted accordingly.

Sample BSX891-01 : Perfluorinated Compounds (PFCs): Due to high concentrations of the target analytes, sample required dilution. Detection limits were adjusted accordingly.

Sample BSX888, PFOS and PFOA in water: Test repeated.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
4364195	CM5	Matrix Spike	13C4-Perfluorooctanesulfonate	2016/02/01		101	%	70 - 130
			13C4-Perfluorooctanoic acid	2016/02/01		100	%	70 - 130
			13C8-Perfluorooctanesulfonamide	2016/02/01		98	%	60 - 120
4364195	CM5	Matrix Spike(BSX887)	6:2 Fluorotelomer sulfonate	2016/02/01		NC	%	70 - 130
			8:2 Fluorotelomer sulfonate	2016/02/01		NC	%	70 - 130
			N-ethylperfluorooctane sulfonamide	2016/02/01		106	%	70 - 130
			N-ethylperfluorooctane sulfonamidoe	2016/02/01		108	%	70 - 130
			N-methylperfluorooctane sulfonamide	2016/02/01		104	%	70 - 130
			N-methylperfluorooctanesulfonamidol	2016/02/01		120	%	70 - 130
			Perfluorobutane Sulfonate (PFBS)	2016/02/01		NC	%	70 - 130
			Perfluorobutanoic acid	2016/02/01		NC	%	70 - 130
			Perfluorodecane Sulfonate	2016/02/01		NC	%	70 - 130
			Perfluoroheptane sulfonate	2016/02/01		NC	%	70 - 130
			Perfluoroheptanoic Acid (PFHpA)	2016/02/01		NC	%	70 - 130
			Perfluorohexane Sulfonate (PFHxS)	2016/02/01		NC	%	70 - 130
			Perfluorohexanoic Acid (PFHxA)	2016/02/01		NC	%	70 - 130
			Perfluorononanoic Acid (PFNA)	2016/02/01		NC	%	70 - 130
			Perfluorooctane Sulfonamide (PFOSA)	2016/02/01		116	%	70 - 130
			Perfluoropentanoic Acid (PFPeA)	2016/02/01		NC	%	70 - 130
			Perfluorotetradecanoic Acid	2016/02/01		101	%	70 - 130
			Perfluorotridecanoic Acid	2016/02/01		117	%	70 - 130
			Perfluoroundecanoic Acid (PFUnA)	2016/02/01		NC	%	70 - 130
			Perfluorodecanoic Acid (PFDA)	2016/02/01		95	%	70 - 130
			Perfluorododecanoic Acid (PFDoA)	2016/02/01		100	%	70 - 130
			Perfluoro-n-Octanoic Acid (PFOA)	2016/02/01		NC	%	70 - 130
			Perfluorooctane Sulfonate (PFOS)	2016/02/01		NC	%	70 - 130
4364195	CM5	Spiked Blank	13C4-Perfluorooctanesulfonate	2016/02/01		98	%	70 - 130
			13C4-Perfluorooctanoic acid	2016/02/01		96	%	70 - 130
			13C8-Perfluorooctanesulfonamide	2016/02/01		98	%	60 - 120
			6:2 Fluorotelomer sulfonate	2016/02/01		98	%	70 - 130
			8:2 Fluorotelomer sulfonate	2016/02/01		103	%	70 - 130
			N-ethylperfluorooctane sulfonamide	2016/02/01		105	%	70 - 130
			N-ethylperfluorooctane sulfonamidoe	2016/02/01		102	%	70 - 130
			N-methylperfluorooctane sulfonamide	2016/02/01		95	%	70 - 130
			N-methylperfluorooctanesulfonamidol	2016/02/01		104	%	70 - 130
			Perfluorobutane Sulfonate (PFBS)	2016/02/01		111	%	70 - 130
			Perfluorobutanoic acid	2016/02/01		95	%	70 - 130
			Perfluorodecane Sulfonate	2016/02/01		101	%	70 - 130
			Perfluoroheptane sulfonate	2016/02/01		107	%	70 - 130
			Perfluoroheptanoic Acid (PFHpA)	2016/02/01		102	%	70 - 130
			Perfluorohexane Sulfonate (PFHxS)	2016/02/01		95	%	70 - 130
			Perfluorohexanoic Acid (PFHxA)	2016/02/01		106	%	70 - 130
			Perfluorononanoic Acid (PFNA)	2016/02/01		105	%	70 - 130
			Perfluorooctane Sulfonamide (PFOSA)	2016/02/01		100	%	70 - 130
			Perfluoropentanoic Acid (PFPeA)	2016/02/01		100	%	70 - 130
			Perfluorotetradecanoic Acid	2016/02/01		105	%	70 - 130
			Perfluorotridecanoic Acid	2016/02/01		103	%	70 - 130
			Perfluoroundecanoic Acid (PFUnA)	2016/02/01		120	%	70 - 130
			Perfluorodecanoic Acid (PFDA)	2016/02/01		95	%	70 - 130
			Perfluorododecanoic Acid (PFDoA)	2016/02/01		98	%	70 - 130
			Perfluoro-n-Octanoic Acid (PFOA)	2016/02/01		106	%	70 - 130
			Perfluorooctane Sulfonate (PFOS)	2016/02/01		96	%	70 - 130
4364195	CM5	Method Blank	13C4-Perfluorooctanesulfonate	2016/02/01		98	%	70 - 130
			13C4-Perfluorooctanoic acid	2016/02/01		92	%	70 - 130

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			13C8-Perfluorooctanesulfonamide	2016/02/01		86	%	60 - 120
			6:2 Fluorotelomer sulfonate	2016/02/01	<0.21		ug/L	
			8:2 Fluorotelomer sulfonate	2016/02/01	<0.28		ug/L	
			N-ethylperfluorooctane sulfonamide	2016/02/01	<0.28		ug/L	
			N-ethylperfluorooctane sulfonamidoe	2016/02/01	<0.29		ug/L	
			N-methylperfluorooctane sulfonamide	2016/02/01	<0.15		ug/L	
			N-methylperfluorooctanesulfonamidol	2016/02/01	<0.30		ug/L	
			Perfluorobutane Sulfonate (PFBS)	2016/02/01	<0.23		ug/L	
			Perfluorobutanoic acid	2016/02/01	<0.20		ug/L	
			Perfluorodecane Sulfonate	2016/02/01	<0.22		ug/L	
			Perfluoroheptane sulfonate	2016/02/01	<0.27		ug/L	
			Perfluoroheptanoic Acid (PFHpA)	2016/02/01	<0.27		ug/L	
			Perfluorohexane Sulfonate (PFHxS)	2016/02/01	<0.16		ug/L	
			Perfluorohexanoic Acid (PFHxA)	2016/02/01	<0.17		ug/L	
			Perfluorononanoic Acid (PFNA)	2016/02/01	<0.19		ug/L	
			Perfluorooctane Sulfonamide (PFOSA)	2016/02/01	<0.23		ug/L	
			Perfluoropentanoic Acid (PFPeA)	2016/02/01	<0.21		ug/L	
			Perfluorotetradecanoic Acid	2016/02/01	<0.20		ug/L	
			Perfluorotridecanoic Acid	2016/02/01	<0.30		ug/L	
			Perfluoroundecanoic Acid (PFUnA)	2016/02/01	<0.14		ug/L	
			Perfluorodecanoic Acid (PFDA)	2016/02/01	<0.20		ug/L	
			Perfluorododecanoic Acid (PFDoA)	2016/02/01	<0.16		ug/L	
			Perfluoro-n-Octanoic Acid (PFOA)	2016/02/01	<0.20		ug/L	
			Perfluorooctane Sulfonate (PFOS)	2016/02/01	<0.14		ug/L	
4364195	CM5	RPD - Sample/Sample Dup	6:2 Fluorotelomer sulfonate	2016/02/01	12		%	30
			8:2 Fluorotelomer sulfonate	2016/02/01	NC		%	30
			N-ethylperfluorooctane sulfonamide	2016/02/01	NC		%	30
			N-ethylperfluorooctane sulfonamidoe	2016/02/01	NC		%	30
			N-methylperfluorooctane sulfonamide	2016/02/01	NC		%	30
			N-methylperfluorooctanesulfonamidol	2016/02/01	NC		%	30
			Perfluorobutane Sulfonate (PFBS)	2016/02/01	NC		%	30
			Perfluorobutanoic acid	2016/02/01	NC		%	30
			Perfluorodecane Sulfonate	2016/02/01	NC		%	30
			Perfluoroheptane sulfonate	2016/02/01	NC		%	30
			Perfluoroheptanoic Acid (PFHpA)	2016/02/01	NC		%	30
			Perfluorohexane Sulfonate (PFHxS)	2016/02/01	1.6		%	30
			Perfluorohexanoic Acid (PFHxA)	2016/02/01	NC		%	30
			Perfluorononanoic Acid (PFNA)	2016/02/01	NC		%	30
			Perfluorooctane Sulfonamide (PFOSA)	2016/02/01	NC		%	30
			Perfluoropentanoic Acid (PFPeA)	2016/02/01	NC		%	30
			Perfluorotetradecanoic Acid	2016/02/01	NC		%	30
			Perfluorotridecanoic Acid	2016/02/01	NC		%	30
			Perfluoroundecanoic Acid (PFUnA)	2016/02/01	NC		%	30
			Perfluorodecanoic Acid (PFDA)	2016/02/01	NC		%	30
			Perfluorododecanoic Acid (PFDoA)	2016/02/01	NC		%	30
			Perfluoro-n-Octanoic Acid (PFOA)	2016/02/01	NC		%	30
			Perfluorooctane Sulfonate (PFOS)	2016/02/01	3.1		%	30
4365440	CM5	Matrix Spike	13C4-Perfluorooctanesulfonate	2016/02/01		86	%	50 - 120
			13C4-Perfluorooctanoic acid	2016/02/01		113	%	50 - 120
			13C8-Perfluorooctanesulfonamide	2016/02/01		87	%	50 - 120
4365440	CM5	Matrix Spike(BSX885)	6:2 Fluorotelomer sulfonate	2016/02/01		111	%	70 - 130
			8:2 Fluorotelomer sulfonate	2016/02/01		NC	%	70 - 130
			N-ethylperfluorooctane sulfonamide	2016/02/01		99	%	70 - 130
			N-ethylperfluorooctane sulfonamidoe	2016/02/01		101	%	70 - 130

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			N-methylperfluorooctane sulfonamide	2016/02/01		105	%	70 - 130
			N-methylperfluorooctanesulfonamidol	2016/02/01		105	%	70 - 130
			Perfluorobutane Sulfonate (PFBS)	2016/02/01		103	%	70 - 130
			Perfluorobutanoic acid	2016/02/01		105	%	70 - 130
			Perfluorodecane Sulfonate	2016/02/01		90	%	70 - 130
			Perfluorodecanoic Acid (PFDA)	2016/02/01		102	%	70 - 130
			Perfluorododecanoic Acid (PFDoA)	2016/02/01		104	%	70 - 130
			Perfluoroheptane sulfonate	2016/02/01		95	%	70 - 130
			Perfluorononanoic Acid (PFNA)	2016/02/01		105	%	70 - 130
			Perfluorooctane Sulfonamide (PFOSA)	2016/02/01		112	%	70 - 130
			Perfluorotetradecanoic Acid	2016/02/01		103	%	70 - 130
			Perfluorotridecanoic Acid	2016/02/01		96	%	70 - 130
			Perfluoroundecanoic Acid (PFUnA)	2016/02/01		99	%	70 - 130
			Perfluoroheptanoic Acid (PFHpA)	2016/02/01		98	%	70 - 130
			Perfluorohexane Sulfonate (PFHxS)	2016/02/01		93	%	70 - 130
			Perfluorohexanoic Acid (PFHxA)	2016/02/01		107	%	70 - 130
			Perfluoro-n-Octanoic Acid (PFOA)	2016/02/01		106	%	70 - 130
			Perfluorooctane Sulfonate (PFOS)	2016/02/01		NC	%	70 - 130
			Perfluoropentanoic Acid (PFPeA)	2016/02/01		104	%	70 - 130
4365440	CM5	Spiked Blank	13C4-Perfluorooctanesulfonate	2016/02/01		99	%	50 - 120
			13C4-Perfluorooctanoic acid	2016/02/01		96	%	50 - 120
			13C8-Perfluorooctanesulfonamide	2016/02/01		79	%	50 - 120
			6:2 Fluorotelomer sulfonate	2016/02/01		107	%	70 - 130
			8:2 Fluorotelomer sulfonate	2016/02/01		96	%	70 - 130
			N-ethylperfluorooctane sulfonamide	2016/02/01		114	%	70 - 130
			N-ethylperfluorooctane sulfonamidoe	2016/02/01		114	%	70 - 130
			N-methylperfluorooctane sulfonamide	2016/02/01		96	%	70 - 130
			N-methylperfluorooctanesulfonamidol	2016/02/01		124	%	70 - 130
			Perfluorobutane Sulfonate (PFBS)	2016/02/01		105	%	70 - 130
			Perfluorobutanoic acid	2016/02/01		87	%	70 - 130
			Perfluorodecane Sulfonate	2016/02/01		101	%	70 - 130
			Perfluorodecanoic Acid (PFDA)	2016/02/01		110	%	70 - 130
			Perfluorododecanoic Acid (PFDoA)	2016/02/01		112	%	70 - 130
			Perfluoroheptane sulfonate	2016/02/01		100	%	70 - 130
			Perfluorononanoic Acid (PFNA)	2016/02/01		98	%	70 - 130
			Perfluorooctane Sulfonamide (PFOSA)	2016/02/01		106	%	70 - 130
			Perfluorotetradecanoic Acid	2016/02/01		100	%	70 - 130
			Perfluorotridecanoic Acid	2016/02/01		107	%	70 - 130
			Perfluoroundecanoic Acid (PFUnA)	2016/02/01		103	%	70 - 130
			Perfluoroheptanoic Acid (PFHpA)	2016/02/01		107	%	70 - 130
			Perfluorohexane Sulfonate (PFHxS)	2016/02/01		103	%	70 - 130
			Perfluorohexanoic Acid (PFHxA)	2016/02/01		109	%	70 - 130
			Perfluoro-n-Octanoic Acid (PFOA)	2016/02/01		112	%	70 - 130
			Perfluorooctane Sulfonate (PFOS)	2016/02/01		107	%	70 - 130
			Perfluoropentanoic Acid (PFPeA)	2016/02/01		103	%	70 - 130
4365440	CM5	Method Blank	13C4-Perfluorooctanesulfonate	2016/02/01		99	%	50 - 120
			13C4-Perfluorooctanoic acid	2016/02/01		109	%	50 - 120
			13C8-Perfluorooctanesulfonamide	2016/02/01		80	%	50 - 120
			6:2 Fluorotelomer sulfonate	2016/02/01	<0.25		ug/kg	
			8:2 Fluorotelomer sulfonate	2016/02/01	<0.21		ug/kg	
			N-ethylperfluorooctane sulfonamide	2016/02/01	<0.39		ug/kg	
			N-ethylperfluorooctane sulfonamidoe	2016/02/01	<0.29		ug/kg	
			N-methylperfluorooctane sulfonamide	2016/02/01	<0.25		ug/kg	
			N-methylperfluorooctanesulfonamidol	2016/02/01	<0.2		ug/kg	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorobutane Sulfonate (PFBS)	2016/02/01	<0.25		ug/kg	
			Perfluorobutanoic acid	2016/02/01	<0.23		ug/kg	
			Perfluorodecane Sulfonate	2016/02/01	<0.2		ug/kg	
			Perfluorodecanoic Acid (PFDA)	2016/02/01	<0.28		ug/kg	
			Perfluorododecanoic Acid (PFDoA)	2016/02/01	<0.24		ug/kg	
			Perfluoroheptane sulfonate	2016/02/01	<0.15		ug/kg	
			Perfluorononanoic Acid (PFNA)	2016/02/01	<0.14		ug/kg	
			Perfluorooctane Sulfonamide (PFOSA)	2016/02/01	<0.17		ug/kg	
			Perfluorotetradecanoic Acid	2016/02/01	<0.22		ug/kg	
			Perfluorotridecanoic Acid	2016/02/01	<0.25		ug/kg	
			Perfluoroundecanoic Acid (PFUnA)	2016/02/01	<0.26		ug/kg	
			Perfluoroheptanoic Acid (PFHpA)	2016/02/01	<0.18		ug/kg	
			Perfluorohexane Sulfonate (PFHxS)	2016/02/01	<0.19		ug/kg	
			Perfluorohexanoic Acid (PFHxA)	2016/02/01	<0.21		ug/kg	
			Perfluoro-n-Octanoic Acid (PFOA)	2016/02/01	<0.12		ug/kg	
			Perfluorooctane Sulfonate (PFOS)	2016/02/01	<0.16		ug/kg	
			Perfluoropentanoic Acid (PFPeA)	2016/02/01	<0.21		ug/kg	
4365440	CM5	RPD - Sample/Sample Dup	6:2 Fluorotelomer sulfonate	2016/02/01	11		%	30
			8:2 Fluorotelomer sulfonate	2016/02/01	7.0		%	30
			N-ethylperfluorooctane sulfonamide	2016/02/01	NC		%	30
			N-ethylperfluorooctane sulfonamidoe	2016/02/01	NC		%	30
			N-methylperfluorooctane sulfonamide	2016/02/01	NC		%	30
			N-methylperfluorooctanesulfonamidol	2016/02/01	NC		%	30
			Perfluorobutane Sulfonate (PFBS)	2016/02/01	NC		%	30
			Perfluorobutanoic acid	2016/02/01	NC		%	30
			Perfluorodecane Sulfonate	2016/02/01	NC		%	30
			Perfluorodecanoic Acid (PFDA)	2016/02/01	NC		%	30
			Perfluorododecanoic Acid (PFDoA)	2016/02/01	NC		%	30
			Perfluoroheptane sulfonate	2016/02/01	NC		%	30
			Perfluorononanoic Acid (PFNA)	2016/02/01	NC		%	30
			Perfluorooctane Sulfonamide (PFOSA)	2016/02/01	NC		%	25
			Perfluorotetradecanoic Acid	2016/02/01	NC		%	30
			Perfluorotridecanoic Acid	2016/02/01	NC		%	30
			Perfluoroundecanoic Acid (PFUnA)	2016/02/01	4.5		%	30
			Perfluoroheptanoic Acid (PFHpA)	2016/02/01	NC		%	30
			Perfluorohexane Sulfonate (PFHxS)	2016/02/01	NC		%	30
			Perfluorohexanoic Acid (PFHxA)	2016/02/01	NC		%	30
			Perfluoro-n-Octanoic Acid (PFOA)	2016/02/01	NC		%	30
			Perfluorooctane Sulfonate (PFOS)	2016/02/01	NC (1)		%	30
			Perfluoropentanoic Acid (PFPeA)	2016/02/01	NC		%	30
4368596	CM5	Matrix Spike	13C4-Perfluorooctanesulfonate	2016/02/04		92	%	70 - 130
			13C4-Perfluorooctanoic acid	2016/02/04		88	%	70 - 130
			13C8-Perfluorooctanesulfonamide	2016/02/04		82	%	60 - 120
			6:2 Fluorotelomer sulfonate	2016/02/04		98	%	70 - 130
			8:2 Fluorotelomer sulfonate	2016/02/04		91	%	70 - 130
			N-ethylperfluorooctane sulfonamide	2016/02/04		97	%	70 - 130
			N-ethylperfluorooctane sulfonamidoe	2016/02/04		111	%	70 - 130
			N-methylperfluorooctane sulfonamide	2016/02/04		118	%	70 - 130
			N-methylperfluorooctanesulfonamidol	2016/02/04		97	%	70 - 130
			Perfluorobutane Sulfonate (PFBS)	2016/02/04		105	%	70 - 130
			Perfluorobutanoic acid	2016/02/04		102	%	70 - 130
			Perfluorodecane Sulfonate	2016/02/04		111	%	70 - 130
			Perfluoroheptane sulfonate	2016/02/04		100	%	70 - 130
			Perfluoroheptanoic Acid (PFHpA)	2016/02/04		113	%	70 - 130

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorohexane Sulfonate (PFHxS)	2016/02/04		101	%	70 - 130
			Perfluorohexanoic Acid (PFHxA)	2016/02/04		109	%	70 - 130
			Perfluorononanoic Acid (PFNA)	2016/02/04		112	%	70 - 130
			Perfluorooctane Sulfonamide (PFOSA)	2016/02/04		113	%	70 - 130
			Perfluoropentanoic Acid (PFPeA)	2016/02/04		107	%	70 - 130
			Perfluorotetradecanoic Acid	2016/02/04		110	%	70 - 130
			Perfluorotridecanoic Acid	2016/02/04		114	%	70 - 130
			Perfluoroundecanoic Acid (PFUnA)	2016/02/04		108	%	70 - 130
			Perfluorodecanoic Acid (PFDA)	2016/02/04		105	%	70 - 130
			Perfluorododecanoic Acid (PFDoA)	2016/02/04		101	%	70 - 130
			Perfluoro-n-Octanoic Acid (PFOA)	2016/02/04		117	%	70 - 130
			Perfluorooctane Sulfonate (PFOS)	2016/02/04		108	%	70 - 130
4368596	CM5	Spiked Blank	13C4-Perfluorooctanesulfonate	2016/02/04		81	%	70 - 130
			13C4-Perfluorooctanoic acid	2016/02/04		84	%	70 - 130
			13C8-Perfluorooctanesulfonamide	2016/02/04		74	%	60 - 120
			6:2 Fluorotelomer sulfonate	2016/02/04		115	%	70 - 130
			8:2 Fluorotelomer sulfonate	2016/02/04		115	%	70 - 130
			N-ethylperfluorooctane sulfonamide	2016/02/04		110	%	70 - 130
			N-ethylperfluorooctane sulfonamidoe	2016/02/04		101	%	70 - 130
			N-methylperfluorooctane sulfonamide	2016/02/04		117	%	70 - 130
			N-methylperfluorooctanesulfonamidol	2016/02/04		93	%	70 - 130
			Perfluorobutane Sulfonate (PFBS)	2016/02/04		107	%	70 - 130
			Perfluorobutanoic acid	2016/02/04		123	%	70 - 130
			Perfluorodecane Sulfonate	2016/02/04		105	%	70 - 130
			Perfluoroheptane sulfonate	2016/02/04		103	%	70 - 130
			Perfluoroheptanoic Acid (PFHpA)	2016/02/04		111	%	70 - 130
			Perfluorohexane Sulfonate (PFHxS)	2016/02/04		102	%	70 - 130
			Perfluorohexanoic Acid (PFHxA)	2016/02/04		106	%	70 - 130
			Perfluorononanoic Acid (PFNA)	2016/02/04		108	%	70 - 130
			Perfluorooctane Sulfonamide (PFOSA)	2016/02/04		123	%	70 - 130
			Perfluoropentanoic Acid (PFPeA)	2016/02/04		103	%	70 - 130
			Perfluorotetradecanoic Acid	2016/02/04		117	%	70 - 130
			Perfluorotridecanoic Acid	2016/02/04		114	%	70 - 130
			Perfluoroundecanoic Acid (PFUnA)	2016/02/04		109	%	70 - 130
			Perfluorodecanoic Acid (PFDA)	2016/02/04		108	%	70 - 130
			Perfluorododecanoic Acid (PFDoA)	2016/02/04		109	%	70 - 130
			Perfluoro-n-Octanoic Acid (PFOA)	2016/02/04		109	%	70 - 130
			Perfluorooctane Sulfonate (PFOS)	2016/02/04		118	%	70 - 130
4368596	CM5	Method Blank	13C4-Perfluorooctanesulfonate	2016/02/04		88	%	70 - 130
			13C4-Perfluorooctanoic acid	2016/02/04		88	%	70 - 130
			13C8-Perfluorooctanesulfonamide	2016/02/04		78	%	60 - 120
			6:2 Fluorotelomer sulfonate	2016/02/04	<0.0065		ug/L	
			8:2 Fluorotelomer sulfonate	2016/02/04	<0.0055		ug/L	
			N-ethylperfluorooctane sulfonamide	2016/02/04	<0.0053		ug/L	
			N-ethylperfluorooctane sulfonamidoe	2016/02/04	<0.0049		ug/L	
			N-methylperfluorooctane sulfonamide	2016/02/04	<0.0040		ug/L	
			N-methylperfluorooctanesulfonamidol	2016/02/04	<0.0061		ug/L	
			Perfluorobutane Sulfonate (PFBS)	2016/02/04	<0.0019		ug/L	
			Perfluorobutanoic acid	2016/02/04	<0.0066		ug/L	
			Perfluorodecane Sulfonate	2016/02/04	<0.0043		ug/L	
			Perfluoroheptane sulfonate	2016/02/04	<0.0036		ug/L	
			Perfluoroheptanoic Acid (PFHpA)	2016/02/04	<0.0047		ug/L	
			Perfluorohexane Sulfonate (PFHxS)	2016/02/04	<0.0040		ug/L	
			Perfluorohexanoic Acid (PFHxA)	2016/02/04	<0.0046		ug/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	% Recovery	UNITS	QC Limits
			Perfluorononanoic Acid (PFNA)	2016/02/04	<0.0046		ug/L	
			Perfluorooctane Sulfonamide (PFOSA)	2016/02/04	<0.0058		ug/L	
			Perfluoropentanoic Acid (PFPeA)	2016/02/04	<0.0036		ug/L	
			Perfluorotetradecanoic Acid	2016/02/04	<0.0052		ug/L	
			Perfluorotridecanoic Acid	2016/02/04	<0.0032		ug/L	
			Perfluoroundecanoic Acid (PFUnA)	2016/02/04	<0.0037		ug/L	
			Perfluorodecanoic Acid (PFDA)	2016/02/04	<0.0066		ug/L	
			Perfluorododecanoic Acid (PFDoA)	2016/02/04	<0.0057		ug/L	
			Perfluoro-n-Octanoic Acid (PFOA)	2016/02/04	<0.0053		ug/L	
			Perfluorooctane Sulfonate (PFOS)	2016/02/04	<0.0033		ug/L	
4368596	CM5	RPD - Sample/Sample Dup	Perfluorobutane Sulfonate (PFBS)	2016/02/04	NC		%	30
			Perfluorobutanoic acid	2016/02/04	NC		%	30
			Perfluorodecane Sulfonate	2016/02/04	NC		%	30
			Perfluoroheptane sulfonate	2016/02/04	NC		%	30
			Perfluoroheptanoic Acid (PFHpA)	2016/02/04	NC		%	30
			Perfluorohexane Sulfonate (PFHxS)	2016/02/04	NC		%	30
			Perfluorohexanoic Acid (PFHxA)	2016/02/04	NC		%	30
			Perfluorononanoic Acid (PFNA)	2016/02/04	NC		%	30
			Perfluorooctane Sulfonamide (PFOSA)	2016/02/04	NC		%	30
			Perfluoropentanoic Acid (PFPeA)	2016/02/04	NC		%	30
			Perfluorotetradecanoic Acid	2016/02/04	NC		%	30
			Perfluorotridecanoic Acid	2016/02/04	NC		%	30
			Perfluoroundecanoic Acid (PFUnA)	2016/02/04	NC		%	30
			Perfluorodecanoic Acid (PFDA)	2016/02/04	NC		%	30
			Perfluorododecanoic Acid (PFDoA)	2016/02/04	NC		%	30
			Perfluoro-n-Octanoic Acid (PFOA)	2016/02/04	NC		%	30
			Perfluorooctane Sulfonate (PFOS)	2016/02/04	NC		%	30
4372577	SB1	RPD - Sample/Sample Dup	Moisture	2016/02/05	12		%	20

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of the native sample concentration).

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (one or both samples < 5x RDL).

(1) Due to high concentration of the target analyte, sample required dilution. Detection limit was adjusted accordingly.

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VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

Sin Chii Chia, Scientific Services

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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