D. Brookside 2015 Spill Closure Report

BROOKSIDE ENVIRONMENTAL
WWW.BROOKSIDEWEB.COM
22 OCEAN AVENUE
COPIAGUE, NEW YORK 11726
PHONE: 631-608-8810
FAX: 631.608.8811

February 2, 2015

Ms. Kristy Salafrio
New York State Department of Environmental Conservation
Division of Environmental Remediation
Spill Prevention and Response
Region One Headquarters
50 Circle Road
Stony Brook, NY 11790-3409

RE: Spill Closure Request
Spill # 1409871
250 East Main Street
Bay Shore, NY 11706

Dear Ms. Salafrio,

This letter summarizes the tank removal and soil remediation work that took place between January 7th and 21st, 2015 at the above referenced site. The scope of work consisted of removing underground storage tanks (USTs), excavation of contaminated soil, transportation and disposal of the impacted soil and post-excavation soil sampling. A description of the work is presented below.

January 7th, 2015

Brookside's field crew responded to a request by a general contractor who uncovered two small underground storage tanks while excavating for a foundation. Brookside uncovered, cut and cleaned one 700 gallon steel and one 500 gallon steel, USTs that were purportedly used to store heating oil. After removing the 700 gallon tank, the resulting excavation was clean and exhibited no signs of contamination. After removing the 500 gallon tank, the bottom of the excavation was discolored and had a strong petroleum odor. The excavator was used to remove some of the stained soil and confirmed the presence of oil in the soil. At that point a representative from Brookside called the NYSDEC and reported the spill.

Brookside excavated and removed as much of the contaminated soil as possible and extended the excavation to approximately six feet below grade and one foot into the groundwater table. Groundwater elevations at this site fluctuate with the tide and range from approximately five to seven feet below grade. The resulting excavation removed approximately 25 cubic yards of contaminated soil which was placed on poly sheeting and was covered for waste classification sampling and disposal at a later date.

BROOKSIDE ENVIRONMENTAL
WWW.BROOKSIDEWEB.COM
22 OCEAN AVENUE
COPIAGUE, NEW YORK 11726
PHONE: 631-608-8810
FAX: 631.608.8811

January 9th, 2015

Excavation of contaminated soil continued under the direction of Ms. Kristy Salafrio from the NYSDEC in order to completely remove the impacted soil beneath the groundwater interface. Based on visual inspection, the sidewalls had been adequately excavated and therefore did not require sampling. Approximately five additional yards of soil was removed and placed on the stockpile. After completing the excavation, two bottom samples were collected using the excavator. The samples were collected at approximately eight feet below grade and six to eight feet apart. The sample numbers and their locations along with the approximate location of the tanks are noted in figure 1. Samples were placed in the appropriate jars, set in a cooler to maintain the proper temperature and delivered to a state approved lab under a chain-of-custody. The results of the end point samples are summarized in Table-1.

The empty tanks were inspected and both were loaded into a truck and sent for recycling. The contaminated stockpile was covered and the excavation was approved by the NYSDEC to be backfilled so that the construction of a new building can continue.

January 21st, 2015

Brookside mobilized to the site to load, transport and dispose of the impacted soil. In all, 43.14 tons of non-hazardous petroleum contaminated soil was properly manifested and disposed of at Clean Earth of Carteret. Copies of the manifests and weight tickets have been attached to this report. Site work to remediate this spill was completed and all equipment was demobilized.

Summary and Recommendation

Brookside has reviewed the laboratory report for the end point samples (BN-1 and BS-2) from the bottom of the excavation and found that both the VOCs and SVOCs in both samples were all non-detect and the metals results were low and within the state standards. See Table-1.

The excavation and spill has been cleaned up to NYSDEC standards, the tanks have been cleaned and recycled and the contaminated soil properly disposed. Given the spill has been completely remediated, Brookside Environmental and the property owner request that the spill file for this site be closed. If you should have any question or need additional information, please do not hesitate to contact me.

Sincerely,

Brian Gaudreault
Vice President
Brookside Environmental, Inc.

250 E. Main Street
Bay Shore, New York 11707
SPILL # 1409871

2/2/2015

TABLE -1

Sample ID York ID Sampling Date Client Matrix		NYSDEC Part 375 Unrestricted Use Soil Cleanup Objectives	BN-1 15A0283-01 1/9/2015 3:00:00 PM Soil		BS-2 15A0283-02 1/9/2015 3:00:00 PM Soil	
Compound	**CAS Number**		Result	Q	Result	Q
Volatile Organics, CP-51 (formerly STARS) List		mg/Kg	mg/kg		mg/kg	
Dilution Factor			1		1	
1,2,4-Trimethylbenzene	95-63-6	3.6	0.0028	U	0.0030	U
1,3,5-Trimethylbenzene	108-67-8	8.4	0.0028	U	0.0030	U
Benzene	71-43-2	0.06	0.0028	U	0.0030	U
Ethyl Benzene	100-41-4	1	0.0028	U	0.0030	U
Isopropylbenzene	98-82-8	~	0.0028	U	0.0030	U
Methyl tert-butyl ether (MTBE)	1634-04-4	0.93	0.0028	U	0.0030	U
Naphthalene	91-20-3	12	0.0028	U	0.0030	U
n-Butylbenzene	104-51-8	12	0.0028	U	0.0030	U
n-Propylbenzene	103-65-1	3.9	0.0028	U	0.0030	U
o-Xylene	95-47-6	~	0.0028	U	0.0030	U
p- & m- Xylenes	179601-23-1	~	0.0057	U	0.0061	U
p-Isopropyltoluene	99-87-6	~	0.0028	U	0.0030	U
sec-Butylbenzene	135-98-8	11	0.0028	U	0.0030	U
tert-Butylbenzene	98-06-6	5.9	0.0028	U	0.0030	U
Toluene	108-88-3	0.7	0.0028	U	0.0030	U
Xylenes, Total	1330-20-7	0.26	0.0085	U	0.0091	U
Semi-Volatiles, CP-51 (formerly STARS) List		mg/Kg	mg/kg		mg/kg	
Dilution Factor			1		1	
Acenaphthene	83-32-9	20	0.024	U	0.025	U
Acenaphthylene	208-96-8	100	0.024	U	0.025	U
Anthracene	120-12-7	100	0.024	U	0.025	U
Benzo(a)anthracene	56-55-3	1	0.024	U	0.025	U
Benzo(a)pyrene	50-32-8	1	0.024	U	0.025	U
Benzo(b)fluoranthene	205-99-2	1	0.024	U	0.025	U
Benzo(g,h,i)perylene	191-24-2	100	0.024	U	0.025	U
Benzo(k)fluoranthene	207-08-9	0.8	0.024	U	0.025	U
Chrysene	218-01-9	1	0.024	U	0.025	U
Dibenzo(a,h)anthracene	53-70-3	0.33	0.024	U	0.025	U
Fluoranthene	206-44-0	100	0.024	U	0.025	U
Fluorene	86-73-7	30	0.024	U	0.025	U
Indeno(1,2,3-cd)pyrene	193-39-5	0.5	0.024	U	0.025	U

Naphthalene	91-20-3	12	0.024	U	0.025	U
Phenanthrene	85-01-8	100	0.024	U	0.025	U
Pyrene	129-00-0	100	0.024	U	0.025	U
Metals, NYSDEC Part 375		mg/Kg	mg/kg		mg/kg	
Dilution Factor			1		1	
Arsenic	7440-38-2	13	1.13	U	1.21	U
Barium	7440-39-3	350	4.73		5.79	
Beryllium	7440-41-7	7.2	0.11	U	0.12	U
Cadmium	7440-43-9	2.5	0.34	U	0.36	U
Chromium	7440-47-3	~	1.28		1.64	
Copper	7440-50-8	50	1.21		1.12	
Lead	7439-92-1	63	6.28		8.41	
Manganese	7439-96-5	1600	9.98		5.40	
Nickel	7440-02-0	30	0.83		0.99	
Selenium	7782-49-2	3.9	1.13	U	1.21	U
Silver	7440-22-4	2	0.57	U	0.61	U
Zinc	7440-66-6	109	11.60		6.36	
Mercury by 7473		mg/Kg	mg/kg		mg/kg	
Dilution Factor			1		1	
Mercury	7439-97-6	0.18	0.034	U	0.036	U
Total Solids			%		%	
Dilution Factor			1		1	
% Solids	solids	~	88.30		82.50	

NOTES:

Any Regulatory Exceedences are color coded by Regulation

Q is the Qualifier Column with definitions as follows:

D=result is from an analysis that required a dilution

J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated

U=analyte not detected at or above the level indicated

B=analyte found in the analysis batch blank

E=result is estimated and cannot be accurately reported due to levels encountered or interferences

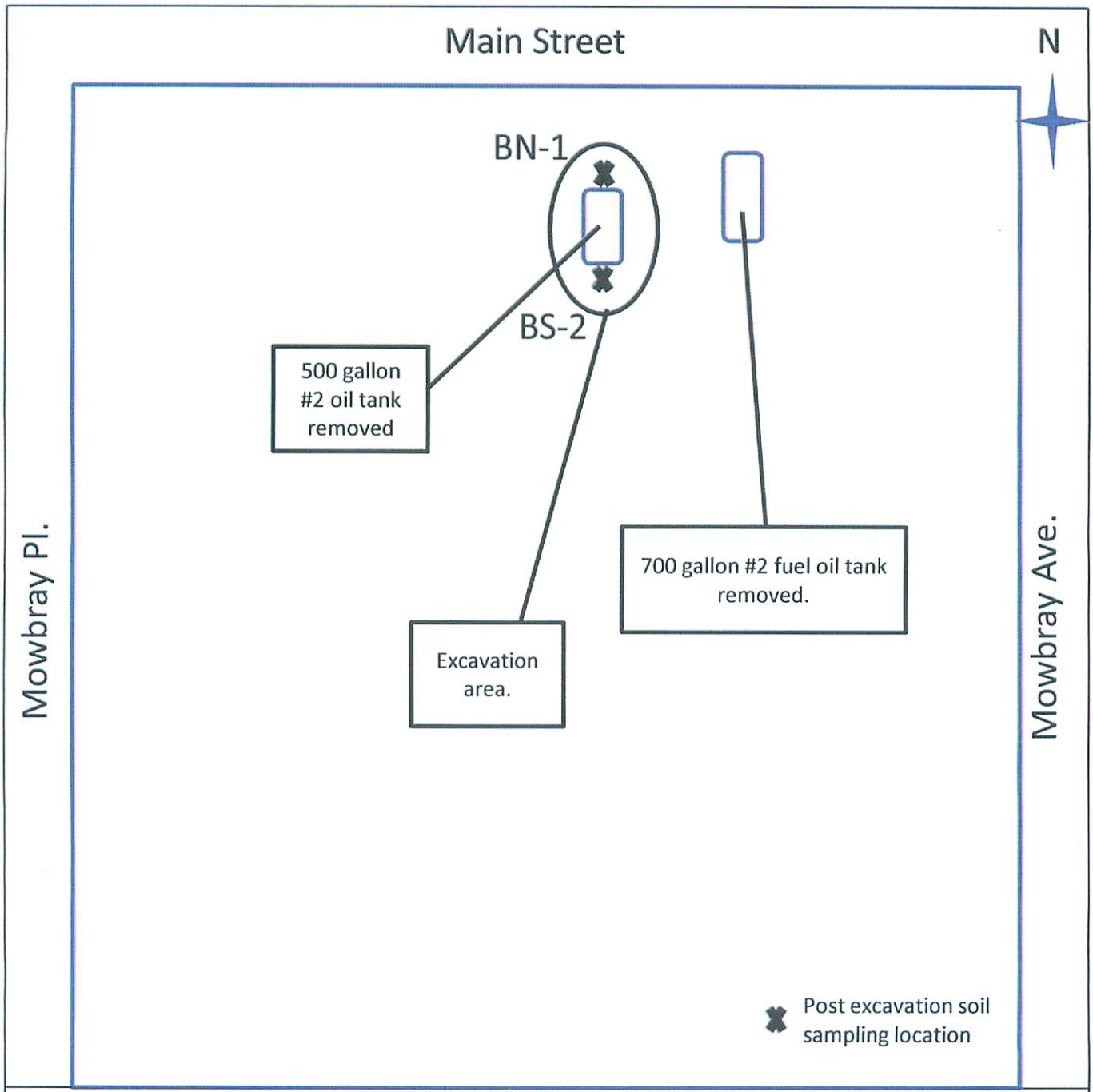
NT=this indicates the analyte was not a target for this sample

~=this indicates that no regulatory limit has been established for this analyte

BROOKSIDE ENVIRONMENTAL
WWW.BROOKSIDEWEB.COM

18-33 129TH ST.
COLLEGE POINT, NEW YORK 11356
PHONE: 718.358.9499
BIC # 2935

22 OCEAN AVENUE
COPIAGUE, NEW YORK 11726
PHONE: 631-608-8810
FAX: 631.608.8811



UST Excavation & Soil Remediation

Figure 1

250 E. Main St.
Bay Shore, New York
Date: 1/28/2015

NYSDEC SPILL #: 1409871
Scale: NTS
Drawn by: BMG

Clean Earth of Carteret
24 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8989 Fax: (732) 541-8105

Ticket: 7000021816

	Date	Time	Scale
In:	1/21/2015	11:54:57	Scale CE
Out:	1/21/2015	11:55:27	P.T.

	Lbs	Tns
Gross:	81300	40.65
Tare:	67020	13.51
Net:	54280	27.14

Manifest: 992514
Vehicle ID: 37PRINC502

Customer: BROOKHAVEN ENVIRONMENTAL

Facility Approval#: 153072245

Generator: 250 East Main Street, LLC
Gen Address: 250 E. Main Street
Bay Shore, NY 11706

Job Name: E. Main St/250 East Main Blvd
Job Address: 250 E. Main Street
Bay Shore, NY 11706

Origin	Materials & Services	Quantity Unit
Suffolk	Soil Treatment Type II	27.14 Tns

Contaminate Type: 2 Oil
Treatment Type: Bio
Fac Waste Code: Petroleum Contaminated Soil

Comment:

Driver: _____

Facility: _____
Dudash, Mike

FACILITY

Clean Earth of Carteret
64 Middlesex Avenue
Carteret, NJ 07008
Ph: (732) 541-8500 Fax: (732) 541-8105

Ticket: 7300020103

	Date	Time	Scale
In:	1/21/2015	12:17:05	Scale 02
Out:	1/21/2015	12:17:27	P.T.

	Lbs	Tns
Gross:	68160	34.08
Tare:	38260	19.13
Net:	32700	16.30

Manifest: 902525
Vehicle ID: 07FRTHC501

Customer: BROOKSIDE ENVIRONMENTAL I

Facility Approvals: 152070045

Generator: 250 East Main Street, LLC
Gen Address: 250 E. Main Street
Bay Shore, NY 11706

Job Name: E. Main Str250 East Main Stre
Job Address: 250 E. Main Street
Bay Shore, NY 11706

Origin	Materials & Services	Quantity	Unit
Suffolk	Soil Treatment Type II	15.00	TN

Contaminate Type: 2 Oil
Treatment Type: Bio
Haz Waste Code: Petroleum Contaminated Soil

Comments:

Driver: _____ Facility: _____
Dudash, Mik:

FACILITY

Technical Report

prepared for:

Brookside Environmental, Inc.
22 Ocean Avenue
Copiague NY, 11726
Attention: Brian Gaudreault

Report Date: 01/19/2015
Client Project ID: 250 E. Main St
York Project (SDG) No.: 15A0283

CT Cert. No. PH-0723 New Jersey Cert. No. CT-005 New York Cert. No. 10854 PA Cert. No. 68-04440

120 RESEARCH DRIVE STRATFORD, CT 06615 (203) 325-1371 FAX (203) 357-0166

Report Date: 01/19/2015
Client Project ID: 250 E. Main St
York Project (SDG) No.: 15A0283

Brookside Environmental, Inc.
22 Ocean Avenue
Copiague NY, 11726
Attention: Brian Gaudreault

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on January 12, 2015 and listed below. The project was identified as your project: **250 E. Main St.**

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

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

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the attachment to this report, and case narrative if applicable.

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

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

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
15A0283-01	BN-1	Soil	01/09/2015	01/12/2015
15A0283-02	BS-2	Soil	01/09/2015	01/12/2015

General Notes for York Project (SDG) No.: 15A0283

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

Approved By: 

Date: 01/19/2015

Benjamin Gulizia
Laboratory Director

Sample Information

Client Sample ID: BN-1 **York Sample ID:** 15A0283-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
15A0283	250 E. Main St	Soil	January 9, 2015 3:00 pm	01/12/2015

Volatile Organics, CP-51 (formerly STARS) List

Log-in Notes: VOA-CONT **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-43-2	Benzene	ND		ug/kg dry	2.8	5.7	1	EPA 8260C	01/17/2015 08:54	01/17/2015 16:31	BK
100-41-4	Ethyl Benzene	ND		ug/kg dry	2.8	5.7	1	EPA 8260C	01/17/2015 08:54	01/17/2015 16:31	BK
108-88-3	Toluene	ND		ug/kg dry	2.8	5.7	1	EPA 8260C	01/17/2015 08:54	01/17/2015 16:31	BK
95-47-6	o-Xylene	ND		ug/kg dry	2.8	5.7	1	EPA 8260C	01/17/2015 08:54	01/17/2015 16:31	BK
179601-23-1	p- & m- Xylenes	ND		ug/kg dry	5.7	11	1	EPA 8260C	01/17/2015 08:54	01/17/2015 16:31	BK
98-82-8	Isopropylbenzene	ND		ug/kg dry	2.8	5.7	1	EPA 8260C	01/17/2015 08:54	01/17/2015 16:31	BK
103-65-1	n-Propylbenzene	ND		ug/kg dry	2.8	5.7	1	EPA 8260C	01/17/2015 08:54	01/17/2015 16:31	BK
99-87-6	p-Isopropyltoluene	ND		ug/kg dry	2.8	5.7	1	EPA 8260C	01/17/2015 08:54	01/17/2015 16:31	BK
95-63-6	1,2,4-Trimethylbenzene	ND		ug/kg dry	2.8	5.7	1	EPA 8260C	01/17/2015 08:54	01/17/2015 16:31	BK
108-67-8	1,3,5-Trimethylbenzene	ND		ug/kg dry	2.8	5.7	1	EPA 8260C	01/17/2015 08:54	01/17/2015 16:31	BK
104-51-8	n-Butylbenzene	ND		ug/kg dry	2.8	5.7	1	EPA 8260C	01/17/2015 08:54	01/17/2015 16:31	BK
135-98-8	sec-Butylbenzene	ND		ug/kg dry	2.8	5.7	1	EPA 8260C	01/17/2015 08:54	01/17/2015 16:31	BK
98-06-6	tert-Butylbenzene	ND		ug/kg dry	2.8	5.7	1	EPA 8260C	01/17/2015 08:54	01/17/2015 16:31	BK
91-20-3	Naphthalene	ND		ug/kg dry	2.8	11	1	EPA 8260C	01/17/2015 08:54	01/17/2015 16:31	BK
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	2.8	5.7	1	EPA 8260C	01/17/2015 08:54	01/17/2015 16:31	BK
1330-20-7	Xylenes, Total	ND		ug/kg dry	8.5	17	1	EPA 8260C	01/17/2015 08:54	01/17/2015 16:31	BK

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: 1,2-Dichloroethane-d4*	*112 %*	*77-125*
460-00-4	*Surrogate: p-Bromofluorobenzene*	*98.3 %*	*76-130*
2037-26-5	*Surrogate: Toluene-d8*	*100 %*	*85-120*

Semi-Volatiles, CP-51 (formerly STARS) List

Log-in Notes: VOA-CONT **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
83-32-9	Acenaphthene	ND		ug/kg dry	24	47	1	EPA 8270D	01/15/2015 14:01	01/17/2015 00:39	KH
208-96-8	Acenaphthylene	ND		ug/kg dry	24	47	1	EPA 8270D	01/15/2015 14:01	01/17/2015 00:39	KH
120-12-7	Anthracene	ND		ug/kg dry	24	47	1	EPA 8270D	01/15/2015 14:01	01/17/2015 00:39	KH
56-55-3	Benzo(a)anthracene	ND		ug/kg dry	24	47	1	EPA 8270D	01/15/2015 14:01	01/17/2015 00:39	KH
50-32-8	Benzo(a)pyrene	ND		ug/kg dry	24	47	1	EPA 8270D	01/15/2015 14:01	01/17/2015 00:39	KH
205-99-2	Benzo(b)fluoranthene	ND		ug/kg dry	24	47	1	EPA 8270D	01/15/2015 14:01	01/17/2015 00:39	KH
191-24-2	Benzo(g,h,i)perylene	ND		ug/kg dry	24	47	1	EPA 8270D	01/15/2015 14:01	01/17/2015 00:39	KH
207-08-9	Benzo(k)fluoranthene	ND		ug/kg dry	24	47	1	EPA 8270D	01/15/2015 14:01	01/17/2015 00:39	KH
218-01-9	Chrysene	ND		ug/kg dry	24	47	1	EPA 8270D	01/15/2015 14:01	01/17/2015 00:39	KH
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	24	47	1	EPA 8270D	01/15/2015 14:01	01/17/2015 00:39	KH
206-44-0	Fluoranthene	ND		ug/kg dry	24	47	1	EPA 8270D	01/15/2015 14:01	01/17/2015 00:39	KH
86-73-7	Fluorene	ND		ug/kg dry	24	47	1	EPA 8270D	01/15/2015 14:01	01/17/2015 00:39	KH

Sample Information

Client Sample ID: BN-1 **York Sample ID:** 15A0283-01

York Project (SDG) No	Client Project ID	Matrix	Collection Date/Time	Date Received
15A0283	250 E. Main St	Soil	January 9, 2015 3:00 pm	01/12/2015

Semi-Volatiles, CP-51 (formerly STARS) List

Log-in Notes: VOA-CONT **Sample Notes:**

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/kg dry	24	47	1	EPA 8270D	01/15/2015 14:01	01/17/2015 00:39	KH
91-20-3	Naphthalene	ND		ug/kg dry	24	47	1	EPA 8270D	01/15/2015 14:01	01/17/2015 00:39	KH
85-01-8	Phenanthrene	ND		ug/kg dry	24	47	1	EPA 8270D	01/15/2015 14:01	01/17/2015 00:39	KH
129-00-0	Pyrene	ND		ug/kg dry	24	47	1	EPA 8270D	01/15/2015 14:01	01/17/2015 00:39	KH
	Surrogate Recoveries	**Result**		**Acceptance Range**							
4165-60-0	*Surrogate: Nitrobenzene-d5*	*44.7 %*		*10-119*							
321-60-8	*Surrogate: 2-Fluorobiphenyl*	*44.7 %*		*10-114*							
1718-51-0	*Surrogate: Terphenyl-d14*	*43.1 %*		*10-123*							

Metals, NYSDEC Part 375

Log-in Notes: VOA-CONT **Sample Notes:**

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		mg/kg dry	1.13	1.13	1	EPA 6010C	01/13/2015 13:23	01/13/2015 19:25	MW
7440-39-3	**Barium**	**4.73**		mg/kg dry	1.13	1.13	1	EPA 6010C	01/13/2015 13:23	01/13/2015 19:25	MW
7440-41-7	Beryllium	ND		mg/kg dry	0.113	0.113	1	EPA 6010C	01/13/2015 13:23	01/13/2015 19:25	MW
7440-43-9	Cadmium	ND		mg/kg dry	0.340	0.340	1	EPA 6010C	01/13/2015 13:23	01/13/2015 19:25	MW
7440-47-3	**Chromium**	**1.28**		mg/kg dry	0.566	0.566	1	EPA 6010C	01/13/2015 13:23	01/13/2015 19:25	MW
7440-50-8	**Copper**	**1.21**		mg/kg dry	0.566	0.566	1	EPA 6010C	01/13/2015 13:23	01/13/2015 19:25	MW
7439-92-1	**Lead**	**6.28**		mg/kg dry	0.340	0.340	1	EPA 6010C	01/13/2015 13:23	01/13/2015 19:25	MW
7439-96-5	**Manganese**	**9.98**		mg/kg dry	0.566	0.566	1	EPA 6010C	01/13/2015 13:23	01/13/2015 19:25	MW
7440-02-0	**Nickel**	**0.832**		mg/kg dry	0.566	0.566	1	EPA 6010C	01/13/2015 13:23	01/13/2015 19:25	MW
7782-49-2	Selenium	ND		mg/kg dry	1.13	1.13	1	EPA 6010C	01/13/2015 13:23	01/13/2015 19:25	MW
7440-22-4	Silver	ND		mg/kg dry	0.566	0.566	1	EPA 6010C	01/13/2015 13:23	01/13/2015 19:25	MW
7440-66-6	**Zinc**	**11.6**		mg/kg dry	1.13	1.13	1	EPA 6010C	01/13/2015 13:23	01/13/2015 19:25	MW

Mercury by 7473

Log-in Notes: VOA-CONT **Sample Notes:**

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/kg dry	0.0340	0.0340	1	EPA 7473	01/13/2015 11:52	01/14/2015 07:00	ALD

Sample Information

Client Sample ID: BN-1 **York Sample ID:** 15A0283-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
15A0283	250 E. Main St	Soil	January 9, 2015 3:00 pm	01/12/2015

Total Solids **Log-in Notes:** VOA-CONT **Sample Notes:**

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	88.3		%	0.100	0.100	1	SM 2540G	01/14/2015 11:43	01/15/2015 16:32	KK

Sample Information

Client Sample ID: BS-2 **York Sample ID:** 15A0283-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
15A0283	250 E. Main St	Soil	January 9, 2015 3:00 pm	01/12/2015

Volatile Organics, CP-51 (formerly STARS) List **Log-in Notes:** VOA-CONT **Sample Notes:**

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
71-43-2	Benzene	ND		ug/kg dry	3.0	6.1	1	EPA 8260C	01/19/2015 08:15	01/19/2015 12:20	BK
100-41-4	Ethyl Benzene	ND		ug/kg dry	3.0	6.1	1	EPA 8260C	01/19/2015 08:15	01/19/2015 12:20	BK
108-88-3	Toluene	ND		ug/kg dry	3.0	6.1	1	EPA 8260C	01/19/2015 08:15	01/19/2015 12:20	BK
95-47-6	o-Xylene	ND		ug/kg dry	3.0	6.1	1	EPA 8260C	01/19/2015 08:15	01/19/2015 12:20	BK
179601-23-1	p- & m- Xylenes	ND		ug/kg dry	6.1	12	1	EPA 8260C	01/19/2015 08:15	01/19/2015 12:20	BK
98-82-8	Isopropylbenzene	ND		ug/kg dry	3.0	6.1	1	EPA 8260C	01/19/2015 08:15	01/19/2015 12:20	BK
103-65-1	n-Propylbenzene	ND		ug/kg dry	3.0	6.1	1	EPA 8260C	01/19/2015 08:15	01/19/2015 12:20	BK
99-87-6	p-Isopropyltoluene	ND		ug/kg dry	3.0	6.1	1	EPA 8260C	01/19/2015 08:15	01/19/2015 12:20	BK
95-63-6	1,2,4-Trimethylbenzene	ND		ug/kg dry	3.0	6.1	1	EPA 8260C	01/19/2015 08:15	01/19/2015 12:20	BK
108-67-8	1,3,5-Trimethylbenzene	ND		ug/kg dry	3.0	6.1	1	EPA 8260C	01/19/2015 08:15	01/19/2015 12:20	BK
104-51-8	n-Butylbenzene	ND		ug/kg dry	3.0	6.1	1	EPA 8260C	01/19/2015 08:15	01/19/2015 12:20	BK
135-98-8	sec-Butylbenzene	ND		ug/kg dry	3.0	6.1	1	EPA 8260C	01/19/2015 08:15	01/19/2015 12:20	BK
98-06-6	tert-Butylbenzene	ND		ug/kg dry	3.0	6.1	1	EPA 8260C	01/19/2015 08:15	01/19/2015 12:20	BK
91-20-3	Naphthalene	ND		ug/kg dry	3.0	12	1	EPA 8260C	01/19/2015 08:15	01/19/2015 12:20	BK
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	3.0	6.1	1	EPA 8260C	01/19/2015 08:15	01/19/2015 12:20	BK
1330-20-7	Xylenes, Total	ND		ug/kg dry	9.1	18	1	EPA 8260C	01/19/2015 08:15	01/19/2015 12:20	BK

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: 1,2-Dichloroethane-d4*	*102 %*	*77-125*
460-00-4	*Surrogate: p-Bromofluorobenzene*	*97.6 %*	*76-130*
2037-26-5	*Surrogate: Toluene-d8*	*101 %*	*85-120*

Semi-Volatiles, CP-51 (formerly STARS) List **Log-in Notes:** VOA-CONT **Sample Notes:**

Sample Information

Client Sample ID: BS-2 **York Sample ID:** 15A0283-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
15A0283	250 E. Main St	Soil	January 9, 2015 3:00 pm	01/12/2015

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
83-32-9	Acenaphthene	ND		ug/kg dry	25	51	1	EPA 8270D	01/15/2015 14:01	01/17/2015 01:12	KH
208-96-8	Acenaphthylene	ND		ug/kg dry	25	51	1	EPA 8270D	01/15/2015 14:01	01/17/2015 01:12	KH
120-12-7	Anthracene	ND		ug/kg dry	25	51	1	EPA 8270D	01/15/2015 14:01	01/17/2015 01:12	KH
56-55-3	Benzo(a)anthracene	ND		ug/kg dry	25	51	1	EPA 8270D	01/15/2015 14:01	01/17/2015 01:12	KH
50-32-8	Benzo(a)pyrene	ND		ug/kg dry	25	51	1	EPA 8270D	01/15/2015 14:01	01/17/2015 01:12	KH
205-99-2	Benzo(b)fluoranthene	ND		ug/kg dry	25	51	1	EPA 8270D	01/15/2015 14:01	01/17/2015 01:12	KH
191-24-2	Benzo(g,h,i)perylene	ND		ug/kg dry	25	51	1	EPA 8270D	01/15/2015 14:01	01/17/2015 01:12	KH
207-08-9	Benzo(k)fluoranthene	ND		ug/kg dry	25	51	1	EPA 8270D	01/15/2015 14:01	01/17/2015 01:12	KH
218-01-9	Chrysene	ND		ug/kg dry	25	51	1	EPA 8270D	01/15/2015 14:01	01/17/2015 01:12	KH
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	25	51	1	EPA 8270D	01/15/2015 14:01	01/17/2015 01:12	KH
206-44-0	Fluoranthene	ND		ug/kg dry	25	51	1	EPA 8270D	01/15/2015 14:01	01/17/2015 01:12	KH
86-73-7	Fluorene	ND		ug/kg dry	25	51	1	EPA 8270D	01/15/2015 14:01	01/17/2015 01:12	KH
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/kg dry	25	51	1	EPA 8270D	01/15/2015 14:01	01/17/2015 01:12	KH
91-20-3	Naphthalene	ND		ug/kg dry	25	51	1	EPA 8270D	01/15/2015 14:01	01/17/2015 01:12	KH
85-01-8	Phenanthrene	ND		ug/kg dry	25	51	1	EPA 8270D	01/15/2015 14:01	01/17/2015 01:12	KH
129-00-0	Pyrene	ND		ug/kg dry	25	51	1	EPA 8270D	01/15/2015 14:01	01/17/2015 01:12	KH

	Surrogate Recoveries	Result	Acceptance Range
4165-60-0	*Surrogate: Nitrobenzene-d5*	*44.9 %*	*10-119*
321-60-8	*Surrogate: 2-Fluorobiphenyl*	*49.8 %*	*10-114*
1718-51-0	*Surrogate: Terphenyl-d14*	*48.9 %*	*10-123*

Metals, NYSDEC Part 375 **Log-in Notes:** VOA-CONT **Sample Notes:**

Sample Prepared by Method: EPA 3050B

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	Arsenic	ND		mg/kg dry	1.21	1.21	1	EPA 6010C	01/13/2015 13:23	01/13/2015 19:30	MW
7440-39-3	**Barium**	**5.79**		mg/kg dry	1.21	1.21	1	EPA 6010C	01/13/2015 13:23	01/13/2015 19:30	MW
7440-41-7	Beryllium	ND		mg/kg dry	0.121	0.121	1	EPA 6010C	01/13/2015 13:23	01/13/2015 19:30	MW
7440-43-9	Cadmium	ND		mg/kg dry	0.364	0.364	1	EPA 6010C	01/13/2015 13:23	01/13/2015 19:30	MW
7440-47-3	**Chromium**	**1.64**		mg/kg dry	0.606	0.606	1	EPA 6010C	01/13/2015 13:23	01/13/2015 19:30	MW
7440-50-8	**Copper**	**1.12**		mg/kg dry	0.606	0.606	1	EPA 6010C	01/13/2015 13:23	01/13/2015 19:30	MW
7439-92-1	**Lead**	**8.41**		mg/kg dry	0.364	0.364	1	EPA 6010C	01/13/2015 13:23	01/13/2015 19:30	MW
7439-96-5	**Manganese**	**5.40**		mg/kg dry	0.606	0.606	1	EPA 6010C	01/13/2015 13:23	01/13/2015 19:30	MW
7440-02-0	**Nickel**	**0.993**		mg/kg dry	0.606	0.606	1	EPA 6010C	01/13/2015 13:23	01/13/2015 19:30	MW
7782-49-2	Selenium	ND		mg/kg dry	1.21	1.21	1	EPA 6010C	01/13/2015 13:23	01/13/2015 19:30	MW
7440-22-4	Silver	ND		mg/kg dry	0.606	0.606	1	EPA 6010C	01/13/2015 13:23	01/13/2015 19:30	MW
7440-66-6	**Zinc**	**6.36**		mg/kg dry	1.21	1.21	1	EPA 6010C	01/13/2015 13:23	01/13/2015 19:30	MW

Sample Information

Client Sample ID: BS-2 **York Sample ID:** 15A0283-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
15A0283	250 E. Main St	Soil	January 9, 2015 3:00 pm	01/12/2015

Mercury by 7473

Log-in Notes: VOA-CONT **Sample Notes:**

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/kg dry	0.0364	0.0364	1	EPA 7473	01/13/2015 11:52	01/14/2015 07:07	ALD

Total Solids

Log-in Notes: VOA-CONT **Sample Notes:**

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	LOD/MDL	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	82.5		%	0.100	0.100	1	SM 2540G	01/14/2015 11:43	01/15/2015 16:32	KK

Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
15A0283-01	BN-1	4 oz. WM Clear Glass Cool to 4° C
15A0283-02	BS-2	4 oz. WM Clear Glass Cool to 4° C

Notes and Definitions

VOA-CONT NON-COMPLIANT- the container(s) provided by the client for soil volatiles do not meet the requirements of EPA SW846-5035A. Results reported below 200 ug/kg may be biased low due to samples not being collected according to EPA SW846 5035A requirements.

J Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.

B Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants. Data users should consider anything <10x the blank value as artifact.

---

* Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.

ND NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)

RL REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.

LOQ LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.

LOD LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.

MDL METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.

Reported to This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.

NR Not reported

RPD Relative Percent Difference

Wet The data has been reported on an as-received (wet weight) basis

Low Bias Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.

High Bias High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.

Non-Dir. Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

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

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

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

Certification for pH is no longer offered by NYDOH ELAP.

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

YORK ANALYTICAL LABORATORIES
120 RESEARCH DR.
STRATFORD, CT 06615
(203) 325-1371
FAX (203) 357-0166

Field Chain-of-Custody Record

NOTE: York's Std. Terms & Conditions are listed on the back side of this document. This document serves as your written authorization to York to proceed with the analyses requested and your signature binds you to York's Std. Terms & Conditions.

York Project No. 15A0283

YOUR Information	Report To:	Invoice To:	YOUR Project ID	Turn-Around Time	Report Type
Company: Brookside Env.	Company: SAME	Company: SAME	250 E Main St.	RUSH - Same Day	Summary Report
Address: 22 Ocean Ave Copiague, NY	Address:	Address:	Purchase Order No.	RUSH - Next Day	Summary w/ QA Summary
Phone No: (631)608-8810	Phone No:	Phone No:		RUSH - Two Day	CT RCP Package
Contact Person: Brian Gaudreault	Attention:	Attention:		RUSH - Three Day	CTRCP DQA/DUE Pkg
E-Mail Address: briang@brooksideeh.com	E-Mail Address:	E-Mail Address:	Samples from CT ___ NY ___ NJ ___	RUSH - Four Day	NY ASP A Package
				Standard(5-7 Days) X	NY ASP B Package
					NJDEP Red. Deliv.
					Electronic Data Deliverables (EDD)
					Simple Excel
					NYSDEC EQuIS
					FQuIS (std)
					EZ-FDD (FQuIS)
					NJDEP SRP HazSite EDD
					GIS/KEY (std)
					Other
					York Regulatory Comparison
					Excel Spreadsheet

Print Clearly and Legibly. All Information must be complete. Samples will NOT be logged in and the turn-around time clock will not begin until any questions by York are resolved.

Samples Collected/Authorized By (Signature)

Brian Gaudreault
Name (printed)

Matrix Codes: S - soil; Other - specify; WW - wastewater; GW - groundwater; DW - drinking water; Air-A - ambient air; Air-SV - soil vapor

Volatiles		Semi-Vols.	Pest/PCB/Herb	Metals	Misc. Org.	Full Lists	Misc.
8260 full	TICs	8270 or 625	8082PCB	RCRA8	TPH GRO	Pri.Poll	Corrosivity
624	Site Spec.	STARS list	8081Pest	PP13 list	TPH DRO	TCL Organics	Reactivity
STARS list	Nassau Co.	HN Only	8151Herb	TAL	CT ETPH	TAL Met/CN	Ignitability
BTEX	Suffolk Co.	Acids Only	CT RCP	CT15 list	NY 310-13	Full TCLP	Flash Point
MTBE	Ketones	PAH list	App. IX	TAGM list	TPH 1664	Full App. IX	Sieve Anal.
TCL list	Oxygenates	TAGM list	Site Spec	NJDEP list	Air TO14A	Part 360/Matrix	Reactivity
TAGM list	TCLP list	CT RCP list	SPLP or TCLP	Total	Air TO15	Part 360/Criteria	TOC
CT RCP list	524.2	TCL list	TCLP Pest	Dissolved	Air STARS	Part 360/Contam.	BTU
Aromatics only	502.2	NJDEP list	TCLP Herb	SPLP or TCLP	Air VPH	Part 360/Aquatics	Aquatic Tox
Halog. only	NJDEP list	App. IX	Chlordane	Inorg. Metals	Air TICs	NYCDEP Water	BOD
App.IX list	SPLP or TCLP	TCLP BNA	608 Pest	List Below	Methane	NYSDEC Water	Asbestos
8021B list		SPLP or TCLP	Inorg. PCB		Helium	TAGM	Silica

Sample Identification	Date/Time Sampled	Sample Matrix	Choose Analyses Needed from the Menu Above and Enter Below	Container Description(s)
BN-1	1/9/15	S	CP51 - VOCs, CP51 SVOCs, CP51 Total Metals	2x 8oz, 2x 4oz
BS-2	1/9/15	S	CP51 - VOCs, CP51 SVOCs, CP51 Total Metals	2x 8oz, 2x 4oz

Page 10 of 10

Comments

Preservation (Check those Applicable): 4°C ___ Frozen ___ HCl ___ MeOH ___ HNO3 ___ H2SO4 ___ NaOH ___ Zn Ac ___ Ascorbic Acid ___ Other ___

Special Instructions

Field Filtered ☐
Lab to Filter

Samples Relinquished By: [signature] Date/Time: 1/12/15 1036 PM

Samples Relinquished By: ___ Date/Time: ___

Samples Received By: [signature] Date/Time: 1/12/15 1030

Samples Received in LAB by: [signature] Date/Time: 1/12/15 1715

Temperature on Receipt: 5.9 °C

250 E. Main Street
Bay Shore, New York
11706
Spill # 1409871

BROOKSIDE ENVIRONMENTAL
WWW.BROOKSIDEWEB.COM

South

West