

SUBSURFACE SOIL INVESTIGATION REPORT

**SOUTH GROVE ELEMENTARY SCHOOL
AND
SOUTH GROVE ANNEX
60 COLONY LANE
SYOSSET, NEW YORK 11971**

**PREPARED FOR:
SYOSSET CENTRAL SCHOOL DISTRICT
99 PELL LANE
SYOSSET, NEW YORK 11791**

**JCB PROJECT #: 18-40469
AUGUST 2018**

**J.C. BRODERICK & ASSOCIATES, INC.
Environmental Consulting & Testing**

**1775 Expressway Drive North
Hauppauge, New York 11788
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Table of Contents

Section No. 1.0: Introduction	1
Section No. 2.0: Site Description and Location	1
Section No. 3.0: Subsurface Investigation Procedures	1
Section No. 3.1: Soil Boring Sampling.....	1
Section No. 3.2: Groundwater Sampling.....	2
Section No. 4.0: Soil Laboratory Analytical Summary	2
Section No. 5.0: Quality Assurance and Quality Control (QA/QC) Procedures.....	4
Section No. 6.0: Findings and Recommendations	4
Section No. 7.0: Certification	4

List of Tables

Table No. 1 - Summary of Soil Samples Submitted for Laboratory Analysis

Table No. 2 - Summary of Soil Samples Analysis Results

List of Figures

Figure 1 - Site Location Map

Figure 2 - Sampling Locations Map

Appendices

Appendix A - Figures

Appendix B - Field Photograph Logs

Appendix C - Laboratory Analytical Results

Section No. 1.0: Introduction

J.C. Broderick and Associates, Inc. (JCB) was retained by the Syosset Central School District (Syosset) to investigate the potential for exposure from subsurface soil contamination from known landfill contaminants by the adjoining Syosset Landfill located at 150 Miller Place Road. JCB performed subsurface soil sampling between the South Grove Elementary School and South Grove Annex buildings and the Syosset Landfill. The sampling protocol was performed in accordance with an Environmental Site Investigation Work Plan prepared by JCB (JCB#18-40222).

Section No. 2.0: Site Description and Location

The Subject Site is located at 60 Colony Lane, Syosset, New York 11971 and consists of two (2) buildings, the South Grove Elementary School and the South Grove Annex. The Subject Site is located on the west side of Colony Lane between Marsak Lane to the north and Southwood Circle to the south. According to the United States Geological Survey (USGS) *Hicksville, New York, 2013 7.5 Minute Series Topographical Map*, the Subject Site is situated at an approximate elevation of 200 feet (ft) above mean sea level. The location of the Subject Site is shown on the Site Location Map, Appendix-A Figure-1.

Section No. 3.0: Subsurface Investigation Procedures

The following sections summarize the subsurface investigation performed. Please refer to the Figures, Field Photograph Logs, and Laboratory Analysis Reports located in the appendix of this document for additional details.

Section No. 3.1: Soil Boring Sampling

JCB performed a private site utility mark out to clear the on-site utilities prior to commencing the soil borings.

On June 29, July 2 & 3, 2018, with the use of a track-mounted Geoprobe® Model 7822DT JCB advanced three (3) environmental soil borings along the property boundary between the landfill and the Elementary School and Annex buildings. As the borings are advanced, soil sampling was performed in five (5) foot intervals, utilizing a Geoprobe® Macro-Core soil sampling system, beginning at the surface grade until refusal by soil pressures or groundwater, whichever was encountered first. The depth to groundwater is estimated to be between 104 feet and 118 feet below surface grade (bsg). The boring locations are shown on the Sampling Location Map, Appendix-A Figure No. 2.

All soil samples were field screened for the presence of Total Volatile Organic Compounds (TVOCs) utilizing a MiniRAE 3000 portable Photo-Ionization Detector (PID). Technical data pertaining to the MiniRAE 3000 Portable PID is available upon request.

A total of six (6) soil samples were collected from the three (3) boring locations. All soil samples collected were submitted for laboratory analysis.

The following table summarizes the soil samples submitted for laboratory analysis:

Table No. 1: Summary Soil Samples Submitted for Laboratory Analysis				
Sample ID#	Date Sampled	Description of Sample	Max PID Concentration	Analysis Method
B-01 @ 0 - 5'	06/29/18	Soil Boring No. 1: 0 - 5' Interval	2.1 ppm	EPA 8260 CP-51 List, EPA 8270 CP-51 List
B-01 @ 110' - 115'	06/29/18	Soil Boring No. 1: 110' - 115' Interval	0.0 ppm	EPA 8260 CP-51 List, EPA 8270 CP-51 List
B-02 @ 0 - 5'	07/02/18	Soil Boring No. 2: 0 - 5' Interval	5.3 ppm	EPA 8260 CP-51 List, EPA 8270 CP-51 List
B-02 @ 95' - 100'	07/02/18	Soil Boring No. 1: 95' - 100' Interval	0.0 ppm	EPA 8260 CP-51 List, EPA 8270 CP-51 List
B-03 @ 0 - 5'	07/03/18	Soil Boring No. 3: 0 - 5' Interval	1.4 ppm	EPA 8260 CP-51 List, EPA 8270 CP-51 List
B-03 @ 90' - 95'	07/03/18	Soil Boring No. 1: 90' - 95' Interval	0.0 ppm	EPA 8260 CP-51 List, EPA 8270 CP-51 List

Notes:
ppm = parts per million
EPA = Environmental Protection Agency

Section No. 3.2: Groundwater Sampling

The groundwater table was not encountered during this investigation as a result of increased soil pressures beyond the capability of our equipment to advancement the sampling tooling.

Section No. 4.0: Soil Laboratory Analytical Summary

Soil samples selected for laboratory analysis were placed into laboratory supplied containers, assigned individual identification numbers and then placed into an appropriately conditioned cooler. Chain of Custody documents were prepared, and the samples were then delivered to an independent New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory for analysis.

Soil samples from soil borings B-01, B-02, and B-03 were submitted for laboratory analysis and analyzed for Volatile Organic Compounds (VOCs) utilizing Environmental Protection Agency (EPA) Method 8260 CP-51 List and Semi-Volatile Organic Compounds (SVOCs) utilizing EPA Method 8270 CP-51 List.

York Analytical Laboratories, Inc. (York) provided laboratory analytical services. Copies of York's NYSDOH certifications are available upon request.

The laboratory analysis results for the soil samples were reviewed and compared to the Protection of Groundwater and Residential Use Soil Cleanup Objectives as listed in Table 375-6.8(b) of the 6NYCRR 375 New York State Department of Environmental Conservation Remedial Program Soil Cleanup Objectives, December 14, 2006.

The following table summarizes the Soil Samples Analytical Results:

Table No. 2: Summary of Soil Samples Analysis Results								
	Unrestricted Use	Protection of Groundwater	B-01 0 - 5'	B-01 110'-115'	B-02 0 - 5'	B-02 95' - 100'	B-03 0 - 5'	B-03 90' - 95'
EPA 8260 Volatile Organics List	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
1,2,4-Trimethylbenzene	3,600	3,600	<2.1	<2.5	<2.9	<2.4	<2.9	<2.7
1,3,5-Trimethylbenzene	8,400	8,400	<2.1	<2.5	<2.9	<2.4	<2.9	<2.7
Benzene	60	60	<2.1	<2.5	<2.9	<2.4	<2.9	<2.7
Ethyl Benzene	1,000	1,000	<2.1	<2.5	<2.9	<2.4	<2.9	<2.7
Isopropylbenzene	N/A	N/A	<2.1	<2.5	<2.9	<2.4	<2.9	<2.7
Methyl tert-butyl ether (MTBE)	930	930	<2.1	<2.5	<2.9	<2.4	<2.9	<2.7
Naphthalene	N/A	N/A	<2.1	<2.5	<2.9	<2.4	<2.9	<2.7
n-Butylbenzene	12,000	12,000	<2.1	<2.5	<2.9	<2.4	<2.9	<2.7
n-Propylbenzene	3,900	3,900	<2.1	<2.5	<2.9	<2.4	<2.9	<2.7
o-Xylenes	260	1,600	<2.1	<2.5	<2.9	<2.4	<2.9	<2.7
p- & m- Xylenes	260	1,600	<4.3	<5.0	<5.8	<4.9	<5.9	<5.4
p-Isopropyltoluene	N/A	N/A	<2.1	<2.5	<2.9	<2.4	<2.9	<2.7
sec-Butylbenzene	11,000	11,000	<2.1	<2.5	<2.9	<2.4	<2.9	<2.7
tert-Butylbenzene	5,900	5,900	<2.1	<2.5	<2.9	<2.4	<2.9	<2.7
Toluene	700	700	<2.1	<2.5	<2.9	<2.4	<2.9	<2.7
Xylenes, Total	N/A	N/A	<6.4	<7.5	<8.7	<7.3	<8.8	<8.0
EPA 8270 Semi-Volatiles List	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
Acenaphthene	20,000	98,000	<43	<45	<49	<49	<47	<44
Acenaphthylene	100,000	107,000	<43	<45	<49	<49	<47	<44
Anthracene	100,000	1,000,000	<43	<45	100	<49	<47	<44
Benzo(a)anthracene	1,000	1,000	<43	<45	280	<49	<47	<44
Benzo(a)pyrene	1,000	22,000	<43	<45	250	<49	<47	<44
Benzo(b)fluoranthene	1,000	1,700	<43	<45	200	<49	<47	<44
Benzo(g,h,i)perylene	100,000	1,000,000	<43	<45	140	<49	<47	<44
Benzo(k)fluoranthene	800	1,700	<43	<45	230	<49	<47	<44
Chrysene	1,000	1,000	<43	<45	310	<49	<47	<44
Dibenzo(a,h)anthracene	330	1,000,000	<43	<45	<49	<49	<47	<44
Fluoranthene	100,000	1,000,000	<43	<45	630	<49	<47	<44
Fluorene	30,000	386,000	<43	<45	<49	<49	<47	<44
Indeno(1,2,3-cd)pyrene	500	8,200	<43	<45	160	<49	<47	<44
Naphthalene	12,000	12,000	<43	<45	<49	<49	<47	<44
Phenanthrene	100,000	1,000,000	<43	<45	220	<49	<47	<44
Pyrene	100,000	1,000,000	<43	<45	460	<49	<47	<44

Notes:
 µg/kg = parts per billion
 mg/kg = parts per million
 ND = Not Detected above the laboratory minimum detection limit
 N/A = Guidance Value Not Established by NYSDEC at Time of Report
 Unrestricted Use = Unrestricted Use SCO - as listed in Table 375-6.8(a) of the NYSDEC's Subpart 375-6: Remedial Program Cleanup Objectives
 Protection of Groundwater = Protection of Groundwater SCO - as listed in Table 375-6.8(b) of the NYSDEC's Subpart 375-6: Remedial Program Cleanup Objectives

The review of the laboratory analysis revealed the following significant findings:

The laboratory analysis results for the soil sample submitted from B-01, B-02, and B-03 **did not** indicate any detectable concentrations of VOCs, or SVOCs exceeding the Unrestricted Use SCO or Protection of Groundwater SCO for the analytical methods conducted.

Section No. 5.0: Quality Assurance and Quality Control (QA/QC) Procedures

In order to prevent cross-contamination between sampling locations, all re-usable sampling equipment which comes into contact with sample materials was decontaminated prior to each use. Equipment used for sample collection was wiped clean, washed in a solution of Alconox, and thoroughly rinsed with potable water. All down-hole equipment which does not come into contact with sample material was pressure rinsed with potable water prior to the start of each boring. New and dedicated polyethylene liners was used for the collection of each soil sample. All sampling personnel wore disposable latex, nylon, or nitrile gloves during sampling events. At a minimum, gloves were changed between boring locations and before each laboratory sample was collected. All collected samples were placed into an appropriately conditioned cooler for storage and transported to the laboratory. Samples shall be maintained between 0°C and 8°C.

Section No. 6.0: Findings and Recommendations

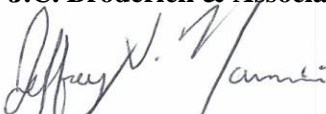
The laboratory analysis results for the soil samples submitted from B-01, B-02, and B-03 did not indicate any detectable concentrations of VOCs or SVOCs exceeding the NYSDEC Part 375 for the Protection of Groundwater or Unrestricted Use Soil Cleanup Objectives for the analytical methods conducted. No further action with regards to the soil at the subject site is warranted at this time

Groundwater samples could not be collected at the time of this investigation. The groundwater table is estimated to be approximately 120 – 140 feet below surface grade and due to an increase in soil pressures the depth to groundwater is beyond the capability of our equipment to advancement the sampling tooling.

Section No. 7.0: Certification

I certify that this Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER10) and that all activities were performed in accordance with the Environmental Site Investigation Work Plan.

Sincerely,
J.C. Broderick & Associates, Inc.



Jeffrey V. Nannini
Environmental Scientist



Steven Muller, P.G.
Director – Subsurface Division

Appendix A

Figures



J.C. BRODERICK

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Notes:

South Grove
Elementary School
60 Colony Lane
Syosset, NY 11791

Drawing Title

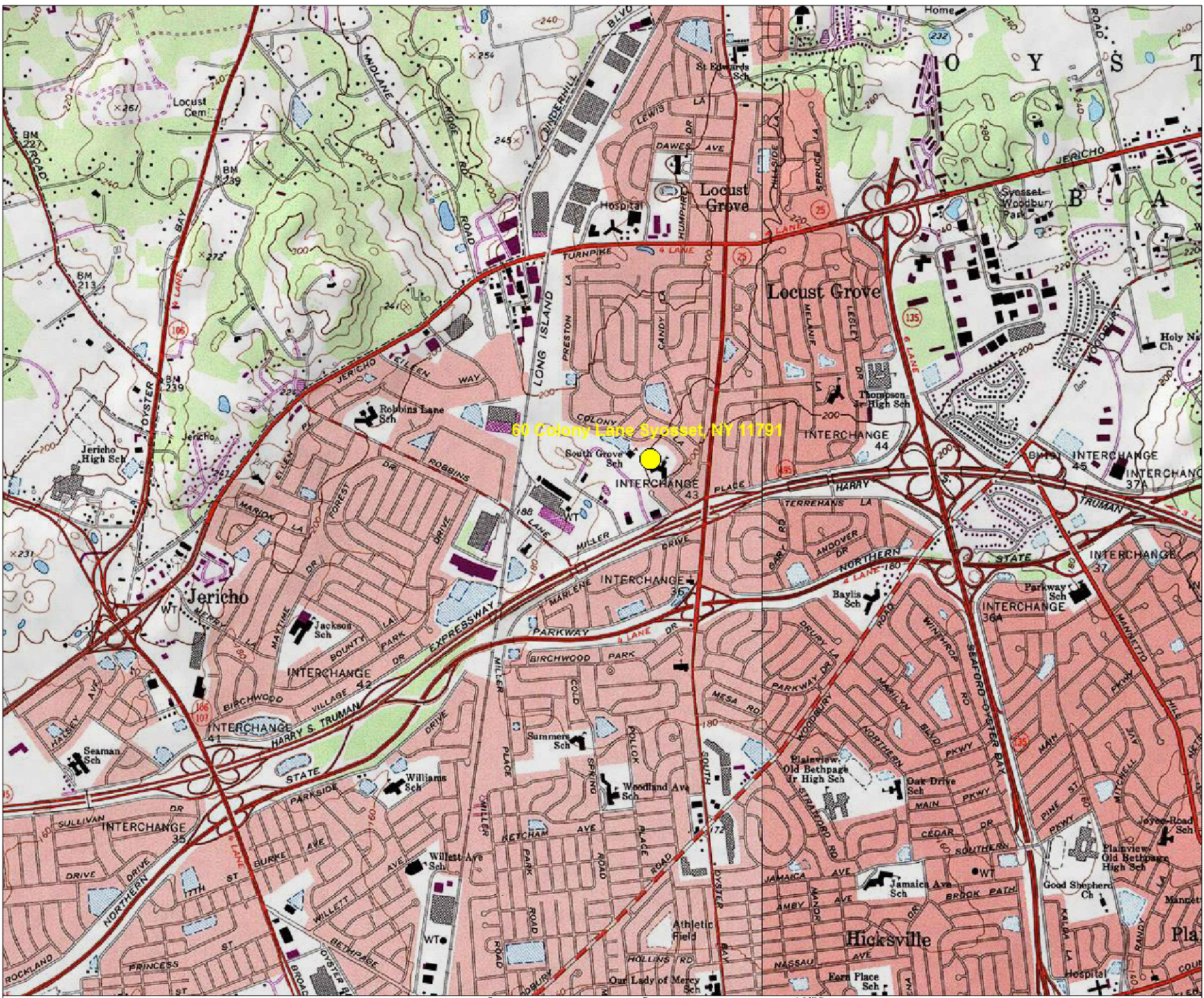
Figure No. 1
Site Location Map

Scale As Noted Project No. 18-40469 Date 08-08-18

Drawn By J.V.N. Checked By S.W.M. Page No. 1 of 2

Drawing No.

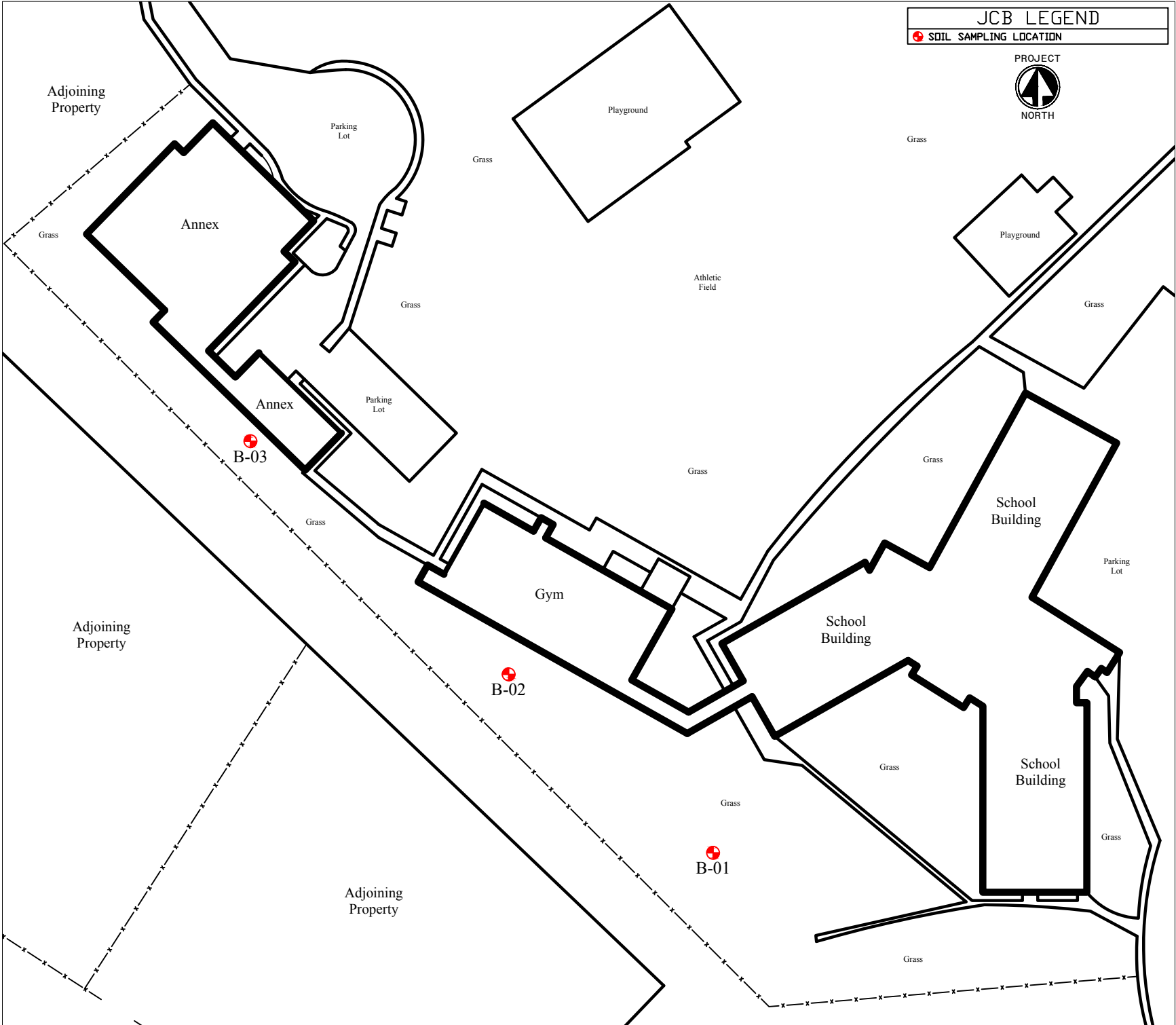
1



JCB LEGEND
● SUBJECT SITE



Map created with TOPO!® ©2002 National Geographic (www.nationalgeographic.com/topo)



JCB LEGEND

SOIL SAMPLING LOCATION

PROJECT



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Notes:

 South Grove
 Elementary School
 60 Colony Lane
 Syosset, NY 11791

Drawing Title

 Figure No. 2

 Soil Boring
 Sampling
 Locations

Scale N.T.S.	Project No. 18-40469	Date 08-08-18
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Drawn By J.V.N.	Checked By S.W.M.	Page No. 2 of 2
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Drawing No.

 2

Appendix B

Field Photograph Logs

Soil Boring No. B-01



Field Photograph Log

Subsurface Soil Investigation Report

**South Grove Elementary School and
South Grove Annex**

**60 Colony Lane
Syosset, New York 11971**

Photo No. 01

JCB#: 18-40469

Soil Boring No. B-02



Field Photograph Log

Subsurface Soil Investigation Report

**South Grove Elementary School and
South Grove Annex
60 Colony Lane
Syosset, New York 11971**

Photo No. 02

JCB#: 18-40469

Soil Boring No. B-03



Field Photograph Log

Subsurface Soil Investigation Report

**South Grove Elementary School and
South Grove Annex**

**60 Colony Lane
Syosset, New York 11971**

Photo No. 03

JCB#: 18-40469

Drill Rig over B-03



Field Photograph Log

Subsurface Soil Investigation Report

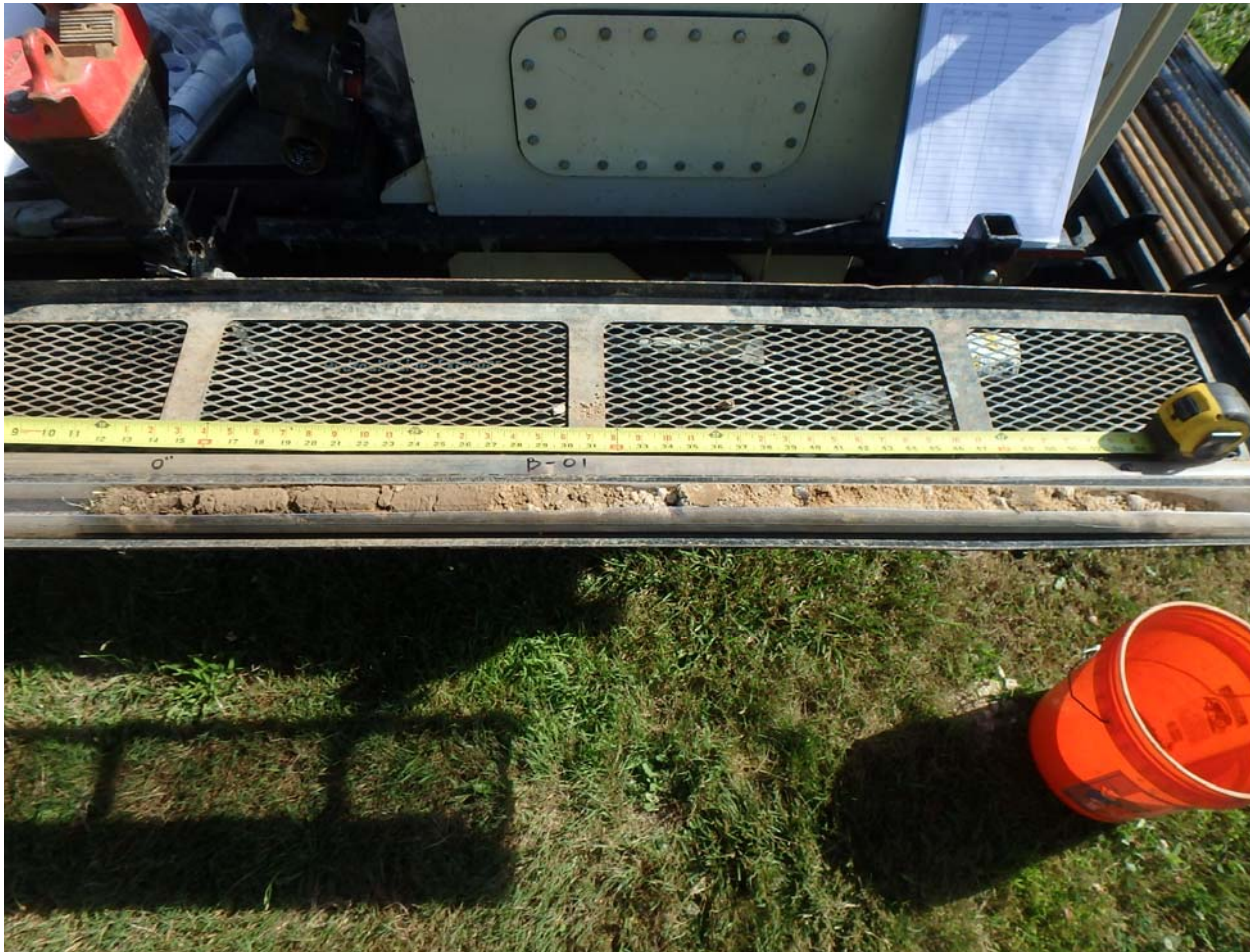
**South Grove Elementary School and
South Grove Annex**

**60 Colony Lane
Syosset, New York 11971**

Photo No. 04

JCB#: 18-40469

Typical Shallow Sample



Field Photograph Log

Subsurface Soil Investigation Report

**South Grove Elementary School and
South Grove Annex**

**60 Colony Lane
Syosset, New York 11971**

Photo No. 05

JCB#: 18-40469

Typical Deep Sample



Field Photograph Log

Subsurface Soil Investigation Report

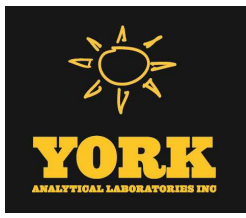
**South Grove Elementary School and
South Grove Annex
60 Colony Lane
Syosset, New York 11971**

Photo No. 06

JCB#: 18-40469

Appendix C

Laboratory Analytical Results



Technical Report

prepared for:

J.C. Broderick
1775 North Express Drive
Hauppauge NY, 11788
Attention: Steven Muller

Report Date: 07/12/2018
Client Project ID: 18-40469
York Project (SDG) No.: 18G0175

CT Cert. No. PH-0723

New Jersey Cert. No. CT005 and NY037



New York Cert. Nos. 10854 and 12058

PA Cert. No. 68-04440

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Report Date: 07/12/2018
Client Project ID: 18-40469
York Project (SDG) No.: 18G0175

J.C. Broderick
1775 North Express Drive
Hauppauge NY, 11788
Attention: Steven Muller

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 July 05, 2018 and listed below. The project was identified as your project: **18-40469**.

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

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

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

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

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

<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
18G0175-01	B-01@0-5'	Soil	06/29/2018	07/05/2018
18G0175-02	B-01@110'-115'	Soil	06/29/2018	07/05/2018
18G0175-03	B-02@0'-5'	Soil	07/02/2018	07/05/2018
18G0175-04	B-02@95'-100'	Soil	07/02/2018	07/05/2018
18G0175-05	B-03@0'-5'	Soil	07/03/2018	07/05/2018
18G0175-06	B-03@90'-95'	Soil	07/03/2018	07/05/2018

General Notes for York Project (SDG) No.: 18G0175

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

Approved By:



Benjamin Gulizia
Laboratory Director

Date: 07/12/2018





Sample Information

Client Sample ID: B-01@0-5'

York Sample ID: 18G0175-01

<u>York Project (SDG) No.</u> 18G0175	<u>Client Project ID</u> 18-40469	<u>Matrix</u> Soil	<u>Collection Date/Time</u> June 29, 2018 3:00 pm	<u>Date Received</u> 07/05/2018
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Volatile Organics, CP-51 (formerly STARS) List

Log-in Notes:

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
95-63-6	1,2,4-Trimethylbenzene	ND		ug/kg dry	2.1	4.3	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 18:38	RDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/kg dry	2.1	4.3	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 18:38	RDS
71-43-2	Benzene	ND		ug/kg dry	2.1	4.3	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 18:38	RDS
100-41-4	Ethyl Benzene	ND		ug/kg dry	2.1	4.3	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 18:38	RDS
98-82-8	Isopropylbenzene	ND		ug/kg dry	2.1	4.3	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 18:38	RDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	2.1	4.3	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 18:38	RDS
91-20-3	Naphthalene	ND		ug/kg dry	2.1	8.5	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,PADEP,NJI	07/10/2018 07:30	07/10/2018 18:38	RDS
104-51-8	n-Butylbenzene	ND		ug/kg dry	2.1	4.3	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 18:38	RDS
103-65-1	n-Propylbenzene	ND		ug/kg dry	2.1	4.3	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 18:38	RDS
95-47-6	o-Xylene	ND		ug/kg dry	2.1	4.3	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 18:38	RDS
179601-23-1	p- & m- Xylenes	ND		ug/kg dry	4.3	8.5	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 18:38	RDS
99-87-6	p-Isopropyltoluene	ND		ug/kg dry	2.1	4.3	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 18:38	RDS
135-98-8	sec-Butylbenzene	ND		ug/kg dry	2.1	4.3	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 18:38	RDS
98-06-6	tert-Butylbenzene	ND		ug/kg dry	2.1	4.3	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 18:38	RDS
108-88-3	Toluene	ND		ug/kg dry	2.1	4.3	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 18:38	RDS
1330-20-7	Xylenes, Total	ND		ug/kg dry	6.4	13	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/10/2018 07:30	07/10/2018 18:38	RDS
Surrogate Recoveries		Result			Acceptance Range						
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	106 %			77-125						
2037-26-5	Surrogate: Toluene-d8	113 %			85-120						
460-00-4	Surrogate: p-Bromofluorobenzene	92.1 %			76-130						



Sample Information

Client Sample ID: B-01@0-5'

York Sample ID: 18G0175-01

<u>York Project (SDG) No.</u> 18G0175	<u>Client Project ID</u> 18-40469	<u>Matrix</u> Soil	<u>Collection Date/Time</u> June 29, 2018 3:00 pm	<u>Date Received</u> 07/05/2018
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Semi-Volatiles, CP-51 (formerly STARS) List

Log-in Notes:

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	43	85	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 16:45	SR
208-96-8	Acenaphthylene	ND		ug/kg dry	43	85	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 16:45	SR
120-12-7	Anthracene	ND		ug/kg dry	43	85	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 16:45	SR
56-55-3	Benzo(a)anthracene	ND		ug/kg dry	43	85	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 16:45	SR
50-32-8	Benzo(a)pyrene	ND		ug/kg dry	43	85	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 16:45	SR
205-99-2	Benzo(b)fluoranthene	ND		ug/kg dry	43	85	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 16:45	SR
191-24-2	Benzo(g,h,i)perylene	ND		ug/kg dry	43	85	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 16:45	SR
207-08-9	Benzo(k)fluoranthene	ND		ug/kg dry	43	85	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 16:45	SR
218-01-9	Chrysene	ND		ug/kg dry	43	85	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 16:45	SR
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	43	85	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 16:45	SR
206-44-0	Fluoranthene	ND		ug/kg dry	43	85	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 16:45	SR
86-73-7	Fluorene	ND		ug/kg dry	43	85	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 16:45	SR
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/kg dry	43	85	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 16:45	SR
91-20-3	Naphthalene	ND		ug/kg dry	43	85	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 16:45	SR
85-01-8	Phenanthrene	ND		ug/kg dry	43	85	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 16:45	SR
129-00-0	Pyrene	ND		ug/kg dry	43	85	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 16:45	SR

Surrogate Recoveries

Result

Acceptance Range

4165-60-0	Surrogate: Nitrobenzene-d5	45.3 %	22-108
321-60-8	Surrogate: 2-Fluorobiphenyl	64.6 %	21-113
1718-51-0	Surrogate: Terphenyl-d14	74.6 %	24-116

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

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

Client Sample ID: B-01@0-5'

York Sample ID: 18G0175-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18G0175	18-40469	Soil	June 29, 2018 3:00 pm	07/05/2018

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	97.5		%	0.100	1	SM 2540G Certifications: CTDOH	07/12/2018 09:38	07/12/2018 15:45	TAJ

Sample Information

Client Sample ID: B-01@110'-115'

York Sample ID: 18G0175-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18G0175	18-40469	Soil	June 29, 2018 3:00 pm	07/05/2018

Volatile Organics, CP-51 (formerly STARS) List

Log-in Notes:

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
95-63-6	1,2,4-Trimethylbenzene	ND		ug/kg dry	2.5	5.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:05	RDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/kg dry	2.5	5.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:05	RDS
71-43-2	Benzene	ND		ug/kg dry	2.5	5.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:05	RDS
100-41-4	Ethyl Benzene	ND		ug/kg dry	2.5	5.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:05	RDS
98-82-8	Isopropylbenzene	ND		ug/kg dry	2.5	5.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:05	RDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	2.5	5.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:05	RDS
91-20-3	Naphthalene	ND		ug/kg dry	2.5	10	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,PADEP,NJ	07/10/2018 07:30	07/10/2018 19:05	RDS
104-51-8	n-Butylbenzene	ND		ug/kg dry	2.5	5.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:05	RDS
103-65-1	n-Propylbenzene	ND		ug/kg dry	2.5	5.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:05	RDS
95-47-6	o-Xylene	ND		ug/kg dry	2.5	5.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:05	RDS
179601-23-1	p- & m- Xylenes	ND		ug/kg dry	5.0	10	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:05	RDS
99-87-6	p-Isopropyltoluene	ND		ug/kg dry	2.5	5.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:05	RDS
135-98-8	sec-Butylbenzene	ND		ug/kg dry	2.5	5.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:05	RDS



Sample Information

Client Sample ID: B-01@110'-115'

York Sample ID: 18G0175-02

<u>York Project (SDG) No.</u> 18G0175	<u>Client Project ID</u> 18-40469	<u>Matrix</u> Soil	<u>Collection Date/Time</u> June 29, 2018 3:00 pm	<u>Date Received</u> 07/05/2018
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Volatile Organics, CP-51 (formerly STARS) List

Log-in Notes:

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
98-06-6	tert-Butylbenzene	ND		ug/kg dry	2.5	5.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:05	RDS
108-88-3	Toluene	ND		ug/kg dry	2.5	5.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:05	RDS
1330-20-7	Xylenes, Total	ND		ug/kg dry	7.5	15	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/10/2018 07:30	07/10/2018 19:05	RDS
Surrogate Recoveries		Result			Acceptance Range						
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	113 %			77-125						
2037-26-5	Surrogate: Toluene-d8	108 %			85-120						
460-00-4	Surrogate: p-Bromofluorobenzene	93.0 %			76-130						

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

Log-in Notes:

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	45	89	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 17:34	SR
208-96-8	Acenaphthylene	ND		ug/kg dry	45	89	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 17:34	SR
120-12-7	Anthracene	ND		ug/kg dry	45	89	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 17:34	SR
56-55-3	Benzo(a)anthracene	ND		ug/kg dry	45	89	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 17:34	SR
50-32-8	Benzo(a)pyrene	ND		ug/kg dry	45	89	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 17:34	SR
205-99-2	Benzo(b)fluoranthene	ND		ug/kg dry	45	89	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 17:34	SR
191-24-2	Benzo(g,h,i)perylene	ND		ug/kg dry	45	89	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 17:34	SR
207-08-9	Benzo(k)fluoranthene	ND		ug/kg dry	45	89	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 17:34	SR
218-01-9	Chrysene	ND		ug/kg dry	45	89	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 17:34	SR
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	45	89	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 17:34	SR
206-44-0	Fluoranthene	ND		ug/kg dry	45	89	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 17:34	SR
86-73-7	Fluorene	ND		ug/kg dry	45	89	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 17:34	SR
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/kg dry	45	89	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 17:34	SR



Sample Information

Client Sample ID: B-01@110'-115'

York Sample ID: 18G0175-02

York Project (SDG) No. 18G0175	Client Project ID 18-40469	Matrix Soil	Collection Date/Time June 29, 2018 3:00 pm	Date Received 07/05/2018
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Semi-Volatiles, CP-51 (formerly STARS) List

Log-in Notes:

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
91-20-3	Naphthalene	ND		ug/kg dry	45	89	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 17:34	SR
85-01-8	Phenanthrene	ND		ug/kg dry	45	89	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 17:34	SR
129-00-0	Pyrene	ND		ug/kg dry	45	89	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 17:34	SR
Surrogate Recoveries		Result			Acceptance Range						
4165-60-0	Surrogate: Nitrobenzene-d5	45.4 %			22-108						
321-60-8	Surrogate: 2-Fluorobiphenyl	63.7 %			21-113						
1718-51-0	Surrogate: Terphenyl-d14	72.2 %			24-116						

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	93.1		%	0.100	1	SM 2540G Certifications: CTDOH	07/12/2018 09:38	07/12/2018 15:45	TAJ

Sample Information

Client Sample ID: B-02@0'-5'

York Sample ID: 18G0175-03

York Project (SDG) No. 18G0175	Client Project ID 18-40469	Matrix Soil	Collection Date/Time July 2, 2018 3:00 pm	Date Received 07/05/2018
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Volatile Organics, CP-51 (formerly STARS) List

Log-in Notes:

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
95-63-6	1,2,4-Trimethylbenzene	ND		ug/kg dry	2.9	5.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:32	RDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/kg dry	2.9	5.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:32	RDS
71-43-2	Benzene	ND		ug/kg dry	2.9	5.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:32	RDS
100-41-4	Ethyl Benzene	ND		ug/kg dry	2.9	5.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:32	RDS
98-82-8	Isopropylbenzene	ND		ug/kg dry	2.9	5.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:32	RDS



Sample Information

Client Sample ID: B-02@0'-5'

York Sample ID: 18G0175-03

<u>York Project (SDG) No.</u> 18G0175	<u>Client Project ID</u> 18-40469	<u>Matrix</u> Soil	<u>Collection Date/Time</u> July 2, 2018 3:00 pm	<u>Date Received</u> 07/05/2018
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Volatile Organics, CP-51 (formerly STARS) List

Log-in Notes:

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
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	2.9	5.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:32	RDS
91-20-3	Naphthalene	ND		ug/kg dry	2.9	12	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,PADEP,NJ	07/10/2018 07:30	07/10/2018 19:32	RDS
104-51-8	n-Butylbenzene	ND		ug/kg dry	2.9	5.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:32	RDS
103-65-1	n-Propylbenzene	ND		ug/kg dry	2.9	5.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:32	RDS
95-47-6	o-Xylene	ND		ug/kg dry	2.9	5.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:32	RDS
179601-23-1	p- & m- Xylenes	ND		ug/kg dry	5.8	12	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:32	RDS
99-87-6	p-Isopropyltoluene	ND		ug/kg dry	2.9	5.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:32	RDS
135-98-8	sec-Butylbenzene	ND		ug/kg dry	2.9	5.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:32	RDS
98-06-6	tert-Butylbenzene	ND		ug/kg dry	2.9	5.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:32	RDS
108-88-3	Toluene	ND		ug/kg dry	2.9	5.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:32	RDS
1330-20-7	Xylenes, Total	ND		ug/kg dry	8.7	17	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/10/2018 07:30	07/10/2018 19:32	RDS
Surrogate Recoveries		Result			Acceptance Range						
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	107 %			77-125						
2037-26-5	Surrogate: Toluene-d8	112 %			85-120						
460-00-4	Surrogate: p-Bromofluorobenzene	98.3 %			76-130						

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

Log-in Notes:

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	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 18:22	SR
208-96-8	Acenaphthylene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 18:22	SR
120-12-7	Anthracene	100		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 18:22	SR
56-55-3	Benzo(a)anthracene	280		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 18:22	SR
50-32-8	Benzo(a)pyrene	250		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 18:22	SR
205-99-2	Benzo(b)fluoranthene	200		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 18:22	SR



Sample Information

Client Sample ID: B-02@0'-5'

York Sample ID: 18G0175-03

<u>York Project (SDG) No.</u> 18G0175	<u>Client Project ID</u> 18-40469	<u>Matrix</u> Soil	<u>Collection Date/Time</u> July 2, 2018 3:00 pm	<u>Date Received</u> 07/05/2018
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Semi-Volatiles, CP-51 (formerly STARS) List

Log-in Notes:

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
191-24-2	Benzo(g,h,i)perylene	140		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 18:22	SR
207-08-9	Benzo(k)fluoranthene	230		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 18:22	SR
218-01-9	Chrysene	310		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 18:22	SR
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 18:22	SR
206-44-0	Fluoranthene	630		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 18:22	SR
86-73-7	Fluorene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 18:22	SR
193-39-5	Indeno(1,2,3-cd)pyrene	160		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 18:22	SR
91-20-3	Naphthalene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 18:22	SR
85-01-8	Phenanthrene	220		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 18:22	SR
129-00-0	Pyrene	460		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 18:22	SR
Surrogate Recoveries		Result			Acceptance Range						
4165-60-0	Surrogate: Nitrobenzene-d5	36.9 %			22-108						
321-60-8	Surrogate: 2-Fluorobiphenyl	53.0 %			21-113						
1718-51-0	Surrogate: Terphenyl-d14	63.3 %			24-116						

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	84.3		%	0.100	1	SM 2540G Certifications: CTDOH	07/12/2018 09:38	07/12/2018 15:45	TAJ

Sample Information

Client Sample ID: B-02@95'-100'

York Sample ID: 18G0175-04

<u>York Project (SDG) No.</u> 18G0175	<u>Client Project ID</u> 18-40469	<u>Matrix</u> Soil	<u>Collection Date/Time</u> July 2, 2018 3:00 pm	<u>Date Received</u> 07/05/2018
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Sample Information

Client Sample ID: B-02@95'-100'

York Sample ID: 18G0175-04

<u>York Project (SDG) No.</u> 18G0175	<u>Client Project ID</u> 18-40469	<u>Matrix</u> Soil	<u>Collection Date/Time</u> July 2, 2018 3:00 pm	<u>Date Received</u> 07/05/2018
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Volatile Organics, CP-51 (formerly STARS) List

Log-in Notes:

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
95-63-6	1,2,4-Trimethylbenzene	ND		ug/kg dry	2.4	4.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:59	RDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/kg dry	2.4	4.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:59	RDS
71-43-2	Benzene	ND		ug/kg dry	2.4	4.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:59	RDS
100-41-4	Ethyl Benzene	ND		ug/kg dry	2.4	4.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:59	RDS
98-82-8	Isopropylbenzene	ND		ug/kg dry	2.4	4.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:59	RDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	2.4	4.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:59	RDS
91-20-3	Naphthalene	ND		ug/kg dry	2.4	9.8	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,PADEPNJ	07/10/2018 07:30	07/10/2018 19:59	RDS
104-51-8	n-Butylbenzene	ND		ug/kg dry	2.4	4.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:59	RDS
103-65-1	n-Propylbenzene	ND		ug/kg dry	2.4	4.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:59	RDS
95-47-6	o-Xylene	ND		ug/kg dry	2.4	4.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:59	RDS
179601-23-1	p- & m- Xylenes	ND		ug/kg dry	4.9	9.8	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:59	RDS
99-87-6	p-Isopropyltoluene	ND		ug/kg dry	2.4	4.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:59	RDS
135-98-8	sec-Butylbenzene	ND		ug/kg dry	2.4	4.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:59	RDS
98-06-6	tert-Butylbenzene	ND		ug/kg dry	2.4	4.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:59	RDS
108-88-3	Toluene	ND		ug/kg dry	2.4	4.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 19:59	RDS
1330-20-7	Xylenes, Total	ND		ug/kg dry	7.3	15	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/10/2018 07:30	07/10/2018 19:59	RDS

Surrogate Recoveries

Result

Acceptance Range

17060-07-0	Surrogate: 1,2-Dichloroethane-d4	108 %	77-125
2037-26-5	Surrogate: Toluene-d8	114 %	85-120
460-00-4	Surrogate: p-Bromofluorobenzene	94.7 %	76-130

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

Log-in Notes:

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
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Sample Information

Client Sample ID: B-02@95'-100'

York Sample ID: 18G0175-04

<u>York Project (SDG) No.</u> 18G0175	<u>Client Project ID</u> 18-40469	<u>Matrix</u> Soil	<u>Collection Date/Time</u> July 2, 2018 3:00 pm	<u>Date Received</u> 07/05/2018
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Semi-Volatiles, CP-51 (formerly STARS) List

Log-in Notes:

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	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 19:10	SR
208-96-8	Acenaphthylene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 19:10	SR
120-12-7	Anthracene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 19:10	SR
56-55-3	Benzo(a)anthracene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 19:10	SR
50-32-8	Benzo(a)pyrene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 19:10	SR
205-99-2	Benzo(b)fluoranthene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 19:10	SR
191-24-2	Benzo(g,h,i)perylene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 19:10	SR
207-08-9	Benzo(k)fluoranthene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 19:10	SR
218-01-9	Chrysene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 19:10	SR
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 19:10	SR
206-44-0	Fluoranthene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 19:10	SR
86-73-7	Fluorene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 19:10	SR
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 19:10	SR
91-20-3	Naphthalene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 19:10	SR
85-01-8	Phenanthrene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 19:10	SR
129-00-0	Pyrene	ND		ug/kg dry	49	98	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 19:10	SR
Surrogate Recoveries		Result	Acceptance Range								
4165-60-0	Surrogate: Nitrobenzene-d5	55.6 %	22-108								
321-60-8	Surrogate: 2-Fluorobiphenyl	73.4 %	21-113								
1718-51-0	Surrogate: Terphenyl-d14	74.6 %	24-116								

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
120 RESEARCH DRIVE	STRATFORD, CT 06615						132-02 89th AVENUE			RICHMOND HILL, NY 11418
www.YORKLAB.com	(203) 325-1371						FAX (203) 357-0166			ClientServices@yorklab.com



Sample Information

Client Sample ID: B-02@95'-100'

York Sample ID: 18G0175-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18G0175	18-40469	Soil	July 3, 2018 3:00 pm	07/05/2018

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	85.3		%	0.100	1	SM 2540G Certifications: CTDOH	07/12/2018 09:38	07/12/2018 15:45	TAJ

Sample Information

Client Sample ID: B-03@0'-5'

York Sample ID: 18G0175-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18G0175	18-40469	Soil	July 3, 2018 3:00 pm	07/05/2018

Volatile Organics, CP-51 (formerly STARS) List

Log-in Notes:

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
95-63-6	1,2,4-Trimethylbenzene	ND		ug/kg dry	2.9	5.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 20:27	RDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/kg dry	2.9	5.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 20:27	RDS
71-43-2	Benzene	ND		ug/kg dry	2.9	5.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 20:27	RDS
100-41-4	Ethyl Benzene	ND		ug/kg dry	2.9	5.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 20:27	RDS
98-82-8	Isopropylbenzene	ND		ug/kg dry	2.9	5.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 20:27	RDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	2.9	5.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 20:27	RDS
91-20-3	Naphthalene	ND		ug/kg dry	2.9	12	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,PADEP,NJII	07/10/2018 07:30	07/10/2018 20:27	RDS
104-51-8	n-Butylbenzene	ND		ug/kg dry	2.9	5.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 20:27	RDS
103-65-1	n-Propylbenzene	ND		ug/kg dry	2.9	5.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 20:27	RDS
95-47-6	o-Xylene	ND		ug/kg dry	2.9	5.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 20:27	RDS
179601-23-1	p- & m- Xylenes	ND		ug/kg dry	5.9	12	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 20:27	RDS
99-87-6	p-Isopropyltoluene	ND		ug/kg dry	2.9	5.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 20:27	RDS
135-98-8	sec-Butylbenzene	ND		ug/kg dry	2.9	5.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 20:27	RDS



Sample Information

Client Sample ID: B-03@0'-5'

York Sample ID: 18G0175-05

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

18G0175

18-40469

Soil

July 3, 2018 3:00 pm

07/05/2018

Volatile Organics, CP-51 (formerly STARS) List

Log-in Notes:

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
98-06-6	tert-Butylbenzene	ND		ug/kg dry	2.9	5.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 20:27	RDS
108-88-3	Toluene	ND		ug/kg dry	2.9	5.9	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 20:27	RDS
1330-20-7	Xylenes, Total	ND		ug/kg dry	8.8	18	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/10/2018 07:30	07/10/2018 20:27	RDS
	Surrogate Recoveries	Result			Acceptance Range						
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	105 %			77-125						
2037-26-5	Surrogate: Toluene-d8	112 %			85-120						
460-00-4	Surrogate: p-Bromofluorobenzene	97.9 %			76-130						

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

Log-in Notes:

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	47	93	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 19:58	SR
208-96-8	Acenaphthylene	ND		ug/kg dry	47	93	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 19:58	SR
120-12-7	Anthracene	ND		ug/kg dry	47	93	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 19:58	SR
56-55-3	Benzo(a)anthracene	ND		ug/kg dry	47	93	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 19:58	SR
50-32-8	Benzo(a)pyrene	ND		ug/kg dry	47	93	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 19:58	SR
205-99-2	Benzo(b)fluoranthene	ND		ug/kg dry	47	93	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 19:58	SR
191-24-2	Benzo(g,h,i)perylene	ND		ug/kg dry	47	93	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 19:58	SR
207-08-9	Benzo(k)fluoranthene	ND		ug/kg dry	47	93	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 19:58	SR
218-01-9	Chrysene	ND		ug/kg dry	47	93	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 19:58	SR
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	47	93	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 19:58	SR
206-44-0	Fluoranthene	ND		ug/kg dry	47	93	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 19:58	SR
86-73-7	Fluorene	ND		ug/kg dry	47	93	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 19:58	SR
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/kg dry	47	93	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 19:58	SR



Sample Information

Client Sample ID: B-03@0'-5'

York Sample ID: 18G0175-05

York Project (SDG) No. 18G0175	Client Project ID 18-40469	Matrix Soil	Collection Date/Time July 3, 2018 3:00 pm	Date Received 07/05/2018
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Semi-Volatiles, CP-51 (formerly STARS) List

Log-in Notes:

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
91-20-3	Naphthalene	ND		ug/kg dry	47	93	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 19:58	SR
85-01-8	Phenanthrene	ND		ug/kg dry	47	93	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 19:58	SR
129-00-0	Pyrene	ND		ug/kg dry	47	93	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/10/2018 19:58	SR
Surrogate Recoveries		Result			Acceptance Range						
4165-60-0	Surrogate: Nitrobenzene-d5	52.7 %			22-108						
321-60-8	Surrogate: 2-Fluorobiphenyl	66.5 %			21-113						
1718-51-0	Surrogate: Terphenyl-d14	67.6 %			24-116						

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	89.0		%	0.100	1	SM 2540G Certifications: CTDOH	07/12/2018 09:38	07/12/2018 15:45	TAJ

Sample Information

Client Sample ID: B-03@90'-95'

York Sample ID: 18G0175-06

York Project (SDG) No. 18G0175	Client Project ID 18-40469	Matrix Soil	Collection Date/Time July 3, 2018 3:00 pm	Date Received 07/05/2018
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Volatile Organics, CP-51 (formerly STARS) List

Log-in Notes:

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
95-63-6	1,2,4-Trimethylbenzene	ND		ug/kg dry	2.7	5.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 20:54	RDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/kg dry	2.7	5.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 20:54	RDS
71-43-2	Benzene	ND		ug/kg dry	2.7	5.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 20:54	RDS
100-41-4	Ethyl Benzene	ND		ug/kg dry	2.7	5.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 20:54	RDS
98-82-8	Isopropylbenzene	ND		ug/kg dry	2.7	5.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 20:54	RDS



Sample Information

Client Sample ID: B-03@90'-95'

York Sample ID: 18G0175-06

<u>York Project (SDG) No.</u> 18G0175	<u>Client Project ID</u> 18-40469	<u>Matrix</u> Soil	<u>Collection Date/Time</u> July 3, 2018 3:00 pm	<u>Date Received</u> 07/05/2018
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Volatile Organics, CP-51 (formerly STARS) List

Log-in Notes:

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
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	2.7	5.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 20:54	RDS
91-20-3	Naphthalene	ND		ug/kg dry	2.7	11	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,PADEP,NJ	07/10/2018 07:30	07/10/2018 20:54	RDS
104-51-8	n-Butylbenzene	ND		ug/kg dry	2.7	5.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 20:54	RDS
103-65-1	n-Propylbenzene	ND		ug/kg dry	2.7	5.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 20:54	RDS
95-47-6	o-Xylene	ND		ug/kg dry	2.7	5.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 20:54	RDS
179601-23-1	p- & m- Xylenes	ND		ug/kg dry	5.4	11	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 20:54	RDS
99-87-6	p-Isopropyltoluene	ND		ug/kg dry	2.7	5.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 20:54	RDS
135-98-8	sec-Butylbenzene	ND		ug/kg dry	2.7	5.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 20:54	RDS
98-06-6	tert-Butylbenzene	ND		ug/kg dry	2.7	5.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 20:54	RDS
108-88-3	Toluene	ND		ug/kg dry	2.7	5.4	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/10/2018 07:30	07/10/2018 20:54	RDS
1330-20-7	Xylenes, Total	ND		ug/kg dry	8.0	16	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/10/2018 07:30	07/10/2018 20:54	RDS
Surrogate Recoveries		Result			Acceptance Range						
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	108 %			77-125						
2037-26-5	Surrogate: Toluene-d8	110 %			85-120						
460-00-4	Surrogate: p-Bromofluorobenzene	93.8 %			76-130						

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

Log-in Notes:

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	44	87	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/07/2018 19:00	OW
208-96-8	Acenaphthylene	ND		ug/kg dry	44	87	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/07/2018 19:00	OW
120-12-7	Anthracene	ND		ug/kg dry	44	87	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/07/2018 19:00	OW
56-55-3	Benzo(a)anthracene	ND		ug/kg dry	44	87	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/07/2018 19:00	OW
50-32-8	Benzo(a)pyrene	ND		ug/kg dry	44	87	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/07/2018 19:00	OW



Sample Information

Client Sample ID: B-03@90'-95'

York Sample ID: 18G0175-06

<u>York Project (SDG) No.</u> 18G0175	<u>Client Project ID</u> 18-40469	<u>Matrix</u> Soil	<u>Collection Date/Time</u> July 3, 2018 3:00 pm	<u>Date Received</u> 07/05/2018
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Semi-Volatiles, CP-51 (formerly STARS) List

Log-in Notes:

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
205-99-2	Benzo(b)fluoranthene	ND		ug/kg dry	44	87	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/07/2018 19:00	OW
191-24-2	Benzo(g,h,i)perylene	ND		ug/kg dry	44	87	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/07/2018 19:00	OW
207-08-9	Benzo(k)fluoranthene	ND		ug/kg dry	44	87	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/07/2018 19:00	OW
218-01-9	Chrysene	ND		ug/kg dry	44	87	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/07/2018 19:00	OW
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	44	87	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/07/2018 19:00	OW
206-44-0	Fluoranthene	ND		ug/kg dry	44	87	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/07/2018 19:00	OW
86-73-7	Fluorene	ND		ug/kg dry	44	87	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/07/2018 19:00	OW
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/kg dry	44	87	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/07/2018 19:00	OW
91-20-3	Naphthalene	ND		ug/kg dry	44	87	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/07/2018 19:00	OW
85-01-8	Phenanthrene	ND		ug/kg dry	44	87	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/07/2018 19:00	OW
129-00-0	Pyrene	ND		ug/kg dry	44	87	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/06/2018 14:08	07/07/2018 19:00	OW
Surrogate Recoveries		Result	Acceptance Range								
4165-60-0	Surrogate: Nitrobenzene-d5	70.8 %	22-108								
321-60-8	Surrogate: 2-Fluorobiphenyl	57.0 %	21-113								
1718-51-0	Surrogate: Terphenyl-d14	74.3 %	24-116								

Total Solids

Log-in Notes:

Sample Notes:

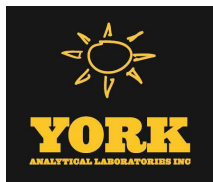
Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	95.7		%	0.100	1	SM 2540G Certifications: CTDOH	07/12/2018 09:38	07/12/2018 15:45	TAJ



Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
18G0175-01	B-01@0'-5'	40mL Vial with Stir Bar-Cool 4° C
18G0175-02	B-01@110'-115'	40mL Vial with Stir Bar-Cool 4° C
18G0175-03	B-02@0'-5'	40mL Vial with Stir Bar-Cool 4° C
18G0175-04	B-02@95'-100'	40mL Vial with Stir Bar-Cool 4° C
18G0175-05	B-03@0'-5'	40mL Vial with Stir Bar-Cool 4° C
18G0175-06	B-03@90'-95'	40mL Vial with Stir Bar-Cool 4° C



Sample and Data Qualifiers Relating to This Work Order

Definitions and Other Explanations

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

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

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

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

Certification for pH is no longer offered by NYDOH ELAP.

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

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



YORK ANALYTICAL LABORATORIES
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. 18G0175

YOUR Information		Report To:		Invoice To:		YOUR Project ID		Turn-Around Time		Report Type	
Company: <u>XEROBRICK & ASSOC.</u>		Company: <u>JCB</u>		Company: <u>JCB</u>		<u>18-40469</u>		RUSH - Same Day <input type="checkbox"/> RUSH - Next Day <input type="checkbox"/> RUSH - Two Day <input type="checkbox"/> RUSH - Three Day <input type="checkbox"/> RUSH - Four Day <input type="checkbox"/>		Summary Report <input checked="" type="checkbox"/> Summary w/ QA Summary _____ CT RCP Package _____ CTRCP DQA/DUE Pkg _____ NY ASP A Package _____ NY ASP B Package _____ NJDEP Red. Deliv. _____	
Address: <u>175 EXPRESS DR. N</u> <u>HARPPANGE, NY</u>		Address: _____		Address: _____		Purchase Order No. _____		Standard(5-7 Days) <input checked="" type="checkbox"/>		Electronic Data Deliverables (EDD) Simple Excel _____ NYSDEC EQulS _____ EQulS (std) _____ EZ-EDD (EQulS) _____ NJDEP SRP HazSite EDD _____ GIS/KEY (std) _____ Other _____	
Phone No: <u>631-584-5492</u>		Phone No. _____		Phone No. _____		Samples from: CT ___ NY <input checked="" type="checkbox"/> NJ ___					
Contact Person: <u>S. MULLON</u>		Attention: _____		Attention: _____							
E-Mail Address: <u>SMULLON@XEROBRICK.COM</u>		E-Mail Address: _____		E-Mail Address: _____							

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.

Volatiles	Semi-Vols.	Pest/PCB/Herb	Metals	Misc. Org.	Full Lists	Misc.
8260 full TICs	8270 or 625 STARS list	8082PCB	RCRA8	TPH GRO	Pri.Poll.	Corrosivity
624 Site Spec.	BN Only	8081Pest	PP13 list	TPH DRO	TCL Organics	Reactivity
STARS list Nassau Co.	Acids Only	8151Herb	TAL	CT ETPH	TAL MetCN	Ignitability
BTEX Suffolk Co.	PAH list	CT RCP	CT15 list	NY 310-13	Full TCLP	Flash Point
MTBE Ketones	TAGM 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-Routine	Heterotrophs
TAGM list TCLP list	CT RCP list	SPLP or TCLP	Total	Air TO15	Part 360-Baseline	TOX
CT RCP list 524.2	TCL list	TCLP Pest	Dissolved	Air STARS	Part 360-Expanded No Disposal Tables	BTU/lb.
Arom. only 502.2	NJDEP list	TCLP Herb	SPLP or TCLP	Air VPH	Part 360-Expanded Full List	Aquatic Tox.
Halog. only NJDEP list	App. IX	Chlordane	Indic. Metals	Air TICs	NYCDEP Sewer	TOC
App. IX list SPLP or TCLP	TCLP BNA	608 Pest	LIST Below	Methane	NYSDEC Sewer	Asbestos
8021B list	SPLP or TCLP	608 PCB		Helium	TAGM	Silica

[Signature]
Samples Collected/Authorized By (Signature)
Steven Mullon
Name (printed)

Sample Identification	Date/Time Sampled	Sample Matrix	Choose Analyses Needed from the Menu Above and Enter Below	Container Description(s)
B-01 @ 0-5'	6/29/18	S	EPA 8260 CP-51, EPA 8270 CP-51	1-TURNACONE, 1-4oz
B-01 @ 110-115'	6/29/18	S	↓	↓
B-02 @ 0-5'	7/2/18	S	↓	↓
B-02 @ 95'-100'	7/2/18	S	↓	↓
B-03 @ 0-5'	7/3/18	S	↓	↓
P-03 @ 90'-95'	7/3/18	S	↓	↓

Preservation Check those Applicable Special Instructions Field Filtered <input type="checkbox"/> Lab to Filter <input type="checkbox"/>	4°C _____ Frozen _____ HCl _____ MeOH _____ HNO ₃ _____ H ₂ SO ₄ _____ NaOH _____	Temperature on Receipt <u>2.0 °C</u>
	ZnAc _____ Ascorbic Acid _____ Other _____	
	Samples Relinquished By <u>[Signature]</u> Date/Time <u>7/5/18 12:15</u> Samples Received By <u>[Signature]</u> Date/Time <u>7/5/18 12:15</u>	
	Samples Relinquished By <u>Wade</u> Date/Time <u>7/5/18 15:57</u> Samples Received in LAB by <u>Gale</u> Date/Time <u>7-5-18 15:57</u>	

Page 20 of 20

Comments
 WITH GROVE EM / ANNEX
 0 COLONY LAWS
 1030 CT, NY.