

20 April 2015

Mr. Ryan Malin
AKT Group, LLC
750 East Main Street, Suite 501
Stamford, CT 06902

**Re: Limited Supplemental Phase II Environmental Site Investigation
William Street Baseball Field
William Street West and Church Street
Greenwich, Connecticut
Langan Project No.: 140109002**

Dear Mr. Malin,

Langan CT, Inc. (Langan) prepared this report to document the results of the Limited Supplemental Phase II Environmental Site Investigation (ESI) performed on behalf of AKF Group, LLC (AKF) for the William Street Baseball Field located at the intersection of William Street West and Church Street in the Town of Greenwich, Connecticut (hereafter referred to as the "Site"). The Site encompasses approximately 55,000 square feet (SF) and is part of three tax lots designated as Parcel ID's 04-4500/S, 04-4502/S, and 04-4506/S by the Greenwich Tax Assessor. The Site is improved with a public baseball field.

This letter report describes the sampling methodology, field observations, and analytical results of the shallow subsurface investigation, which included the completion of 20 shallow hand auger soil borings (0 to 1 feet bgs) to further investigate the presence and/or extent of arsenic-impacted soils at the Site.

PREVIOUS ENVIRONMENTAL INVESTIGATION

Langan conducted a Limited Phase II ESI on the Site on 11 August 2014, which included the completion of a geophysical survey, the oversight of three environmental soil borings, and the collection/analysis of three shallow soil samples. Soil analytical testing data obtained during the Limited Phase II ESI was compared to the Connecticut Department of Energy and Environmental Protection's (CTDEEP) Remediation Standard Regulations (RSRs) Residential Direct Exposure Criteria (RDEC) and the Industrial/Commercial Direct Exposure Criteria (I/C DEC), which in both cases is 10 milligrams per kilogram (mg/kg). The DEC is established to protect human health from risks associated with direct exposure to pollutants in contaminated soil within 15 feet of the ground surface. Laboratory analytical results of the subsurface material identified concentrations of arsenic exceeding the DEC in two of the three borings at depths ranging from 1 to 2 feet below grade surface (bgs). Arsenic was detected at a

concentration of 144 and 89.2 mg/kg in SB-7 and SB-8, respectively, above the DEC of 10 mg/kg.

Based on a review of historical aerial photographs, the baseball field was constructed sometime before 1934 and the source of material used to grade and construct the baseball field is unknown.

FIELD INVESTIGATION

Langan implemented a supplemental field investigation on 24 March 2015 to further investigate the presence and/or extent of shallow arsenic-impacted soils at the William Street Baseball Field. Our scope included the completion of 20 shallow hand auger soil borings (0 to 1 feet bgs) and collection of 20 grab soil samples (plus one duplicate sample). Soil sampling procedures and results are discussed below. A summary of the environmental samples laboratory analytical data is provided in Table 1 and the soil boring locations are shown on Figure 2. All samples were analyzed by a CTDPH certified laboratory, York Analytical Laboratories of Stratford, Connecticut.

Soil Investigation

On 24 March 2015, 20 soil borings (HA-1 through HA-20) were advanced by a Langan field engineer at the locations shown on Figure 2. The sampling locations were spatially located based on a grid system to cover the entire footprint of the baseball field (including the infield and dugout areas) at a frequency of approximately 1 sample per 2,700 SF. A hand auger and posthole digger were used to collect the samples. The borings were advanced to a depth of approximately 1 ft bgs, and one discrete (grab) soil sample was collected from each boring. The hand auger and posthole digger were decontaminated between boring locations with a non-phosphate detergent (Liquinox) and water wash and fresh water rinse. Quality assurance/quality control (QA/QC) measures included the collection of one duplicate soil sample (DUP-1), which was collected from boring HA-13, and the collection of one field blank off of the decontaminated sampling equipment. The soil samples and QA/QC samples were submitted to York Analytical Laboratories under a standard chain-of-custody protocol for analysis of Arsenic. A summary of soil analytical data is presented in Table 1. Analytical reports and chain-of-custody documentation are provided in Attachment A.

OBSERVATIONS AND RESULTS

Soil Sample Analytical Results

Twenty-one soil samples were submitted for laboratory analysis, including one duplicate sample. Analytical results were compared to the RDEC and I/C DEC. The soil analytical results are presented in Table 1 and Figure 2.

Arsenic

Arsenic was detected at concentrations exceeding the RDEC and I/C DEC, both established at 10 mg/kg, in five soil samples (plus the duplicate QA/QC sample). These samples included HA-5 (94.3 mg/kg), HA-6 (214 mg/kg), HA-8 (16.7 mg/kg), HA-10 (18 mg/kg), HA-13 (132 mg/kg), and DUP-1 (152 mg/kg). Arsenic was detected in the remaining samples at concentrations above laboratory report limits but below the RDEC and I/C DEC. Arsenic was not detected in the field blank above laboratory reporting limits.

CONCLUSIONS

This Limited Supplemental Phase II ESI included the completion of 20 environmental soil borings, and the collection/analysis of 21 soil samples for arsenic. Soil analytical testing data was compared to the CTDEEP RSR Direct Exposure Criteria (DEC). Our conclusions are as follows:

- Laboratory analytical results of the shallow subsurface material (0 to 1 feet bgs) identified concentrations of arsenic ranging from 16.7 to 214 mg/kg, exceeding the DEC of 10 mg/kg, in 5 of the 20 sampling locations throughout the Site.

This letter report does not constitute a full characterization of the site soils. Should future work yield an export of soils, we would recommend a waste characterization sampling program to characterize those soils slated for export.

LIMITATIONS

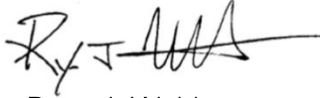
This Supplementary Limited Phase II ESI report was prepared expressly for the AKF Group, LLC for the William Street Baseball Field property located at the intersection of William Street West and Church Street, and for the objectives defined herein. Langan cannot assume responsibility for the use of this report for any property other than the specific site addressed in this report, or by any third party without specific written authorization from Langan.

The conclusions and opinions provided in this report are based on subsurface conditions ascertained from the analysis of a limited number of samples. Actual conditions encountered may differ substantially from those presented herein and should be brought to our attention whereby we may determine how such changes may affect our conclusions.


CLOSURE

Should you have any questions regarding the findings presented in this report, please feel free to call us at 203-784-3069.

Sincerely,
Langan CT, Inc.



Ryan J. Wohlstrom
Project Engineer



Jamie P. Barr, L.E.P.
Senior Associate/Vice President

Enclosures: Table 1 – Soil Sample Analytical Results
Figure 1 – Site Location Map
Figure 2 – Soil Analytical Results Map
Attachment A – Laboratory Analytical Report

TABLES

Table 1
Soil Sample Analytical Results
William Street Baseball Field
Greenwich, Connecticut
140109002

Sample ID	Residential	Indus./Comm.	HA-1	HA-2	HA-3	HA-4	HA-5	HA-6	HA-7	HA-8	HA-9	HA-10	HA-11	HA-12	HA-13
Depth of Sample (ft)	Direct Exposure	Direct Exposure	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
Parameters	Criteria	Criteria	3/24/2015	3/24/2015	3/24/2015	3/24/2015	3/24/2015	3/24/2015	3/24/2015	3/24/2015	3/24/2015	3/24/2015	3/24/2015	3/24/2015	3/24/2015
Sample Date	(mg/kg)	(mg/kg)													
Metals (mg/kg)															
Arsenic	10	10	9.35	5.85	5.94	7.46	94.3	214	6.36	16.7	5.89	18	6.83	7.36	132

NOTES:

Soil analytical results were compared to Connecticut Department of Energy and Environmental Protection's (CTDEEP) Remediation Standard Regulations (RSRs) residential Direct Exposure Criteria (RDEC) and the Industrial/Commercial Direct Exposure Criteria (I/C DEC),

Shading indicates an exceedance of the Residential and Indus./Comm. Direct Exposure Criteria

Table 1
 Soil Sample Analytical Results
 William Street Baseball Field
 Greenwich, Connecticut
 140109002

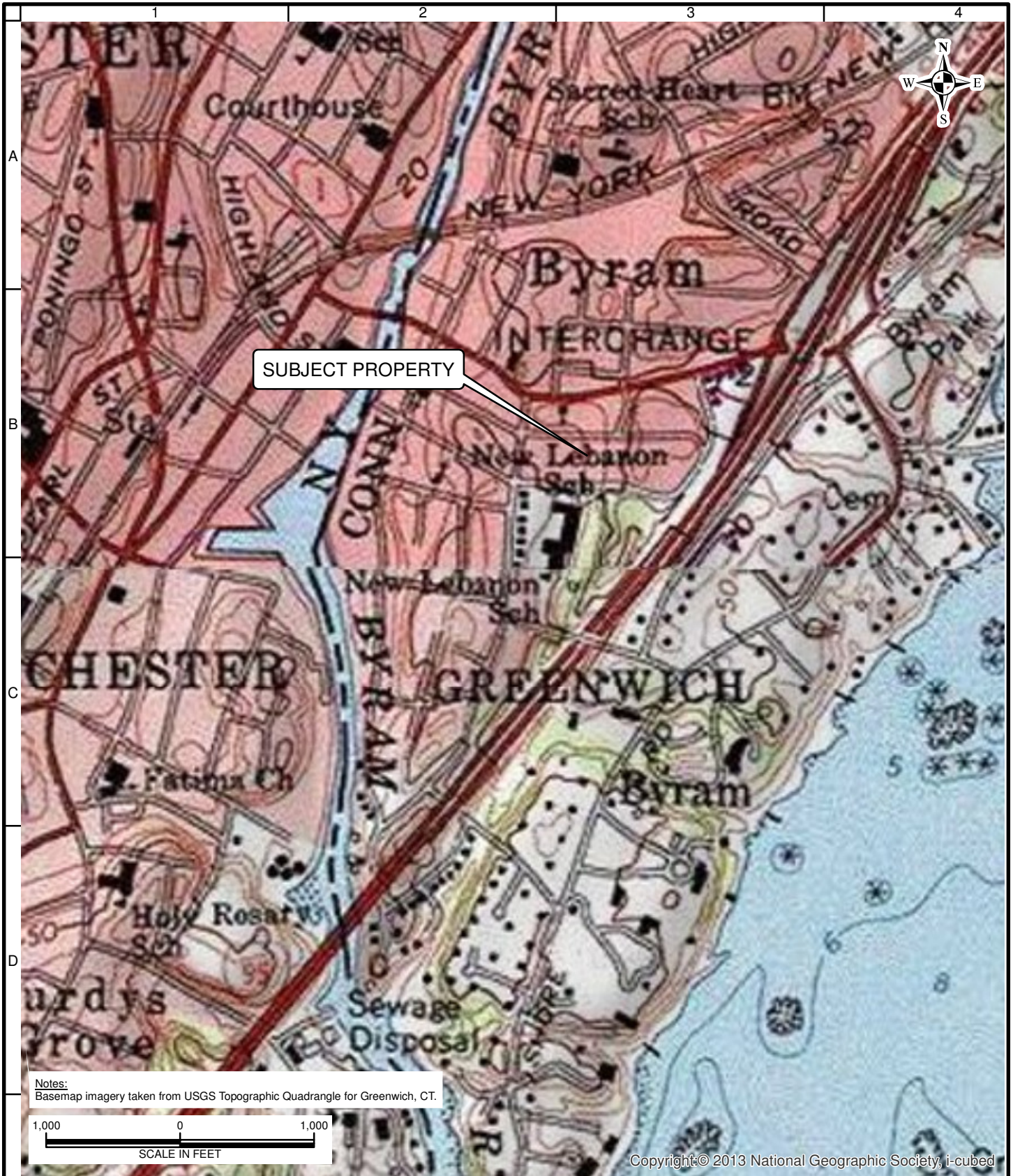
Sample ID	Residential	Indus./Comm.	DUP-1	HA-14	HA-15	HA-16	HA-17	HA-18	HA-19	HA-20
Depth of Sample (ft)	Direct Exposure	Direct Exposure	(HA-13)	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
Parameters	Criteria	Criteria	(HA-13)	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1	0 - 1
Sample Date	(mg/kg)	(mg/kg)	3/24/2015	3/24/2015	3/24/2015	3/24/2015	3/24/2015	3/24/2015	3/24/2015	3/24/2015
Metals (mg/kg)										
Arsenic	10	10	152	6.39	7.51	4.73	8.9	5.22	4.21	6.93

NOTES:

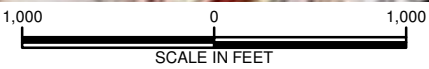
Soil analytical results were compared to Connecticut Department of Energy and Environmental Protection's (CTDEEP) Remediation Standard Regulations (RSRs) residential Direct Exposure Criteria (RDEC) and the Industrial/Commercial Direct Exposure Criteria (I/C DEC),

Shading indicates an exceedance of the Residential and Indus./Comm. Direct Exposure Criteria

FIGURES



Notes:
 Basemap imagery taken from USGS Topographic Quadrangle for Greenwich, CT.



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LANGAN
 ENGINEERING & ENVIRONMENTAL SERVICES
 555 Long Wharf Drive
 New Haven, CT 06511-6107
 T: 203.562.5771 F: 203.789.6142
 www.langan.com

NEW JERSEY NEW YORK VIRGINIA CALIFORNIA
 PENNSYLVANIA CONNECTICUT FLORIDA

ABU DHABI ATHENS DOHA
 DUBAI ISTANBUL

Project
**WILLIAM STREET
 BASEBALL FIELD**
 GREENWICH
 FAIRFIELD COUNTY CONNECTICUT

Drawing Title
**SITE LOCATION
 PLAN**

Project No.
 140109002
 Date
 4/13/2015
 Scale
 1"=1,000'
 Drawn By
 KTZ
 Submission Date
 4/13/2015

Figure
 1

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LEGEND

	SOIL BORING SAMPLE LOCATION WITH ARSENIC CONCENTRATIONS EXCEEDING DIRECT EXPOSURE CRITERIA
	SOIL BORING SAMPLE LOCATION WITH ARSENIC CONCENTRATIONS BELOW CTDEEP RSR CRITERIA

- ### NOTES
- SOIL SAMPLES WERE COLLECTED BY LANGAN FIELD ENGINEERING ON 3/24/2015. ALL SAMPLES WERE COLLECTED AT A DEPTH OF 0 TO 1 FEET BELOW GROUND SURFACE.
 - AERIAL BASEMAP IS PROVIDED THROUGH LANGAN'S ESRI ARCGIS SOFTWARE LICENSING AND ARCGIS ONLINE.
 - BORING LOCATIONS ARE LOCATED BASED ON GPS COORDINATES COLLECTED DURING SAMPLING.
 - SHADED ARSENIC CONCENTRATIONS INDICATE AN EXCEEDENCE OF CT DEEP DIRECT EXPOSURE CRITERIA.

CT DEEP REMEDIATION REGULATION STANDARDS		
	Residential Direct Exposure Criteria (mg/kg)	Indus./Comm. Direct Exposure Criteria (mg/kg)
Metals		
Arsenic	10	10



WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS ITEM IN ANY WAY.

LANGAN
 555 Long Wharf Drive
 New Haven, CT 06511
 T: 203.562.5771 F: 203.789.6142 www.langan.com
 Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. S.A.
 Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
 Langan Engineering and Environmental Services, Inc.
 Langan CT, Inc.
 Langan International LLC
 Collectively known as Langan

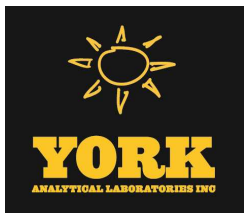
Project **WILLIAM STREET BASEBALL FIELD**
GREENWICH CONNECTICUT
 FAIRFIELD COUNTY

Drawing Title **SOIL ANALYTICAL RESULTS MAP**

Project No. 140109002	Figure No. 2
Date 4/13/2015	
Scale 1" = 40'	
Drawn By KTZ	Checked By RW
Submission Date 4/13/2015	Sheet 2 of 2

ATTACHMENT A

Laboratory Analytical Report



Technical Report

prepared for:

Langan Engineering & Environmental Services (CT)

Long Wharf Maritime Center, 555 Long Wharf Drive

New Haven CT, 06511

Attention: Kyle Zalaski

Report Date: 03/26/2015

Client Project ID: 140109001

York Project (SDG) No.: 15C0756

CT Cert. No. PH-0723

New Jersey Cert. No. CT-005



New York Cert. No. 10854

PA Cert. No. 68-04440

Langan Engineering & Environmental Services (CT)
Long Wharf Maritime Center, 555 Long Wharf Drive
New Haven CT, 06511
Attention: Kyle Zalaski

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 March 24, 2015 and listed below. The project was identified as your project: **140109001**.

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.

<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
15C0756-01	HA-1 0-1	Soil	03/24/2015	03/24/2015
15C0756-02	HA-2 0-1	Soil	03/24/2015	03/24/2015
15C0756-03	HA-3 0-1	Soil	03/24/2015	03/24/2015
15C0756-04	HA-4 0-1	Soil	03/24/2015	03/24/2015
15C0756-05	HA-5 0-1	Soil	03/24/2015	03/24/2015
15C0756-06	HA-6 0-1	Soil	03/24/2015	03/24/2015
15C0756-07	HA-7 0-1	Soil	03/24/2015	03/24/2015
15C0756-08	HA-8 0-1	Soil	03/24/2015	03/24/2015
15C0756-09	HA-9 0-1	Soil	03/24/2015	03/24/2015
15C0756-10	HA-10 0-1	Soil	03/24/2015	03/24/2015
15C0756-11	HA-11 0-1	Soil	03/24/2015	03/24/2015
15C0756-12	HA-12 0-1	Soil	03/24/2015	03/24/2015
15C0756-13	HA-13 0-1	Soil	03/24/2015	03/24/2015
15C0756-14	HA-14 0-1	Soil	03/24/2015	03/24/2015
15C0756-15	HA-15 0-1	Soil	03/24/2015	03/24/2015
15C0756-16	HA-16 0-1	Soil	03/24/2015	03/24/2015
15C0756-17	HA-17 0-1	Soil	03/24/2015	03/24/2015
15C0756-18	HA-18 0-1	Soil	03/24/2015	03/24/2015
15C0756-19	HA-19 0-1	Soil	03/24/2015	03/24/2015
15C0756-20	HA-20 0-1	Soil	03/24/2015	03/24/2015
15C0756-21	DUP-1	Soil	03/24/2015	03/24/2015
15C0756-22	Field Blank	Water	03/24/2015	03/24/2015

General Notes for York Project (SDG) No.: 15C0756

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:



Benjamin Gulizia
Laboratory Director

Date: 03/26/2015





Sample Information

Client Sample ID: HA-1 0-1

York Sample ID: 15C0756-01

Table with 5 columns: York Project (SDG) No., Client Project ID, Matrix, Collection Date/Time, Date Received. Values: 15C0756, 140109001, Soil, March 24, 2015 9:49 am, 03/24/2015

Arsenic by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

Table with 12 columns: CAS No., Parameter, Result, Flag, Units, LOD/MDL, Reported to LOQ, Dilution, Reference Method, Date/Time Prepared, Date/Time Analyzed, Analyst. Row: 7440-38-2, Arsenic, 9.35, mg/kg dry, 1.32, 1.32, 1, EPA 6010C, 03/25/2015 14:06, 03/25/2015 17:19, MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

Table with 12 columns: CAS No., Parameter, Result, Flag, Units, LOD/MDL, Reported to LOQ, Dilution, Reference Method, Date/Time Prepared, Date/Time Analyzed, Analyst. Row: solids, % Solids, 75.5, %, 0.100, 0.100, 1, SM 2540G, 03/24/2015 22:15, 03/25/2015 16:13, KK

Sample Information

Client Sample ID: HA-2 0-1

York Sample ID: 15C0756-02

Table with 5 columns: York Project (SDG) No., Client Project ID, Matrix, Collection Date/Time, Date Received. Values: 15C0756, 140109001, Soil, March 24, 2015 9:59 am, 03/24/2015

Arsenic by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

Table with 12 columns: CAS No., Parameter, Result, Flag, Units, LOD/MDL, Reported to LOQ, Dilution, Reference Method, Date/Time Prepared, Date/Time Analyzed, Analyst. Row: 7440-38-2, Arsenic, 5.85, mg/kg dry, 1.23, 1.23, 1, EPA 6010C, 03/25/2015 14:06, 03/25/2015 17:36, MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

Table with 12 columns: CAS No., Parameter, Result, Flag, Units, LOD/MDL, Reported to LOQ, Dilution, Reference Method, Date/Time Prepared, Date/Time Analyzed, Analyst. Row: solids, % Solids, 81.3, %, 0.100, 0.100, 1, SM 2540G, 03/24/2015 22:15, 03/25/2015 16:13, KK

Sample Information

Client Sample ID: HA-3 0-1

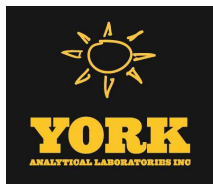
York Sample ID: 15C0756-03

Table with 5 columns: York Project (SDG) No., Client Project ID, Matrix, Collection Date/Time, Date Received. Values: 15C0756, 140109001, Soil, March 24, 2015 10:08 am, 03/24/2015

Arsenic by EPA 6010

Log-in Notes:

Sample Notes:



Sample Information

Client Sample ID: HA-3 0-1 York Sample ID: 15C0756-03
York Project (SDG) No. 15C0756 Client Project ID 140109001 Matrix Soil Collection Date/Time March 24, 2015 10:08 am Date Received 03/24/2015

Sample Prepared by Method: EPA 3050B

Table with 12 columns: CAS No., Parameter, Result, Flag, Units, LOD/MDL, Reported to LOQ, Dilution, Reference Method, Date/Time Prepared, Date/Time Analyzed, Analyst. Row 1: 7440-38-2, Arsenic, 5.94, mg/kg dry, 1.32, 1.32, 1, EPA 6010C, 03/25/2015 14:06, 03/25/2015 17:41, MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

Table with 12 columns: CAS No., Parameter, Result, Flag, Units, LOD/MDL, Reported to LOQ, Dilution, Reference Method, Date/Time Prepared, Date/Time Analyzed, Analyst. Row 1: solids, % Solids, 75.5, %, 0.100, 0.100, 1, SM 2540G, 03/24/2015 22:16, 03/25/2015 16:17, KK

Sample Information

Client Sample ID: HA-4 0-1 York Sample ID: 15C0756-04
York Project (SDG) No. 15C0756 Client Project ID 140109001 Matrix Soil Collection Date/Time March 24, 2015 10:16 am Date Received 03/24/2015

Arsenic by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

Table with 12 columns: CAS No., Parameter, Result, Flag, Units, LOD/MDL, Reported to LOQ, Dilution, Reference Method, Date/Time Prepared, Date/Time Analyzed, Analyst. Row 1: 7440-38-2, Arsenic, 7.46, mg/kg dry, 1.26, 1.26, 1, EPA 6010C, 03/25/2015 14:06, 03/25/2015 17:46, MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

Table with 12 columns: CAS No., Parameter, Result, Flag, Units, LOD/MDL, Reported to LOQ, Dilution, Reference Method, Date/Time Prepared, Date/Time Analyzed, Analyst. Row 1: solids, % Solids, 79.6, %, 0.100, 0.100, 1, SM 2540G, 03/24/2015 22:16, 03/25/2015 16:17, KK

Sample Information

Client Sample ID: HA-5 0-1 York Sample ID: 15C0756-05
York Project (SDG) No. 15C0756 Client Project ID 140109001 Matrix Soil Collection Date/Time March 24, 2015 10:49 am Date Received 03/24/2015

Arsenic by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

Table with 12 columns: CAS No., Parameter, Result, Flag, Units, LOD/MDL, Reported to LOQ, Dilution, Reference Method, Date/Time Prepared, Date/Time Analyzed, Analyst



Sample Information

Client Sample ID: HA-5 0-1 **York Sample ID:** 15C0756-05
York Project (SDG) No. 15C0756 Client Project ID 140109001 Matrix Soil Collection Date/Time March 24, 2015 10:49 am Date Received 03/24/2015

Arsenic by EPA 6010

Log-in Notes:

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	94.3		mg/kg dry	1.23	1.23	1	EPA 6010C	03/25/2015 14:06	03/25/2015 17:50	MW

Total Solids

Log-in Notes:

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	81.6		%	0.100	0.100	1	SM 2540G	03/24/2015 22:16	03/25/2015 16:17	KK

Sample Information

Client Sample ID: HA-6 0-1 **York Sample ID:** 15C0756-06
York Project (SDG) No. 15C0756 Client Project ID 140109001 Matrix Soil Collection Date/Time March 24, 2015 10:40 am Date Received 03/24/2015

Arsenic by EPA 6010

Log-in Notes:

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	214		mg/kg dry	1.21	1.21	1	EPA 6010C	03/25/2015 14:06	03/25/2015 17:55	MW

Total Solids

Log-in Notes:

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	82.6		%	0.100	0.100	1	SM 2540G	03/24/2015 22:16	03/25/2015 16:17	KK

Sample Information

Client Sample ID: HA-7 0-1 **York Sample ID:** 15C0756-07
York Project (SDG) No. 15C0756 Client Project ID 140109001 Matrix Soil Collection Date/Time March 24, 2015 10:32 am Date Received 03/24/2015

Arsenic by EPA 6010

Log-in Notes:

Sample Notes:



Sample Information

Client Sample ID: HA-7 0-1 **York Sample ID:** 15C0756-07
York Project (SDG) No. 15C0756 Client Project ID 140109001 Matrix Soil Collection Date/Time March 24, 2015 10:32 am Date Received 03/24/2015

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	6.36		mg/kg dry	1.24	1.24	1	EPA 6010C	03/25/2015 14:06	03/25/2015 18:12	MW

Total Solids

Log-in Notes:

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	81.0		%	0.100	0.100	1	SM 2540G	03/24/2015 22:16	03/25/2015 16:17	KK

Sample Information

Client Sample ID: HA-8 0-1 **York Sample ID:** 15C0756-08
York Project (SDG) No. 15C0756 Client Project ID 140109001 Matrix Soil Collection Date/Time March 24, 2015 10:24 am Date Received 03/24/2015

Arsenic by EPA 6010

Log-in Notes:

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	16.7		mg/kg dry	1.26	1.26	1	EPA 6010C	03/25/2015 14:06	03/25/2015 18:17	MW

Total Solids

Log-in Notes:

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	79.1		%	0.100	0.100	1	SM 2540G	03/24/2015 22:16	03/25/2015 16:17	KK

Sample Information

Client Sample ID: HA-9 0-1 **York Sample ID:** 15C0756-09
York Project (SDG) No. 15C0756 Client Project ID 140109001 Matrix Soil Collection Date/Time March 24, 2015 10:58 am Date Received 03/24/2015

Arsenic by EPA 6010

Log-in Notes:

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
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Sample Information

Client Sample ID: HA-9 0-1 **York Sample ID:** 15C0756-09
York Project (SDG) No. 15C0756 Client Project ID 140109001 Matrix Soil Collection Date/Time March 24, 2015 10:58 am Date Received 03/24/2015

Arsenic by EPA 6010

Log-in Notes:

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	5.89		mg/kg dry	1.16	1.16	1	EPA 6010C	03/25/2015 14:06	03/25/2015 18:21	MW

Total Solids

Log-in Notes:

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	86.4		%	0.100	0.100	1	SM 2540G	03/24/2015 22:16	03/25/2015 16:17	KK

Sample Information

Client Sample ID: HA-10 0-1 **York Sample ID:** 15C0756-10
York Project (SDG) No. 15C0756 Client Project ID 140109001 Matrix Soil Collection Date/Time March 24, 2015 11:07 am Date Received 03/24/2015

Arsenic by EPA 6010

Log-in Notes:

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	18.0		mg/kg dry	1.16	1.16	1	EPA 6010C	03/25/2015 14:06	03/25/2015 18:26	MW

Total Solids

Log-in Notes:

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	86.3		%	0.100	0.100	1	SM 2540G	03/24/2015 22:16	03/25/2015 16:17	KK

Sample Information

Client Sample ID: HA-11 0-1 **York Sample ID:** 15C0756-11
York Project (SDG) No. 15C0756 Client Project ID 140109001 Matrix Soil Collection Date/Time March 24, 2015 11:21 am Date Received 03/24/2015

Arsenic by EPA 6010

Log-in Notes:

Sample Notes:



Sample Information

Client Sample ID: HA-11 0-1 York Sample ID: 15C0756-11
York Project (SDG) No. 15C0756 Client Project ID 140109001 Matrix Soil Collection Date/Time March 24, 2015 11:21 am Date Received 03/24/2015

Sample Prepared by Method: EPA 3050B

Table with 12 columns: CAS No., Parameter, Result, Flag, Units, LOD/MDL, Reported to LOQ, Dilution, Reference Method, Date/Time Prepared, Date/Time Analyzed, Analyst. Row 1: 7440-38-2, Arsenic, 6.83, mg/kg dry, 1.22, 1.22, 1, EPA 6010C, 03/25/2015 14:06, 03/25/2015 18:31, MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

Table with 12 columns: CAS No., Parameter, Result, Flag, Units, LOD/MDL, Reported to LOQ, Dilution, Reference Method, Date/Time Prepared, Date/Time Analyzed, Analyst. Row 1: solids, % Solids, 82.3, %, 0.100, 0.100, 1, SM 2540G, 03/24/2015 22:16, 03/25/2015 16:17, KK

Sample Information

Client Sample ID: HA-12 0-1 York Sample ID: 15C0756-12
York Project (SDG) No. 15C0756 Client Project ID 140109001 Matrix Soil Collection Date/Time March 24, 2015 11:30 am Date Received 03/24/2015

Arsenic by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

Table with 12 columns: CAS No., Parameter, Result, Flag, Units, LOD/MDL, Reported to LOQ, Dilution, Reference Method, Date/Time Prepared, Date/Time Analyzed, Analyst. Row 1: 7440-38-2, Arsenic, 7.36, mg/kg dry, 1.21, 1.21, 1, EPA 6010C, 03/25/2015 14:06, 03/25/2015 18:36, MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

Table with 12 columns: CAS No., Parameter, Result, Flag, Units, LOD/MDL, Reported to LOQ, Dilution, Reference Method, Date/Time Prepared, Date/Time Analyzed, Analyst. Row 1: solids, % Solids, 82.7, %, 0.100, 0.100, 1, SM 2540G, 03/24/2015 22:16, 03/25/2015 16:17, KK

Sample Information

Client Sample ID: HA-13 0-1 York Sample ID: 15C0756-13
York Project (SDG) No. 15C0756 Client Project ID 140109001 Matrix Soil Collection Date/Time March 24, 2015 11:56 am Date Received 03/24/2015

Arsenic by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

Table with 12 columns: CAS No., Parameter, Result, Flag, Units, LOD/MDL, Reported to LOQ, Dilution, Reference Method, Date/Time Prepared, Date/Time Analyzed, Analyst



Sample Information

Client Sample ID: HA-13 0-1 York Sample ID: 15C0756-13
York Project (SDG) No. 15C0756 Client Project ID 140109001 Matrix Soil Collection Date/Time March 24, 2015 11:56 am Date Received 03/24/2015

Arsenic by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

Table with 12 columns: CAS No., Parameter, Result, Flag, Units, LOD/MDL, Reported to LOQ, Dilution, Reference Method, Date/Time Prepared, Date/Time Analyzed, Analyst. Row 1: 7440-38-2, Arsenic, 132, mg/kg dry, 1.26, 1.26, 1, EPA 6010C, 03/25/2015 14:06, 03/25/2015 18:40, MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

Table with 12 columns: CAS No., Parameter, Result, Flag, Units, LOD/MDL, Reported to LOQ, Dilution, Reference Method, Date/Time Prepared, Date/Time Analyzed, Analyst. Row 1: solids, % Solids, 79.6, %, 0.100, 0.100, 1, SM 2540G, 03/24/2015 22:16, 03/25/2015 16:17, KK

Sample Information

Client Sample ID: HA-14 0-1 York Sample ID: 15C0756-14
York Project (SDG) No. 15C0756 Client Project ID 140109001 Matrix Soil Collection Date/Time March 24, 2015 11:46 am Date Received 03/24/2015

Arsenic by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

Table with 12 columns: CAS No., Parameter, Result, Flag, Units, LOD/MDL, Reported to LOQ, Dilution, Reference Method, Date/Time Prepared, Date/Time Analyzed, Analyst. Row 1: 7440-38-2, Arsenic, 6.39, mg/kg dry, 1.21, 1.21, 1, EPA 6010C, 03/25/2015 14:06, 03/25/2015 18:45, MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

Table with 12 columns: CAS No., Parameter, Result, Flag, Units, LOD/MDL, Reported to LOQ, Dilution, Reference Method, Date/Time Prepared, Date/Time Analyzed, Analyst. Row 1: solids, % Solids, 82.6, %, 0.100, 0.100, 1, SM 2540G, 03/24/2015 22:16, 03/25/2015 16:17, KK

Sample Information

Client Sample ID: HA-15 0-1 York Sample ID: 15C0756-15
York Project (SDG) No. 15C0756 Client Project ID 140109001 Matrix Soil Collection Date/Time March 24, 2015 11:38 am Date Received 03/24/2015

Arsenic by EPA 6010

Log-in Notes:

Sample Notes:



Sample Information

Client Sample ID: HA-15 0-1 **York Sample ID:** 15C0756-15
York Project (SDG) No. 15C0756 Client Project ID 140109001 Matrix Soil Collection Date/Time March 24, 2015 11:38 am Date Received 03/24/2015

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	7.51		mg/kg dry	1.21	1.21	1	EPA 6010C	03/25/2015 14:06	03/25/2015 18:49	MW

Total Solids

Log-in Notes:

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	82.6		%	0.100	0.100	1	SM 2540G	03/24/2015 22:16	03/25/2015 16:17	KK

Sample Information

Client Sample ID: HA-16 0-1 **York Sample ID:** 15C0756-16
York Project (SDG) No. 15C0756 Client Project ID 140109001 Matrix Soil Collection Date/Time March 24, 2015 12:07 pm Date Received 03/24/2015

Arsenic by EPA 6010

Log-in Notes:

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	4.73		mg/kg dry	1.15	1.15	1	EPA 6010C	03/25/2015 14:06	03/25/2015 18:54	MW

Total Solids

Log-in Notes:

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	87.3		%	0.100	0.100	1	SM 2540G	03/24/2015 22:16	03/25/2015 16:17	KK

Sample Information

Client Sample ID: HA-17 0-1 **York Sample ID:** 15C0756-17
York Project (SDG) No. 15C0756 Client Project ID 140109001 Matrix Soil Collection Date/Time March 24, 2015 12:16 pm Date Received 03/24/2015

Arsenic by EPA 6010

Log-in Notes:

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
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Sample Information

Client Sample ID: HA-17 0-1 York Sample ID: 15C0756-17
York Project (SDG) No. 15C0756 Client Project ID 140109001 Matrix Soil Collection Date/Time March 24, 2015 12:16 pm Date Received 03/24/2015

Arsenic by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

Table with 12 columns: CAS No., Parameter, Result, Flag, Units, LOD/MDL, Reported to LOQ, Dilution, Reference Method, Date/Time Prepared, Date/Time Analyzed, Analyst. Row 1: 7440-38-2, Arsenic, 8.90, mg/kg dry, 1.14, 1.14, 1, EPA 6010C, 03/25/2015 14:06, 03/25/2015 19:11, MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

Table with 12 columns: CAS No., Parameter, Result, Flag, Units, LOD/MDL, Reported to LOQ, Dilution, Reference Method, Date/Time Prepared, Date/Time Analyzed, Analyst. Row 1: solids, % Solids, 87.5, %, 0.100, 0.100, 1, SM 2540G, 03/24/2015 22:16, 03/25/2015 16:17, KK

Sample Information

Client Sample ID: HA-18 0-1 York Sample ID: 15C0756-18
York Project (SDG) No. 15C0756 Client Project ID 140109001 Matrix Soil Collection Date/Time March 24, 2015 12:25 pm Date Received 03/24/2015

Arsenic by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3050B

Table with 12 columns: CAS No., Parameter, Result, Flag, Units, LOD/MDL, Reported to LOQ, Dilution, Reference Method, Date/Time Prepared, Date/Time Analyzed, Analyst. Row 1: 7440-38-2, Arsenic, 5.22, mg/kg dry, 1.24, 1.24, 1, EPA 6010C, 03/25/2015 14:06, 03/25/2015 19:16, MW

Total Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

Table with 12 columns: CAS No., Parameter, Result, Flag, Units, LOD/MDL, Reported to LOQ, Dilution, Reference Method, Date/Time Prepared, Date/Time Analyzed, Analyst. Row 1: solids, % Solids, 80.9, %, 0.100, 0.100, 1, SM 2540G, 03/24/2015 22:16, 03/25/2015 16:17, KK

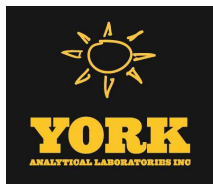
Sample Information

Client Sample ID: HA-19 0-1 York Sample ID: 15C0756-19
York Project (SDG) No. 15C0756 Client Project ID 140109001 Matrix Soil Collection Date/Time March 24, 2015 12:38 pm Date Received 03/24/2015

Arsenic by EPA 6010

Log-in Notes:

Sample Notes:



Sample Information

Client Sample ID: HA-19 0-1 **York Sample ID:** 15C0756-19
York Project (SDG) No. 15C0756 Client Project ID 140109001 Matrix Soil Collection Date/Time March 24, 2015 12:38 pm Date Received 03/24/2015

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	4.21		mg/kg dry	1.27	1.27	1	EPA 6010C	03/25/2015 14:06	03/25/2015 19:21	MW

Total Solids

Log-in Notes:

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	78.7		%	0.100	0.100	1	SM 2540G	03/24/2015 22:16	03/25/2015 16:17	KK

Sample Information

Client Sample ID: HA-20 0-1 **York Sample ID:** 15C0756-20
York Project (SDG) No. 15C0756 Client Project ID 140109001 Matrix Soil Collection Date/Time March 24, 2015 12:48 pm Date Received 03/24/2015

Arsenic by EPA 6010

Log-in Notes:

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	6.93		mg/kg dry	1.22	1.22	1	EPA 6010C	03/25/2015 14:06	03/25/2015 19:25	MW

Total Solids

Log-in Notes:

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	81.9		%	0.100	0.100	1	SM 2540G	03/24/2015 22:16	03/25/2015 16:17	KK

Sample Information

Client Sample ID: DUP-1 **York Sample ID:** 15C0756-21
York Project (SDG) No. 15C0756 Client Project ID 140109001 Matrix Soil Collection Date/Time March 24, 2015 12:00 am Date Received 03/24/2015

Arsenic by EPA 6010

Log-in Notes:

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
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Sample Information

Client Sample ID: DUP-1 **York Sample ID:** 15C0756-21
York Project (SDG) No. 15C0756 Client Project ID 140109001 Matrix Soil Collection Date/Time March 24, 2015 12:00 am Date Received 03/24/2015

Arsenic by EPA 6010

Log-in Notes:

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	152		mg/kg dry	1.27	1.27	1	EPA 6010C	03/25/2015 14:07	03/25/2015 20:17	MW

Total Solids

Log-in Notes:

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	79.1		%	0.100	0.100	1	SM 2540G	03/24/2015 22:16	03/25/2015 16:17	KK

Sample Information

Client Sample ID: Field Blank **York Sample ID:** 15C0756-22
York Project (SDG) No. 15C0756 Client Project ID 140109001 Matrix Water Collection Date/Time March 24, 2015 1:00 pm Date Received 03/24/2015

Arsenic by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3010A

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/L	0.00400	0.00400	1	EPA 6010C	03/25/2015 14:15	03/26/2015 01:48	MW



Analytical Batch Summary

Batch ID: BC50936 **Preparation Method:** % Solids Prep **Prepared By:** KK

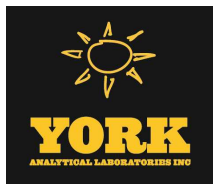
YORK Sample ID	Client Sample ID	Preparation Date
15C0756-01	HA-1 0-1	03/24/15
15C0756-02	HA-2 0-1	03/24/15
BC50936-DUP1	Duplicate	03/24/15

Batch ID: BC50937 **Preparation Method:** % Solids Prep **Prepared By:** KK

YORK Sample ID	Client Sample ID	Preparation Date
15C0756-03	HA-3 0-1	03/24/15
15C0756-04	HA-4 0-1	03/24/15
15C0756-05	HA-5 0-1	03/24/15
15C0756-06	HA-6 0-1	03/24/15
15C0756-07	HA-7 0-1	03/24/15
15C0756-08	HA-8 0-1	03/24/15
15C0756-09	HA-9 0-1	03/24/15
15C0756-10	HA-10 0-1	03/24/15
15C0756-11	HA-11 0-1	03/24/15
15C0756-12	HA-12 0-1	03/24/15
15C0756-13	HA-13 0-1	03/24/15
15C0756-14	HA-14 0-1	03/24/15
15C0756-15	HA-15 0-1	03/24/15
15C0756-16	HA-16 0-1	03/24/15
15C0756-17	HA-17 0-1	03/24/15
15C0756-18	HA-18 0-1	03/24/15
15C0756-19	HA-19 0-1	03/24/15
15C0756-20	HA-20 0-1	03/24/15
15C0756-21	DUP-1	03/24/15

Batch ID: BC50979 **Preparation Method:** EPA 3050B **Prepared By:** MW

YORK Sample ID	Client Sample ID	Preparation Date
15C0756-01	HA-1 0-1	03/25/15
15C0756-02	HA-2 0-1	03/25/15
15C0756-03	HA-3 0-1	03/25/15
15C0756-04	HA-4 0-1	03/25/15
15C0756-05	HA-5 0-1	03/25/15
15C0756-06	HA-6 0-1	03/25/15
15C0756-07	HA-7 0-1	03/25/15
15C0756-08	HA-8 0-1	03/25/15
15C0756-09	HA-9 0-1	03/25/15
15C0756-10	HA-10 0-1	03/25/15
15C0756-11	HA-11 0-1	03/25/15
15C0756-12	HA-12 0-1	03/25/15
15C0756-13	HA-13 0-1	03/25/15
15C0756-14	HA-14 0-1	03/25/15
15C0756-15	HA-15 0-1	03/25/15



15C0756-16	HA-16 0-1	03/25/15
15C0756-17	HA-17 0-1	03/25/15
15C0756-18	HA-18 0-1	03/25/15
15C0756-19	HA-19 0-1	03/25/15
15C0756-20	HA-20 0-1	03/25/15
BC50979-BLK1	Blank	03/25/15
BC50979-DUP1	Duplicate	03/25/15
BC50979-MS1	Matrix Spike	03/25/15
BC50979-SRM1	Reference	03/25/15

Batch ID: BC50980 **Preparation Method:** EPA 3050B **Prepared By:** MW

YORK Sample ID	Client Sample ID	Preparation Date
15C0756-21	DUP-1	03/25/15
BC50980-BLK1	Blank	03/25/15
BC50980-SRM1	Reference	03/25/15

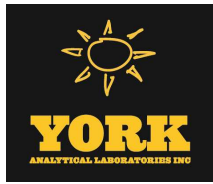
Batch ID: BC50984 **Preparation Method:** EPA 3010A **Prepared By:** MW

YORK Sample ID	Client Sample ID	Preparation Date
15C0756-22	Field Blank	03/25/15
BC50984-BLK1	Blank	03/25/15
BC50984-SRM1	Reference	03/25/15



Metals by ICP - Quality Control Data
York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BC50979 - EPA 3050B											
Blank (BC50979-BLK1)										Prepared & Analyzed: 03/25/2015	
Arsenic	ND	1.00	mg/kg wet								
Duplicate (BC50979-DUP1)										*Source sample: 15C0756-01 (HA-1 0-1) Prepared & Analyzed: 03/25/2015	
Arsenic	9.05	1.32	mg/kg dry		9.35				3.27	35	
Matrix Spike (BC50979-MS1)										*Source sample: 15C0756-01 (HA-1 0-1) Prepared & Analyzed: 03/25/2015	
Arsenic	271	1.32	mg/kg dry	265	9.35	98.9	75-125				
Reference (BC50979-SRM1)										Prepared & Analyzed: 03/25/2015	
Arsenic	155	1.00	mg/kg wet	151		103	70.9-130				
Batch BC50980 - EPA 3050B											
Blank (BC50980-BLK1)										Prepared & Analyzed: 03/25/2015	
Arsenic	ND	1.00	mg/kg wet								
Reference (BC50980-SRM1)										Prepared & Analyzed: 03/25/2015	
Arsenic	149	1.00	mg/kg wet	151		98.9	70.9-130				
Batch BC50984 - EPA 3010A											
Blank (BC50984-BLK1)										Prepared: 03/25/2015 Analyzed: 03/26/2015	
Arsenic	ND	0.00400	mg/L								
Reference (BC50984-SRM1)										Prepared: 03/25/2015 Analyzed: 03/26/2015	
Arsenic	0.653	0.00400	mg/L	0.681		95.8	84.4-114				



Miscellaneous Physical Parameters - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BC50936 - % Solids Prep

Duplicate (BC50936-DUP1)	*Source sample: 15C0756-02 (HA-2 0-1)						Prepared: 03/24/2015 Analyzed: 03/25/2015				
% Solids	80.9	0.100	%		81.3				0.522	20	



Notes and Definitions

M-ACCB Analyte in CCB. Run is bracketed by acceptable CCBs.

*	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
12D RESEARCH DR.
STRAITFORD, CT 06615
(203) 325-1371
FAX (203) 357-0166

Field Chain-of-Custody Record

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York Project No. 15C0756

YOUR Information Company: <u>Lungan Engineering</u> Address: <u>558 Long Wharf Dr.</u> <u>New Haven, CT 06511</u> Phone No. <u>203-562-5771</u> Contact Person: <u>Ryan Walsh</u> E-Mail Address: <u>RWalsh@lungan.com</u>		Report To: Company: <u>Same</u> Address: _____ Phone No. _____ Attention: _____ E-Mail Address: _____		Invoice To: Company: <u>Same</u> Address: _____ Phone No. _____ Attention: _____ E-Mail Address: _____		YOUR Project ID <u>1A0109001</u> Purchase Order No. _____		Turn-Around Time <input type="checkbox"/> 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 Standard (5-7 Days) <input checked="" type="checkbox"/>		Report Type <input type="checkbox"/> Summary Report <input type="checkbox"/> Summary w/ QA Summary <input checked="" type="checkbox"/> CT RCP Package <input type="checkbox"/> CT RCP DQA/DUE Pkg <input type="checkbox"/> NY ASP A Package <input type="checkbox"/> NY ASP B Package <input type="checkbox"/> NJ DEP Red. Deliv. <u>Electronic Data Deliverables (EDD)</u> <input type="checkbox"/> Simple Excel <input type="checkbox"/> NY SDEC EQuIS <input type="checkbox"/> EQuIS (std) <input type="checkbox"/> EZ-EDD (EQuIS) <input type="checkbox"/> NJ DEP SRP HazSite EDD <input type="checkbox"/> GIS/KEY (std) Other: <u>pdf</u> York Regulatory Comparison <input type="checkbox"/> Excel Spreadsheet Compare to the following Regs. (please fill in): <u>CT DEEP RSRs</u>			
Matrix Codes S - soil Other - specify (oil, etc.) WW - wastewater GW - groundwater DW - drinking water Air-A - ambient air Air-SV - soil vapor		Volatiles 8260 full TICs 624 Site Spec. STARS list Nassau Co. BTEX Suffolk Co. MTBE TCL list Oxygenates TAGM list TCLP list CT RCP list 524.2 Arom. only 502.2 Halog. only NJ DEP list App. IX list SELP or TCLP 802.1B list		Semi-Vols, Pest/PCB/Herb 8270 or 625 RCRAS STARS list PPI3 list BN Only TAL Acids Only CT RCP PAH list App. IX TAGM list Site Spec. CT RCP list SPL or TCLP Total TCL list Dissolved NJ DEP list SPL or TCLP App. IX Chloridane TCLP BNA 608 Pest SPL or TCLP 608 PCB		Metals CRAS PPI3 list TAL CT15 list TAGM list NJ DEP list Total Dissolved SPL or TCLP Ind. Metals (LIST Below)		Misc. Org. TPH GRO TPH DRO CT ETPH NY 310-13 TPH 1664 Air TO14A Air TO15 Air STARS Air VPH Air TICs Methane Helium		Full Lists Pri. Poll. TCL Ogarks TAL MetCN Full TCLP Full App. IX Part 360 Rotarix Heterotrophs Part 360 Baseair TOX Part 360 6-methyl BTU/lbs Part 360 6-methyl Aquatic Tox. Full list NY DEP Sewer TOC NY SDEC Sewer Asbestos TAGM Silica		Misc. Corrosivity Reactivity Ignitability Flash Point Siev. Anal. Heterotrophs TOX BTU/lbs Aquatic Tox. TOC Asbestos Silica	

Sample Identification	Date/Time Sampled	Sample Matrix	Choose Analyses Needed from the Menu Above and Enter Below	Container Description(s)
HA-1 0-1	3/21/15 09149	S	Arsenic	12oz glass
HA-2 0-1	0959			
HA-3 0-1	1008			
HA-4 0-1	1016			
HA-5 0-1	1019			
HA-6 0-1	1040			
HA-7 0-1	1032			
HA-8 0-1	1024			
HA-9 0-1	1058			
HA-10 0-1	1107			

4°C _____ Frozen _____ HCl _____ HNO₃ _____ H₂SO₄ _____ NaOH _____
 MeOH _____ Other _____
 Ascorbic Acid _____
 ZnAc _____
 Samples Relinquished By: Kyle Zalastki Date/Time: 3/21/15 1440
 Samples Received By: Trace Date/Time: 3-24-15 1440
 Temperature on Receipt: 3.7°C

Comments
 RLs must meet CT DEEP RSRs



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

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Page 2 of 3

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York Project No. 1500756

YOUR Information Company: <u>Langston Engineering</u> Address: <u>555 Long Wharf Drive</u> <u>New Haven, Ct 06511</u> Phone No. <u>203-562-5771</u> Contact Person: <u>Ryan Workstrom</u> E-Mail Address: <u>R.W.Workstrom@langston.com</u>		Report To: Company: <u>same</u> Address: _____ Phone No. _____ Attention: _____ E-Mail Address: <u>Krzysztof.Zulaski@langston.com</u>		Invoice To: Company: <u>same</u> Address: _____ Phone No. _____ Attention: _____ E-Mail Address: _____		YOUR Project ID <u>H0109001</u> Purchase Order No. _____		Turn-Around Time <input type="checkbox"/> 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 checked="" type="checkbox"/> Standard (5-7 Days)		Report Type <input type="checkbox"/> Summary Report <input type="checkbox"/> Summary w/ QA Summary <input checked="" type="checkbox"/> CT RCP Package <input type="checkbox"/> CT RCP DQA/DUE Pkg <input type="checkbox"/> NY ASP A Package <input type="checkbox"/> NY ASP B Package <input type="checkbox"/> NJDEP Red. Deliv. <input type="checkbox"/> Electronic Data Deliverables (EDD)			
Matrix Codes S - soil Other - specify (oil, etc.) WW - wastewater GW - groundwater DW - drinking water Air-A - ambient air Air-SV - soil vapor		Volatiles 8260 full TICs Site Spec. STARS list Nassau Co. BTEX Suffolk Co. MTBE Ketones Oxygenates TCLP list TAGM list CT RCP list Arom. only 502.2 Halog. only NJDEP list App. IX list SPL or TCLP 802.1B list		Semi-Vols, Pest/Cher/ Metals 8270 or 625 STARS list BN Only Acids Only PAH list App. IX TAGM list Site Spec. SPL or TCLP TCLP list NJDEP list App. IX Chloridane 608 Pest SPL or TCLP 608 PCB		Misc. Org. TPH GRO TPH DR0 CT ETPH TAL MeCN Full TCLP Full App. IX Full App. Anal. Sieve Anal. Heterotrophs Par-360-Residue Par-360-Residue Par-360-Residue Par-360-Residue NYDEP Sewer NYDEP Sewer TAGM Silica		Full Lists Pri. Poll. TCL Ogratics TAL MeCN Full TCLP Full App. IX Full App. Anal. Sieve Anal. Heterotrophs Par-360-Residue Par-360-Residue Par-360-Residue Par-360-Residue NYDEP Sewer NYDEP Sewer TAGM Silica		Misc. Corrosivity Reactivity Ignitability Flash Point Sieve Anal. Heterotrophs TOX BTU/lb. Aquatic Tox. TOC		Simple Excel NYSDEC EQUIS EQUIS (std) EZ-EDD (EQUIS) NJDEP SRP HazSite EDD GIS/KEY (std) Other <u>RIF</u> York Regulatory Comparison Excel Spreadsheet Compare to the following Regs. (please fill in): <u>CT DEEP RSRs</u>	
Choose Analyses Needed from the Menu Above and Enter Below													
Sample Identification HA-11 0-1 HA-12 0-1 HA-13 0-1 HA-14 0-1 HA-15 0-1 HA-16 0-1 HA-17 0-1 HA-18 0-1 HA-19 0-1 HA-20 0-1		Date/Time Sampled <u>3/21/15 1121</u> <u>1130</u> <u>1156</u> <u>1146</u> <u>1138</u> <u>1207</u> <u>1216</u> <u>1225</u> <u>1238</u> <u>1248</u>		Sample Matrix <u>S</u>		Preservation Check those Applicable <input type="checkbox"/> Special Instructions <input type="checkbox"/> Field Filtered <input type="checkbox"/> Lab to Filter		4°C _____ Frozen _____ HCl _____ MeOH _____ HNO₃ _____ NaOH _____ <u>Asenic</u>		Description(s) <u>12oz glass</u>		Temperature on Receipt <u>3.7°C</u>	
Comments <u>Rls must meet CT DEEP RSRs</u>													
4°C _____ Frozen _____ HCl _____ MeOH _____ HNO₃ _____ NaOH _____ <u>Asenic</u>				Other _____				Temperature on Receipt <u>3.7°C</u>		Samples Relinquished By <u>Kyle Zulaski</u>		Date/Time <u>3/21/15 14:40</u>	
4°C _____ Frozen _____ HCl _____ MeOH _____ HNO₃ _____ NaOH _____ <u>Asenic</u>				Other _____				Temperature on Receipt <u>3.7°C</u>		Samples Relinquished By <u>Space</u>		Date/Time <u>3-24-15 1410</u>	



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

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York Project No. 1500756

YOUR Information		Report To:		Invoice To:		YOUR Project ID		Turn-Around Time		Report Type			
Company: <u>Longen Engineering</u> Address: <u>555 Long Wharf Drive</u> <u>New Haven, CT 06511</u> Phone No. <u>203-542-5771</u> Contact Person: <u>Ryan Wohlstrom</u> E-Mail Address: <u>R.Wohlstrom@longen.com</u>		Company: <u>SAME</u> Address: _____ Phone No. _____ Attention: _____ E-Mail Address: _____		Company: <u>SAME</u> Address: _____ Phone No. _____ Attention: _____ E-Mail Address: _____		1A0109001 Purchase Order No. _____		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"/> Standard(5-7 Days) <input checked="" type="checkbox"/>		Summary Report Summary w/ QA Summary CT RCP Package <input checked="" type="checkbox"/> CTRCP DQA/DUE Pkg NY ASP A Package NY ASP B Package NJDEP Red. Deliv. Electronic Data Deliverables (EDD)			
Samples from: CT <input checked="" type="checkbox"/> NY <input type="checkbox"/> NJ <input type="checkbox"/> Volatiles 8260 full 624 STARS list BTEX MTBE TCL list TAGM list CT RCP list Arom. only Halog. only App. IX list 8021B list		Semi-Vols. Post/Current STARS list BN Only Acids Only TAGM list CT RCP list TCL list App. IX TAGM list SFP or TCLP		Metals RCRA8 PP13 list TAL CT 15 list TAGM list NJDEP list Total SFP or TCLP Dissolved TCLP Herb Chlordane 608 Pest SFP or TCLP 608 PCB		Misc. Org. TPH GRO TPH DR0 CT ETPH NY 310-13 TPH 1664 Air TO14A Air TO15 Air STARS Air VPH Air TICs Methane Helium Silicon		Full Lists Pri. Poll. TCL Organics TAL MetCN Full TCLP Full App. IX Part 360 Reuse Air TO14A Air TO15 Air STARS Air VPH Air TICs Methane Helium Silicon		Misc. Comsivity Reactivity Ignitability Flash Point Sieve Anal. Heterotrophs TOX BTU/lb. Aquatic Tox. NYDEP Sewer TOC Asbestos		Other <u>pdf</u> York Regulatory Comparison Excel Spreadsheet Compare to the following Regs. (please fill in): <u>CT DEEP RSAs</u>	
Matrix Codes S - soil Other - specify (oil, etc.) WW - wastewater GW - groundwater DW - drinking water Air-A - ambient air Air-SV - soil vapor		Preservation Check those Applicable Special Instructions Field Filled <input type="checkbox"/> Lab to Filler <input type="checkbox"/>		4°C <input type="checkbox"/> Frozen <input type="checkbox"/> HCl <input type="checkbox"/> MeOH <input type="checkbox"/> HNO ₃ <input type="checkbox"/> NaOH <input type="checkbox"/> ZnAc <input type="checkbox"/> Ascorbic Acid <input type="checkbox"/> Other <input type="checkbox"/>		Samples Relinquished By <u>Kyle Zukas</u> 3/21/15 14:40 Date/Time		Samples Received in LAB by <u>Grace</u> 3-24-15 1440 Date/Time		Temperature on Receipt <u>3.2</u> °C			
Sample Identification		Date/Time Sampled		Sample Matrix		Choose Analyses Needed from the Menu Above and Enter Below		Container Description(s)					
DUP-1		3/21/15 00:00		S		Arsenic		12oz glass					
FIELD BLANK		3/21/15 13:00		AQ		Arsenic		1500 mL plastic HDG3					
Comments		RAs must meet CTDEEP RSAs											