



**Submittal Review**

Prepared by: Robert Fields, STV  
Page 1 of 2  
December 7, 2015

**Project**

PS 411K  
SCA Design No.: D016113

**Submission**

Submittal: 3-02201-4 Rev 1  
Specification reference: Section 02200, Articles 1.06 E & 3.06  
Received date: 11/30/2015  
Copies: Electronic

STV has completed a review of the Excavated Material Disposal Plan (EMDP) prepared for PS 411K (SCA Design No.: D016113). The submittal was prepared by Padilla Construction Services, Inc. (Contractor) and is dated 11/25/15. It is understood that the Contractor plans to excavate, characterize and dispose of approximately 1,600 cubic yards (CY) of material as part of this contract. Please note that a separate submittal containing an EMDP for PS 410K (SCA Design No.: D014542) was also received and is reviewed under a separate cover. Specific review actions are as follows:

**Product Submissions**

**Review Action**

3-02201-4 Rev 1 - Excavated Material Disposal Plan Revise and resubmit <sup>1-13</sup>

**NOTES:**

1. The EMDP must be signed by a Certified Hazardous Materials Manager approved by the Institute of Hazardous Materials Management in Rockville, Maryland, or Qualified Environmental Professional, approved by the Institute of Professional Environmental Practice, Pittsburgh, Pennsylvania, or similar board-certified profession.
2. The figure provided does not legibly indicate the scale, quantities and locations of excavated material. The figure indicates one sample location, however three samples are proposed. The provided to-scale figure must indicate how representative sampling will be performed.
3. The method of sample collection for each sample must be indicated (e.g. test pit, GeoProbe, etc).
4. Paragraph 3 of Section B states that a total of three samples will be collected (if required by Owner). The estimated excavation quantity is 1600 CY and the stated sampling frequency is one sample per 500 CY. Provide the analytical testing requirements for the proposed disposal facility and clarify the proposed number of waste characterization samples and proposed analyses.
5. The Contractor is responsible for ensuring that the waste characterization sampling meets the acceptance requirements of any proposed disposal facility.
6. All material at the Site is assumed to meet the definition of NHEM as defined in Specification Section 02200, Article 1.05.C and this EMDP is applicable to NHEM only. However, the definitions for Petroleum-Contaminated Material (PCM), Hazardous Waste (HW) and Environmentally Clean Fill and Backfill must also be included in the EMDP.
7. A Health and Safety Plan (HASP) for handling the excavation work was not provided. Note this is a contract requirement and must be included in the EMDP.



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December 7, 2015

8. Provide a copy of the valid 6 NYCRR 364 Waste Transporter Permit for each proposed waste hauler that indicates State approval to transport NHEM to the intended disposal facility. Valid waste transporter permit(s) are required to be submitted and approved prior to the start of any excavation work.
9. Evergreen Recycling of Corona is not approved to receive material from this project since they do not meet the requirements of a permitted 6 NYCRR Part 360 or equivalent disposal facility. Provide a valid permit for a 6 NYCRR Part 360 or equivalent out-of-state facility approved by the appropriate regulatory agency of that State with a permit to receive NHEM (3.06(A)(2)).
10. A permit for a NYSDEC Part 360 permitted disposal facility or equivalent out of state disposal facility was not provided and is required to be submitted and approved prior to the start of any excavation work.
11. Provide all required information for proposed disposal facilities and waste haulers to be used for the project (Article 3.06B 9 & 11).
12. As applicable, provide a completed waste profile form for the proposed facility(ies) along with a cover letter on Contractor letterhead certifying that the Contractor has provided the disposal facility with full disclosure of the analytical data.
13. Though Section 02201 is referenced it is understood that Section 02200 is used for Earthwork. The correct specification should be referenced in the EMDP.

These comments should not be construed in any way as intent to limit the Contractor's responsibilities. The absence of a comment with respect to a specific Contract requirement should not be interpreted as a suggestion to change a Contract requirement.

**Padilla Construction Services**

299 Main Street  
Westbury, NY 11590  
Ph : (516) 338-6848

**Letter of Transmittal**

**To:** YAKOV GOYKHMAN  
NYC SCA  
NYC SCA  
30-30 THOMPSON AVENUE  
LONG ISLAND CITY, NY 11101  
Ph: 917-939-0693 Fax: 718-472-8590

**Transmittal #:** 71  
**Date:** 11/25/2015  
**Job:** C-276 ABRAHAM LINCOLN SCHOOL

**Subject:** EARTHWORK: Excavated Material Disposal Plan - D016113

- WE ARE SENDING YOU**
- Attached
  - Under separate cover via the following items:
  - Shop drawings
  - Prints
  - Plans
  - Samples
  - Copy of letter
  - Change order
  - Specifications
  - Submittal

Document Type	Copies	Date	No.	Description
Submittal	1		3-02201-004 Rev 0	EARTHWORK: Excavated Material Disposal Plan - D016113
Submittal	1	11/25/15	3-02201-004 Rev 1	EARTHWORK: Excavated Material Disposal Plan - D016113

**THESE ARE TRANSMITTED as checked below:**

- For approval
- For your use
- As requested
- For review and comment
- FOR BIDS DUE
- Approved as submitted
- Approved as noted
- Returned for corrections
- Other
- PRINTS RETURNED AFTER LOAN TO US
- Resubmit \_\_\_ copies for approval
- Submit \_\_\_ copies for distribution
- Return \_\_\_ corrected prints

**Remarks:**

**Copy To:**

**From:** Marcelo Soares (PCS - Padilla (Padilla Construc

**Signature:** 



**Excavated Materials Disposal Plan (EMDP)**

**Project: Abraham Lincoln High School (K-410)**  
**Contract # C000013858**  
**2800 Ocean Parkway, Brooklyn, NY, 11235**  
**11/25/15**

**STV Incorporated**  
FILE No.: 3017079

CONFORMS  
 CONFORMS AS NOTED  
 REVISE AS NOTED AND RESUBMIT  
 REJECTED, RESUBMIT  
 REVIEW NOT REQUIRED

BY: ROBERT FIELDS

DATE: 12-7-15

THIS DOCUMENT HAS BEEN REVIEWED FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT ONLY.

This review does not relieve the contractor or any subcontractor of responsibility for full compliance with contract requirements; for correctness of dimensions, clearances, and material quantities; for proper design of details; for proper fabrication and construction techniques; for proper coordination with other trades; and for providing all devices required for safe and satisfactory construction and operation.

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List of Appendices

- Appendix A – Health and Safety Plan – Not required based on sample test results attached
- Appendix B – Waste Transporter Permits – Not required based on sample test results attached
- Appendix C – Disposal Facility Permits and Supporting Documentation (including a copy of the NYSDEC Part 360 Permit or equivalent out of state regulatory agency permit) - Not required based on sample test results attached

## Introduction

This Excavated Materials Disposal Plan (EMDP) describes the procedures to be followed for the characterization, excavation, management, transportation and disposal of material excavated at Abraham Lincoln HS located at 2800 Ocean Parkway, Brooklyn, NY, 11235 in accordance with SCA Specification Section 02201, Design # D016113, dated 09/30/2014. This work will be performed by Padilla Construction Services (General Contractor for the project).

Project activities associated with this EMDP include the characterization, excavation, management, transportation, and disposal of approximately 1,600 cubic yards of non-hazardous excavated material for the construction of the site drainage replacement, parking lot curbs and parking lot fence footings.

According to Specification Section 02201, Section 1.04, the following definitions apply to this project:

### Non-Hazardous Excavated Material

Material that may include or contain mixtures of the following: soil (including, but not limited to, natural undisturbed material), debris, concrete and concrete products (including steel or fiberglass reinforcing rods that are embedded in the concrete), asphalt pavement, brick, glass, rock, municipal solid waste, refuse, and incidental ash. This material includes material defined in Title 6 New York Code of Rules and Regulations 360-7.1(b)(i) and will exceed 6 NYCRR 375-6 Unrestricted Use and Restricted Use Soil Cleanup Objectives and NYSDEC CP-51: Soil Cleanup Guidance Supplemental Soil Cleanup Objectives.

**All material excavated from the site meets the definition of non-hazardous excavated material based on attached sample test results included.**

### Environmentally Clean Fill and Backfill

Refer to Section 02200 for definition and requirements associated with fill and backfill.

**A. PRE-EXCAVATION UTILITY SURVEYS**

- 1. Before commence the work, Padilla Construction Services will notify One Call Center (1-800-272-4480) the type of work and equipment to be utilized, in order to have utilities marked out - electric, gas, water, sewers, and telephone.*
- 2. Authority will be informed about call before dig requests prior to commence the work, and copy of tickets will be provided to Project Office throughout excavation work duration*
- 3. Underground facilities will be contacted on bi-weekly basis in order to maintain refresh mark out throughout the entire excavation duration, as per code 53 regulation.*

**B. WASTE CHARACTERIZATION SAMPLING**

Waste characterization samples were collected and analyzed in accordance with the proposed disposal facility requirements, outlined in Section D, refer to attachment for results

Additional soil samples may be collected from excavated stockpiles as work progress in order to confirm sample test results attached, if required by SCA.

A total of 3 soil samples will be collected for analysis (if required by Owner). This number of soil samples equates to one sample for every 500 cubic yards of excavated material. Each sample will be analyzed for the following parameters:

- Volatile organic compounds (VOCs) by USEPA Method 8260
- Semi-volatile organic compounds (SVOCs) by USEPA Method 8270
- Polychlorinated biphenyls (PCBs) by USEPA Method 8082
- Pesticides via USEPA Method 8081
- Herbicides via USEPA Method 8151
- RCRA Metals via USEPA Method 6010
- Mercury via USEPA Method 7471

In addition, a total of 1 sample, one soil sample for every 5,000 cubic yards, will be collected and analyzed for the following parameters:

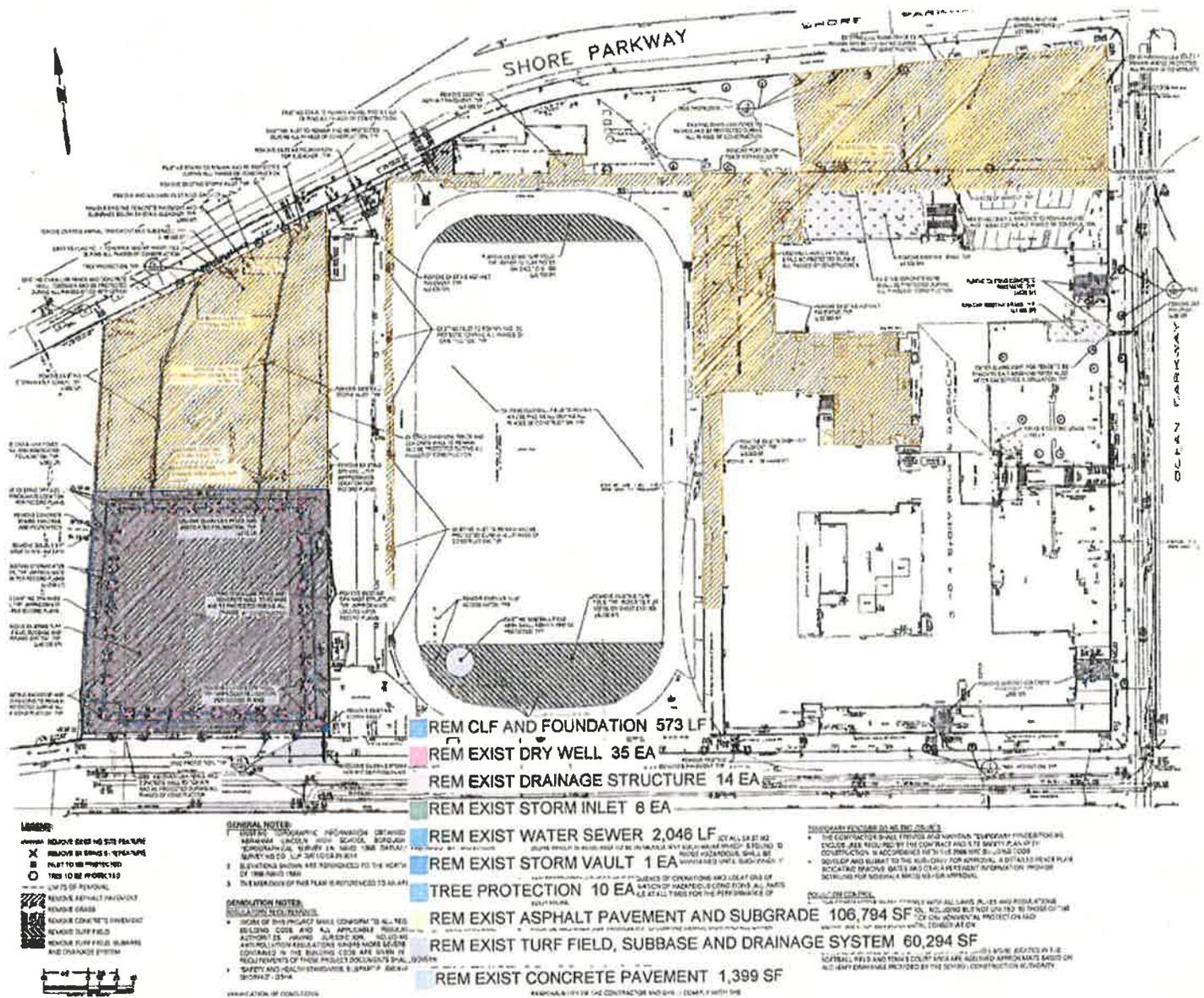
- RCRA Characteristics
- Full TCLP

See attached Sketch 1 showing the site, an outline of the proposed new construction, proposed excavation areas, and quantities of excavated materials.

See attached Sketch 2 indicating location where sample was collected. Our site excavation will not exceed 5'6" in depth

Discrete grab samples will be collected for VOCs. A five-point composite sample will be collected for all other analytes listed above. Samples will be analyzed by Essential Environmental Technologies, a New York State Department of Health Environmental Laboratory Approval Program (ELAP) -certified laboratory.

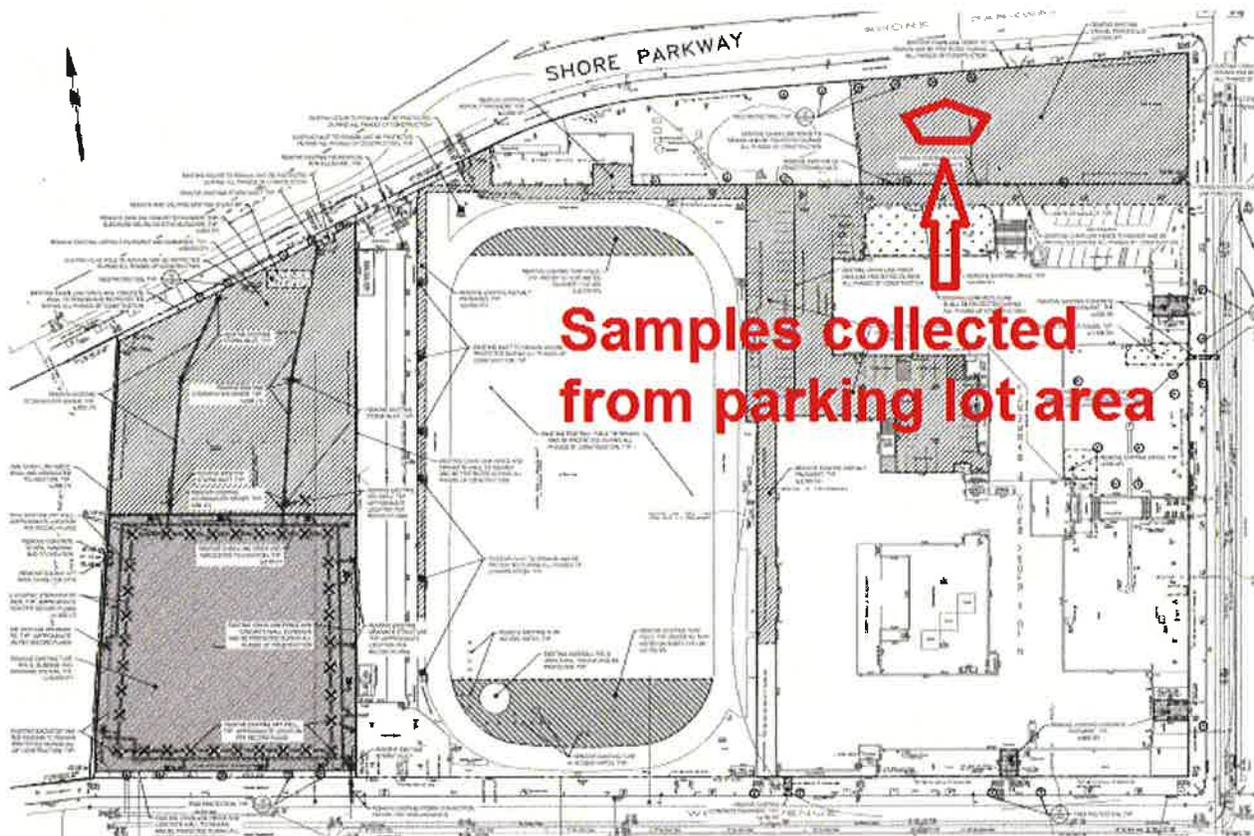
After sample collection, the soil samples were shipped to the NYSDOH ELAP certified laboratory in chilled coolers, and accompanied by appropriate chain of custody records.



Sketch #1.1- excavation locations



Sample collected from north elevation, parking lot facing Shore Parkway



Sketch #2 – location where sample was collected

### C. MANAGEMENT OF EXCAVATED SOIL

The foundation wall excavation will be 5ft deep. No sheeting / shoring required. Padilla Construction will utilize bob cat skid steer and backhoe excavator to perform the work. No hand excavation anticipated to perform the work.

On-site personnel involved in excavation activities shall comply with applicable Occupational Safety and Health Administration (OSHA) rules and regulations, New York City Department of Buildings (NYCDOB) requirements, and the Health and Safety Plan (HASP) presented as Appendix A to this EMDP.

Excavated soil, if not directly loaded into trucks for transportation and disposal, will be stockpiled on-site. Stockpiles will be placed on and covered with heavy duty tarps secured by sand bags.

Dust suppression will be performed during work activities where the potential for elevated dust conditions exists. Water will be used to spray/mist excavation areas in these instances. There will be no visible dust emissions from the work areas. Other dust suppression techniques which may be utilized include speed limits for trucks in unpaved areas, maintenance of Site paving as long as practical, and minimization of excavation activities during periods of high winds.

**D. DISPOSAL FACILITIES AND WASTE HAULERS**

Excavated material transportation will be performed by Padilla Construction Services trucks. Loaded vehicles leaving the Site will be appropriately cleaned, lined, and covered in accordance with applicable laws and regulations.

Non-hazardous excavated material shall be transported to an off-site disposal facility meeting the requirements of 6 NYCRR Part 360 or equivalent out-of-state facility approved by the appropriate regulatory agency of that State with a permit to receive non-hazardous excavated material.

The proposed disposal facilities meeting the criteria described above for this project are as follows:

Evergreen Recycling of Corona, Inc.

Owner Dave Cinquemani

127-50 Northern Blvd

Flushing, NY, 11368

**E. QUALITY ASSURANCE/ QUALITY CONTROL**

A qualified person will coordinate and manage the sampling and analysis program, management, transportation, and disposal of excavated materials from the Site. Michael Khmil –Padilla Construction Services will direct these activities.

Laboratories used will be NYSDOH ELAP certified laboratories. The laboratories will communicate directly with the samplers regarding the analytical results and reporting and will be responsible for providing all labels, sample containers, trip blanks, shipping coolers, and laboratory documentation.

Periodic quality assurance/quality control (QA/QC) audits of the EMDP will be performed by the Contractor, and may also be performed by the NYCSCA, or the NYCSCA's auditors. Any items noted to be in non-compliance will be documented and audit findings will be presented to Padilla Construction Services for resolution (with a copy to the NYCSCA IEH Division). Verification of resolution(s) will be determined through re-inspecting or re-auditing the non-compliant item.

All records regarding the removal and disposal of excavated materials shall be maintained by Padilla Construction Services at the project site. These records will be made available to the NYCSCA or their designated representatives at their request. Shipping manifests and/or bills of lading for excavated material will be provided to the NYCSCA on a daily basis.

**F. SIGNATURE OF PREPARER**

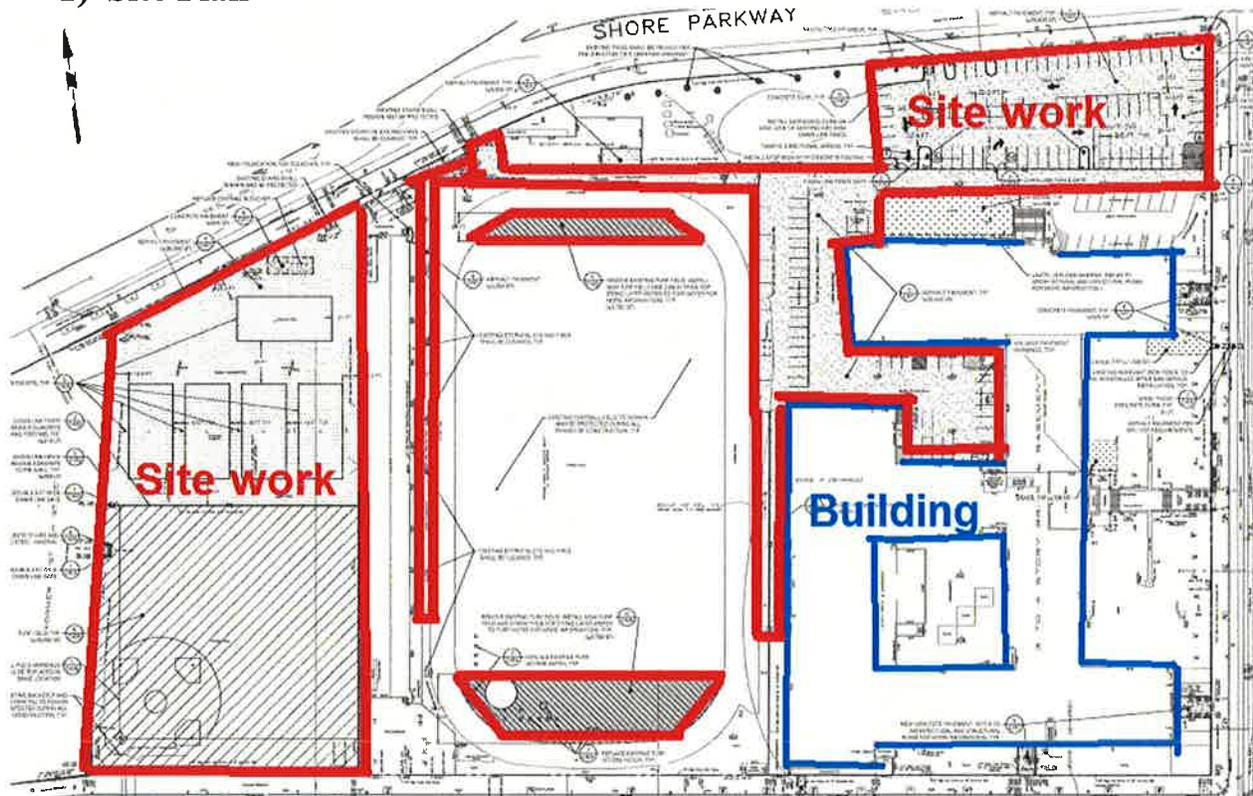
Marcelo Soares - Project Manager has prepared this EMDP for the Abraham Lincoln HS, 2800 Ocean Parkway, Brooklyn, NY, 11235, for the construction of the site drainage replacement, parking lot curbs and parking lot fence footings in accordance with the requirements of Specification Section 02201

PREPARED BY: \_\_\_\_\_

*Marcelo Soares*  
*Project Manager*

FIGURES

1) Site Plan



Site Plan

2) Sampling test results



# Essential Environmental Technologies, Inc.

208 Route 109 Suite 101, Farmingdale NY 11735  
Phone - 631-249-1456 Fax - 631-249-8344

11/18/2015

## ANALYTICAL REPORT

**Laboratory Identifier: 1510186**

Received: 10/30/2015 12:42

Sampled by: MARCELO SOARES

**Client: Padilla Construction Services Inc**

299 Main Street  
Westbury,  
NY 11590

**Project: ABRAHAM LINCOLN HS**

2800 OCEAN PARKWAY  
BROOKLYN,  
NY 11235  
Area: D016113

**Manager: MARCELO SOARES**

Respectfully submitted,



---

Juan R. Cuba - Technical Director

NYS Lab ID # 10969

The information contained in this report is confidential and intended only for the use of the client listed above. This report shall not be reproduced, except in full, without the written consent of Essential Environmental Technologies, Inc. Analytical results relate to the samples AS RECEIVED BY THE LABORATORY.

# Essential Environmental Technologies, Inc.

208 Route 109 Suite 101, Farmingdale NY 11735  
Phone - 631-249-1456 Fax - 631-249-8344

11/18/2015

## Volatiles - EPA 8260C

### Sample: 1510186-1

Client Sample ID: PARKING LOT DRAINAGE SOIL PILE

Matrix: Soil

Type: Grab

Collected: 10/29/2015 14:00

% Solid: 92.4%

Remarks: See Case Narrative

Analyzed Date: 11/2/2015

Prepared by Method: 5035A

## Analytical Results

Cas No	Analyte	DF	MDL	Result*	Units	Q
67-64-1	Acetone	1	0.0073	ND	mg/Kg	U
56-23-5	Carbon Tetrachloride	1	0.0020	ND	mg/Kg	U
67-66-3	Chloroform	1	0.0022	ND	mg/Kg	U
71-43-2	Benzene	1	0.0020	ND	mg/Kg	U
71-55-6	1,1,1-Trichloroethane	1	0.0020	ND	mg/Kg	U
74-83-9	Bromomethane	1	0.0022	ND	mg/Kg	U
74-87-3	Chloromethane	1	0.0016	ND	mg/Kg	U
74-95-3	Dibromomethane	1	0.0017	ND	mg/Kg	U
74-97-5	Bromochloromethane	1	0.0021	ND	mg/Kg	U
75-00-3	Chloroethane	1	0.0022	ND	mg/Kg	U
75-01-4	Vinyl Chloride	1	0.0024	ND	mg/Kg	U
75-09-2	Methylene Chloride	1	0.0020	0.034	mg/Kg	B
75-15-0	Carbon disulfide	1	0.0014	ND	mg/Kg	U
75-25-2	Bromoform	1	0.00098	ND	mg/Kg	U
75-27-4	Bromodichloromethane	1	0.0013	ND	mg/Kg	U
75-34-3	1,1-Dichloroethane	1	0.0017	ND	mg/Kg	U
75-65-0	Tertiary butyl alcohol	1	0.016	ND	mg/Kg	U
75-69-4	Trichlorofluoromethane	1	0.0021	ND	mg/Kg	U
75-71-8	Dichlorodifluoromethane	1	0.0011	ND	mg/Kg	U
76-13-1	1,1,2-Trichlorotrifluoroethane	1	0.0019	ND	mg/Kg	U
78-87-5	1,2-Dichloropropane	1	0.0022	ND	mg/Kg	U
78-93-3	2-Butanone	1	0.0039	ND	mg/Kg	U
79-00-5	1,1,2-Trichloroethane	1	0.0021	ND	mg/Kg	U
79-34-5	1,1,2,2-Tetrachloroethane	1	0.0021	ND	mg/Kg	U
87-61-6	1,2,3-Trichlorobenzene	1	0.0019	ND	mg/Kg	U
87-68-3	Hexachlorobutadiene	1	0.0019	ND	mg/Kg	U
95-47-6	o-xylene	1	0.0024	ND	mg/Kg	U
95-49-8	2-Chlorotoluene	1	0.0025	ND	mg/Kg	U
95-50-1	1,2-Dichlorobenzene	1	0.0022	ND	mg/Kg	U
95-63-6	1,2,4-Trimethylbenzene	1	0.0024	ND	mg/Kg	U
95-93-2	1,2,4,5-Tetramethylbenzene	1	0.0017	ND	mg/Kg	U
96-12-8	1,2-Dibromo-3-chloropropane	1	0.0011	ND	mg/Kg	U

# Essential Environmental Technologies, Inc.

208 Route 109 Suite 101, Farmingdale NY 11735  
Phone - 631-249-1456 Fax - 631-249-8344

11/18/2015

## Volatiles - EPA 8260C

### Sample: 1510186-1

Client Sample ID: PARKING LOT DRAINAGE SOIL PILE

Matrix: Soil

Type: Grab

Collected: 10/29/2015 14:00

% Solid: 92.4%

Remarks: See Case Narrative

Analyzed Date: 11/2/2015

Prepared by Method: 5035A

## Analytical Results

Cas No	Analyte	DF	MDL	Result*	Units	Q
96-18-4	1,2,3-Trichloropropane	1	0.0019	ND	mg/Kg	U
98-06-6	tert-Butylbenzene	1	0.0022	ND	mg/Kg	U
98-82-8	Isopropylbenzene	1	0.0023	ND	mg/Kg	U
99-87-6	4-Isopropyltoluene	1	0.0023	ND	mg/Kg	U
100-41-4	Ethylbenzene	1	0.0019	ND	mg/Kg	U
100-42-5	Styrene	1	0.0020	ND	mg/Kg	U
103-65-1	n-Propylbenzene	1	0.0021	ND	mg/Kg	U
104-51-8	n-Butylbenzene	1	0.0023	ND	mg/Kg	U
105-05-5	p-Diethylbenzene	1	0.0021	ND	mg/Kg	U
106-43-4	4-Chlorotoluene	1	0.0022	ND	mg/Kg	U
106-46-7	1,4-Dichlorobenzene	1	0.0023	ND	mg/Kg	U
106-93-4	1,2-Dibromoethane	1	0.0020	ND	mg/Kg	U
107-06-2	1,2-Dichloroethane	1	0.0022	ND	mg/Kg	U
107-13-1	Acrylonitrile	1	0.0042	ND	mg/Kg	U
108-10-1	4-Methyl-2-pentanone	1	0.0052	ND	mg/Kg	U
108-38-3	m,p-xylene	1	0.0045	ND	mg/Kg	U
108-67-8	1,3,5-Trimethylbenzene	1	0.0023	ND	mg/Kg	U
108-86-1	Bromobenzene	1	0.0023	ND	mg/Kg	U
108-88-3	Toluene	1	0.0021	ND	mg/Kg	U
108-90-7	Chlorobenzene	1	0.0023	ND	mg/Kg	U
110-75-8	2-Chloroethylvinylether	1	0.0031	ND	mg/Kg	U
120-82-1	1,2,4-Trichlorobenzene	1	0.0020	ND	mg/Kg	U
124-48-1	Dibromochloromethane	1	0.0013	ND	mg/Kg	U
127-18-4	Tetrachloroethene	1	0.0023	ND	mg/Kg	U
135-98-8	sec-Butylbenzene	1	0.0024	ND	mg/Kg	U
142-28-9	1,3-Dichloropropane	1	0.0024	ND	mg/Kg	U
156-59-2	c-1,2-Dichloroethene	1	0.0020	ND	mg/Kg	U
156-60-5	t-1,2-Dichloroethene	1	0.0020	ND	mg/Kg	U
541-73-1	1,3-Dichlorobenzene	1	0.0022	ND	mg/Kg	U
563-58-6	1,1-Dichloropropene	1	0.0019	ND	mg/Kg	U
590-20-7	2,2-Dichloropropane	1	0.0019	ND	mg/Kg	U
591-78-6	2-Hexanone	1	0.0035	ND	mg/Kg	U

# Essential Environmental Technologies, Inc.

208 Route 109 Suite 101, Farmingdale NY 11735  
Phone - 631-249-1456 Fax - 631-249-8344

11/18/2015

## Volatiles - EPA 8260C

### Sample: 1510186-1

Client Sample ID: PARKING LOT DRAINAGE SOIL PILE

Matrix: Soil

Type: Grab

Collected: 10/29/2015 14:00

% Solid: 92.4%

Remarks: See Case Narrative

Analyzed Date: 11/2/2015

Prepared by Method: 5035A

## Analytical Results

Cas No	Analyte	DF	MDL	Result*	Units	Q
622-96-8	p-Ethyltoluene	1	0.0023	ND	mg/Kg	U
630-20-6	1,1,1,2-Tetrachloroethane	1	0.0020	ND	mg/Kg	U
994-05-8	TAME	1	0.0019	ND	mg/Kg	U
1634-04-4	Methyl t-butyl ether	1	0.0019	ND	mg/Kg	U
10061-01-5	c-1,3-Dichloropropene	1	0.0021	ND	mg/Kg	U
10061-02-6	t-1,3-Dichloropropene	1	0.0016	ND	mg/Kg	U

\* Results are reported on a dry weight basis

## Surrogate Results

Cas No	Analyte	DF	% Recovery	QC Limits	Q
17060-07-0	1,2-DICHLOROETHANE-D4	1	129.0 %	( 60 - 150)	
460-00-4	4-BROMOFLUOROBENZENE	1	98.0 %	( 60 - 150)	
4774-33-8	DIBROMOFLUOROMETHANE	1	115.0 %	( 60 - 150)	
2037-26-5	TOLUENE-D8	1	100.0 %	( 60 - 150)	

# Essential Environmental Technologies, Inc.

208 Route 109 Suite 101, Farmingdale NY 11735  
 Phone - 631-249-1456 Fax - 631-249-8344

11/18/2015

## Semivolatile Compounds - EPA 8270D

**Sample: 1510186-1**

Client Sample ID: PARKING LOT DRAINAGE SOIL PILE

Collected: 10/29/2015 14:00

Matrix: Soil

Type: Grab

% Solid: 92.4%

Remarks:

Analyzed Date: 11/3/2015

Preparation Date(s) : 11/2/2015 by Method: 3550C

### Analytical Results

Cas No	Analyte	DF	MDL	Result*	Units	Q
120-82-1	1,2,4-Trichlorobenzene	1	0.043	ND	mg/Kg	U
95-50-1	1,2-Dichlorobenzene	1	0.035	ND	mg/Kg	U
122-66-7	1,2-Diphenylhydrazine	1	0.039	ND	mg/Kg	U
541-73-1	1,3-Dichlorobenzene	1	0.035	ND	mg/Kg	U
106-46-7	1,4-Dichlorobenzene	1	0.031	ND	mg/Kg	U
58-90-2	2,3,4,6-Tetrachlorophenol	1	0.039	ND	mg/Kg	U
95-95-4	2,4,5-Trichlorophenol	1	0.016	ND	mg/Kg	U
88-06-2	2,4,6-Trichlorophenol	1	0.032	ND	mg/Kg	U
120-83-2	2,4-Dichlorophenol	1	0.033	ND	mg/Kg	U
105-67-9	2,4-Dimethylphenol	1	0.035	ND	mg/Kg	U
51-28-5	2,4-Dinitrophenol	1	1.08	ND	mg/Kg	U
121-14-2	2,4-Dinitrotoluene	1	0.035	ND	mg/Kg	U
606-20-2	2,6-Dinitrotoluene	1	0.032	ND	mg/Kg	U
91-58-7	2-Chloronaphthalene	1	0.032	ND	mg/Kg	U
95-57-8	2-Chlorophenol	1	0.041	ND	mg/Kg	U
91-57-6	2-Methylnaphthalene	1	0.034	ND	mg/Kg	U
95-48-7	2-Methylphenol	1	0.031	ND	mg/Kg	U
88-74-4	2-Nitroaniline	1	0.014	ND	mg/Kg	U
106-44-5	3+4-Methylphenol	1	0.036	ND	mg/Kg	U
91-94-1	3,3'-Dichlorobenzidine	1	0.069	ND	mg/Kg	U
99-09-2	3-Nitroaniline	1	0.053	ND	mg/Kg	U
534-52-1	4,6-Dinitro-2-methylphenol	1	0.086	ND	mg/Kg	U
101-55-3	4-Bromophenyl phenyl ether	1	0.031	ND	mg/Kg	U
106-47-8	4-Chloroaniline	1	0.047	ND	mg/Kg	U
7005-72-3	4-Chlorophenyl phenyl ether	1	0.023	ND	mg/Kg	U
100-01-6	4-Nitroaniline	1	0.041	ND	mg/Kg	U
83-32-9	Acenaphthene	1	0.028	0.051	mg/Kg	J
208-96-8	Acenaphthylene	1	0.032	ND	mg/Kg	U
62-53-3	Aniline	1	0.035	ND	mg/Kg	U
120-12-7	Anthracene	1	0.039	0.13	mg/Kg	J
92-87-5	Benzidine	1	0.92	ND	mg/Kg	U
56-55-3	Benzo(a)anthracene	1	0.051	ND	mg/Kg	U

# Essential Environmental Technologies, Inc.

208 Route 109 Suite 101, Farmingdale NY 11735  
 Phone - 631-249-1456 Fax - 631-249-8344

11/18/2015

## Semivolatile Compounds - EPA 8270D

**Sample: 1510186-1**

Client Sample ID: PARKING LOT DRAINAGE SOIL PILE

Collected: 10/29/2015 14:00

Matrix: Soil

Type: Grab

% Solid: 92.4%

Remarks:

Analyzed Date: 11/3/2015

Preparation Date(s) : 11/2/2015 by Method: 3550C

### Analytical Results

Cas No	Analyte	DF	MDL	Result*	Units	Q
50-32-8	Benzo(a)pyrene	1	0.049	ND	mg/Kg	U
205-99-2	Benzo(b)fluoranthene	1	0.047	ND	mg/Kg	U
191-24-2	Benzo(g,h,i)perylene	1	0.035	ND	mg/Kg	U
207-08-9	Benzo(k)fluoranthene	1	0.073	ND	mg/Kg	U
65-85-0	Benzoic acid	1	12.4	ND	mg/Kg	U
100-51-6	Benzyl alcohol	1	0.029	ND	mg/Kg	U
85-68-7	Butyl benzyl phthalate	1	0.056	ND	mg/Kg	U
86-74-8	Carbazole	1	0.062	ND	mg/Kg	U
218-01-9	Chrysene	1	0.048	ND	mg/Kg	U
	Cresols	1	0.067	ND	mg/Kg	U
84-74-2	Di-n-butyl phthalate	1	0.048	0.20	mg/Kg	BJ
117-84-0	Di-n-octyl phthalate	1	0.043	ND	mg/Kg	U
53-70-3	Dibenz(a,h)anthracene	1	0.040	ND	mg/Kg	U
132-64-9	Dibenzofuran	1	0.028	ND	mg/Kg	U
84-66-2	Diethyl phthalate	1	0.046	0.049	mg/Kg	BJ
131-11-3	Dimethyl phthalate	1	0.037	0.39	mg/Kg	BJ
206-44-0	Fluoranthene	1	0.049	0.82	mg/Kg	
86-73-7	Fluorene	1	0.032	0.049	mg/Kg	J
118-74-1	Hexachlorobenzene	1	0.038	ND	mg/Kg	U
87-68-3	Hexachlorobutadiene	1	0.037	ND	mg/Kg	U
77-47-4	Hexachlorocyclopentadiene	1	0.011	ND	mg/Kg	U
67-72-1	Hexachloroethane	1	0.039	ND	mg/Kg	U
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.038	ND	mg/Kg	U
78-59-1	Isophorone	1	0.031	ND	mg/Kg	U
621-64-7	N-Nitrosodi-n-propylamine	1	0.043	ND	mg/Kg	U
62-75-9	N-Nitrosodimethylamine	1	0.078	ND	mg/Kg	U
86-30-6	N-Nitrosodiphenylamine	1	0.047	ND	mg/Kg	U
91-20-3	Naphthalene	1	0.046	ND	mg/Kg	U
98-95-3	Nitrobenzene	1	0.029	ND	mg/Kg	U
87-86-5	Pentachlorophenol	1	0.30	ND	mg/Kg	U
85-01-8	Phenanthrene	1	0.045	0.61	mg/Kg	
108-95-2	Phenol	1	0.040	ND	mg/Kg	U

# Essential Environmental Technologies, Inc.

208 Route 109 Suite 101, Farmingdale NY 11735  
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11/18/2015

## Semivolatile Compounds - EPA 8270D

**Sample: 1510186-1**

Client Sample ID: PARKING LOT DRAINAGE SOIL PILE

Matrix: Soil

Type: Grab

Collected: 10/29/2015 14:00

% Solid: 92.4%

Remarks:

Analyzed Date: 11/3/2015

Preparation Date(s) : 11/2/2015 by Method: 3550C

### Analytical Results

Cas No	Analyte	DF	MDL	Result*	Units	Q
129-00-0	Pyrene	1	0.045	0.53	mg/Kg	J
110-86-1	Pyridine	1	0.037	ND	mg/Kg	U
111-91-1	bis(2-Chloroethoxy)methane	1	0.039	ND	mg/Kg	U
111-44-4	bis(2-Chloroethyl)ether	1	0.034	ND	mg/Kg	U
108-60-1	bis(2-Chloroisopropyl)ether	1	0.041	ND	mg/Kg	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	0.059	0.30	mg/Kg	BJ

\* Results are reported on a dry weight basis

### Surrogate Results

Cas No	Analyte	DF	% Recovery	QC Limits	Q
118-76-6	2,4,6-TRIBROMOPHENOL	1	85.4 %	( 19 - 122)	
321-60-8	2-FLUOROBIPHENYL	1	96.7 %	( 30 - 115)	
367-12-4	2-FLUOROPHENOL	1	55.2 %	( 25 - 121)	
4165-60-0	NITROBENZENE-D5	1	75.9 %	( 23 - 120)	
13127-88-3	PHENOL-D6	1	58.3 %	( 24 - 113)	
1718-51-0	TERPHENYL-D14	1	96.4 %	( 18 - 137)	

# Essential Environmental Technologies, Inc.

208 Route 109 Suite 101, Farmingdale NY 11735  
Phone - 631-249-1456 Fax - 631-249-8344

11/18/2015

## TAGM Herbicides by SW 846 8151A

### Sample: 1510186-1

Client Sample ID: PARKING LOT DRAINAGE SOIL PILE

Collected: 10/29/2015 14:00

Matrix: Soil

Type: Grab

% Solid: 92.4%

Remarks:

Analyzed Date: 11/6/2015

Preparation Date(s) : 11/5/2015

### Analytical Results

Cas No	Analyte	DF	MDL	Result*	Units	Q
93-76-5	2,4,5-T	1	0.47	ND	ug/Kg	U

\* Results are reported on a dry weight basis

### Surrogate Results

Cas No	Analyte	DF	% Recovery	QC Limits	Q
1928-45-6	2,4-DPAA	1	35.2 %	( 30 - 150)	

# Essential Environmental Technologies, Inc.

208 Route 109 Suite 101, Farmingdale NY 11735  
Phone - 631-249-1456 Fax - 631-249-8344

11/18/2015

## PCB Aroclors by SW846 8082A/EPA 608

### Sample: 1510186-1

Client Sample ID: PARKING LOT DRAINAGE SOIL PILE

Collected: 10/29/2015 14:00

Matrix: Soil

Type: Grab

% Solid: 92.4%

Remarks:

Analyzed Date: 11/3/2015

Preparation Date(s) : 11/2/2015 by Method: 3550C

### Analytical Results

Cas No	Analyte	DF	MDL	Result*	Units	Q
12674-11-2	PCB 1016	1	0.0072	ND	mg/kg	U
11104-28-2	PCB 1221	1	0.0088	ND	mg/kg	U
11141-16-5	PCB 1232	1	0.0063	ND	mg/kg	U
53469-21-9	PCB 1242	1	0.0078	ND	mg/kg	U
12672-29-6	PCB 1248	1	0.0098	ND	mg/kg	U
11097-69-1	PCB 1254	1	0.0058	ND	mg/kg	U
11096-82-5	PCB 1260	1	0.0059	ND	mg/kg	U
37324-23-5	PCB 1262	1	0.0059	ND	mg/kg	U
11100-14-4	PCB 1268	1	0.0062	ND	mg/kg	U

\* Results are reported on a dry weight basis

### Surrogate Results

Cas No	Analyte	DF	% Recovery	QC Limits	Q
2051-24-3	DECACHLOROBIPHENYL	1	396.0 %	( 30 - 150)	*
877-09-8	TETRACHLORO M-XYLENE	1	75.0 %	( 30 - 150)	

# Essential Environmental Technologies, Inc.

208 Route 109 Suite 101, Farmingdale NY 11735  
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11/18/2015

## Pesticide Compounds -EPA 608/SW846 8081B

**Sample: 1510186-1**

Client Sample ID: PARKING LOT DRAINAGE SOIL PILE

Collected: 10/29/2015 14:00

Matrix: Soil

Type: Grab

% Solid: 92.4%

Remarks:

Analyzed Date: 11/4/2015

Preparation Date(s) : 11/4/2015

### Analytical Results

Cas No	Analyte	DF	MDL	Result*	Units	Q
319-84-6	alpha-BHC	1	0.77	ND	ug/Kg	U
58-89-9	gamma-BHC (Lindane)	1	1.50	ND	ug/Kg	U
319-85-7	beta-BHC	1	0.83	ND	ug/Kg	U
319-86-8	delta-BHC	1	1.48	ND	ug/Kg	U
76-44-8	Heptachlor	1	0.68	ND	ug/Kg	U
309-00-2	Aldrin	1	1.06	ND	ug/Kg	U
1024-57-3	Heptachlor epoxide	1	1.10	ND	ug/Kg	U
5103-74-2	gamma-Chlordane	1	2.13	ND	ug/Kg	U
5103-71-9	alpha-Chlordane	1	1.29	ND	ug/Kg	U
72-55-9	4,4'-DDE	1	1.79	ND	ug/Kg	U
959-98-8	Endosulfan I	1	1.16	ND	ug/Kg	U
60-57-1	Dieldrin	1	1.70	ND	ug/Kg	U
72-20-8	Endrin	1	1.29	ND	ug/Kg	U
72-54-8	4,4'-DDD	1	1.48	ND	ug/Kg	U
33213-65-9	Endosulfan II	1	0.78	ND	ug/Kg	U
50-29-3	4,4'-DDT	1	0.55	ND	ug/Kg	U
1031-07-8	Endosulfan sulfate	1	0.87	ND	ug/Kg	U
7421-36-3	Endrin Aldehyde	1	1.97	ND	ug/Kg	U
72-43-5	Methoxychlor	1	1.68	ND	ug/Kg	U
53494-70-5	Endrin ketone	1	2.50	ND	ug/Kg	U
8001-35-2	Toxaphene	1	43.2	ND	ug/Kg	U
57-74-9	Chlordane	1	8.66	ND	ug/Kg	U

\* Results are reported on a dry weight basis

### Surrogate Results

Cas No	Analyte	DF	% Recovery	QC Limits	Q
2051-24-3	DECACHLOROBIPHENYL	1	111.0 %	( 30 - 150)	
877-09-8	TETRACHLORO M-XYLENE	1	211.0 %	( 30 - 150)	*

# Essential Environmental Technologies, Inc.

208 Route 109 Suite 101, Farmingdale NY 11735  
Phone - 631-249-1456 Fax - 631-249-8344

11/18/2015

## Mercury by SW846 7470/7471B/EPA 245.1

**Sample: 1510186-1**

Client Sample ID: PARKING LOT DRAINAGE SOIL PILE

Collected: 10/29/2015 14:00

Matrix: Soil

Type: Grab

% Solid: 92.4%

Remarks:

Analyzed Date: 11/3/2015

Preparation Date(s) : 11/2/2015

### Analytical Results

Cas No	Analyte	DF	MDL	Result*	Units	Q
7439-97-6	Mercury	1	0.0098	0.34	mg/Kg	

\* Results are reported on a dry weight basis

# Essential Environmental Technologies, Inc.

208 Route 109 Suite 101, Farmingdale NY 11735  
Phone - 631-249-1456 Fax - 631-249-8344

11/18/2015

## Metals by Method SW846 6010C

### Sample: 1510186-1

Client Sample ID: PARKING LOT DRAINAGE SOIL PILE

Matrix: Soil

Type: Grab

Collected: 10/29/2015 14:00

% Solid: 92.4%

Remarks:

Analyzed Date: 11/6/2015

Preparation Date(s) : 11/4/2015 by Method: 3050B

## Analytical Results

Cas No	Analyte	DF	MDL	Result*	Units	Q
7440-38-2	Arsenic	1	0.41	4.00	mg/Kg	
7440-39-3	Barium	1	0.11	41.9	mg/Kg	
7440-41-7	Beryllium	1	0.11	ND	mg/Kg	U
7440-43-9	Cadmium	1	0.043	0.98	mg/Kg	
7440-48-4	Cobalt	1	0.080	4.69	mg/Kg	
7440-47-3	Chromium	1	0.13	13.7	mg/Kg	
7440-50-8	Copper	1	0.36	22.5	mg/Kg	
7439-89-6	Iron	1	3.13	15000	mg/Kg	
7439-92-1	Lead	1	0.25	62.5	mg/Kg	
7439-96-5	Manganese	1	0.13	252	mg/Kg	
7440-02-0	Nickel	1	0.15	19.3	mg/Kg	
7782-49-2	Selenium	1	0.69	ND	mg/Kg	U
7440-22-4	Silver	1	0.071	ND	mg/Kg	U
7440-62-2	Vanadium	1	0.072	28.9	mg/Kg	
7440-66-6	Zinc	1	0.67	104	mg/Kg	

\* Results are reported on a dry weight basis

# Essential Environmental Technologies, Inc.

208 Route 109 Suite 101, Farmingdale NY 11735  
Phone - 631-249-1456 Fax - 631-249-8344

11/18/2015

## Hexavalent Chromium by SM 22 3500B/SW846 7196A

**Sample: 1510186-1**

Client Sample ID: PARKING LOT DRAINAGE SOIL PILE

Collected: 10/29/2015 14:00

Matrix: Soil

Type: Grab

% Solid: 92.4%

Remarks:

Analyzed Date: 11/10/2015 12:00:00 PM

Prepared by Method: 3060A

### Analytical Results

Cas No	Analyte	MDL	Result*	Units	Q
18540-29-9	Chromium +6	1.05	ND	mg/kg	U

\* Results are reported on a dry weight basis

# Essential Environmental Technologies, Inc.

208 Route 109 Suite 101, Farmingdale NY 11735  
Phone - 631-249-1456 Fax - 631-249-8344

11/18/2015

## Trivalent Chromium

**Sample: 1510186-1**

Client Sample ID: PARKING LOT DRAINAGE SOIL PILE

Collected: 10/29/2015 14:00

Matrix: Soil

Type: Grab

% Solid: 92.4%

Remarks:

Analyzed Date: 11/11/2015

Prepared by Method: 3050B

## Analytical Results

Cas No	Analyte	MDL	Result*	Units	Q
	Chromium +3	0	13.7	mg/Kg	

\* Results are reported on a dry weight basis

# Essential Environmental Technologies, Inc.

208 Route 109 Suite 101, Farmingdale NY 11735  
Phone - 631-249-1456 Fax - 631-249-8344

11/18/2015

## Total Cyanide by SM 22 4500-CN C

**Sample: 1510186-1**

Client Sample ID: PARKING LOT DRAINAGE SOIL PILE

Collected: 10/29/2015 14:00

Matrix: Soil

Type: Grab

% Solid: 92.4%

Remarks:

Analyzed Date: 11/2/2015

Prepared by Method: 9010C

### Analytical Results

Cas No	Analyte	MDL	Result*	Units	Q
57-12-5	Cyanide	0	ND	mg/Kg	U

\* Results are reported on a dry weight basis

# Essential Environmental Technologies, Inc.

208 Route 109 Suite 101, Farmingdale NY 11735

Phone - 631-249-1456 Fax - 631-249-8344

11/18/2015

## Case Narrative

Continuing Calibration associated with the sample did not meet method criteria for:

Benzoic acid: 45.12ul/mL

Hexachlorocyclopentadiene: 51.26 ul/mL

4,6-dinitro-2-methylphenol: 80.11 ul/mL

Pentachlorophenol: 68.29 ul/mL

Benzidine: 6.04 ul/mL

Some phthalates were found in blank, a common lab contaminant. Blank and MSB associated with this sample is found in batch 691 (SBLK-43, MSB-43).

# Essential Environmental Technologies, Inc.

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11/18/2015

## ORGANIC METHOD QUALIFIERS

Q - Qualifier - specified entries and their meanings are as follows:

- U - The analytical result is not detected above the Method Detection Limit (MDL).  
All MDL's are lower than the lowest calibration standard concentration.
- J - Indicates an estimated value. The concentration reported was between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL).
- B - The analyte was found in the associated method blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.
- E - The concentration of the analyte exceeded the calibration range of the instrument.
- D - This flag indicates a system monitoring compound diluted out.
- L - Low Bias, Soil Sampling for VOC Analysis did not meet method 5035A Low-Level criteria. Results are estimated.

## INORGANIC METHOD QUALIFIERS

C - (Concentration) qualifiers are as follows:

- B - Entered if the reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRDL) but greater than or equal to the Method Detection Limit (MDL).
- U - Entered when the analyte was analyzed for, but not detected above the Method Detection Limit (MDL) which is less than the lowest calibration standard concentration.

Q - Qualifier specific entries and their meanings are as follows:

- E - Reported value is estimated because of the presence of interferences.

M - (Method) qualifiers are as follows:

- AS - Semi-automated Spectrophotometric
- AV - Automated Cold Vapor AA
- C - Manual Spectrophotometric
- P - ICP
- T - Titrimetric

## OTHER QUALIFIERS

ND - Not Detected

**APPENDIX A**  
**HEALTH AND SAFETY PLAN**

Material does not constitute a danger to the environment  
Not required

Any employee that are involved with the excavation process will have an orientation about the process and potential risks

**APPENDIX B**  
**WASTE TRANSPORTER PERMITS**

Material does not constitute a danger to the environment  
Not required

**APPENDIX C**

**DISPOSAL FACILITY PERMITS AND SUPPORTING  
DOCUMENTATION**

(including a copy of the NYSDEC Part 360 Permit or equivalent out of state regulatory agency  
permit)

Material does not constitute a danger to the environment  
Not required