# APPENDIX G

## Soil/Waste Characterization Documentation (USB)

Waste Characterization Data
Petroleum Delineation Data
Hazardous Lead Delineation Data
Waste Hauler Permit Certificates
Disposal Facility Approval and Approval Letters
Facility Permit Certificates
Tabulated Load Summaries
Waste Manifests
Petroleum Delineation Memorandum

HALEY ALDRICH

# ANALYTICAL REPORT

| | |
|---|---|
| Lab Number: | L2040350 |
| Client: | Haley & Aldrich<br>237 West 35th Street<br>16th Floor<br>New York, NY 10123 |
| ATTN: | Mari Conlon |
| Phone: | (347) 271-1521 |
| Project Name: | 310 GRAND CONCOURSE |
| Project Number: | 135173-002 |
| Report Date: | 10/01/20 |

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2040350
**Report Date:** 10/01/20

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|---|---|---|---|---|---|
| L2040350-01 | WC-A (0-5') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 09/24/20 13:00 | 09/24/20 |
| L2040350-02 | WC-A (5-10') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 09/24/20 13:02 | 09/24/20 |
| L2040350-03 | WC-B (0-5') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 09/24/20 14:15 | 09/24/20 |
| L2040350-04 | WC-B (5-10') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 09/24/20 14:20 | 09/24/20 |
| L2040350-05 | WC-F (0-5') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 09/24/20 11:07 | 09/24/20 |
| L2040350-06 | WC-F (5-10') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 09/24/20 11:10 | 09/24/20 |
| L2040350-07 | WC-F (10-15') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 09/24/20 11:11 | 09/24/20 |
| L2040350-08 | WC-F (15-20') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 09/24/20 11:12 | 09/24/20 |
| L2040350-09 | A-B3 (1-3') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 09/24/20 11:42 | 09/24/20 |
| L2040350-10 | A-B5 (7-9') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 09/24/20 12:56 | 09/24/20 |
| L2040350-11 | B-B3 (8-10') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 09/24/20 13:50 | 09/24/20 |
| L2040350-12 | B-B4 (3-5') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 09/24/20 14:11 | 09/24/20 |
| L2040350-13 | F-B2 (10-12') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 09/24/20 08:25 | 09/24/20 |
| L2040350-14 | F-B3 (15-17') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 09/24/20 08:56 | 09/24/20 |
| L2040350-15 | F-B4 (3-5') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 09/24/20 09:34 | 09/24/20 |
| L2040350-16 | F-B5 (9-10') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 09/24/20 11:02 | 09/24/20 |

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2040350 |
| **Project Number:** | 135173-002 | **Report Date:** | 10/01/20 |

## Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

Please contact Project Management at 800-624-9220 with any questions.

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2040350 |
| **Project Number:** | 135173-002 | **Report Date:** | 10/01/20 |

**Case Narrative (continued)**

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

L2040350-13 (F-B2 (10-12')): The surrogate recovery is outside the acceptance criteria for 4-bromofluorobenzene (133%); however, the sample was not re-analyzed due to coelution with an obvious interference. A copy of the chromatogram is included as an attachment to this report.

NJ EPH (Total)

WG1415049-4: One or more compounds failed to meet the recovery and/or RPD limits. Please refer to the QC section of the report for specific details.

WG1415049-4: One or more surrogates failed to meet the recovery limits. Please refer to the sample results and/or QC section of the report for specific details.

Pesticides

L2040350-08 (WC-F (15-20')): The internal standard (IS) response for 1-bromo-2-nitrobenzene (240%) was above the acceptance criteria on column A; however, the sample was not re-analyzed due to obvious interferences.

Total Metals

L2040350-01 through -08 (WC-A (0-5'), WC-A (5-10'), WC-B (0-5'), WC-B (5-10'), WC-F (0-5'), WC-F (5-10'), WC-F (10-15'), and WC-F (15-20')): The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.

Cyanide, Total

The WG1415021-2/-3 LCS/LCSD recoveries for cyanide, total (35%/58%), associated with L2040350-01 and

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350
**Project Number:** 135173-002 **Report Date:** 10/01/20

**Case Narrative (continued)**

-02 (WC-A (0-5') and WC-A (5-10')), are outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original analyses are reported. The LCS/LCSD RPD is above the acceptance criteria for cyanide, total (39%).

The WG1415908-2/-3 LCS/LCSD recoveries for cyanide, total (71%/74%), associated with L2040350-03 through -08 (WC-B (0-5'), WC-B (5-10'), WC-F (0-5'), WC-F (5-10'), WC-F (10-15'), and WC-F (15-20')), are outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original analyses are reported.

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

Authorized Signature: Tiffani Morrissey - Tiffani Morrissey

Title: Technical Director/Representative Date: 10/01/20

# ORGANICS

# VOLATILES

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-09
Client ID: A-B3 (1-3')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 09/24/20 11:42
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 09/29/20 22:29
Analyst: MV
Percent Solids: 89%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/kg | 4.9 | 2.2 | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 0.97 | 0.14 | 1 |
| Chloroform | ND | | ug/kg | 1.4 | 0.14 | 1 |
| Carbon tetrachloride | ND | | ug/kg | 0.97 | 0.22 | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 0.97 | 0.12 | 1 |
| Dibromochloromethane | ND | | ug/kg | 0.97 | 0.14 | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 0.97 | 0.26 | 1 |
| Tetrachloroethene | ND | | ug/kg | 0.49 | 0.19 | 1 |
| Chlorobenzene | ND | | ug/kg | 0.49 | 0.12 | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 3.9 | 0.68 | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 0.97 | 0.25 | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 0.49 | 0.16 | 1 |
| Bromodichloromethane | ND | | ug/kg | 0.49 | 0.10 | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 0.97 | 0.26 | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 0.49 | 0.15 | 1 |
| 1,3-Dichloropropene, Total | ND | | ug/kg | 0.49 | 0.15 | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 0.49 | 0.15 | 1 |
| Bromoform | ND | | ug/kg | 3.9 | 0.24 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 0.49 | 0.16 | 1 |
| Benzene | ND | | ug/kg | 0.49 | 0.16 | 1 |
| Toluene | ND | | ug/kg | 0.97 | 0.53 | 1 |
| Ethylbenzene | ND | | ug/kg | 0.97 | 0.14 | 1 |
| Chloromethane | ND | | ug/kg | 3.9 | 0.90 | 1 |
| Bromomethane | ND | | ug/kg | 1.9 | 0.56 | 1 |
| Vinyl chloride | ND | | ug/kg | 0.97 | 0.32 | 1 |
| Chloroethane | ND | | ug/kg | 1.9 | 0.44 | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 0.97 | 0.23 | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 1.4 | 0.13 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-09 Date Collected: 09/24/20 11:42

Client ID: A-B3 (1-3') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Trichloroethene | ND | | ug/kg | 0.49 | 0.13 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 1.9 | 0.14 | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 1.9 | 0.14 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 1.9 | 0.17 | 1 |
| Methyl tert butyl ether | ND | | ug/kg | 1.9 | 0.20 | 1 |
| p/m-Xylene | ND | | ug/kg | 1.9 | 0.54 | 1 |
| o-Xylene | ND | | ug/kg | 0.97 | 0.28 | 1 |
| Xylenes, Total | ND | | ug/kg | 0.97 | 0.28 | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 0.97 | 0.17 | 1 |
| 1,2-Dichloroethene, Total | ND | | ug/kg | 0.97 | 0.13 | 1 |
| Dibromomethane | ND | | ug/kg | 1.9 | 0.23 | 1 |
| Styrene | ND | | ug/kg | 0.97 | 0.19 | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 9.7 | 0.89 | 1 |
| Acetone | ND | | ug/kg | 9.7 | 4.7 | 1 |
| Carbon disulfide | ND | | ug/kg | 9.7 | 4.4 | 1 |
| 2-Butanone | ND | | ug/kg | 9.7 | 2.2 | 1 |
| Vinyl acetate | ND | | ug/kg | 9.7 | 2.1 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 9.7 | 1.2 | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 1.9 | 0.12 | 1 |
| 2-Hexanone | ND | | ug/kg | 9.7 | 1.1 | 1 |
| Bromochloromethane | ND | | ug/kg | 1.9 | 0.20 | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 1.9 | 0.20 | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 0.97 | 0.27 | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 1.9 | 0.16 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 0.49 | 0.13 | 1 |
| Bromobenzene | ND | | ug/kg | 1.9 | 0.14 | 1 |
| n-Butylbenzene | ND | | ug/kg | 0.97 | 0.16 | 1 |
| sec-Butylbenzene | ND | | ug/kg | 0.97 | 0.14 | 1 |
| tert-Butylbenzene | ND | | ug/kg | 1.9 | 0.11 | 1 |
| o-Chlorotoluene | ND | | ug/kg | 1.9 | 0.18 | 1 |
| p-Chlorotoluene | ND | | ug/kg | 1.9 | 0.10 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 2.9 | 0.97 | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 3.9 | 0.16 | 1 |
| Isopropylbenzene | ND | | ug/kg | 0.97 | 0.10 | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 0.97 | 0.10 | 1 |
| Naphthalene | ND | | ug/kg | 3.9 | 0.63 | 1 |
| Acrylonitrile | ND | | ug/kg | 3.9 | 1.1 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-09 Date Collected: 09/24/20 11:42

Client ID: A-B3 (1-3') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab | | | | | | |
| n-Propylbenzene | ND | | ug/kg | 0.97 | 0.17 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 1.9 | 0.31 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 1.9 | 0.26 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 1.9 | 0.19 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 1.9 | 0.32 | 1 |
| 1,4-Dioxane | ND | | ug/kg | 78 | 34. | 1 |
| p-Diethylbenzene | ND | | ug/kg | 1.9 | 0.17 | 1 |
| p-Ethyltoluene | ND | | ug/kg | 1.9 | 0.37 | 1 |
| 1,2,4,5-Tetramethylbenzene | ND | | ug/kg | 1.9 | 0.18 | 1 |
| Ethyl ether | ND | | ug/kg | 1.9 | 0.33 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 4.9 | 1.4 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 90 | | 70-130 |
| Toluene-d8 | 104 | | 70-130 |
| 4-Bromofluorobenzene | 103 | | 70-130 |
| Dibromofluoromethane | 93 | | 70-130 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-10
Client ID: A-B5 (7-9')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 09/24/20 12:56
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 09/29/20 22:53
Analyst: MV
Percent Solids: 92%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/kg | 4.6 | 2.1 | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 0.92 | 0.13 | 1 |
| Chloroform | ND | | ug/kg | 1.4 | 0.13 | 1 |
| Carbon tetrachloride | ND | | ug/kg | 0.92 | 0.21 | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 0.92 | 0.12 | 1 |
| Dibromochloromethane | ND | | ug/kg | 0.92 | 0.13 | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 0.92 | 0.25 | 1 |
| Tetrachloroethene | ND | | ug/kg | 0.46 | 0.18 | 1 |
| Chlorobenzene | ND | | ug/kg | 0.46 | 0.12 | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 3.7 | 0.64 | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 0.92 | 0.24 | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 0.46 | 0.15 | 1 |
| Bromodichloromethane | ND | | ug/kg | 0.46 | 0.10 | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 0.92 | 0.25 | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 0.46 | 0.14 | 1 |
| 1,3-Dichloropropene, Total | ND | | ug/kg | 0.46 | 0.14 | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 0.46 | 0.15 | 1 |
| Bromoform | ND | | ug/kg | 3.7 | 0.23 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 0.46 | 0.15 | 1 |
| Benzene | ND | | ug/kg | 0.46 | 0.15 | 1 |
| Toluene | ND | | ug/kg | 0.92 | 0.50 | 1 |
| Ethylbenzene | ND | | ug/kg | 0.92 | 0.13 | 1 |
| Chloromethane | ND | | ug/kg | 3.7 | 0.86 | 1 |
| Bromomethane | ND | | ug/kg | 1.8 | 0.54 | 1 |
| Vinyl chloride | ND | | ug/kg | 0.92 | 0.31 | 1 |
| Chloroethane | ND | | ug/kg | 1.8 | 0.42 | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 0.92 | 0.22 | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 1.4 | 0.13 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-10 Date Collected: 09/24/20 12:56

Client ID: A-B5 (7-9') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Trichloroethene | ND | | ug/kg | 0.46 | 0.13 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 1.8 | 0.13 | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 1.8 | 0.14 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 1.8 | 0.16 | 1 |
| Methyl tert butyl ether | ND | | ug/kg | 1.8 | 0.18 | 1 |
| p/m-Xylene | ND | | ug/kg | 1.8 | 0.52 | 1 |
| o-Xylene | ND | | ug/kg | 0.92 | 0.27 | 1 |
| Xylenes, Total | ND | | ug/kg | 0.92 | 0.27 | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 0.92 | 0.16 | 1 |
| 1,2-Dichloroethene, Total | ND | | ug/kg | 0.92 | 0.13 | 1 |
| Dibromomethane | ND | | ug/kg | 1.8 | 0.22 | 1 |
| Styrene | ND | | ug/kg | 0.92 | 0.18 | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 9.2 | 0.84 | 1 |
| Acetone | ND | | ug/kg | 9.2 | 4.4 | 1 |
| Carbon disulfide | ND | | ug/kg | 9.2 | 4.2 | 1 |
| 2-Butanone | ND | | ug/kg | 9.2 | 2.0 | 1 |
| Vinyl acetate | ND | | ug/kg | 9.2 | 2.0 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 9.2 | 1.2 | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 1.8 | 0.12 | 1 |
| 2-Hexanone | ND | | ug/kg | 9.2 | 1.1 | 1 |
| Bromochloromethane | ND | | ug/kg | 1.8 | 0.19 | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 1.8 | 0.19 | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 0.92 | 0.26 | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 1.8 | 0.15 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 0.46 | 0.12 | 1 |
| Bromobenzene | ND | | ug/kg | 1.8 | 0.13 | 1 |
| n-Butylbenzene | ND | | ug/kg | 0.92 | 0.15 | 1 |
| sec-Butylbenzene | ND | | ug/kg | 0.92 | 0.13 | 1 |
| tert-Butylbenzene | ND | | ug/kg | 1.8 | 0.11 | 1 |
| o-Chlorotoluene | ND | | ug/kg | 1.8 | 0.18 | 1 |
| p-Chlorotoluene | ND | | ug/kg | 1.8 | 0.10 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 2.8 | 0.92 | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 3.7 | 0.16 | 1 |
| Isopropylbenzene | ND | | ug/kg | 0.92 | 0.10 | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 0.92 | 0.10 | 1 |
| Naphthalene | ND | | ug/kg | 3.7 | 0.60 | 1 |
| Acrylonitrile | ND | | ug/kg | 3.7 | 1.1 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-10 Date Collected: 09/24/20 12:56

Client ID: A-B5 (7-9') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab | | | | | | |
| n-Propylbenzene | ND | | ug/kg | 0.92 | 0.16 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 1.8 | 0.30 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 1.8 | 0.25 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 1.8 | 0.18 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 1.8 | 0.31 | 1 |
| 1,4-Dioxane | ND | | ug/kg | 74 | 32. | 1 |
| p-Diethylbenzene | ND | | ug/kg | 1.8 | 0.16 | 1 |
| p-Ethyltoluene | ND | | ug/kg | 1.8 | 0.35 | 1 |
| 1,2,4,5-Tetramethylbenzene | ND | | ug/kg | 1.8 | 0.18 | 1 |
| Ethyl ether | ND | | ug/kg | 1.8 | 0.31 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 4.6 | 1.3 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 88 | | 70-130 |
| Toluene-d8 | 104 | | 70-130 |
| 4-Bromofluorobenzene | 101 | | 70-130 |
| Dibromofluoromethane | 93 | | 70-130 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-11
Client ID: B-B3 (8-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 09/24/20 13:50
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 09/29/20 23:18
Analyst: MV
Percent Solids: 88%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/kg | 5.8 | 2.7 | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 1.2 | 0.17 | 1 |
| Chloroform | ND | | ug/kg | 1.7 | 0.16 | 1 |
| Carbon tetrachloride | ND | | ug/kg | 1.2 | 0.27 | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 1.2 | 0.14 | 1 |
| Dibromochloromethane | ND | | ug/kg | 1.2 | 0.16 | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 1.2 | 0.31 | 1 |
| Tetrachloroethene | ND | | ug/kg | 0.58 | 0.23 | 1 |
| Chlorobenzene | ND | | ug/kg | 0.58 | 0.15 | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 4.7 | 0.81 | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 1.2 | 0.30 | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 0.58 | 0.19 | 1 |
| Bromodichloromethane | ND | | ug/kg | 0.58 | 0.13 | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 1.2 | 0.32 | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 0.58 | 0.18 | 1 |
| 1,3-Dichloropropene, Total | ND | | ug/kg | 0.58 | 0.18 | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 0.58 | 0.18 | 1 |
| Bromoform | ND | | ug/kg | 4.7 | 0.29 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 0.58 | 0.19 | 1 |
| Benzene | ND | | ug/kg | 0.58 | 0.19 | 1 |
| Toluene | ND | | ug/kg | 1.2 | 0.63 | 1 |
| Ethylbenzene | ND | | ug/kg | 1.2 | 0.16 | 1 |
| Chloromethane | ND | | ug/kg | 4.7 | 1.1 | 1 |
| Bromomethane | ND | | ug/kg | 2.3 | 0.68 | 1 |
| Vinyl chloride | ND | | ug/kg | 1.2 | 0.39 | 1 |
| Chloroethane | ND | | ug/kg | 2.3 | 0.53 | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 1.2 | 0.28 | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 1.7 | 0.16 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-11 Date Collected: 09/24/20 13:50

Client ID: B-B3 (8-10') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Trichloroethene | ND | | ug/kg | 0.58 | 0.16 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 2.3 | 0.17 | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 2.3 | 0.17 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 2.3 | 0.20 | 1 |
| Methyl tert butyl ether | ND | | ug/kg | 2.3 | 0.23 | 1 |
| p/m-Xylene | ND | | ug/kg | 2.3 | 0.65 | 1 |
| o-Xylene | ND | | ug/kg | 1.2 | 0.34 | 1 |
| Xylenes, Total | ND | | ug/kg | 1.2 | 0.34 | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 1.2 | 0.20 | 1 |
| 1,2-Dichloroethene, Total | ND | | ug/kg | 1.2 | 0.16 | 1 |
| Dibromomethane | ND | | ug/kg | 2.3 | 0.28 | 1 |
| Styrene | ND | | ug/kg | 1.2 | 0.23 | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 12 | 1.1 | 1 |
| Acetone | ND | | ug/kg | 12 | 5.6 | 1 |
| Carbon disulfide | ND | | ug/kg | 12 | 5.3 | 1 |
| 2-Butanone | ND | | ug/kg | 12 | 2.6 | 1 |
| Vinyl acetate | ND | | ug/kg | 12 | 2.5 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 12 | 1.5 | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 2.3 | 0.15 | 1 |
| 2-Hexanone | ND | | ug/kg | 12 | 1.4 | 1 |
| Bromochloromethane | ND | | ug/kg | 2.3 | 0.24 | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 2.3 | 0.24 | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 1.2 | 0.32 | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 2.3 | 0.19 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 0.58 | 0.15 | 1 |
| Bromobenzene | ND | | ug/kg | 2.3 | 0.17 | 1 |
| n-Butylbenzene | ND | | ug/kg | 1.2 | 0.19 | 1 |
| sec-Butylbenzene | ND | | ug/kg | 1.2 | 0.17 | 1 |
| tert-Butylbenzene | ND | | ug/kg | 2.3 | 0.14 | 1 |
| o-Chlorotoluene | ND | | ug/kg | 2.3 | 0.22 | 1 |
| p-Chlorotoluene | ND | | ug/kg | 2.3 | 0.12 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 3.5 | 1.2 | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 4.7 | 0.20 | 1 |
| Isopropylbenzene | ND | | ug/kg | 1.2 | 0.13 | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 1.2 | 0.13 | 1 |
| Naphthalene | ND | | ug/kg | 4.7 | 0.76 | 1 |
| Acrylonitrile | ND | | ug/kg | 4.7 | 1.3 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-11 Date Collected: 09/24/20 13:50

Client ID: B-B3 (8-10') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| n-Propylbenzene | ND | | ug/kg | 1.2 | 0.20 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 2.3 | 0.38 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 2.3 | 0.32 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 2.3 | 0.22 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 2.3 | 0.39 | 1 |
| 1,4-Dioxane | ND | | ug/kg | 93 | 41. | 1 |
| p-Diethylbenzene | ND | | ug/kg | 2.3 | 0.21 | 1 |
| p-Ethyltoluene | ND | | ug/kg | 2.3 | 0.45 | 1 |
| 1,2,4,5-Tetramethylbenzene | ND | | ug/kg | 2.3 | 0.22 | 1 |
| Ethyl ether | ND | | ug/kg | 2.3 | 0.40 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 5.8 | 1.6 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 90 | | 70-130 |
| Toluene-d8 | 104 | | 70-130 |
| 4-Bromofluorobenzene | 102 | | 70-130 |
| Dibromofluoromethane | 94 | | 70-130 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-12
Client ID: B-B4 (3-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 09/24/20 14:11
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 09/29/20 23:43
Analyst: MV
Percent Solids: 93%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/kg | 6.1 | 2.8 | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 1.2 | 0.18 | 1 |
| Chloroform | ND | | ug/kg | 1.8 | 0.17 | 1 |
| Carbon tetrachloride | ND | | ug/kg | 1.2 | 0.28 | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 1.2 | 0.15 | 1 |
| Dibromochloromethane | ND | | ug/kg | 1.2 | 0.17 | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 1.2 | 0.32 | 1 |
| Tetrachloroethene | ND | | ug/kg | 0.61 | 0.24 | 1 |
| Chlorobenzene | ND | | ug/kg | 0.61 | 0.15 | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 4.9 | 0.85 | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 1.2 | 0.31 | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 0.61 | 0.20 | 1 |
| Bromodichloromethane | ND | | ug/kg | 0.61 | 0.13 | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 1.2 | 0.33 | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 0.61 | 0.19 | 1 |
| 1,3-Dichloropropene, Total | ND | | ug/kg | 0.61 | 0.19 | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 0.61 | 0.19 | 1 |
| Bromoform | ND | | ug/kg | 4.9 | 0.30 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 0.61 | 0.20 | 1 |
| Benzene | ND | | ug/kg | 0.61 | 0.20 | 1 |
| Toluene | ND | | ug/kg | 1.2 | 0.66 | 1 |
| Ethylbenzene | ND | | ug/kg | 1.2 | 0.17 | 1 |
| Chloromethane | ND | | ug/kg | 4.9 | 1.1 | 1 |
| Bromomethane | ND | | ug/kg | 2.4 | 0.71 | 1 |
| Vinyl chloride | ND | | ug/kg | 1.2 | 0.41 | 1 |
| Chloroethane | ND | | ug/kg | 2.4 | 0.55 | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 1.2 | 0.29 | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 1.8 | 0.17 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-12 Date Collected: 09/24/20 14:11

Client ID: B-B4 (3-5') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Trichloroethene | ND | | ug/kg | 0.61 | 0.17 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 2.4 | 0.18 | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 2.4 | 0.18 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 2.4 | 0.21 | 1 |
| Methyl tert butyl ether | ND | | ug/kg | 2.4 | 0.24 | 1 |
| p/m-Xylene | ND | | ug/kg | 2.4 | 0.68 | 1 |
| o-Xylene | ND | | ug/kg | 1.2 | 0.35 | 1 |
| Xylenes, Total | ND | | ug/kg | 1.2 | 0.35 | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 1.2 | 0.21 | 1 |
| 1,2-Dichloroethene, Total | ND | | ug/kg | 1.2 | 0.17 | 1 |
| Dibromomethane | ND | | ug/kg | 2.4 | 0.29 | 1 |
| Styrene | ND | | ug/kg | 1.2 | 0.24 | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 12 | 1.1 | 1 |
| Acetone | ND | | ug/kg | 12 | 5.9 | 1 |
| Carbon disulfide | ND | | ug/kg | 12 | 5.5 | 1 |
| 2-Butanone | ND | | ug/kg | 12 | 2.7 | 1 |
| Vinyl acetate | ND | | ug/kg | 12 | 2.6 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 12 | 1.6 | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 2.4 | 0.15 | 1 |
| 2-Hexanone | ND | | ug/kg | 12 | 1.4 | 1 |
| Bromochloromethane | ND | | ug/kg | 2.4 | 0.25 | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 2.4 | 0.25 | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 1.2 | 0.34 | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 2.4 | 0.20 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 0.61 | 0.16 | 1 |
| Bromobenzene | ND | | ug/kg | 2.4 | 0.18 | 1 |
| n-Butylbenzene | ND | | ug/kg | 1.2 | 0.20 | 1 |
| sec-Butylbenzene | ND | | ug/kg | 1.2 | 0.18 | 1 |
| tert-Butylbenzene | ND | | ug/kg | 2.4 | 0.14 | 1 |
| o-Chlorotoluene | ND | | ug/kg | 2.4 | 0.23 | 1 |
| p-Chlorotoluene | ND | | ug/kg | 2.4 | 0.13 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 3.6 | 1.2 | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 4.9 | 0.20 | 1 |
| Isopropylbenzene | ND | | ug/kg | 1.2 | 0.13 | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 1.2 | 0.13 | 1 |
| Naphthalene | ND | | ug/kg | 4.9 | 0.79 | 1 |
| Acrylonitrile | ND | | ug/kg | 4.9 | 1.4 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-12 Date Collected: 09/24/20 14:11

Client ID: B-B4 (3-5') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab | | | | | | |
| n-Propylbenzene | ND | | ug/kg | 1.2 | 0.21 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 2.4 | 0.39 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 2.4 | 0.33 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 2.4 | 0.24 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 2.4 | 0.41 | 1 |
| 1,4-Dioxane | ND | | ug/kg | 98 | 43. | 1 |
| p-Diethylbenzene | ND | | ug/kg | 2.4 | 0.22 | 1 |
| p-Ethyltoluene | ND | | ug/kg | 2.4 | 0.47 | 1 |
| 1,2,4,5-Tetramethylbenzene | ND | | ug/kg | 2.4 | 0.23 | 1 |
| Ethyl ether | ND | | ug/kg | 2.4 | 0.42 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 6.1 | 1.7 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 90 | | 70-130 |
| Toluene-d8 | 104 | | 70-130 |
| 4-Bromofluorobenzene | 101 | | 70-130 |
| Dibromofluoromethane | 93 | | 70-130 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-13 Date Collected: 09/24/20 08:25

Client ID: F-B2 (10-12') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Analytical Method: 1,8260C

Analytical Date: 09/30/20 02:13

Analyst: MV

Percent Solids: 80%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 High - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/kg | 390 | 180 | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 77 | 11. | 1 |
| Chloroform | ND | | ug/kg | 120 | 11. | 1 |
| Carbon tetrachloride | ND | | ug/kg | 77 | 18. | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 77 | 9.7 | 1 |
| Dibromochloromethane | ND | | ug/kg | 77 | 11. | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 77 | 21. | 1 |
| Tetrachloroethene | ND | | ug/kg | 39 | 15. | 1 |
| Chlorobenzene | ND | | ug/kg | 39 | 9.8 | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 310 | 54. | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 77 | 20. | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 39 | 13. | 1 |
| Bromodichloromethane | ND | | ug/kg | 39 | 8.4 | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 77 | 21. | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 39 | 12. | 1 |
| 1,3-Dichloropropene, Total | ND | | ug/kg | 39 | 12. | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 39 | 12. | 1 |
| Bromoform | ND | | ug/kg | 310 | 19. | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 39 | 13. | 1 |
| Benzene | ND | | ug/kg | 39 | 13. | 1 |
| Toluene | ND | | ug/kg | 77 | 42. | 1 |
| Ethylbenzene | 190 | | ug/kg | 77 | 11. | 1 |
| Chloromethane | ND | | ug/kg | 310 | 72. | 1 |
| Bromomethane | ND | | ug/kg | 150 | 45. | 1 |
| Vinyl chloride | ND | | ug/kg | 77 | 26. | 1 |
| Chloroethane | ND | | ug/kg | 150 | 35. | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 77 | 18. | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 120 | 10. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-13 Date Collected: 09/24/20 08:25

Client ID: F-B2 (10-12') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 High - Westborough Lab** | | | | | | |
| Trichloroethene | ND | | ug/kg | 39 | 10. | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 150 | 11. | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 150 | 11. | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 150 | 13. | 1 |
| Methyl tert butyl ether | ND | | ug/kg | 150 | 16. | 1 |
| p/m-Xylene | ND | | ug/kg | 150 | 43. | 1 |
| o-Xylene | ND | | ug/kg | 77 | 22. | 1 |
| Xylenes, Total | ND | | ug/kg | 77 | 22. | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 77 | 14. | 1 |
| 1,2-Dichloroethene, Total | ND | | ug/kg | 77 | 10. | 1 |
| Dibromomethane | ND | | ug/kg | 150 | 18. | 1 |
| Styrene | ND | | ug/kg | 77 | 15. | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 770 | 71. | 1 |
| Acetone | ND | | ug/kg | 770 | 370 | 1 |
| Carbon disulfide | ND | | ug/kg | 770 | 350 | 1 |
| 2-Butanone | ND | | ug/kg | 770 | 170 | 1 |
| Vinyl acetate | ND | | ug/kg | 770 | 170 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 770 | 99. | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 150 | 9.8 | 1 |
| 2-Hexanone | ND | | ug/kg | 770 | 91. | 1 |
| Bromochloromethane | ND | | ug/kg | 150 | 16. | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 150 | 16. | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 77 | 22. | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 150 | 13. | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 39 | 10. | 1 |
| Bromobenzene | ND | | ug/kg | 150 | 11. | 1 |
| n-Butylbenzene | 6600 | | ug/kg | 77 | 13. | 1 |
| sec-Butylbenzene | 2800 | | ug/kg | 77 | 11. | 1 |
| tert-Butylbenzene | 92 | J | ug/kg | 150 | 9.1 | 1 |
| o-Chlorotoluene | ND | | ug/kg | 150 | 15. | 1 |
| p-Chlorotoluene | ND | | ug/kg | 150 | 8.3 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 230 | 77. | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 310 | 13. | 1 |
| Isopropylbenzene | 4300 | | ug/kg | 77 | 8.4 | 1 |
| p-Isopropyltoluene | 1400 | | ug/kg | 77 | 8.4 | 1 |
| Naphthalene | 2000 | | ug/kg | 310 | 50. | 1 |
| Acrylonitrile | ND | | ug/kg | 310 | 89. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-13 Date Collected: 09/24/20 08:25

Client ID: F-B2 (10-12') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 High - Westborough Lab** | | | | | | |
| n-Propylbenzene | 15000 | | ug/kg | 77 | 13. | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 150 | 25. | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 150 | 21. | 1 |
| 1,3,5-Trimethylbenzene | 42 | J | ug/kg | 150 | 15. | 1 |
| 1,2,4-Trimethylbenzene | 12000 | | ug/kg | 150 | 26. | 1 |
| 1,4-Dioxane | ND | | ug/kg | 6200 | 2700 | 1 |
| p-Diethylbenzene | 4800 | | ug/kg | 150 | 14. | 1 |
| p-Ethyltoluene | 100 | J | ug/kg | 150 | 30. | 1 |
| 1,2,4,5-Tetramethylbenzene | 13000 | | ug/kg | 150 | 15. | 1 |
| Ethyl ether | ND | | ug/kg | 150 | 26. | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 390 | 110 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 86 | | 70-130 |
| Toluene-d8 | 102 | | 70-130 |
| 4-Bromofluorobenzene | **133** | Q | 70-130 |
| Dibromofluoromethane | 83 | | 70-130 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-14 D2
Client ID: F-B3 (15-17')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 09/24/20 08:56
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 09/30/20 23:53
Analyst: JC
Percent Solids: 80%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 High - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/kg | 14000 | 6700 | 50 |
| 1,1-Dichloroethane | ND | | ug/kg | 2900 | 420 | 50 |
| Chloroform | ND | | ug/kg | 4400 | 410 | 50 |
| Carbon tetrachloride | ND | | ug/kg | 2900 | 670 | 50 |
| 1,2-Dichloropropane | ND | | ug/kg | 2900 | 360 | 50 |
| Dibromochloromethane | ND | | ug/kg | 2900 | 410 | 50 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 2900 | 780 | 50 |
| Tetrachloroethene | ND | | ug/kg | 1400 | 570 | 50 |
| Chlorobenzene | ND | | ug/kg | 1400 | 370 | 50 |
| Trichlorofluoromethane | ND | | ug/kg | 12000 | 2000 | 50 |
| 1,2-Dichloroethane | ND | | ug/kg | 2900 | 750 | 50 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 1400 | 490 | 50 |
| Bromodichloromethane | ND | | ug/kg | 1400 | 320 | 50 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 2900 | 800 | 50 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 1400 | 460 | 50 |
| 1,3-Dichloropropene, Total | ND | | ug/kg | 1400 | 460 | 50 |
| 1,1-Dichloropropene | ND | | ug/kg | 1400 | 460 | 50 |
| Bromoform | ND | | ug/kg | 12000 | 720 | 50 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 1400 | 480 | 50 |
| Benzene | 1400 | | ug/kg | 1400 | 480 | 50 |
| Toluene | 1500000 | E | ug/kg | 2900 | 1600 | 50 |
| Ethylbenzene | 980000 | E | ug/kg | 2900 | 410 | 50 |
| Chloromethane | ND | | ug/kg | 12000 | 2700 | 50 |
| Bromomethane | ND | | ug/kg | 5800 | 1700 | 50 |
| Vinyl chloride | ND | | ug/kg | 2900 | 980 | 50 |
| Chloroethane | ND | | ug/kg | 5800 | 1300 | 50 |
| 1,1-Dichloroethene | ND | | ug/kg | 2900 | 690 | 50 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 4400 | 400 | 50 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-14 D2 Date Collected: 09/24/20 08:56

Client ID: F-B3 (15-17') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 High - Westborough Lab** | | | | | | |
| Trichloroethene | ND | | ug/kg | 1400 | 400 | 50 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 5800 | 420 | 50 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 5800 | 430 | 50 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 5800 | 500 | 50 |
| Methyl tert butyl ether | ND | | ug/kg | 5800 | 580 | 50 |
| p/m-Xylene | 2000000 | E | ug/kg | 5800 | 1600 | 50 |
| o-Xylene | 800000 | | ug/kg | 2900 | 850 | 50 |
| Xylenes, Total | 3000000 | | ug/kg | 2900 | 850 | 50 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 2900 | 510 | 50 |
| 1,2-Dichloroethene, Total | ND | | ug/kg | 2900 | 400 | 50 |
| Dibromomethane | ND | | ug/kg | 5800 | 690 | 50 |
| Styrene | ND | | ug/kg | 2900 | 570 | 50 |
| Dichlorodifluoromethane | ND | | ug/kg | 29000 | 2700 | 50 |
| Acetone | ND | | ug/kg | 29000 | 14000 | 50 |
| Carbon disulfide | ND | | ug/kg | 29000 | 13000 | 50 |
| 2-Butanone | ND | | ug/kg | 29000 | 6500 | 50 |
| Vinyl acetate | ND | | ug/kg | 29000 | 6300 | 50 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 29000 | 3700 | 50 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 5800 | 370 | 50 |
| 2-Hexanone | ND | | ug/kg | 29000 | 3400 | 50 |
| Bromochloromethane | ND | | ug/kg | 5800 | 600 | 50 |
| 2,2-Dichloropropane | ND | | ug/kg | 5800 | 590 | 50 |
| 1,2-Dibromoethane | ND | | ug/kg | 2900 | 810 | 50 |
| 1,3-Dichloropropane | ND | | ug/kg | 5800 | 490 | 50 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 1400 | 380 | 50 |
| Bromobenzene | ND | | ug/kg | 5800 | 420 | 50 |
| n-Butylbenzene | 59000 | | ug/kg | 2900 | 490 | 50 |
| sec-Butylbenzene | 26000 | | ug/kg | 2900 | 420 | 50 |
| tert-Butylbenzene | ND | | ug/kg | 5800 | 340 | 50 |
| o-Chlorotoluene | ND | | ug/kg | 5800 | 560 | 50 |
| p-Chlorotoluene | ND | | ug/kg | 5800 | 310 | 50 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 8700 | 2900 | 50 |
| Hexachlorobutadiene | ND | | ug/kg | 12000 | 490 | 50 |
| Isopropylbenzene | 84000 | | ug/kg | 2900 | 320 | 50 |
| p-Isopropyltoluene | 18000 | | ug/kg | 2900 | 320 | 50 |
| Naphthalene | 170000 | | ug/kg | 12000 | 1900 | 50 |
| Acrylonitrile | ND | | ug/kg | 12000 | 3300 | 50 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-14 D2 Date Collected: 09/24/20 08:56

Client ID: F-B3 (15-17') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 High - Westborough Lab** | | | | | | |
| n-Propylbenzene | 240000 | | ug/kg | 2900 | 500 | 50 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 5800 | 940 | 50 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 5800 | 790 | 50 |
| 1,3,5-Trimethylbenzene | 330000 | | ug/kg | 5800 | 560 | 50 |
| 1,2,4-Trimethylbenzene | 1000000 | E | ug/kg | 5800 | 970 | 50 |
| 1,4-Dioxane | ND | | ug/kg | 230000 | 100000 | 50 |
| p-Diethylbenzene | 31000 | | ug/kg | 5800 | 520 | 50 |
| p-Ethyltoluene | 1000000 | E | ug/kg | 5800 | 1100 | 50 |
| 1,2,4,5-Tetramethylbenzene | 93000 | | ug/kg | 5800 | 560 | 50 |
| Ethyl ether | ND | | ug/kg | 5800 | 990 | 50 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 14000 | 4100 | 50 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | | 70-130 |
| Toluene-d8 | 98 | | 70-130 |
| 4-Bromofluorobenzene | 105 | | 70-130 |
| Dibromofluoromethane | 82 | | 70-130 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-14 D
Client ID: F-B3 (15-17')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 08:56
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 09/30/20 02:38
Analyst: MV
Percent Solids: 80%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 High - Westborough Lab** | | | | | | |
| Toluene | 1300000 | | ug/kg | 5800 | 3200 | 100 |
| Ethylbenzene | 840000 | | ug/kg | 5800 | 820 | 100 |
| p/m-Xylene | 2200000 | | ug/kg | 12000 | 3300 | 100 |
| 1,2,4-Trimethylbenzene | 1000000 | | ug/kg | 12000 | 1900 | 100 |
| p-Ethyltoluene | 950000 | | ug/kg | 12000 | 2200 | 100 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 87 | | 70-130 |
| Toluene-d8 | 103 | | 70-130 |
| 4-Bromofluorobenzene | 100 | | 70-130 |
| Dibromofluoromethane | 88 | | 70-130 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-15
Client ID: F-B4 (3-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 09/24/20 09:34
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 09/30/20 00:08
Analyst: MV
Percent Solids: 90%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/kg | 4.7 | 2.1 | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 0.94 | 0.14 | 1 |
| Chloroform | ND | | ug/kg | 1.4 | 0.13 | 1 |
| Carbon tetrachloride | ND | | ug/kg | 0.94 | 0.22 | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 0.94 | 0.12 | 1 |
| Dibromochloromethane | ND | | ug/kg | 0.94 | 0.13 | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 0.94 | 0.25 | 1 |
| Tetrachloroethene | ND | | ug/kg | 0.47 | 0.18 | 1 |
| Chlorobenzene | ND | | ug/kg | 0.47 | 0.12 | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 3.8 | 0.65 | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 0.94 | 0.24 | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 0.47 | 0.16 | 1 |
| Bromodichloromethane | ND | | ug/kg | 0.47 | 0.10 | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 0.94 | 0.26 | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 0.47 | 0.15 | 1 |
| 1,3-Dichloropropene, Total | ND | | ug/kg | 0.47 | 0.15 | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 0.47 | 0.15 | 1 |
| Bromoform | ND | | ug/kg | 3.8 | 0.23 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 0.47 | 0.16 | 1 |
| Benzene | ND | | ug/kg | 0.47 | 0.16 | 1 |
| Toluene | 8.0 | | ug/kg | 0.94 | 0.51 | 1 |
| Ethylbenzene | 4.8 | | ug/kg | 0.94 | 0.13 | 1 |
| Chloromethane | ND | | ug/kg | 3.8 | 0.87 | 1 |
| Bromomethane | ND | | ug/kg | 1.9 | 0.54 | 1 |
| Vinyl chloride | ND | | ug/kg | 0.94 | 0.31 | 1 |
| Chloroethane | ND | | ug/kg | 1.9 | 0.42 | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 0.94 | 0.22 | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 1.4 | 0.13 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-15 Date Collected: 09/24/20 09:34

Client ID: F-B4 (3-5') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Trichloroethene | ND | | ug/kg | 0.47 | 0.13 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 1.9 | 0.14 | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 1.9 | 0.14 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 1.9 | 0.16 | 1 |
| Methyl tert butyl ether | ND | | ug/kg | 1.9 | 0.19 | 1 |
| p/m-Xylene | 12 | | ug/kg | 1.9 | 0.52 | 1 |
| o-Xylene | 5.0 | | ug/kg | 0.94 | 0.27 | 1 |
| Xylenes, Total | 17 | | ug/kg | 0.94 | 0.27 | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 0.94 | 0.16 | 1 |
| 1,2-Dichloroethene, Total | ND | | ug/kg | 0.94 | 0.13 | 1 |
| Dibromomethane | ND | | ug/kg | 1.9 | 0.22 | 1 |
| Styrene | ND | | ug/kg | 0.94 | 0.18 | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 9.4 | 0.86 | 1 |
| Acetone | ND | | ug/kg | 9.4 | 4.5 | 1 |
| Carbon disulfide | ND | | ug/kg | 9.4 | 4.3 | 1 |
| 2-Butanone | ND | | ug/kg | 9.4 | 2.1 | 1 |
| Vinyl acetate | ND | | ug/kg | 9.4 | 2.0 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 9.4 | 1.2 | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 1.9 | 0.12 | 1 |
| 2-Hexanone | ND | | ug/kg | 9.4 | 1.1 | 1 |
| Bromochloromethane | ND | | ug/kg | 1.9 | 0.19 | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 1.9 | 0.19 | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 0.94 | 0.26 | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 1.9 | 0.16 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 0.47 | 0.12 | 1 |
| Bromobenzene | ND | | ug/kg | 1.9 | 0.14 | 1 |
| n-Butylbenzene | ND | | ug/kg | 0.94 | 0.16 | 1 |
| sec-Butylbenzene | ND | | ug/kg | 0.94 | 0.14 | 1 |
| tert-Butylbenzene | ND | | ug/kg | 1.9 | 0.11 | 1 |
| o-Chlorotoluene | ND | | ug/kg | 1.9 | 0.18 | 1 |
| p-Chlorotoluene | ND | | ug/kg | 1.9 | 0.10 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 2.8 | 0.94 | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 3.8 | 0.16 | 1 |
| Isopropylbenzene | 0.28 | J | ug/kg | 0.94 | 0.10 | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 0.94 | 0.10 | 1 |
| Naphthalene | ND | | ug/kg | 3.8 | 0.61 | 1 |
| Acrylonitrile | ND | | ug/kg | 3.8 | 1.1 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-15 Date Collected: 09/24/20 09:34

Client ID: F-B4 (3-5') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| n-Propylbenzene | 0.75 | J | ug/kg | 0.94 | 0.16 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 1.9 | 0.30 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 1.9 | 0.26 | 1 |
| 1,3,5-Trimethylbenzene | 1.2 | J | ug/kg | 1.9 | 0.18 | 1 |
| 1,2,4-Trimethylbenzene | 3.8 | | ug/kg | 1.9 | 0.31 | 1 |
| 1,4-Dioxane | ND | | ug/kg | 75 | 33. | 1 |
| p-Diethylbenzene | 0.66 | J | ug/kg | 1.9 | 0.17 | 1 |
| p-Ethyltoluene | 3.8 | | ug/kg | 1.9 | 0.36 | 1 |
| 1,2,4,5-Tetramethylbenzene | ND | | ug/kg | 1.9 | 0.18 | 1 |
| Ethyl ether | ND | | ug/kg | 1.9 | 0.32 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 4.7 | 1.3 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 90 | | 70-130 |
| Toluene-d8 | 104 | | 70-130 |
| 4-Bromofluorobenzene | 101 | | 70-130 |
| Dibromofluoromethane | 94 | | 70-130 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-16 Date Collected: 09/24/20 11:02

Client ID: F-B5 (9-10') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Analytical Method: 1,8260C

Analytical Date: 09/30/20 00:33

Analyst: MV

Percent Solids: 72%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/kg | 6.5 | 3.0 | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 1.3 | 0.19 | 1 |
| Chloroform | 0.49 | J | ug/kg | 2.0 | 0.18 | 1 |
| Carbon tetrachloride | ND | | ug/kg | 1.3 | 0.30 | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 1.3 | 0.16 | 1 |
| Dibromochloromethane | ND | | ug/kg | 1.3 | 0.18 | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 1.3 | 0.35 | 1 |
| Tetrachloroethene | 2.3 | | ug/kg | 0.65 | 0.26 | 1 |
| Chlorobenzene | ND | | ug/kg | 0.65 | 0.16 | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 5.2 | 0.90 | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 1.3 | 0.34 | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 0.65 | 0.22 | 1 |
| Bromodichloromethane | ND | | ug/kg | 0.65 | 0.14 | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 1.3 | 0.36 | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 0.65 | 0.20 | 1 |
| 1,3-Dichloropropene, Total | ND | | ug/kg | 0.65 | 0.20 | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 0.65 | 0.21 | 1 |
| Bromoform | ND | | ug/kg | 5.2 | 0.32 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 0.65 | 0.22 | 1 |
| Benzene | ND | | ug/kg | 0.65 | 0.22 | 1 |
| Toluene | ND | | ug/kg | 1.3 | 0.71 | 1 |
| Ethylbenzene | ND | | ug/kg | 1.3 | 0.18 | 1 |
| Chloromethane | ND | | ug/kg | 5.2 | 1.2 | 1 |
| Bromomethane | ND | | ug/kg | 2.6 | 0.76 | 1 |
| Vinyl chloride | ND | | ug/kg | 1.3 | 0.44 | 1 |
| Chloroethane | ND | | ug/kg | 2.6 | 0.59 | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 1.3 | 0.31 | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 2.0 | 0.18 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-16 Date Collected: 09/24/20 11:02

Client ID: F-B5 (9-10') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Trichloroethene | ND | | ug/kg | 0.65 | 0.18 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 2.6 | 0.19 | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 2.6 | 0.19 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 2.6 | 0.22 | 1 |
| Methyl tert butyl ether | ND | | ug/kg | 2.6 | 0.26 | 1 |
| p/m-Xylene | ND | | ug/kg | 2.6 | 0.73 | 1 |
| o-Xylene | ND | | ug/kg | 1.3 | 0.38 | 1 |
| Xylenes, Total | ND | | ug/kg | 1.3 | 0.38 | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 1.3 | 0.23 | 1 |
| 1,2-Dichloroethene, Total | ND | | ug/kg | 1.3 | 0.18 | 1 |
| Dibromomethane | ND | | ug/kg | 2.6 | 0.31 | 1 |
| Styrene | ND | | ug/kg | 1.3 | 0.26 | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 13 | 1.2 | 1 |
| Acetone | 15 | | ug/kg | 13 | 6.3 | 1 |
| Carbon disulfide | ND | | ug/kg | 13 | 5.9 | 1 |
| 2-Butanone | ND | | ug/kg | 13 | 2.9 | 1 |
| Vinyl acetate | ND | | ug/kg | 13 | 2.8 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 13 | 1.7 | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 2.6 | 0.16 | 1 |
| 2-Hexanone | ND | | ug/kg | 13 | 1.5 | 1 |
| Bromochloromethane | ND | | ug/kg | 2.6 | 0.27 | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 2.6 | 0.26 | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 1.3 | 0.36 | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 2.6 | 0.22 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 0.65 | 0.17 | 1 |
| Bromobenzene | ND | | ug/kg | 2.6 | 0.19 | 1 |
| n-Butylbenzene | ND | | ug/kg | 1.3 | 0.22 | 1 |
| sec-Butylbenzene | ND | | ug/kg | 1.3 | 0.19 | 1 |
| tert-Butylbenzene | ND | | ug/kg | 2.6 | 0.15 | 1 |
| o-Chlorotoluene | ND | | ug/kg | 2.6 | 0.25 | 1 |
| p-Chlorotoluene | ND | | ug/kg | 2.6 | 0.14 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 3.9 | 1.3 | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 5.2 | 0.22 | 1 |
| Isopropylbenzene | ND | | ug/kg | 1.3 | 0.14 | 1 |
| p-Isopropyltoluene | 0.63 | J | ug/kg | 1.3 | 0.14 | 1 |
| Naphthalene | ND | | ug/kg | 5.2 | 0.85 | 1 |
| Acrylonitrile | ND | | ug/kg | 5.2 | 1.5 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-16 Date Collected: 09/24/20 11:02

Client ID: F-B5 (9-10') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab | | | | | | |
| n-Propylbenzene | ND | | ug/kg | 1.3 | 0.22 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 2.6 | 0.42 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 2.6 | 0.35 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 2.6 | 0.25 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 2.6 | 0.44 | 1 |
| 1,4-Dioxane | ND | | ug/kg | 100 | 46. | 1 |
| p-Diethylbenzene | ND | | ug/kg | 2.6 | 0.23 | 1 |
| p-Ethyltoluene | ND | | ug/kg | 2.6 | 0.50 | 1 |
| 1,2,4,5-Tetramethylbenzene | ND | | ug/kg | 2.6 | 0.25 | 1 |
| Ethyl ether | ND | | ug/kg | 2.6 | 0.44 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 6.5 | 1.8 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 91 | | 70-130 |
| Toluene-d8 | 107 | | 70-130 |
| 4-Bromofluorobenzene | 107 | | 70-130 |
| Dibromofluoromethane | 94 | | 70-130 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 09/29/20 17:43
Analyst: AD

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 09-12,15-16 Batch: WG1416242-5 | | | | | |
| Methylene chloride | ND | | ug/kg | 5.0 | 2.3 |
| 1,1-Dichloroethane | ND | | ug/kg | 1.0 | 0.14 |
| Chloroform | ND | | ug/kg | 1.5 | 0.14 |
| Carbon tetrachloride | ND | | ug/kg | 1.0 | 0.23 |
| 1,2-Dichloropropane | ND | | ug/kg | 1.0 | 0.12 |
| Dibromochloromethane | ND | | ug/kg | 1.0 | 0.14 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 1.0 | 0.27 |
| Tetrachloroethene | ND | | ug/kg | 0.50 | 0.20 |
| Chlorobenzene | ND | | ug/kg | 0.50 | 0.13 |
| Trichlorofluoromethane | ND | | ug/kg | 4.0 | 0.70 |
| 1,2-Dichloroethane | ND | | ug/kg | 1.0 | 0.26 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 0.50 | 0.17 |
| Bromodichloromethane | ND | | ug/kg | 0.50 | 0.11 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 1.0 | 0.27 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 0.50 | 0.16 |
| 1,3-Dichloropropene, Total | ND | | ug/kg | 0.50 | 0.16 |
| 1,1-Dichloropropene | ND | | ug/kg | 0.50 | 0.16 |
| Bromoform | ND | | ug/kg | 4.0 | 0.25 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 0.50 | 0.17 |
| Benzene | ND | | ug/kg | 0.50 | 0.17 |
| Toluene | ND | | ug/kg | 1.0 | 0.54 |
| Ethylbenzene | ND | | ug/kg | 1.0 | 0.14 |
| Chloromethane | ND | | ug/kg | 4.0 | 0.93 |
| Bromomethane | ND | | ug/kg | 2.0 | 0.58 |
| Vinyl chloride | ND | | ug/kg | 1.0 | 0.34 |
| Chloroethane | ND | | ug/kg | 2.0 | 0.45 |
| 1,1-Dichloroethene | ND | | ug/kg | 1.0 | 0.24 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 1.5 | 0.14 |
| Trichloroethene | ND | | ug/kg | 0.50 | 0.14 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 09/29/20 17:43
Analyst: AD

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 09-12,15-16 Batch: WG1416242-5 | | | | | |
| 1,2-Dichlorobenzene | ND | | ug/kg | 2.0 | 0.14 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 2.0 | 0.15 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 2.0 | 0.17 |
| Methyl tert butyl ether | ND | | ug/kg | 2.0 | 0.20 |
| p/m-Xylene | ND | | ug/kg | 2.0 | 0.56 |
| o-Xylene | ND | | ug/kg | 1.0 | 0.29 |
| Xylenes, Total | ND | | ug/kg | 1.0 | 0.29 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 1.0 | 0.18 |
| 1,2-Dichloroethene, Total | ND | | ug/kg | 1.0 | 0.14 |
| Dibromomethane | ND | | ug/kg | 2.0 | 0.24 |
| Styrene | ND | | ug/kg | 1.0 | 0.20 |
| Dichlorodifluoromethane | ND | | ug/kg | 10 | 0.92 |
| Acetone | ND | | ug/kg | 10 | 4.8 |
| Carbon disulfide | ND | | ug/kg | 10 | 4.6 |
| 2-Butanone | ND | | ug/kg | 10 | 2.2 |
| Vinyl acetate | ND | | ug/kg | 10 | 2.2 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 10 | 1.3 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 2.0 | 0.13 |
| 2-Hexanone | ND | | ug/kg | 10 | 1.2 |
| Bromochloromethane | ND | | ug/kg | 2.0 | 0.20 |
| 2,2-Dichloropropane | ND | | ug/kg | 2.0 | 0.20 |
| 1,2-Dibromoethane | ND | | ug/kg | 1.0 | 0.28 |
| 1,3-Dichloropropane | ND | | ug/kg | 2.0 | 0.17 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 0.50 | 0.13 |
| Bromobenzene | ND | | ug/kg | 2.0 | 0.14 |
| n-Butylbenzene | ND | | ug/kg | 1.0 | 0.17 |
| sec-Butylbenzene | ND | | ug/kg | 1.0 | 0.15 |
| tert-Butylbenzene | ND | | ug/kg | 2.0 | 0.12 |
| o-Chlorotoluene | ND | | ug/kg | 2.0 | 0.19 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 09/29/20 17:43
Analyst: AD

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab for sample(s): 09-12,15-16 Batch: WG1416242-5 | | | | | |
| p-Chlorotoluene | ND | | ug/kg | 2.0 | 0.11 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 3.0 | 1.0 |
| Hexachlorobutadiene | ND | | ug/kg | 4.0 | 0.17 |
| Isopropylbenzene | ND | | ug/kg | 1.0 | 0.11 |
| p-Isopropyltoluene | ND | | ug/kg | 1.0 | 0.11 |
| Naphthalene | ND | | ug/kg | 4.0 | 0.65 |
| Acrylonitrile | ND | | ug/kg | 4.0 | 1.2 |
| n-Propylbenzene | ND | | ug/kg | 1.0 | 0.17 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 2.0 | 0.32 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 2.0 | 0.27 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 2.0 | 0.19 |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 2.0 | 0.33 |
| 1,4-Dioxane | ND | | ug/kg | 80 | 35. |
| p-Diethylbenzene | ND | | ug/kg | 2.0 | 0.18 |
| p-Ethyltoluene | ND | | ug/kg | 2.0 | 0.38 |
| 1,2,4,5-Tetramethylbenzene | ND | | ug/kg | 2.0 | 0.19 |
| Ethyl ether | ND | | ug/kg | 2.0 | 0.34 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 5.0 | 1.4 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 87 | | 70-130 |
| Toluene-d8 | 83 | | 70-130 |
| 4-Bromofluorobenzene | 96 | | 70-130 |
| Dibromofluoromethane | 96 | | 70-130 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 09/29/20 17:43
Analyst: AD

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 13-14 Batch: WG1416245-5 | | | | | |
| Methylene chloride | ND | | ug/kg | 250 | 110 |
| 1,1-Dichloroethane | ND | | ug/kg | 50 | 7.2 |
| Chloroform | ND | | ug/kg | 75 | 7.0 |
| Carbon tetrachloride | ND | | ug/kg | 50 | 12. |
| 1,2-Dichloropropane | ND | | ug/kg | 50 | 6.2 |
| Dibromochloromethane | ND | | ug/kg | 50 | 7.0 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 50 | 13. |
| Tetrachloroethene | ND | | ug/kg | 25 | 9.8 |
| Chlorobenzene | ND | | ug/kg | 25 | 6.4 |
| Trichlorofluoromethane | ND | | ug/kg | 200 | 35. |
| 1,2-Dichloroethane | ND | | ug/kg | 50 | 13. |
| 1,1,1-Trichloroethane | ND | | ug/kg | 25 | 8.4 |
| Bromodichloromethane | ND | | ug/kg | 25 | 5.4 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 50 | 14. |
| cis-1,3-Dichloropropene | ND | | ug/kg | 25 | 7.9 |
| 1,3-Dichloropropene, Total | ND | | ug/kg | 25 | 7.9 |
| 1,1-Dichloropropene | ND | | ug/kg | 25 | 8.0 |
| Bromoform | ND | | ug/kg | 200 | 12. |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 25 | 8.3 |
| Benzene | ND | | ug/kg | 25 | 8.3 |
| Toluene | ND | | ug/kg | 50 | 27. |
| Ethylbenzene | ND | | ug/kg | 50 | 7.0 |
| Chloromethane | ND | | ug/kg | 200 | 47. |
| Bromomethane | ND | | ug/kg | 100 | 29. |
| Vinyl chloride | ND | | ug/kg | 50 | 17. |
| Chloroethane | ND | | ug/kg | 100 | 23. |
| 1,1-Dichloroethene | ND | | ug/kg | 50 | 12. |
| trans-1,2-Dichloroethene | ND | | ug/kg | 75 | 6.8 |
| Trichloroethene | ND | | ug/kg | 25 | 6.8 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 09/29/20 17:43
Analyst: AD

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 13-14 Batch: WG1416245-5 | | | | | |
| 1,2-Dichlorobenzene | ND | | ug/kg | 100 | 7.2 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 100 | 7.4 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 100 | 8.6 |
| Methyl tert butyl ether | ND | | ug/kg | 100 | 10. |
| p/m-Xylene | ND | | ug/kg | 100 | 28. |
| o-Xylene | ND | | ug/kg | 50 | 14. |
| Xylenes, Total | ND | | ug/kg | 50 | 14. |
| cis-1,2-Dichloroethene | ND | | ug/kg | 50 | 8.8 |
| 1,2-Dichloroethene, Total | ND | | ug/kg | 50 | 6.8 |
| Dibromomethane | ND | | ug/kg | 100 | 12. |
| Styrene | ND | | ug/kg | 50 | 9.8 |
| Dichlorodifluoromethane | ND | | ug/kg | 500 | 46. |
| Acetone | ND | | ug/kg | 500 | 240 |
| Carbon disulfide | ND | | ug/kg | 500 | 230 |
| 2-Butanone | ND | | ug/kg | 500 | 110 |
| Vinyl acetate | ND | | ug/kg | 500 | 110 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 500 | 64. |
| 1,2,3-Trichloropropane | ND | | ug/kg | 100 | 6.4 |
| 2-Hexanone | ND | | ug/kg | 500 | 59. |
| Bromochloromethane | ND | | ug/kg | 100 | 10. |
| 2,2-Dichloropropane | ND | | ug/kg | 100 | 10. |
| 1,2-Dibromoethane | ND | | ug/kg | 50 | 14. |
| 1,3-Dichloropropane | ND | | ug/kg | 100 | 8.4 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 25 | 6.6 |
| Bromobenzene | ND | | ug/kg | 100 | 7.2 |
| n-Butylbenzene | ND | | ug/kg | 50 | 8.4 |
| sec-Butylbenzene | ND | | ug/kg | 50 | 7.3 |
| tert-Butylbenzene | ND | | ug/kg | 100 | 5.9 |
| o-Chlorotoluene | ND | | ug/kg | 100 | 9.6 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 09/29/20 17:43
Analyst: AD

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 13-14 Batch: WG1416245-5 | | | | | |
| p-Chlorotoluene | ND | | ug/kg | 100 | 5.4 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 150 | 50. |
| Hexachlorobutadiene | ND | | ug/kg | 200 | 8.4 |
| Isopropylbenzene | ND | | ug/kg | 50 | 5.4 |
| p-Isopropyltoluene | ND | | ug/kg | 50 | 5.4 |
| Naphthalene | ND | | ug/kg | 200 | 32. |
| Acrylonitrile | ND | | ug/kg | 200 | 58. |
| n-Propylbenzene | ND | | ug/kg | 50 | 8.6 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 100 | 16. |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 100 | 14. |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 100 | 9.6 |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 100 | 17. |
| 1,4-Dioxane | ND | | ug/kg | 4000 | 1800 |
| p-Diethylbenzene | ND | | ug/kg | 100 | 8.8 |
| p-Ethyltoluene | ND | | ug/kg | 100 | 19. |
| 1,2,4,5-Tetramethylbenzene | ND | | ug/kg | 100 | 9.6 |
| Ethyl ether | ND | | ug/kg | 100 | 17. |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 250 | 71. |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 87 | | 70-130 |
| Toluene-d8 | 83 | | 70-130 |
| 4-Bromofluorobenzene | 96 | | 70-130 |
| Dibromofluoromethane | 96 | | 70-130 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 09/30/20 18:29
Analyst: MKS

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 14 Batch: WG1416827-5 | | | | | |
| Methylene chloride | ND | | ug/kg | 250 | 110 |
| 1,1-Dichloroethane | ND | | ug/kg | 50 | 7.2 |
| Chloroform | ND | | ug/kg | 75 | 7.0 |
| Carbon tetrachloride | ND | | ug/kg | 50 | 12. |
| 1,2-Dichloropropane | ND | | ug/kg | 50 | 6.2 |
| Dibromochloromethane | ND | | ug/kg | 50 | 7.0 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 50 | 13. |
| Tetrachloroethene | ND | | ug/kg | 25 | 9.8 |
| Chlorobenzene | ND | | ug/kg | 25 | 6.4 |
| Trichlorofluoromethane | ND | | ug/kg | 200 | 35. |
| 1,2-Dichloroethane | ND | | ug/kg | 50 | 13. |
| 1,1,1-Trichloroethane | ND | | ug/kg | 25 | 8.4 |
| Bromodichloromethane | ND | | ug/kg | 25 | 5.4 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 50 | 14. |
| cis-1,3-Dichloropropene | ND | | ug/kg | 25 | 7.9 |
| 1,3-Dichloropropene, Total | ND | | ug/kg | 25 | 7.9 |
| 1,1-Dichloropropene | ND | | ug/kg | 25 | 8.0 |
| Bromoform | ND | | ug/kg | 200 | 12. |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 25 | 8.3 |
| Benzene | ND | | ug/kg | 25 | 8.3 |
| Toluene | ND | | ug/kg | 50 | 27. |
| Ethylbenzene | ND | | ug/kg | 50 | 7.0 |
| Chloromethane | ND | | ug/kg | 200 | 47. |
| Bromomethane | ND | | ug/kg | 100 | 29. |
| Vinyl chloride | ND | | ug/kg | 50 | 17. |
| Chloroethane | ND | | ug/kg | 100 | 23. |
| 1,1-Dichloroethene | ND | | ug/kg | 50 | 12. |
| trans-1,2-Dichloroethene | ND | | ug/kg | 75 | 6.8 |
| Trichloroethene | ND | | ug/kg | 25 | 6.8 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 09/30/20 18:29
Analyst: MKS

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 14 Batch: WG1416827-5 | | | | | |
| 1,2-Dichlorobenzene | ND | | ug/kg | 100 | 7.2 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 100 | 7.4 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 100 | 8.6 |
| Methyl tert butyl ether | ND | | ug/kg | 100 | 10. |
| p/m-Xylene | ND | | ug/kg | 100 | 28. |
| o-Xylene | ND | | ug/kg | 50 | 14. |
| Xylenes, Total | ND | | ug/kg | 50 | 14. |
| cis-1,2-Dichloroethene | ND | | ug/kg | 50 | 8.8 |
| 1,2-Dichloroethene, Total | ND | | ug/kg | 50 | 6.8 |
| Dibromomethane | ND | | ug/kg | 100 | 12. |
| Styrene | ND | | ug/kg | 50 | 9.8 |
| Dichlorodifluoromethane | ND | | ug/kg | 500 | 46. |
| Acetone | ND | | ug/kg | 500 | 240 |
| Carbon disulfide | ND | | ug/kg | 500 | 230 |
| 2-Butanone | ND | | ug/kg | 500 | 110 |
| Vinyl acetate | ND | | ug/kg | 500 | 110 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 500 | 64. |
| 1,2,3-Trichloropropane | ND | | ug/kg | 100 | 6.4 |
| 2-Hexanone | ND | | ug/kg | 500 | 59. |
| Bromochloromethane | ND | | ug/kg | 100 | 10. |
| 2,2-Dichloropropane | ND | | ug/kg | 100 | 10. |
| 1,2-Dibromoethane | ND | | ug/kg | 50 | 14. |
| 1,3-Dichloropropane | ND | | ug/kg | 100 | 8.4 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 25 | 6.6 |
| Bromobenzene | ND | | ug/kg | 100 | 7.2 |
| n-Butylbenzene | ND | | ug/kg | 50 | 8.4 |
| sec-Butylbenzene | ND | | ug/kg | 50 | 7.3 |
| tert-Butylbenzene | ND | | ug/kg | 100 | 5.9 |
| o-Chlorotoluene | ND | | ug/kg | 100 | 9.6 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 09/30/20 18:29
Analyst: MKS

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 14 Batch: WG1416827-5 | | | | | |
| p-Chlorotoluene | ND | | ug/kg | 100 | 5.4 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 150 | 50. |
| Hexachlorobutadiene | ND | | ug/kg | 200 | 8.4 |
| Isopropylbenzene | ND | | ug/kg | 50 | 5.4 |
| p-Isopropyltoluene | 6.2 | J | ug/kg | 50 | 5.4 |
| Naphthalene | ND | | ug/kg | 200 | 32. |
| Acrylonitrile | ND | | ug/kg | 200 | 58. |
| n-Propylbenzene | ND | | ug/kg | 50 | 8.6 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 100 | 16. |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 100 | 14. |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 100 | 9.6 |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 100 | 17. |
| 1,4-Dioxane | ND | | ug/kg | 4000 | 1800 |
| p-Diethylbenzene | ND | | ug/kg | 100 | 8.8 |
| p-Ethyltoluene | ND | | ug/kg | 100 | 19. |
| 1,2,4,5-Tetramethylbenzene | ND | | ug/kg | 100 | 9.6 |
| Ethyl ether | ND | | ug/kg | 100 | 17. |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 250 | 71. |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 93 | | 70-130 |
| Toluene-d8 | 96 | | 70-130 |
| 4-Bromofluorobenzene | 94 | | 70-130 |
| Dibromofluoromethane | 84 | | 70-130 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040350

**Report Date:** 10/01/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09-12,15-16 Batch: WG1416242-3 WG1416242-4 | | | | | | | | |
| Methylene chloride | 102 | | 99 | | 70-130 | 3 | | 30 |
| 1,1-Dichloroethane | 109 | | 105 | | 70-130 | 4 | | 30 |
| Chloroform | 113 | | 107 | | 70-130 | 5 | | 30 |
| Carbon tetrachloride | 119 | | 114 | | 70-130 | 4 | | 30 |
| 1,2-Dichloropropane | 115 | | 115 | | 70-130 | 0 | | 30 |
| Dibromochloromethane | 94 | | 96 | | 70-130 | 2 | | 30 |
| 1,1,2-Trichloroethane | 90 | | 91 | | 70-130 | 1 | | 30 |
| Tetrachloroethene | 107 | | 102 | | 70-130 | 5 | | 30 |
| Chlorobenzene | 91 | | 90 | | 70-130 | 1 | | 30 |
| Trichlorofluoromethane | 126 | | 120 | | 70-139 | 5 | | 30 |
| 1,2-Dichloroethane | 103 | | 102 | | 70-130 | 1 | | 30 |
| 1,1,1-Trichloroethane | 119 | | 114 | | 70-130 | 4 | | 30 |
| Bromodichloromethane | 116 | | 116 | | 70-130 | 0 | | 30 |
| trans-1,3-Dichloropropene | 92 | | 93 | | 70-130 | 1 | | 30 |
| cis-1,3-Dichloropropene | 123 | | 122 | | 70-130 | 1 | | 30 |
| 1,1-Dichloropropene | 122 | | 116 | | 70-130 | 5 | | 30 |
| Bromoform | 85 | | 88 | | 70-130 | 3 | | 30 |
| 1,1,2,2-Tetrachloroethane | 77 | | 78 | | 70-130 | 1 | | 30 |
| Benzene | 117 | | 113 | | 70-130 | 3 | | 30 |
| Toluene | 86 | | 84 | | 70-130 | 2 | | 30 |
| Ethylbenzene | 95 | | 92 | | 70-130 | 3 | | 30 |
| Chloromethane | 86 | | 83 | | 52-130 | 4 | | 30 |
| Bromomethane | 145 | | 135 | | 57-147 | 7 | | 30 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2040350
**Report Date:** 10/01/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09-12,15-16 Batch: WG1416242-3 WG1416242-4 | | | | | | | | |
| Vinyl chloride | 114 | | 110 | | 67-130 | 4 | | 30 |
| Chloroethane | 127 | | 121 | | 50-151 | 5 | | 30 |
| 1,1-Dichloroethene | 121 | | 114 | | 65-135 | 6 | | 30 |
| trans-1,2-Dichloroethene | 119 | | 114 | | 70-130 | 4 | | 30 |
| Trichloroethene | 125 | | 122 | | 70-130 | 2 | | 30 |
| 1,2-Dichlorobenzene | 83 | | 82 | | 70-130 | 1 | | 30 |
| 1,3-Dichlorobenzene | 87 | | 84 | | 70-130 | 4 | | 30 |
| 1,4-Dichlorobenzene | 86 | | 83 | | 70-130 | 4 | | 30 |
| Methyl tert butyl ether | 108 | | 108 | | 66-130 | 0 | | 30 |
| p/m-Xylene | 101 | | 99 | | 70-130 | 2 | | 30 |
| o-Xylene | 106 | | 104 | | 70-130 | 2 | | 30 |
| cis-1,2-Dichloroethene | 120 | | 116 | | 70-130 | 3 | | 30 |
| Dibromomethane | 115 | | 115 | | 70-130 | 0 | | 30 |
| Styrene | 102 | | 102 | | 70-130 | 0 | | 30 |
| Dichlorodifluoromethane | 65 | | 61 | | 30-146 | 6 | | 30 |
| Acetone | 96 | | 97 | | 54-140 | 1 | | 30 |
| Carbon disulfide | 103 | | 99 | | 59-130 | 4 | | 30 |
| 2-Butanone | 98 | | 100 | | 70-130 | 2 | | 30 |
| Vinyl acetate | 100 | | 100 | | 70-130 | 0 | | 30 |
| 4-Methyl-2-pentanone | 84 | | 87 | | 70-130 | 4 | | 30 |
| 1,2,3-Trichloropropane | 75 | | 76 | | 68-130 | 1 | | 30 |
| 2-Hexanone | 74 | | 76 | | 70-130 | 3 | | 30 |
| Bromochloromethane | 118 | | 118 | | 70-130 | 0 | | 30 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2040350
**Report Date:** 10/01/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09-12,15-16 Batch: WG1416242-3 WG1416242-4 | | | | | | | | |
| 2,2-Dichloropropane | 119 | | 114 | | 70-130 | 4 | | 30 |
| 1,2-Dibromoethane | 88 | | 90 | | 70-130 | 2 | | 30 |
| 1,3-Dichloropropane | 85 | | 86 | | 69-130 | 1 | | 30 |
| 1,1,1,2-Tetrachloroethane | 97 | | 98 | | 70-130 | 1 | | 30 |
| Bromobenzene | 90 | | 88 | | 70-130 | 2 | | 30 |
| n-Butylbenzene | 86 | | 83 | | 70-130 | 4 | | 30 |
| sec-Butylbenzene | 88 | | 84 | | 70-130 | 5 | | 30 |
| tert-Butylbenzene | 92 | | 88 | | 70-130 | 4 | | 30 |
| o-Chlorotoluene | 82 | | 80 | | 70-130 | 2 | | 30 |
| p-Chlorotoluene | 86 | | 82 | | 70-130 | 5 | | 30 |
| 1,2-Dibromo-3-chloropropane | 83 | | 88 | | 68-130 | 6 | | 30 |
| Hexachlorobutadiene | 95 | | 91 | | 67-130 | 4 | | 30 |
| Isopropylbenzene | 90 | | 87 | | 70-130 | 3 | | 30 |
| p-Isopropyltoluene | 93 | | 89 | | 70-130 | 4 | | 30 |
| Naphthalene | 88 | | 89 | | 70-130 | 1 | | 30 |
| Acrylonitrile | 102 | | 104 | | 70-130 | 2 | | 30 |
| n-Propylbenzene | 88 | | 84 | | 70-130 | 5 | | 30 |
| 1,2,3-Trichlorobenzene | 89 | | 89 | | 70-130 | 0 | | 30 |
| 1,2,4-Trichlorobenzene | 93 | | 91 | | 70-130 | 2 | | 30 |
| 1,3,5-Trimethylbenzene | 89 | | 85 | | 70-130 | 5 | | 30 |
| 1,2,4-Trimethylbenzene | 88 | | 86 | | 70-130 | 2 | | 30 |
| 1,4-Dioxane | **140** | Q | **142** | Q | 65-136 | 1 | | 30 |
| p-Diethylbenzene | 92 | | 88 | | 70-130 | 4 | | 30 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040350

**Report Date:** 10/01/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09-12,15-16 Batch: WG1416242-3 WG1416242-4 | | | | | | | | |
| p-Ethyltoluene | 90 | | 86 | | 70-130 | 5 | | 30 |
| 1,2,4,5-Tetramethylbenzene | 88 | | 85 | | 70-130 | 3 | | 30 |
| Ethyl ether | 114 | | 111 | | 67-130 | 3 | | 30 |
| trans-1,4-Dichloro-2-butene | 76 | | 78 | | 70-130 | 3 | | 30 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 86 | | 85 | | 70-130 |
| Toluene-d8 | 84 | | 83 | | 70-130 |
| 4-Bromofluorobenzene | 94 | | 93 | | 70-130 |
| Dibromofluoromethane | 101 | | 99 | | 70-130 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 13-14 Batch: WG1416245-3 WG1416245-4 | | | | | | | | |
| Methylene chloride | 102 | | 99 | | 70-130 | 3 | | 30 |
| 1,1-Dichloroethane | 109 | | 105 | | 70-130 | 4 | | 30 |
| Chloroform | 113 | | 107 | | 70-130 | 5 | | 30 |
| Carbon tetrachloride | 119 | | 114 | | 70-130 | 4 | | 30 |
| 1,2-Dichloropropane | 115 | | 115 | | 70-130 | 0 | | 30 |
| Dibromochloromethane | 94 | | 96 | | 70-130 | 2 | | 30 |
| 1,1,2-Trichloroethane | 90 | | 91 | | 70-130 | 1 | | 30 |
| Tetrachloroethene | 107 | | 102 | | 70-130 | 5 | | 30 |
| Chlorobenzene | 91 | | 90 | | 70-130 | 1 | | 30 |
| Trichlorofluoromethane | 126 | | 120 | | 70-139 | 5 | | 30 |
| 1,2-Dichloroethane | 103 | | 102 | | 70-130 | 1 | | 30 |
| 1,1,1-Trichloroethane | 119 | | 114 | | 70-130 | 4 | | 30 |
| Bromodichloromethane | 116 | | 116 | | 70-130 | 0 | | 30 |
| trans-1,3-Dichloropropene | 92 | | 93 | | 70-130 | 1 | | 30 |
| cis-1,3-Dichloropropene | 123 | | 122 | | 70-130 | 1 | | 30 |
| 1,1-Dichloropropene | 122 | | 116 | | 70-130 | 5 | | 30 |
| Bromoform | 85 | | 88 | | 70-130 | 3 | | 30 |
| 1,1,2,2-Tetrachloroethane | 77 | | 78 | | 70-130 | 1 | | 30 |
| Benzene | 117 | | 113 | | 70-130 | 3 | | 30 |
| Toluene | 86 | | 84 | | 70-130 | 2 | | 30 |
| Ethylbenzene | 95 | | 92 | | 70-130 | 3 | | 30 |
| Chloromethane | 86 | | 83 | | 52-130 | 4 | | 30 |
| Bromomethane | 145 | | 135 | | 57-147 | 7 | | 30 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 13-14 Batch: WG1416245-3 WG1416245-4 | | | | | | | | |
| Vinyl chloride | 114 | | 110 | | 67-130 | 4 | | 30 |
| Chloroethane | 127 | | 121 | | 50-151 | 5 | | 30 |
| 1,1-Dichloroethene | 121 | | 114 | | 65-135 | 6 | | 30 |
| trans-1,2-Dichloroethene | 119 | | 114 | | 70-130 | 4 | | 30 |
| Trichloroethene | 125 | | 122 | | 70-130 | 2 | | 30 |
| 1,2-Dichlorobenzene | 83 | | 82 | | 70-130 | 1 | | 30 |
| 1,3-Dichlorobenzene | 87 | | 84 | | 70-130 | 4 | | 30 |
| 1,4-Dichlorobenzene | 86 | | 83 | | 70-130 | 4 | | 30 |
| Methyl tert butyl ether | 108 | | 108 | | 66-130 | 0 | | 30 |
| p/m-Xylene | 101 | | 99 | | 70-130 | 2 | | 30 |
| o-Xylene | 106 | | 104 | | 70-130 | 2 | | 30 |
| cis-1,2-Dichloroethene | 120 | | 116 | | 70-130 | 3 | | 30 |
| Dibromomethane | 115 | | 115 | | 70-130 | 0 | | 30 |
| Styrene | 102 | | 102 | | 70-130 | 0 | | 30 |
| Dichlorodifluoromethane | 65 | | 61 | | 30-146 | 6 | | 30 |
| Acetone | 96 | | 97 | | 54-140 | 1 | | 30 |
| Carbon disulfide | 103 | | 99 | | 59-130 | 4 | | 30 |
| 2-Butanone | 98 | | 100 | | 70-130 | 2 | | 30 |
| Vinyl acetate | 100 | | 100 | | 70-130 | 0 | | 30 |
| 4-Methyl-2-pentanone | 84 | | 87 | | 70-130 | 4 | | 30 |
| 1,2,3-Trichloropropane | 75 | | 76 | | 68-130 | 1 | | 30 |
| 2-Hexanone | 74 | | 76 | | 70-130 | 3 | | 30 |
| Bromochloromethane | 118 | | 118 | | 70-130 | 0 | | 30 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040350

**Report Date:** 10/01/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 13-14 Batch: WG1416245-3 WG1416245-4 | | | | | | | | |
| 2,2-Dichloropropane | 119 | | 114 | | 70-130 | 4 | | 30 |
| 1,2-Dibromoethane | 88 | | 90 | | 70-130 | 2 | | 30 |
| 1,3-Dichloropropane | 85 | | 86 | | 69-130 | 1 | | 30 |
| 1,1,1,2-Tetrachloroethane | 97 | | 98 | | 70-130 | 1 | | 30 |
| Bromobenzene | 90 | | 88 | | 70-130 | 2 | | 30 |
| n-Butylbenzene | 86 | | 83 | | 70-130 | 4 | | 30 |
| sec-Butylbenzene | 88 | | 84 | | 70-130 | 5 | | 30 |
| tert-Butylbenzene | 92 | | 88 | | 70-130 | 4 | | 30 |
| o-Chlorotoluene | 82 | | 80 | | 70-130 | 2 | | 30 |
| p-Chlorotoluene | 86 | | 82 | | 70-130 | 5 | | 30 |
| 1,2-Dibromo-3-chloropropane | 83 | | 88 | | 68-130 | 6 | | 30 |
| Hexachlorobutadiene | 95 | | 91 | | 67-130 | 4 | | 30 |
| Isopropylbenzene | 90 | | 87 | | 70-130 | 3 | | 30 |
| p-Isopropyltoluene | 93 | | 89 | | 70-130 | 4 | | 30 |
| Naphthalene | 88 | | 89 | | 70-130 | 1 | | 30 |
| Acrylonitrile | 102 | | 104 | | 70-130 | 2 | | 30 |
| n-Propylbenzene | 88 | | 84 | | 70-130 | 5 | | 30 |
| 1,2,3-Trichlorobenzene | 89 | | 89 | | 70-130 | 0 | | 30 |
| 1,2,4-Trichlorobenzene | 93 | | 91 | | 70-130 | 2 | | 30 |
| 1,3,5-Trimethylbenzene | 89 | | 85 | | 70-130 | 5 | | 30 |
| 1,2,4-Trimethylbenzene | 88 | | 86 | | 70-130 | 2 | | 30 |
| 1,4-Dioxane | **140** | Q | **142** | Q | 65-136 | 1 | | 30 |
| p-Diethylbenzene | 92 | | 88 | | 70-130 | 4 | | 30 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040350

**Report Date:** 10/01/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 13-14 Batch: WG1416245-3 WG1416245-4 | | | | | | | | |
| p-Ethyltoluene | 90 | | 86 | | 70-130 | 5 | | 30 |
| 1,2,4,5-Tetramethylbenzene | 88 | | 85 | | 70-130 | 3 | | 30 |
| Ethyl ether | 114 | | 111 | | 67-130 | 3 | | 30 |
| trans-1,4-Dichloro-2-butene | 76 | | 78 | | 70-130 | 3 | | 30 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 86 | | 85 | | 70-130 |
| Toluene-d8 | 84 | | 83 | | 70-130 |
| 4-Bromofluorobenzene | 94 | | 93 | | 70-130 |
| Dibromofluoromethane | 100 | | 99 | | 70-130 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040350

**Report Date:** 10/01/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 14 Batch: WG1416827-3 WG1416827-4 | | | | | | | | |
| Methylene chloride | 88 | | 88 | | 70-130 | 0 | | 30 |
| 1,1-Dichloroethane | 91 | | 91 | | 70-130 | 0 | | 30 |
| Chloroform | 79 | | 80 | | 70-130 | 1 | | 30 |
| Carbon tetrachloride | 76 | | 76 | | 70-130 | 0 | | 30 |
| 1,2-Dichloropropane | 94 | | 95 | | 70-130 | 1 | | 30 |
| Dibromochloromethane | 75 | | 78 | | 70-130 | 4 | | 30 |
| 1,1,2-Trichloroethane | 85 | | 88 | | 70-130 | 3 | | 30 |
| Tetrachloroethene | 90 | | 92 | | 70-130 | 2 | | 30 |
| Chlorobenzene | 80 | | 82 | | 70-130 | 2 | | 30 |
| Trichlorofluoromethane | 77 | | 76 | | 70-139 | 1 | | 30 |
| 1,2-Dichloroethane | 84 | | 86 | | 70-130 | 2 | | 30 |
| 1,1,1-Trichloroethane | 83 | | 84 | | 70-130 | 1 | | 30 |
| Bromodichloromethane | 79 | | 80 | | 70-130 | 1 | | 30 |
| trans-1,3-Dichloropropene | 83 | | 86 | | 70-130 | 4 | | 30 |
| cis-1,3-Dichloropropene | 86 | | 88 | | 70-130 | 2 | | 30 |
| 1,1-Dichloropropene | 95 | | 95 | | 70-130 | 0 | | 30 |
| Bromoform | 75 | | 76 | | 70-130 | 1 | | 30 |
| 1,1,2,2-Tetrachloroethane | 83 | | 85 | | 70-130 | 2 | | 30 |
| Benzene | 86 | | 87 | | 70-130 | 1 | | 30 |
| Toluene | 86 | | 88 | | 70-130 | 2 | | 30 |
| Ethylbenzene | 87 | | 89 | | 70-130 | 2 | | 30 |
| Chloromethane | 107 | | 106 | | 52-130 | 1 | | 30 |
| Bromomethane | 79 | | 76 | | 57-147 | 4 | | 30 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 14 Batch: WG1416827-3 WG1416827-4 | | | | | | | | |
| Vinyl chloride | 94 | | 92 | | 67-130 | 2 | | 30 |
| Chloroethane | 81 | | 80 | | 50-151 | 1 | | 30 |
| 1,1-Dichloroethene | 96 | | 96 | | 65-135 | 0 | | 30 |
| trans-1,2-Dichloroethene | 90 | | 90 | | 70-130 | 0 | | 30 |
| Trichloroethene | 84 | | 85 | | 70-130 | 1 | | 30 |
| 1,2-Dichlorobenzene | 83 | | 86 | | 70-130 | 4 | | 30 |
| 1,3-Dichlorobenzene | 83 | | 85 | | 70-130 | 2 | | 30 |
| 1,4-Dichlorobenzene | 82 | | 84 | | 70-130 | 2 | | 30 |
| Methyl tert butyl ether | 90 | | 91 | | 66-130 | 1 | | 30 |
| p/m-Xylene | 86 | | 88 | | 70-130 | 2 | | 30 |
| o-Xylene | 80 | | 83 | | 70-130 | 4 | | 30 |
| cis-1,2-Dichloroethene | 86 | | 87 | | 70-130 | 1 | | 30 |
| Dibromomethane | 80 | | 82 | | 70-130 | 2 | | 30 |
| Styrene | 82 | | 85 | | 70-130 | 4 | | 30 |
| Dichlorodifluoromethane | 81 | | 81 | | 30-146 | 0 | | 30 |
| Acetone | 92 | | 81 | | 54-140 | 13 | | 30 |
| Carbon disulfide | 76 | | 74 | | 59-130 | 3 | | 30 |
| 2-Butanone | 98 | | 100 | | 70-130 | 2 | | 30 |
| Vinyl acetate | 104 | | 103 | | 70-130 | 1 | | 30 |
| 4-Methyl-2-pentanone | 102 | | 105 | | 70-130 | 3 | | 30 |
| 1,2,3-Trichloropropane | 84 | | 86 | | 68-130 | 2 | | 30 |
| 2-Hexanone | 91 | | 93 | | 70-130 | 2 | | 30 |
| Bromochloromethane | 81 | | 81 | | 70-130 | 0 | | 30 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040350

**Report Date:** 10/01/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 14 Batch: WG1416827-3 WG1416827-4 | | | | | | | | |
| 2,2-Dichloropropane | 85 | | 85 | | 70-130 | 0 | | 30 |
| 1,2-Dibromoethane | 84 | | 87 | | 70-130 | 4 | | 30 |
| 1,3-Dichloropropane | 86 | | 89 | | 69-130 | 3 | | 30 |
| 1,1,1,2-Tetrachloroethane | 78 | | 79 | | 70-130 | 1 | | 30 |
| Bromobenzene | 79 | | 80 | | 70-130 | 1 | | 30 |
| n-Butylbenzene | 87 | | 88 | | 70-130 | 1 | | 30 |
| sec-Butylbenzene | 89 | | 92 | | 70-130 | 3 | | 30 |
| tert-Butylbenzene | 87 | | 88 | | 70-130 | 1 | | 30 |
| o-Chlorotoluene | 84 | | 85 | | 70-130 | 1 | | 30 |
| p-Chlorotoluene | 83 | | 84 | | 70-130 | 1 | | 30 |
| 1,2-Dibromo-3-chloropropane | 88 | | 93 | | 68-130 | 6 | | 30 |
| Hexachlorobutadiene | 92 | | 93 | | 67-130 | 1 | | 30 |
| Isopropylbenzene | 87 | | 88 | | 70-130 | 1 | | 30 |
| p-Isopropyltoluene | 88 | | 90 | | 70-130 | 2 | | 30 |
| Naphthalene | 107 | | 114 | | 70-130 | 6 | | 30 |
| Acrylonitrile | 112 | | 112 | | 70-130 | 0 | | 30 |
| n-Propylbenzene | 87 | | 88 | | 70-130 | 1 | | 30 |
| 1,2,3-Trichlorobenzene | 92 | | 97 | | 70-130 | 5 | | 30 |
| 1,2,4-Trichlorobenzene | 92 | | 95 | | 70-130 | 3 | | 30 |
| 1,3,5-Trimethylbenzene | 86 | | 87 | | 70-130 | 1 | | 30 |
| 1,2,4-Trimethylbenzene | 85 | | 87 | | 70-130 | 2 | | 30 |
| 1,4-Dioxane | **175** | Q | **205** | Q | 65-136 | 16 | | 30 |
| p-Diethylbenzene | 88 | | 91 | | 70-130 | 3 | | 30 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040350

**Report Date:** 10/01/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 14 Batch: WG1416827-3 WG1416827-4 | | | | | | | | |
| p-Ethyltoluene | 88 | | 89 | | 70-130 | 1 | | 30 |
| 1,2,4,5-Tetramethylbenzene | 93 | | 96 | | 70-130 | 3 | | 30 |
| Ethyl ether | 94 | | 94 | | 67-130 | 0 | | 30 |
| trans-1,4-Dichloro-2-butene | 94 | | 100 | | 70-130 | 6 | | 30 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 91 | | 92 | | 70-130 |
| Toluene-d8 | 95 | | 95 | | 70-130 |
| 4-Bromofluorobenzene | 98 | | 98 | | 70-130 |
| Dibromofluoromethane | 88 | | 88 | | 70-130 |

# SEMIVOLATILES

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-01
Client ID: WC-A (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 13:00
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/27/20 23:38
Analyst: CB
Percent Solids: 87%

Extraction Method: EPA 3546
Extraction Date: 09/27/20 03:08

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Acenaphthene | ND | | ug/kg | 150 | 19. | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 190 | 21. | 1 |
| Hexachlorobenzene | ND | | ug/kg | 110 | 21. | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 170 | 25. | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 190 | 19. | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 190 | 34. | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 190 | 32. | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 190 | 33. | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 190 | 50. | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 190 | 38. | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 190 | 32. | 1 |
| Fluoranthene | 200 | | ug/kg | 110 | 22. | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 190 | 20. | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 190 | 29. | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 220 | 32. | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 200 | 19. | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 190 | 27. | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 540 | 170 | 1 |
| Hexachloroethane | ND | | ug/kg | 150 | 30. | 1 |
| Isophorone | ND | | ug/kg | 170 | 24. | 1 |
| Naphthalene | ND | | ug/kg | 190 | 23. | 1 |
| Nitrobenzene | ND | | ug/kg | 170 | 28. | 1 |
| NDPA/DPA | ND | | ug/kg | 150 | 21. | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 190 | 29. | 1 |
| Bis(2-ethylhexyl)phthalate | ND | | ug/kg | 190 | 65. | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 190 | 47. | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 190 | 36. | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 190 | 64. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-01 Date Collected: 09/24/20 13:00

Client ID: WC-A (0-5') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Diethyl phthalate | ND | | ug/kg | 190 | 17. | 1 |
| Dimethyl phthalate | ND | | ug/kg | 190 | 39. | 1 |
| Benzo(a)anthracene | 100 | J | ug/kg | 110 | 21. | 1 |
| Benzo(a)pyrene | 110 | J | ug/kg | 150 | 46. | 1 |
| Benzo(b)fluoranthene | 140 | | ug/kg | 110 | 32. | 1 |
| Benzo(k)fluoranthene | 37 | J | ug/kg | 110 | 30. | 1 |
| Chrysene | 100 | J | ug/kg | 110 | 20. | 1 |
| Acenaphthylene | ND | | ug/kg | 150 | 29. | 1 |
| Anthracene | ND | | ug/kg | 110 | 36. | 1 |
| Benzo(ghi)perylene | 83 | J | ug/kg | 150 | 22. | 1 |
| Fluorene | ND | | ug/kg | 190 | 18. | 1 |
| Phenanthrene | 140 | | ug/kg | 110 | 23. | 1 |
| Dibenzo(a,h)anthracene | 26 | J | ug/kg | 110 | 22. | 1 |
| Indeno(1,2,3-cd)pyrene | 71 | J | ug/kg | 150 | 26. | 1 |
| Pyrene | 180 | | ug/kg | 110 | 19. | 1 |
| Biphenyl | ND | | ug/kg | 430 | 44. | 1 |
| 4-Chloroaniline | ND | | ug/kg | 190 | 34. | 1 |
| 2-Nitroaniline | ND | | ug/kg | 190 | 36. | 1 |
| 3-Nitroaniline | ND | | ug/kg | 190 | 35. | 1 |
| 4-Nitroaniline | ND | | ug/kg | 190 | 78. | 1 |
| Dibenzofuran | ND | | ug/kg | 190 | 18. | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 220 | 23. | 1 |
| 1,2,4,5-Tetrachlorobenzene | ND | | ug/kg | 190 | 20. | 1 |
| Acetophenone | ND | | ug/kg | 190 | 23. | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 110 | 36. | 1 |
| p-Chloro-m-cresol | ND | | ug/kg | 190 | 28. | 1 |
| 2-Chlorophenol | ND | | ug/kg | 190 | 22. | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 170 | 30. | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 190 | 62. | 1 |
| 2-Nitrophenol | ND | | ug/kg | 400 | 70. | 1 |
| 4-Nitrophenol | ND | | ug/kg | 260 | 76. | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 900 | 87. | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 490 | 90. | 1 |
| Pentachlorophenol | ND | | ug/kg | 150 | 41. | 1 |
| Phenol | ND | | ug/kg | 190 | 28. | 1 |
| 2-Methylphenol | ND | | ug/kg | 190 | 29. | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 270 | 29. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-01 Date Collected: 09/24/20 13:00

Client ID: WC-A (0-5') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 190 | 36. | 1 |
| Benzoic Acid | ND | | ug/kg | 610 | 190 | 1 |
| Benzyl Alcohol | ND | | ug/kg | 190 | 57. | 1 |
| Carbazole | ND | | ug/kg | 190 | 18. | 1 |
| 1,4-Dioxane | ND | | ug/kg | 28 | 8.6 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 86 | | 25-120 |
| Phenol-d6 | 82 | | 10-120 |
| Nitrobenzene-d5 | 84 | | 23-120 |
| 2-Fluorobiphenyl | 76 | | 30-120 |
| 2,4,6-Tribromophenol | 94 | | 10-136 |
| 4-Terphenyl-d14 | 79 | | 18-120 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-02
Client ID: WC-A (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 13:02
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/28/20 00:00
Analyst: CB
Percent Solids: 91%

Extraction Method: EPA 3546
Extraction Date: 09/27/20 03:08

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Acenaphthene | ND | | ug/kg | 140 | 19. | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 180 | 21. | 1 |
| Hexachlorobenzene | ND | | ug/kg | 110 | 20. | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 160 | 24. | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 180 | 18. | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 180 | 32. | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 180 | 31. | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 180 | 32. | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 180 | 48. | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 180 | 36. | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 180 | 31. | 1 |
| Fluoranthene | ND | | ug/kg | 110 | 21. | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 180 | 19. | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 180 | 28. | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 220 | 31. | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 200 | 18. | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 180 | 26. | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 520 | 160 | 1 |
| Hexachloroethane | ND | | ug/kg | 140 | 29. | 1 |
| Isophorone | ND | | ug/kg | 160 | 23. | 1 |
| Naphthalene | ND | | ug/kg | 180 | 22. | 1 |
| Nitrobenzene | ND | | ug/kg | 160 | 27. | 1 |
| NDPA/DPA | ND | | ug/kg | 140 | 20. | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 180 | 28. | 1 |
| Bis(2-ethylhexyl)phthalate | ND | | ug/kg | 180 | 62. | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 180 | 46. | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 180 | 34. | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 180 | 61. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-02 Date Collected: 09/24/20 13:02

Client ID: WC-A (5-10') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Diethyl phthalate | ND | | ug/kg | 180 | 17. | 1 |
| Dimethyl phthalate | ND | | ug/kg | 180 | 38. | 1 |
| Benzo(a)anthracene | ND | | ug/kg | 110 | 20. | 1 |
| Benzo(a)pyrene | ND | | ug/kg | 140 | 44. | 1 |
| Benzo(b)fluoranthene | ND | | ug/kg | 110 | 30. | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 110 | 29. | 1 |
| Chrysene | ND | | ug/kg | 110 | 19. | 1 |
| Acenaphthylene | ND | | ug/kg | 140 | 28. | 1 |
| Anthracene | ND | | ug/kg | 110 | 35. | 1 |
| Benzo(ghi)perylene | ND | | ug/kg | 140 | 21. | 1 |
| Fluorene | ND | | ug/kg | 180 | 18. | 1 |
| Phenanthrene | ND | | ug/kg | 110 | 22. | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 110 | 21. | 1 |
| Indeno(1,2,3-cd)pyrene | ND | | ug/kg | 140 | 25. | 1 |
| Pyrene | ND | | ug/kg | 110 | 18. | 1 |
| Biphenyl | ND | | ug/kg | 410 | 42. | 1 |
| 4-Chloroaniline | ND | | ug/kg | 180 | 33. | 1 |
| 2-Nitroaniline | ND | | ug/kg | 180 | 35. | 1 |
| 3-Nitroaniline | ND | | ug/kg | 180 | 34. | 1 |
| 4-Nitroaniline | ND | | ug/kg | 180 | 75. | 1 |
| Dibenzofuran | ND | | ug/kg | 180 | 17. | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 220 | 22. | 1 |
| 1,2,4,5-Tetrachlorobenzene | ND | | ug/kg | 180 | 19. | 1 |
| Acetophenone | ND | | ug/kg | 180 | 22. | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 110 | 34. | 1 |
| p-Chloro-m-cresol | ND | | ug/kg | 180 | 27. | 1 |
| 2-Chlorophenol | ND | | ug/kg | 180 | 21. | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 160 | 29. | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 180 | 60. | 1 |
| 2-Nitrophenol | ND | | ug/kg | 390 | 68. | 1 |
| 4-Nitrophenol | ND | | ug/kg | 250 | 74. | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 870 | 84. | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 470 | 87. | 1 |
| Pentachlorophenol | ND | | ug/kg | 140 | 40. | 1 |
| Phenol | ND | | ug/kg | 180 | 27. | 1 |
| 2-Methylphenol | ND | | ug/kg | 180 | 28. | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 260 | 28. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-02 Date Collected: 09/24/20 13:02

Client ID: WC-A (5-10') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 180 | 35. | 1 |
| Benzoic Acid | ND | | ug/kg | 580 | 180 | 1 |
| Benzyl Alcohol | ND | | ug/kg | 180 | 55. | 1 |
| Carbazole | ND | | ug/kg | 180 | 18. | 1 |
| 1,4-Dioxane | ND | | ug/kg | 27 | 8.3 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 87 | | 25-120 |
| Phenol-d6 | 86 | | 10-120 |
| Nitrobenzene-d5 | 82 | | 23-120 |
| 2-Fluorobiphenyl | 80 | | 30-120 |
| 2,4,6-Tribromophenol | 93 | | 10-136 |
| 4-Terphenyl-d14 | 84 | | 18-120 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-03
Client ID: WC-B (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 14:15
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/28/20 00:22
Analyst: CB
Percent Solids: 88%

Extraction Method: EPA 3546
Extraction Date: 09/27/20 03:08

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Acenaphthene | 190 | | ug/kg | 150 | 19. | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 190 | 21. | 1 |
| Hexachlorobenzene | ND | | ug/kg | 110 | 21. | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 170 | 25. | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 190 | 18. | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 190 | 33. | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 190 | 32. | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 190 | 32. | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 190 | 50. | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 190 | 37. | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 190 | 32. | 1 |
| Fluoranthene | 3300 | | ug/kg | 110 | 21. | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 190 | 20. | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 190 | 28. | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 220 | 32. | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 200 | 19. | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 190 | 27. | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 530 | 170 | 1 |
| Hexachloroethane | ND | | ug/kg | 150 | 30. | 1 |
| Isophorone | ND | | ug/kg | 170 | 24. | 1 |
| Naphthalene | 56 | J | ug/kg | 190 | 23. | 1 |
| Nitrobenzene | ND | | ug/kg | 170 | 28. | 1 |
| NDPA/DPA | ND | | ug/kg | 150 | 21. | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 190 | 29. | 1 |
| Bis(2-ethylhexyl)phthalate | ND | | ug/kg | 190 | 64. | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 190 | 47. | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 190 | 35. | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 190 | 63. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-03 Date Collected: 09/24/20 14:15

Client ID: WC-B (0-5') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Diethyl phthalate | ND | | ug/kg | 190 | 17. | 1 |
| Dimethyl phthalate | ND | | ug/kg | 190 | 39. | 1 |
| Benzo(a)anthracene | 1900 | | ug/kg | 110 | 21. | 1 |
| Benzo(a)pyrene | 1800 | | ug/kg | 150 | 45. | 1 |
| Benzo(b)fluoranthene | 2200 | | ug/kg | 110 | 31. | 1 |
| Benzo(k)fluoranthene | 800 | | ug/kg | 110 | 30. | 1 |
| Chrysene | 1600 | | ug/kg | 110 | 19. | 1 |
| Acenaphthylene | 67 | J | ug/kg | 150 | 29. | 1 |
| Anthracene | 580 | | ug/kg | 110 | 36. | 1 |
| Benzo(ghi)perylene | 1200 | | ug/kg | 150 | 22. | 1 |
| Fluorene | 160 | J | ug/kg | 190 | 18. | 1 |
| Phenanthrene | 2000 | | ug/kg | 110 | 23. | 1 |
| Dibenzo(a,h)anthracene | 280 | | ug/kg | 110 | 22. | 1 |
| Indeno(1,2,3-cd)pyrene | 1200 | | ug/kg | 150 | 26. | 1 |
| Pyrene | 3100 | | ug/kg | 110 | 18. | 1 |
| Biphenyl | ND | | ug/kg | 420 | 43. | 1 |
| 4-Chloroaniline | ND | | ug/kg | 190 | 34. | 1 |
| 2-Nitroaniline | ND | | ug/kg | 190 | 36. | 1 |
| 3-Nitroaniline | ND | | ug/kg | 190 | 35. | 1 |
| 4-Nitroaniline | ND | | ug/kg | 190 | 77. | 1 |
| Dibenzofuran | 84 | J | ug/kg | 190 | 18. | 1 |
| 2-Methylnaphthalene | 36 | J | ug/kg | 220 | 22. | 1 |
| 1,2,4,5-Tetrachlorobenzene | ND | | ug/kg | 190 | 19. | 1 |
| Acetophenone | ND | | ug/kg | 190 | 23. | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 110 | 35. | 1 |
| p-Chloro-m-cresol | ND | | ug/kg | 190 | 28. | 1 |
| 2-Chlorophenol | ND | | ug/kg | 190 | 22. | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 170 | 30. | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 190 | 62. | 1 |
| 2-Nitrophenol | ND | | ug/kg | 400 | 70. | 1 |
| 4-Nitrophenol | ND | | ug/kg | 260 | 76. | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 890 | 87. | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 480 | 89. | 1 |
| Pentachlorophenol | ND | | ug/kg | 150 | 41. | 1 |
| Phenol | ND | | ug/kg | 190 | 28. | 1 |
| 2-Methylphenol | ND | | ug/kg | 190 | 29. | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 270 | 29. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-03 Date Collected: 09/24/20 14:15

Client ID: WC-B (0-5') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 190 | 36. | 1 |
| Benzoic Acid | ND | | ug/kg | 600 | 190 | 1 |
| Benzyl Alcohol | ND | | ug/kg | 190 | 57. | 1 |
| Carbazole | 150 | J | ug/kg | 190 | 18. | 1 |
| 1,4-Dioxane | ND | | ug/kg | 28 | 8.6 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 93 | | 25-120 |
| Phenol-d6 | 90 | | 10-120 |
| Nitrobenzene-d5 | 92 | | 23-120 |
| 2-Fluorobiphenyl | 79 | | 30-120 |
| 2,4,6-Tribromophenol | 102 | | 10-136 |
| 4-Terphenyl-d14 | 77 | | 18-120 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-04
Client ID: WC-B (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 14:20
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/28/20 00:45
Analyst: CB
Percent Solids: 92%

Extraction Method: EPA 3546
Extraction Date: 09/27/20 03:08

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Acenaphthene | ND | | ug/kg | 140 | 18. | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 180 | 20. | 1 |
| Hexachlorobenzene | ND | | ug/kg | 110 | 20. | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 160 | 24. | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 180 | 18. | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 180 | 32. | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 180 | 30. | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 180 | 31. | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 180 | 47. | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 180 | 35. | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 180 | 30. | 1 |
| Fluoranthene | ND | | ug/kg | 110 | 20. | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 180 | 19. | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 180 | 27. | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 210 | 30. | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 190 | 18. | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 180 | 26. | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 510 | 160 | 1 |
| Hexachloroethane | ND | | ug/kg | 140 | 29. | 1 |
| Isophorone | ND | | ug/kg | 160 | 23. | 1 |
| Naphthalene | ND | | ug/kg | 180 | 22. | 1 |
| Nitrobenzene | ND | | ug/kg | 160 | 26. | 1 |
| NDPA/DPA | ND | | ug/kg | 140 | 20. | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 180 | 27. | 1 |
| Bis(2-ethylhexyl)phthalate | ND | | ug/kg | 180 | 61. | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 180 | 45. | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 180 | 34. | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 180 | 60. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-04 Date Collected: 09/24/20 14:20

Client ID: WC-B (5-10') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Diethyl phthalate | ND | | ug/kg | 180 | 16. | 1 |
| Dimethyl phthalate | ND | | ug/kg | 180 | 37. | 1 |
| Benzo(a)anthracene | ND | | ug/kg | 110 | 20. | 1 |
| Benzo(a)pyrene | ND | | ug/kg | 140 | 43. | 1 |
| Benzo(b)fluoranthene | ND | | ug/kg | 110 | 30. | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 110 | 28. | 1 |
| Chrysene | ND | | ug/kg | 110 | 18. | 1 |
| Acenaphthylene | ND | | ug/kg | 140 | 27. | 1 |
| Anthracene | ND | | ug/kg | 110 | 34. | 1 |
| Benzo(ghi)perylene | ND | | ug/kg | 140 | 21. | 1 |
| Fluorene | ND | | ug/kg | 180 | 17. | 1 |
| Phenanthrene | ND | | ug/kg | 110 | 22. | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 110 | 20. | 1 |
| Indeno(1,2,3-cd)pyrene | ND | | ug/kg | 140 | 25. | 1 |
| Pyrene | ND | | ug/kg | 110 | 18. | 1 |
| Biphenyl | ND | | ug/kg | 400 | 41. | 1 |
| 4-Chloroaniline | ND | | ug/kg | 180 | 32. | 1 |
| 2-Nitroaniline | ND | | ug/kg | 180 | 34. | 1 |
| 3-Nitroaniline | ND | | ug/kg | 180 | 33. | 1 |
| 4-Nitroaniline | ND | | ug/kg | 180 | 73. | 1 |
| Dibenzofuran | ND | | ug/kg | 180 | 17. | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 210 | 21. | 1 |
| 1,2,4,5-Tetrachlorobenzene | ND | | ug/kg | 180 | 18. | 1 |
| Acetophenone | ND | | ug/kg | 180 | 22. | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 110 | 34. | 1 |
| p-Chloro-m-cresol | ND | | ug/kg | 180 | 26. | 1 |
| 2-Chlorophenol | ND | | ug/kg | 180 | 21. | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 160 | 28. | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 180 | 58. | 1 |
| 2-Nitrophenol | ND | | ug/kg | 380 | 66. | 1 |
| 4-Nitrophenol | ND | | ug/kg | 250 | 72. | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 850 | 82. | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 460 | 85. | 1 |
| Pentachlorophenol | ND | | ug/kg | 140 | 39. | 1 |
| Phenol | ND | | ug/kg | 180 | 27. | 1 |
| 2-Methylphenol | ND | | ug/kg | 180 | 27. | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 260 | 28. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-04 Date Collected: 09/24/20 14:20

Client ID: WC-B (5-10') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 180 | 34. | 1 |
| Benzoic Acid | ND | | ug/kg | 570 | 180 | 1 |
| Benzyl Alcohol | ND | | ug/kg | 180 | 54. | 1 |
| Carbazole | ND | | ug/kg | 180 | 17. | 1 |
| 1,4-Dioxane | ND | | ug/kg | 26 | 8.1 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 100 | | 25-120 |
| Phenol-d6 | 95 | | 10-120 |
| Nitrobenzene-d5 | 92 | | 23-120 |
| 2-Fluorobiphenyl | 88 | | 30-120 |
| 2,4,6-Tribromophenol | 108 | | 10-136 |
| 4-Terphenyl-d14 | 94 | | 18-120 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-05
Client ID: WC-F (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 11:07
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/28/20 01:07
Analyst: CB
Percent Solids: 90%

Extraction Method: EPA 3546
Extraction Date: 09/27/20 03:08

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Acenaphthene | 24 | J | ug/kg | 140 | 19. | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 180 | 21. | 1 |
| Hexachlorobenzene | ND | | ug/kg | 110 | 20. | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 160 | 24. | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 180 | 18. | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 180 | 32. | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 180 | 31. | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 180 | 32. | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 180 | 48. | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 180 | 36. | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 180 | 31. | 1 |
| Fluoranthene | 440 | | ug/kg | 110 | 21. | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 180 | 19. | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 180 | 28. | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 220 | 31. | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 200 | 18. | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 180 | 26. | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 520 | 160 | 1 |
| Hexachloroethane | ND | | ug/kg | 140 | 29. | 1 |
| Isophorone | ND | | ug/kg | 160 | 24. | 1 |
| Naphthalene | ND | | ug/kg | 180 | 22. | 1 |
| Nitrobenzene | ND | | ug/kg | 160 | 27. | 1 |
| NDPA/DPA | ND | | ug/kg | 140 | 21. | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 180 | 28. | 1 |
| Bis(2-ethylhexyl)phthalate | ND | | ug/kg | 180 | 63. | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 180 | 46. | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 180 | 34. | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 180 | 62. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-05 Date Collected: 09/24/20 11:07

Client ID: WC-F (0-5') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Diethyl phthalate | ND | | ug/kg | 180 | 17. | 1 |
| Dimethyl phthalate | ND | | ug/kg | 180 | 38. | 1 |
| Benzo(a)anthracene | 210 | | ug/kg | 110 | 20. | 1 |
| Benzo(a)pyrene | 220 | | ug/kg | 140 | 44. | 1 |
| Benzo(b)fluoranthene | 270 | | ug/kg | 110 | 30. | 1 |
| Benzo(k)fluoranthene | 90 | J | ug/kg | 110 | 29. | 1 |
| Chrysene | 240 | | ug/kg | 110 | 19. | 1 |
| Acenaphthylene | 54 | J | ug/kg | 140 | 28. | 1 |
| Anthracene | 68 | J | ug/kg | 110 | 35. | 1 |
| Benzo(ghi)perylene | 180 | | ug/kg | 140 | 21. | 1 |
| Fluorene | 22 | J | ug/kg | 180 | 18. | 1 |
| Phenanthrene | 360 | | ug/kg | 110 | 22. | 1 |
| Dibenzo(a,h)anthracene | 33 | J | ug/kg | 110 | 21. | 1 |
| Indeno(1,2,3-cd)pyrene | 150 | | ug/kg | 140 | 25. | 1 |
| Pyrene | 460 | | ug/kg | 110 | 18. | 1 |
| Biphenyl | ND | | ug/kg | 410 | 42. | 1 |
| 4-Chloroaniline | ND | | ug/kg | 180 | 33. | 1 |
| 2-Nitroaniline | ND | | ug/kg | 180 | 35. | 1 |
| 3-Nitroaniline | ND | | ug/kg | 180 | 34. | 1 |
| 4-Nitroaniline | ND | | ug/kg | 180 | 75. | 1 |
| Dibenzofuran | ND | | ug/kg | 180 | 17. | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 220 | 22. | 1 |
| 1,2,4,5-Tetrachlorobenzene | ND | | ug/kg | 180 | 19. | 1 |
| Acetophenone | ND | | ug/kg | 180 | 22. | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 110 | 34. | 1 |
| p-Chloro-m-cresol | ND | | ug/kg | 180 | 27. | 1 |
| 2-Chlorophenol | ND | | ug/kg | 180 | 21. | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 160 | 29. | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 180 | 60. | 1 |
| 2-Nitrophenol | ND | | ug/kg | 390 | 68. | 1 |
| 4-Nitrophenol | ND | | ug/kg | 250 | 74. | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 870 | 84. | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 470 | 87. | 1 |
| Pentachlorophenol | ND | | ug/kg | 140 | 40. | 1 |
| Phenol | ND | | ug/kg | 180 | 27. | 1 |
| 2-Methylphenol | ND | | ug/kg | 180 | 28. | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 260 | 28. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-05 Date Collected: 09/24/20 11:07

Client ID: WC-F (0-5') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 180 | 35. | 1 |
| Benzoic Acid | ND | | ug/kg | 590 | 180 | 1 |
| Benzyl Alcohol | ND | | ug/kg | 180 | 55. | 1 |
| Carbazole | 40 | J | ug/kg | 180 | 18. | 1 |
| 1,4-Dioxane | ND | | ug/kg | 27 | 8.3 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 93 | | 25-120 |
| Phenol-d6 | 93 | | 10-120 |
| Nitrobenzene-d5 | 95 | | 23-120 |
| 2-Fluorobiphenyl | 87 | | 30-120 |
| 2,4,6-Tribromophenol | 103 | | 10-136 |
| 4-Terphenyl-d14 | 87 | | 18-120 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-06
Client ID: WC-F (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 11:10
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/28/20 01:29
Analyst: CB
Percent Solids: 90%

Extraction Method: EPA 3546
Extraction Date: 09/27/20 03:08

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Acenaphthene | ND | | ug/kg | 140 | 19. | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 180 | 21. | 1 |
| Hexachlorobenzene | ND | | ug/kg | 110 | 20. | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 160 | 24. | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 180 | 18. | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 180 | 32. | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 180 | 31. | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 180 | 32. | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 180 | 48. | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 180 | 36. | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 180 | 31. | 1 |
| Fluoranthene | 90 | J | ug/kg | 110 | 21. | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 180 | 19. | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 180 | 28. | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 220 | 31. | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 200 | 18. | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 180 | 26. | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 520 | 160 | 1 |
| Hexachloroethane | ND | | ug/kg | 140 | 29. | 1 |
| Isophorone | ND | | ug/kg | 160 | 23. | 1 |
| Naphthalene | ND | | ug/kg | 180 | 22. | 1 |
| Nitrobenzene | ND | | ug/kg | 160 | 27. | 1 |
| NDPA/DPA | ND | | ug/kg | 140 | 20. | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 180 | 28. | 1 |
| Bis(2-ethylhexyl)phthalate | ND | | ug/kg | 180 | 62. | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 180 | 46. | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 180 | 34. | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 180 | 62. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-06 Date Collected: 09/24/20 11:10

Client ID: WC-F (5-10') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Diethyl phthalate | ND | | ug/kg | 180 | 17. | 1 |
| Dimethyl phthalate | ND | | ug/kg | 180 | 38. | 1 |
| Benzo(a)anthracene | 58 | J | ug/kg | 110 | 20. | 1 |
| Benzo(a)pyrene | 57 | J | ug/kg | 140 | 44. | 1 |
| Benzo(b)fluoranthene | 72 | J | ug/kg | 110 | 30. | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 110 | 29. | 1 |
| Chrysene | 58 | J | ug/kg | 110 | 19. | 1 |
| Acenaphthylene | ND | | ug/kg | 140 | 28. | 1 |
| Anthracene | ND | | ug/kg | 110 | 35. | 1 |
| Benzo(ghi)perylene | 39 | J | ug/kg | 140 | 21. | 1 |
| Fluorene | ND | | ug/kg | 180 | 18. | 1 |
| Phenanthrene | 38 | J | ug/kg | 110 | 22. | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 110 | 21. | 1 |
| Indeno(1,2,3-cd)pyrene | 36 | J | ug/kg | 140 | 25. | 1 |
| Pyrene | 90 | J | ug/kg | 110 | 18. | 1 |
| Biphenyl | ND | | ug/kg | 410 | 42. | 1 |
| 4-Chloroaniline | ND | | ug/kg | 180 | 33. | 1 |
| 2-Nitroaniline | ND | | ug/kg | 180 | 35. | 1 |
| 3-Nitroaniline | ND | | ug/kg | 180 | 34. | 1 |
| 4-Nitroaniline | ND | | ug/kg | 180 | 75. | 1 |
| Dibenzofuran | ND | | ug/kg | 180 | 17. | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 220 | 22. | 1 |
| 1,2,4,5-Tetrachlorobenzene | ND | | ug/kg | 180 | 19. | 1 |
| Acetophenone | ND | | ug/kg | 180 | 22. | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 110 | 34. | 1 |
| p-Chloro-m-cresol | ND | | ug/kg | 180 | 27. | 1 |
| 2-Chlorophenol | ND | | ug/kg | 180 | 21. | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 160 | 29. | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 180 | 60. | 1 |
| 2-Nitrophenol | ND | | ug/kg | 390 | 68. | 1 |
| 4-Nitrophenol | ND | | ug/kg | 250 | 74. | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 870 | 84. | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 470 | 87. | 1 |
| Pentachlorophenol | ND | | ug/kg | 140 | 40. | 1 |
| Phenol | ND | | ug/kg | 180 | 27. | 1 |
| 2-Methylphenol | ND | | ug/kg | 180 | 28. | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 260 | 28. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-06 Date Collected: 09/24/20 11:10

Client ID: WC-F (5-10') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 180 | 35. | 1 |
| Benzoic Acid | ND | | ug/kg | 590 | 180 | 1 |
| Benzyl Alcohol | ND | | ug/kg | 180 | 55. | 1 |
| Carbazole | ND | | ug/kg | 180 | 18. | 1 |
| 1,4-Dioxane | ND | | ug/kg | 27 | 8.3 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 87 | | 25-120 |
| Phenol-d6 | 85 | | 10-120 |
| Nitrobenzene-d5 | 81 | | 23-120 |
| 2-Fluorobiphenyl | 78 | | 30-120 |
| 2,4,6-Tribromophenol | 105 | | 10-136 |
| 4-Terphenyl-d14 | 81 | | 18-120 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-07
Client ID: WC-F (10-15')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 11:11
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/28/20 01:51
Analyst: CB
Percent Solids: 88%

Extraction Method: EPA 3546
Extraction Date: 09/27/20 03:08

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Acenaphthene | ND | | ug/kg | 150 | 20. | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 190 | 22. | 1 |
| Hexachlorobenzene | ND | | ug/kg | 110 | 21. | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 170 | 26. | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 190 | 19. | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 190 | 34. | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 190 | 32. | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 190 | 33. | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 190 | 50. | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 190 | 38. | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 190 | 32. | 1 |
| Fluoranthene | ND | | ug/kg | 110 | 22. | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 190 | 20. | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 190 | 29. | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 230 | 32. | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 200 | 19. | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 190 | 28. | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 540 | 170 | 1 |
| Hexachloroethane | ND | | ug/kg | 150 | 30. | 1 |
| Isophorone | ND | | ug/kg | 170 | 24. | 1 |
| Naphthalene | 330 | | ug/kg | 190 | 23. | 1 |
| Nitrobenzene | ND | | ug/kg | 170 | 28. | 1 |
| NDPA/DPA | ND | | ug/kg | 150 | 21. | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 190 | 29. | 1 |
| Bis(2-ethylhexyl)phthalate | ND | | ug/kg | 190 | 65. | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 190 | 48. | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 190 | 36. | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 190 | 64. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-07 Date Collected: 09/24/20 11:11

Client ID: WC-F (10-15') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Diethyl phthalate | ND | | ug/kg | 190 | 17. | 1 |
| Dimethyl phthalate | ND | | ug/kg | 190 | 40. | 1 |
| Benzo(a)anthracene | ND | | ug/kg | 110 | 21. | 1 |
| Benzo(a)pyrene | ND | | ug/kg | 150 | 46. | 1 |
| Benzo(b)fluoranthene | ND | | ug/kg | 110 | 32. | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 110 | 30. | 1 |
| Chrysene | ND | | ug/kg | 110 | 20. | 1 |
| Acenaphthylene | ND | | ug/kg | 150 | 29. | 1 |
| Anthracene | ND | | ug/kg | 110 | 37. | 1 |
| Benzo(ghi)perylene | ND | | ug/kg | 150 | 22. | 1 |
| Fluorene | ND | | ug/kg | 190 | 18. | 1 |
| Phenanthrene | ND | | ug/kg | 110 | 23. | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 110 | 22. | 1 |
| Indeno(1,2,3-cd)pyrene | ND | | ug/kg | 150 | 26. | 1 |
| Pyrene | ND | | ug/kg | 110 | 19. | 1 |
| Biphenyl | ND | | ug/kg | 430 | 44. | 1 |
| 4-Chloroaniline | ND | | ug/kg | 190 | 34. | 1 |
| 2-Nitroaniline | ND | | ug/kg | 190 | 36. | 1 |
| 3-Nitroaniline | ND | | ug/kg | 190 | 36. | 1 |
| 4-Nitroaniline | ND | | ug/kg | 190 | 78. | 1 |
| Dibenzofuran | ND | | ug/kg | 190 | 18. | 1 |
| 2-Methylnaphthalene | 280 | | ug/kg | 230 | 23. | 1 |
| 1,2,4,5-Tetrachlorobenzene | ND | | ug/kg | 190 | 20. | 1 |
| Acetophenone | ND | | ug/kg | 190 | 23. | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 110 | 36. | 1 |
| p-Chloro-m-cresol | ND | | ug/kg | 190 | 28. | 1 |
| 2-Chlorophenol | ND | | ug/kg | 190 | 22. | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 170 | 30. | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 190 | 62. | 1 |
| 2-Nitrophenol | ND | | ug/kg | 410 | 71. | 1 |
| 4-Nitrophenol | ND | | ug/kg | 260 | 77. | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 900 | 88. | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 490 | 90. | 1 |
| Pentachlorophenol | ND | | ug/kg | 150 | 41. | 1 |
| Phenol | ND | | ug/kg | 190 | 28. | 1 |
| 2-Methylphenol | ND | | ug/kg | 190 | 29. | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 270 | 30. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-07 Date Collected: 09/24/20 11:11

Client ID: WC-F (10-15') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 190 | 36. | 1 |
| Benzoic Acid | ND | | ug/kg | 610 | 190 | 1 |
| Benzyl Alcohol | ND | | ug/kg | 190 | 58. | 1 |
| Carbazole | ND | | ug/kg | 190 | 18. | 1 |
| 1,4-Dioxane | ND | | ug/kg | 28 | 8.7 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 84 | | 25-120 |
| Phenol-d6 | 84 | | 10-120 |
| Nitrobenzene-d5 | 81 | | 23-120 |
| 2-Fluorobiphenyl | 75 | | 30-120 |
| 2,4,6-Tribromophenol | 107 | | 10-136 |
| 4-Terphenyl-d14 | 76 | | 18-120 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-08
Client ID: WC-F (15-20')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 11:12
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/27/20 22:31
Analyst: CB
Percent Solids: 88%

Extraction Method: EPA 3546
Extraction Date: 09/27/20 03:08

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Acenaphthene | ND | | ug/kg | 150 | 19. | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 190 | 21. | 1 |
| Hexachlorobenzene | ND | | ug/kg | 110 | 21. | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 170 | 25. | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 190 | 18. | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 190 | 34. | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 190 | 32. | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 190 | 33. | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 190 | 50. | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 190 | 37. | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 190 | 32. | 1 |
| Fluoranthene | ND | | ug/kg | 110 | 21. | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 190 | 20. | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 190 | 28. | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 220 | 32. | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 200 | 19. | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 190 | 27. | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 530 | 170 | 1 |
| Hexachloroethane | ND | | ug/kg | 150 | 30. | 1 |
| Isophorone | ND | | ug/kg | 170 | 24. | 1 |
| Naphthalene | 300 | | ug/kg | 190 | 23. | 1 |
| Nitrobenzene | ND | | ug/kg | 170 | 28. | 1 |
| NDPA/DPA | ND | | ug/kg | 150 | 21. | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 190 | 29. | 1 |
| Bis(2-ethylhexyl)phthalate | ND | | ug/kg | 190 | 65. | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 190 | 47. | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 190 | 35. | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 190 | 63. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-08 Date Collected: 09/24/20 11:12

Client ID: WC-F (15-20') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Diethyl phthalate | ND | | ug/kg | 190 | 17. | 1 |
| Dimethyl phthalate | ND | | ug/kg | 190 | 39. | 1 |
| Benzo(a)anthracene | ND | | ug/kg | 110 | 21. | 1 |
| Benzo(a)pyrene | ND | | ug/kg | 150 | 46. | 1 |
| Benzo(b)fluoranthene | ND | | ug/kg | 110 | 31. | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 110 | 30. | 1 |
| Chrysene | ND | | ug/kg | 110 | 19. | 1 |
| Acenaphthylene | ND | | ug/kg | 150 | 29. | 1 |
| Anthracene | ND | | ug/kg | 110 | 36. | 1 |
| Benzo(ghi)perylene | ND | | ug/kg | 150 | 22. | 1 |
| Fluorene | ND | | ug/kg | 190 | 18. | 1 |
| Phenanthrene | ND | | ug/kg | 110 | 23. | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 110 | 22. | 1 |
| Indeno(1,2,3-cd)pyrene | ND | | ug/kg | 150 | 26. | 1 |
| Pyrene | ND | | ug/kg | 110 | 18. | 1 |
| Biphenyl | ND | | ug/kg | 420 | 43. | 1 |
| 4-Chloroaniline | ND | | ug/kg | 190 | 34. | 1 |
| 2-Nitroaniline | ND | | ug/kg | 190 | 36. | 1 |
| 3-Nitroaniline | ND | | ug/kg | 190 | 35. | 1 |
| 4-Nitroaniline | ND | | ug/kg | 190 | 77. | 1 |
| Dibenzofuran | ND | | ug/kg | 190 | 18. | 1 |
| 2-Methylnaphthalene | 210 | J | ug/kg | 220 | 22. | 1 |
| 1,2,4,5-Tetrachlorobenzene | ND | | ug/kg | 190 | 19. | 1 |
| Acetophenone | ND | | ug/kg | 190 | 23. | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 110 | 35. | 1 |
| p-Chloro-m-cresol | ND | | ug/kg | 190 | 28. | 1 |
| 2-Chlorophenol | ND | | ug/kg | 190 | 22. | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 170 | 30. | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 190 | 62. | 1 |
| 2-Nitrophenol | ND | | ug/kg | 400 | 70. | 1 |
| 4-Nitrophenol | ND | | ug/kg | 260 | 76. | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 900 | 87. | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 480 | 90. | 1 |
| Pentachlorophenol | ND | | ug/kg | 150 | 41. | 1 |
| Phenol | ND | | ug/kg | 190 | 28. | 1 |
| 2-Methylphenol | 62 | J | ug/kg | 190 | 29. | 1 |
| 3-Methylphenol/4-Methylphenol | 83 | J | ug/kg | 270 | 29. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-08 Date Collected: 09/24/20 11:12

Client ID: WC-F (15-20') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 190 | 36. | 1 |
| Benzoic Acid | ND | | ug/kg | 600 | 190 | 1 |
| Benzyl Alcohol | ND | | ug/kg | 190 | 57. | 1 |
| Carbazole | ND | | ug/kg | 190 | 18. | 1 |
| 1,4-Dioxane | ND | | ug/kg | 28 | 8.6 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 91 | | 25-120 |
| Phenol-d6 | 86 | | 10-120 |
| Nitrobenzene-d5 | 85 | | 23-120 |
| 2-Fluorobiphenyl | 76 | | 30-120 |
| 2,4,6-Tribromophenol | 98 | | 10-136 |
| 4-Terphenyl-d14 | 73 | | 18-120 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 09/27/20 18:04
Analyst: CB

Extraction Method: EPA 3546
Extraction Date: 09/27/20 03:08

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG1415077-1 | | | | | |
| Acenaphthene | ND | | ug/kg | 130 | 17. |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 160 | 19. |
| Hexachlorobenzene | ND | | ug/kg | 99 | 18. |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 150 | 22. |
| 2-Chloronaphthalene | ND | | ug/kg | 160 | 16. |
| 1,2-Dichlorobenzene | ND | | ug/kg | 160 | 30. |
| 1,3-Dichlorobenzene | ND | | ug/kg | 160 | 28. |
| 1,4-Dichlorobenzene | ND | | ug/kg | 160 | 29. |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 160 | 44. |
| 2,4-Dinitrotoluene | ND | | ug/kg | 160 | 33. |
| 2,6-Dinitrotoluene | ND | | ug/kg | 160 | 28. |
| Fluoranthene | ND | | ug/kg | 99 | 19. |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 160 | 18. |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 160 | 25. |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 200 | 28. |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 180 | 16. |
| Hexachlorobutadiene | ND | | ug/kg | 160 | 24. |
| Hexachlorocyclopentadiene | ND | | ug/kg | 470 | 150 |
| Hexachloroethane | ND | | ug/kg | 130 | 27. |
| Isophorone | ND | | ug/kg | 150 | 21. |
| Naphthalene | ND | | ug/kg | 160 | 20. |
| Nitrobenzene | ND | | ug/kg | 150 | 24. |
| NDPA/DPA | ND | | ug/kg | 130 | 19. |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 160 | 25. |
| Bis(2-ethylhexyl)phthalate | ND | | ug/kg | 160 | 57. |
| Butyl benzyl phthalate | ND | | ug/kg | 160 | 42. |
| Di-n-butylphthalate | ND | | ug/kg | 160 | 31. |
| Di-n-octylphthalate | ND | | ug/kg | 160 | 56. |
| Diethyl phthalate | ND | | ug/kg | 160 | 15. |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 09/27/20 18:04
Analyst: CB

Extraction Method: EPA 3546
Extraction Date: 09/27/20 03:08

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG1415077-1 | | | | | |
| Dimethyl phthalate | ND | | ug/kg | 160 | 35. |
| Benzo(a)anthracene | ND | | ug/kg | 99 | 18. |
| Benzo(a)pyrene | ND | | ug/kg | 130 | 40. |
| Benzo(b)fluoranthene | ND | | ug/kg | 99 | 28. |
| Benzo(k)fluoranthene | ND | | ug/kg | 99 | 26. |
| Chrysene | ND | | ug/kg | 99 | 17. |
| Acenaphthylene | ND | | ug/kg | 130 | 25. |
| Anthracene | ND | | ug/kg | 99 | 32. |
| Benzo(ghi)perylene | ND | | ug/kg | 130 | 19. |
| Fluorene | ND | | ug/kg | 160 | 16. |
| Phenanthrene | ND | | ug/kg | 99 | 20. |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 99 | 19. |
| Indeno(1,2,3-cd)pyrene | ND | | ug/kg | 130 | 23. |
| Pyrene | ND | | ug/kg | 99 | 16. |
| Biphenyl | ND | | ug/kg | 380 | 38. |
| 4-Chloroaniline | ND | | ug/kg | 160 | 30. |
| 2-Nitroaniline | ND | | ug/kg | 160 | 32. |
| 3-Nitroaniline | ND | | ug/kg | 160 | 31. |
| 4-Nitroaniline | ND | | ug/kg | 160 | 68. |
| Dibenzofuran | ND | | ug/kg | 160 | 16. |
| 2-Methylnaphthalene | ND | | ug/kg | 200 | 20. |
| 1,2,4,5-Tetrachlorobenzene | ND | | ug/kg | 160 | 17. |
| Acetophenone | ND | | ug/kg | 160 | 20. |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 99 | 31. |
| p-Chloro-m-cresol | ND | | ug/kg | 160 | 24. |
| 2-Chlorophenol | ND | | ug/kg | 160 | 19. |
| 2,4-Dichlorophenol | ND | | ug/kg | 150 | 26. |
| 2,4-Dimethylphenol | ND | | ug/kg | 160 | 54. |
| 2-Nitrophenol | ND | | ug/kg | 360 | 62. |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 09/27/20 18:04
Analyst: CB

Extraction Method: EPA 3546
Extraction Date: 09/27/20 03:08

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG1415077-1 | | | | | |
| 4-Nitrophenol | ND | | ug/kg | 230 | 67. |
| 2,4-Dinitrophenol | ND | | ug/kg | 790 | 77. |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 430 | 79. |
| Pentachlorophenol | ND | | ug/kg | 130 | 36. |
| Phenol | ND | | ug/kg | 160 | 25. |
| 2-Methylphenol | ND | | ug/kg | 160 | 26. |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 240 | 26. |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 160 | 32. |
| Benzoic Acid | ND | | ug/kg | 530 | 170 |
| Benzyl Alcohol | ND | | ug/kg | 160 | 50. |
| Carbazole | ND | | ug/kg | 160 | 16. |
| 1,4-Dioxane | ND | | ug/kg | 25 | 7.6 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 89 | | 25-120 |
| Phenol-d6 | 86 | | 10-120 |
| Nitrobenzene-d5 | 82 | | 23-120 |
| 2-Fluorobiphenyl | 83 | | 30-120 |
| 2,4,6-Tribromophenol | 93 | | 10-136 |
| 4-Terphenyl-d14 | 96 | | 18-120 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG1415077-2 WG1415077-3 | | | | | | | | |
| Acenaphthene | 80 | | 74 | | 31-137 | 8 | | 50 |
| 1,2,4-Trichlorobenzene | 78 | | 73 | | 38-107 | 7 | | 50 |
| Hexachlorobenzene | 92 | | 81 | | 40-140 | 13 | | 50 |
| Bis(2-chloroethyl)ether | 86 | | 78 | | 40-140 | 10 | | 50 |
| 2-Chloronaphthalene | 79 | | 73 | | 40-140 | 8 | | 50 |
| 1,2-Dichlorobenzene | 82 | | 76 | | 40-140 | 8 | | 50 |
| 1,3-Dichlorobenzene | 81 | | 77 | | 40-140 | 5 | | 50 |
| 1,4-Dichlorobenzene | 80 | | 74 | | 28-104 | 8 | | 50 |
| 3,3'-Dichlorobenzidine | 76 | | 68 | | 40-140 | 11 | | 50 |
| 2,4-Dinitrotoluene | 84 | | 75 | | 40-132 | 11 | | 50 |
| 2,6-Dinitrotoluene | 86 | | 80 | | 40-140 | 7 | | 50 |
| Fluoranthene | 82 | | 73 | | 40-140 | 12 | | 50 |
| 4-Chlorophenyl phenyl ether | 81 | | 72 | | 40-140 | 12 | | 50 |
| 4-Bromophenyl phenyl ether | 86 | | 78 | | 40-140 | 10 | | 50 |
| Bis(2-chloroisopropyl)ether | 62 | | 57 | | 40-140 | 8 | | 50 |
| Bis(2-chloroethoxy)methane | 84 | | 78 | | 40-117 | 7 | | 50 |
| Hexachlorobutadiene | 80 | | 74 | | 40-140 | 8 | | 50 |
| Hexachlorocyclopentadiene | 77 | | 71 | | 40-140 | 8 | | 50 |
| Hexachloroethane | 76 | | 72 | | 40-140 | 5 | | 50 |
| Isophorone | 85 | | 79 | | 40-140 | 7 | | 50 |
| Naphthalene | 81 | | 75 | | 40-140 | 8 | | 50 |
| Nitrobenzene | 80 | | 73 | | 40-140 | 9 | | 50 |
| NDPA/DPA | 82 | | 76 | | 36-157 | 8 | | 50 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG1415077-2 WG1415077-3 | | | | | | | | |
| n-Nitrosodi-n-propylamine | 84 | | 79 | | 32-121 | 6 | | 50 |
| Bis(2-ethylhexyl)phthalate | 87 | | 79 | | 40-140 | 10 | | 50 |
| Butyl benzyl phthalate | 88 | | 81 | | 40-140 | 8 | | 50 |
| Di-n-butylphthalate | 91 | | 82 | | 40-140 | 10 | | 50 |
| Di-n-octylphthalate | 85 | | 75 | | 40-140 | 13 | | 50 |
| Diethyl phthalate | 83 | | 75 | | 40-140 | 10 | | 50 |
| Dimethyl phthalate | 81 | | 75 | | 40-140 | 8 | | 50 |
| Benzo(a)anthracene | 79 | | 72 | | 40-140 | 9 | | 50 |
| Benzo(a)pyrene | 80 | | 71 | | 40-140 | 12 | | 50 |
| Benzo(b)fluoranthene | 88 | | 78 | | 40-140 | 12 | | 50 |
| Benzo(k)fluoranthene | 75 | | 68 | | 40-140 | 10 | | 50 |
| Chrysene | 78 | | 70 | | 40-140 | 11 | | 50 |
| Acenaphthylene | 87 | | 81 | | 40-140 | 7 | | 50 |
| Anthracene | 87 | | 80 | | 40-140 | 8 | | 50 |
| Benzo(ghi)perylene | 82 | | 74 | | 40-140 | 10 | | 50 |
| Fluorene | 82 | | 74 | | 40-140 | 10 | | 50 |
| Phenanthrene | 84 | | 75 | | 40-140 | 11 | | 50 |
| Dibenzo(a,h)anthracene | 88 | | 78 | | 40-140 | 12 | | 50 |
| Indeno(1,2,3-cd)pyrene | 81 | | 76 | | 40-140 | 6 | | 50 |
| Pyrene | 83 | | 74 | | 35-142 | 11 | | 50 |
| Biphenyl | 87 | | 81 | | 37-127 | 7 | | 50 |
| 4-Chloroaniline | 56 | | 50 | | 40-140 | 11 | | 50 |
| 2-Nitroaniline | 87 | | 79 | | 47-134 | 10 | | 50 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2040350
**Report Date:** 10/01/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG1415077-2 WG1415077-3 | | | | | | | | |
| 3-Nitroaniline | 74 | | 66 | | 26-129 | 11 | | 50 |
| 4-Nitroaniline | 79 | | 72 | | 41-125 | 9 | | 50 |
| Dibenzofuran | 81 | | 72 | | 40-140 | 12 | | 50 |
| 2-Methylnaphthalene | 79 | | 72 | | 40-140 | 9 | | 50 |
| 1,2,4,5-Tetrachlorobenzene | 90 | | 82 | | 40-117 | 9 | | 50 |
| Acetophenone | 84 | | 79 | | 14-144 | 6 | | 50 |
| 2,4,6-Trichlorophenol | 85 | | 80 | | 30-130 | 6 | | 50 |
| p-Chloro-m-cresol | 84 | | 79 | | 26-103 | 6 | | 50 |
| 2-Chlorophenol | 91 | | 84 | | 25-102 | 8 | | 50 |
| 2,4-Dichlorophenol | 89 | | 82 | | 30-130 | 8 | | 50 |
| 2,4-Dimethylphenol | 92 | | 85 | | 30-130 | 8 | | 50 |
| 2-Nitrophenol | 88 | | 83 | | 30-130 | 6 | | 50 |
| 4-Nitrophenol | 83 | | 75 | | 11-114 | 10 | | 50 |
| 2,4-Dinitrophenol | 78 | | 70 | | 4-130 | 11 | | 50 |
| 4,6-Dinitro-o-cresol | 84 | | 75 | | 10-130 | 11 | | 50 |
| Pentachlorophenol | 83 | | 77 | | 17-109 | 8 | | 50 |
| Phenol | 79 | | 73 | | 26-90 | 8 | | 50 |
| 2-Methylphenol | 88 | | 82 | | 30-130. | 7 | | 50 |
| 3-Methylphenol/4-Methylphenol | 86 | | 78 | | 30-130 | 10 | | 50 |
| 2,4,5-Trichlorophenol | 86 | | 79 | | 30-130 | 8 | | 50 |
| Benzoic Acid | 76 | | 72 | | 10-110 | 5 | | 50 |
| Benzyl Alcohol | 88 | | 80 | | 40-140 | 10 | | 50 |
| Carbazole | 87 | | 78 | | 54-128 | 11 | | 50 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040350

**Report Date:** 10/01/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG1415077-2 WG1415077-3 | | | | | | | | |
| 1,4-Dioxane | 57 | | 54 | | 40-140 | 5 | | 50 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| 2-Fluorophenol | 98 | | 91 | | 25-120 |
| Phenol-d6 | 91 | | 86 | | 10-120 |
| Nitrobenzene-d5 | 87 | | 82 | | 23-120 |
| 2-Fluorobiphenyl | 88 | | 80 | | 30-120 |
| 2,4,6-Tribromophenol | 104 | | 94 | | 10-136 |
| 4-Terphenyl-d14 | 100 | | 90 | | 18-120 |

# PETROLEUM HYDROCARBONS

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040350
**Project Number:** 135173-002
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-01
Client ID: WC-A (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 13:00
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 103,NJDEP EPH
Analytical Date: 09/28/20 05:57
Analyst: AN
Percent Solids: 87%

Extraction Method: EPA 3546
Extraction Date: 09/26/20 18:30

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab | | | | | | |
| Total EPH | 40.0 | | mg/kg | 26.7 | 26.7 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Chloro-Octadecane | 70 | | 40-140 |
| o-Terphenyl | 68 | | 40-140 |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040350
**Project Number:** 135173-002
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-02
Client ID: WC-A (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 13:02
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 103,NJDEP EPH
Analytical Date: 09/28/20 07:57
Analyst: AN
Percent Solids: 91%

Extraction Method: EPA 3546
Extraction Date: 09/26/20 18:30

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab | | | | | | |
| Total EPH | 47.1 | | mg/kg | 26.1 | 26.1 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Chloro-Octadecane | 71 | | 40-140 |
| o-Terphenyl | 70 | | 40-140 |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040350
**Project Number:** 135173-002
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-03
Client ID: WC-B (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 14:15
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 103,NJDEP EPH
Analytical Date: 09/28/20 08:28
Analyst: AN
Percent Solids: 88%

Extraction Method: EPA 3546
Extraction Date: 09/26/20 18:30

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab | | | | | | |
| Total EPH | 187 | | mg/kg | 27.1 | 27.1 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Chloro-Octadecane | 76 | | 40-140 |
| o-Terphenyl | 71 | | 40-140 |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040350
**Project Number:** 135173-002
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-04
Client ID: WC-B (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 14:20
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 103,NJDEP EPH
Analytical Date: 09/28/20 08:58
Analyst: AN
Percent Solids: 92%

Extraction Method: EPA 3546
Extraction Date: 09/26/20 18:30

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab | | | | | | |
| Total EPH | 40.1 | | mg/kg | 25.0 | 25.0 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Chloro-Octadecane | 70 | | 40-140 |
| o-Terphenyl | 69 | | 40-140 |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040350
**Project Number:** 135173-002
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-05
Client ID: WC-F (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 11:07
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 103,NJDEP EPH
Analytical Date: 09/28/20 09:28
Analyst: AN
Percent Solids: 90%

Extraction Method: EPA 3546
Extraction Date: 09/26/20 18:30

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab | | | | | | |
| Total EPH | 63.5 | | mg/kg | 25.6 | 25.6 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Chloro-Octadecane | 73 | | 40-140 |
| o-Terphenyl | 71 | | 40-140 |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040350
**Project Number:** 135173-002
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-06
Client ID: WC-F (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 11:10
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 103,NJDEP EPH
Analytical Date: 09/28/20 09:58
Analyst: AN
Percent Solids: 90%

Extraction Method: EPA 3546
Extraction Date: 09/26/20 18:30

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab | | | | | | |
| Total EPH | 47.2 | | mg/kg | 26.5 | 26.5 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Chloro-Octadecane | 61 | | 40-140 |
| o-Terphenyl | 60 | | 40-140 |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040350
**Project Number:** 135173-002
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-07
Client ID: WC-F (10-15')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 11:11
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 103,NJDEP EPH
Analytical Date: 09/28/20 10:28
Analyst: AN
Percent Solids: 88%

Extraction Method: EPA 3546
Extraction Date: 09/26/20 18:30

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab | | | | | | |
| Total EPH | 55.5 | | mg/kg | 27.1 | 27.1 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Chloro-Octadecane | 66 | | 40-140 |
| o-Terphenyl | 65 | | 40-140 |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040350
**Project Number:** 135173-002
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-08
Client ID: WC-F (15-20')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 11:12
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 103,NJDEP EPH
Analytical Date: 09/28/20 10:59
Analyst: AN
Percent Solids: 88%

Extraction Method: EPA 3546
Extraction Date: 09/26/20 18:30

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab | | | | | | |
| Total EPH | 67.1 | | mg/kg | 26.3 | 26.3 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Chloro-Octadecane | 73 | | 40-140 |
| o-Terphenyl | 71 | | 40-140 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 103,NJDEP EPH
Analytical Date: 09/28/20 05:27
Analyst: AN

Extraction Method: EPA 3546
Extraction Date: 09/26/20 18:30

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab for sample(s): 01-08 Batch: WG1415049-1 | | | | | |
| Total EPH | ND | | mg/kg | 23.1 | 23.1 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Chloro-Octadecane | 69 | | 40-140 |
| o-Terphenyl | 68 | | 40-140 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040350

**Report Date:** 10/01/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab Associated sample(s): 01-08 Batch: WG1415049-2 WG1415049-3 | | | | | | | | |
| Total EPH | 90 | | 93 | | 40-140 | 3 | | 25 |
| Nonane (C9) | 68 | | 70 | | 40-140 | 3 | | 25 |
| Decane (C10) | 68 | | 67 | | 40-140 | 1 | | 25 |
| Dodecane (C12) | 70 | | 70 | | 40-140 | 1 | | 25 |
| Tetradecane (C14) | 73 | | 71 | | 40-140 | 3 | | 25 |
| Hexadecane (C16) | 76 | | 75 | | 40-140 | 1 | | 25 |
| Octadecane (C18) | 76 | | 77 | | 40-140 | 0 | | 25 |
| Eicosane (C20) | 77 | | 78 | | 40-140 | 1 | | 25 |
| Heneicosane (C21) | 77 | | 78 | | 40-140 | 1 | | 25 |
| Docosane (C22) | 80 | | 81 | | 40-140 | 1 | | 25 |
| Tetracosane (C24) | 78 | | 79 | | 40-140 | 1 | | 25 |
| Hexacosane (C26) | 85 | | 86 | | 40-140 | 1 | | 25 |
| Octacosane (C28) | 83 | | 84 | | 40-140 | 1 | | 25 |
| Triacontane (C30) | 80 | | 81 | | 40-140 | 1 | | 25 |
| Dotriacontane (C32) | 82 | | 83 | | 40-140 | 1 | | 25 |
| Tetratriacontane (C34) | 78 | | 78 | | 40-140 | 0 | | 25 |
| Hexatriacontane (C36) | 78 | | 79 | | 40-140 | 1 | | 25 |
| Octatriacontane (C38) | 75 | | 76 | | 40-140 | 1 | | 25 |
| Tetracontane (C40) | 72 | | 73 | | 40-140 | 1 | | 25 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040350

**Report Date:** 10/01/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab Associated sample(s): 01-08 Batch: WG1415049-2 WG1415049-3 | | | | | | | | |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| Chloro-Octadecane | 70 | | 70 | | 40-140 |
| o-Terphenyl | 69 | | 68 | | 40-140 |

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040350

**Report Date:** 10/01/20

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG1415049-4 QC Sample: L2040350-01 Client ID: WC-A (0-5') | | | | | | | | | | | | |
| Total EPH | 40.0 | 270 | 134 | **35** | Q | - | - | | 40-140 | - | | 50 |
| Nonane (C9) | ND | 7.5 | 2.80 | **37** | Q | - | - | | 40-140 | - | | 50 |
| Decane (C10) | ND | 7.5 | 2.64 | **35** | Q | - | - | | 40-140 | - | | 50 |
| Dodecane (C12) | ND | 7.5 | 2.50 | **33** | Q | - | - | | 40-140 | - | | 50 |
| Tetradecane (C14) | ND | 7.5 | 2.55 | **34** | Q | - | - | | 40-140 | - | | 50 |
| Hexadecane (C16) | ND | 7.5 | 2.70 | **36** | Q | - | - | | 40-140 | - | | 50 |
| Octadecane (C18) | ND | 7.5 | 2.80 | **37** | Q | - | - | | 40-140 | - | | 50 |
| Eicosane (C20) | ND | 7.5 | 2.83 | **38** | Q | - | - | | 40-140 | - | | 50 |
| Heneicosane (C21) | ND | 7.5 | 2.82 | **38** | Q | - | - | | 40-140 | - | | 50 |
| Docosane (C22) | ND | 7.5 | 2.98 | **40** | Q | - | - | | 40-140 | - | | 50 |
| Tetracosane (C24) | ND | 7.5 | 2.86 | **38** | Q | - | - | | 40-140 | - | | 50 |
| Hexacosane (C26) | ND | 7.5 | 3.13 | 42 | | - | - | | 40-140 | - | | 50 |
| Octacosane (C28) | ND | 7.5 | 3.00 | 40 | | - | - | | 40-140 | - | | 50 |
| Triacontane (C30) | ND | 7.5 | 2.95 | **39** | Q | - | - | | 40-140 | - | | 50 |
| Dotriacontane (C32) | ND | 7.5 | 3.01 | 40 | | - | - | | 40-140 | - | | 50 |
| Tetratriacontane (C34) | ND | 7.5 | 2.83 | **38** | Q | - | - | | 40-140 | - | | 50 |
| Hexatriacontane (C36) | ND | 7.5 | 2.89 | **39** | Q | - | - | | 40-140 | - | | 50 |
| Octatriacontane (C38) | ND | 7.5 | 2.83 | **38** | Q | - | - | | 40-140 | - | | 50 |
| Tetracontane (C40) | ND | 7.5 | 2.74 | **37** | Q | - | - | | 40-140 | - | | 50 |

| Surrogate | MS % Recovery | MS Qualifier | MSD % Recovery | MSD Qualifier | Acceptance Criteria |
|---|---|---|---|---|---|
| Chloro-Octadecane | **35** | Q | | | 40-140 |

# Matrix Spike Analysis

***Batch Quality Control***

| | | | |
|---|---|---|---|
| ***Project Name:*** | 310 GRAND CONCOURSE | ***Lab Number:*** | L2040350 |
| ***Project Number:*** | 135173-002 | ***Report Date:*** | 10/01/20 |

| *Parameter* | *Native Sample* | *MS Added* | *MS Found* | *MS %Recovery* | *Qual* | *MSD Found* | *MSD %Recovery* | *Qual* | *Recovery Limits* | *RPD* | *Qual* | *RPD Limits* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG1415049-4 QC Sample: L2040350-01 Client ID: WC-A (0-5') | | | | | | | | | | | | |

| *Surrogate* | *MS % Recovery* | *MS Qualifier* | *MSD % Recovery* | *MSD Qualifier* | *Acceptance Criteria* |
|---|---|---|---|---|---|
| o-Terphenyl | **33** | Q | | | 40-140 |

# Lab Duplicate Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2040350
**Report Date:** 10/01/20

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG1415049-5 QC Sample: L2040350-01 Client ID: WC-A (0-5') | | | | | | |
| Total EPH | 40.0 | 48.9 | mg/kg | 20 | | 50 |

| Surrogate | %Recovery | Qualifier | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|---|---|
| Chloro-Octadecane | 70 | | 69 | | 40-140 |
| o-Terphenyl | 68 | | 65 | | 40-140 |

# PCBS

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-01
Client ID: WC-A (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 13:00
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 09/27/20 16:21
Analyst: JM
Percent Solids: 87%

Extraction Method: EPA 3546
Extraction Date: 09/26/20 15:50
Cleanup Method: EPA 3665A
Cleanup Date: 09/27/20
Cleanup Method: EPA 3660B
Cleanup Date: 09/27/20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Polychlorinated Biphenyls by GC - Westborough Lab** | | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 36.2 | 3.21 | 1 | A |
| Aroclor 1221 | ND | | ug/kg | 36.2 | 3.62 | 1 | A |
| Aroclor 1232 | ND | | ug/kg | 36.2 | 7.66 | 1 | A |
| Aroclor 1242 | ND | | ug/kg | 36.2 | 4.87 | 1 | A |
| Aroclor 1248 | ND | | ug/kg | 36.2 | 5.42 | 1 | A |
| Aroclor 1254 | ND | | ug/kg | 36.2 | 3.96 | 1 | A |
| Aroclor 1260 | ND | | ug/kg | 36.2 | 6.68 | 1 | A |
| Aroclor 1262 | ND | | ug/kg | 36.2 | 4.59 | 1 | A |
| Aroclor 1268 | ND | | ug/kg | 36.2 | 3.74 | 1 | A |
| PCBs, Total | ND | | ug/kg | 36.2 | 3.21 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 52 | | 30-150 | A |
| Decachlorobiphenyl | 65 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 55 | | 30-150 | B |
| Decachlorobiphenyl | 48 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-02
Client ID: WC-A (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 13:02
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 09/27/20 16:28
Analyst: JM
Percent Solids: 91%

Extraction Method: EPA 3546
Extraction Date: 09/26/20 15:50
Cleanup Method: EPA 3665A
Cleanup Date: 09/27/20
Cleanup Method: EPA 3660B
Cleanup Date: 09/27/20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Polychlorinated Biphenyls by GC - Westborough Lab** | | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 35.6 | 3.16 | 1 | A |
| Aroclor 1221 | ND | | ug/kg | 35.6 | 3.57 | 1 | A |
| Aroclor 1232 | ND | | ug/kg | 35.6 | 7.55 | 1 | A |
| Aroclor 1242 | ND | | ug/kg | 35.6 | 4.80 | 1 | A |
| Aroclor 1248 | ND | | ug/kg | 35.6 | 5.34 | 1 | A |
| Aroclor 1254 | ND | | ug/kg | 35.6 | 3.90 | 1 | A |
| Aroclor 1260 | ND | | ug/kg | 35.6 | 6.58 | 1 | A |
| Aroclor 1262 | ND | | ug/kg | 35.6 | 4.52 | 1 | A |
| Aroclor 1268 | ND | | ug/kg | 35.6 | 3.69 | 1 | A |
| PCBs, Total | ND | | ug/kg | 35.6 | 3.16 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 55 | | 30-150 | A |
| Decachlorobiphenyl | 68 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 58 | | 30-150 | B |
| Decachlorobiphenyl | 52 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-03
Client ID: WC-B (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 14:15
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 09/27/20 16:35
Analyst: JM
Percent Solids: 88%

Extraction Method: EPA 3546
Extraction Date: 09/26/20 15:50
Cleanup Method: EPA 3665A
Cleanup Date: 09/27/20
Cleanup Method: EPA 3660B
Cleanup Date: 09/27/20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Polychlorinated Biphenyls by GC - Westborough Lab** | | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 36.5 | 3.24 | 1 | A |
| Aroclor 1221 | ND | | ug/kg | 36.5 | 3.66 | 1 | A |
| Aroclor 1232 | ND | | ug/kg | 36.5 | 7.75 | 1 | A |
| Aroclor 1242 | ND | | ug/kg | 36.5 | 4.93 | 1 | A |
| Aroclor 1248 | ND | | ug/kg | 36.5 | 5.48 | 1 | A |
| Aroclor 1254 | ND | | ug/kg | 36.5 | 4.00 | 1 | A |
| Aroclor 1260 | ND | | ug/kg | 36.5 | 6.75 | 1 | A |
| Aroclor 1262 | ND | | ug/kg | 36.5 | 4.64 | 1 | A |
| Aroclor 1268 | ND | | ug/kg | 36.5 | 3.79 | 1 | A |
| PCBs, Total | ND | | ug/kg | 36.5 | 3.24 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 56 | | 30-150 | A |
| Decachlorobiphenyl | 68 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 59 | | 30-150 | B |
| Decachlorobiphenyl | 55 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-04
Client ID: WC-B (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 14:20
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 09/27/20 16:42
Analyst: JM
Percent Solids: 92%

Extraction Method: EPA 3546
Extraction Date: 09/26/20 15:50
Cleanup Method: EPA 3665A
Cleanup Date: 09/27/20
Cleanup Method: EPA 3660B
Cleanup Date: 09/27/20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Polychlorinated Biphenyls by GC - Westborough Lab** | | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 34.3 | 3.05 | 1 | A |
| Aroclor 1221 | ND | | ug/kg | 34.3 | 3.44 | 1 | A |
| Aroclor 1232 | ND | | ug/kg | 34.3 | 7.28 | 1 | A |
| Aroclor 1242 | ND | | ug/kg | 34.3 | 4.63 | 1 | A |
| Aroclor 1248 | ND | | ug/kg | 34.3 | 5.15 | 1 | A |
| Aroclor 1254 | ND | | ug/kg | 34.3 | 3.76 | 1 | A |
| Aroclor 1260 | ND | | ug/kg | 34.3 | 6.35 | 1 | A |
| Aroclor 1262 | ND | | ug/kg | 34.3 | 4.36 | 1 | A |
| Aroclor 1268 | ND | | ug/kg | 34.3 | 3.56 | 1 | A |
| PCBs, Total | ND | | ug/kg | 34.3 | 3.05 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 56 | | 30-150 | A |
| Decachlorobiphenyl | 69 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 60 | | 30-150 | B |
| Decachlorobiphenyl | 54 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-05
Client ID: WC-F (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 11:07
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 09/27/20 16:49
Analyst: JM
Percent Solids: 90%

Extraction Method: EPA 3546
Extraction Date: 09/26/20 15:50
Cleanup Method: EPA 3665A
Cleanup Date: 09/27/20
Cleanup Method: EPA 3660B
Cleanup Date: 09/27/20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Polychlorinated Biphenyls by GC - Westborough Lab** | | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 36.2 | 3.22 | 1 | A |
| Aroclor 1221 | ND | | ug/kg | 36.2 | 3.63 | 1 | A |
| Aroclor 1232 | ND | | ug/kg | 36.2 | 7.68 | 1 | A |
| Aroclor 1242 | ND | | ug/kg | 36.2 | 4.88 | 1 | A |
| Aroclor 1248 | ND | | ug/kg | 36.2 | 5.44 | 1 | A |
| Aroclor 1254 | ND | | ug/kg | 36.2 | 3.96 | 1 | A |
| Aroclor 1260 | ND | | ug/kg | 36.2 | 6.70 | 1 | A |
| Aroclor 1262 | ND | | ug/kg | 36.2 | 4.60 | 1 | A |
| Aroclor 1268 | ND | | ug/kg | 36.2 | 3.75 | 1 | A |
| PCBs, Total | ND | | ug/kg | 36.2 | 3.22 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 53 | | 30-150 | A |
| Decachlorobiphenyl | 64 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 57 | | 30-150 | B |
| Decachlorobiphenyl | 53 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-06
Client ID: WC-F (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 11:10
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 09/27/20 16:56
Analyst: JM
Percent Solids: 90%

Extraction Method: EPA 3546
Extraction Date: 09/26/20 15:50
Cleanup Method: EPA 3665A
Cleanup Date: 09/27/20
Cleanup Method: EPA 3660B
Cleanup Date: 09/27/20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Polychlorinated Biphenyls by GC - Westborough Lab** | | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 36.4 | 3.24 | 1 | A |
| Aroclor 1221 | ND | | ug/kg | 36.4 | 3.65 | 1 | A |
| Aroclor 1232 | ND | | ug/kg | 36.4 | 7.72 | 1 | A |
| Aroclor 1242 | ND | | ug/kg | 36.4 | 4.91 | 1 | A |
| Aroclor 1248 | ND | | ug/kg | 36.4 | 5.46 | 1 | A |
| Aroclor 1254 | ND | | ug/kg | 36.4 | 3.98 | 1 | A |
| Aroclor 1260 | ND | | ug/kg | 36.4 | 6.73 | 1 | A |
| Aroclor 1262 | ND | | ug/kg | 36.4 | 4.63 | 1 | A |
| Aroclor 1268 | ND | | ug/kg | 36.4 | 3.77 | 1 | A |
| PCBs, Total | ND | | ug/kg | 36.4 | 3.24 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 61 | | 30-150 | A |
| Decachlorobiphenyl | 76 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 65 | | 30-150 | B |
| Decachlorobiphenyl | 60 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-07
Client ID: WC-F (10-15')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 11:11
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 09/27/20 17:03
Analyst: JM
Percent Solids: 88%

Extraction Method: EPA 3546
Extraction Date: 09/26/20 15:50
Cleanup Method: EPA 3665A
Cleanup Date: 09/27/20
Cleanup Method: EPA 3660B
Cleanup Date: 09/27/20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Polychlorinated Biphenyls by GC - Westborough Lab** | | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 37.4 | 3.32 | 1 | A |
| Aroclor 1221 | ND | | ug/kg | 37.4 | 3.74 | 1 | A |
| Aroclor 1232 | ND | | ug/kg | 37.4 | 7.92 | 1 | A |
| Aroclor 1242 | ND | | ug/kg | 37.4 | 5.04 | 1 | A |
| Aroclor 1248 | ND | | ug/kg | 37.4 | 5.61 | 1 | A |
| Aroclor 1254 | ND | | ug/kg | 37.4 | 4.09 | 1 | A |
| Aroclor 1260 | ND | | ug/kg | 37.4 | 6.91 | 1 | A |
| Aroclor 1262 | ND | | ug/kg | 37.4 | 4.75 | 1 | A |
| Aroclor 1268 | ND | | ug/kg | 37.4 | 3.87 | 1 | A |
| PCBs, Total | ND | | ug/kg | 37.4 | 3.32 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 62 | | 30-150 | A |
| Decachlorobiphenyl | 73 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 66 | | 30-150 | B |
| Decachlorobiphenyl | 56 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-08
Client ID: WC-F (15-20')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 11:12
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 09/27/20 17:10
Analyst: JM
Percent Solids: 88%

Extraction Method: EPA 3546
Extraction Date: 09/26/20 15:50
Cleanup Method: EPA 3665A
Cleanup Date: 09/27/20
Cleanup Method: EPA 3660B
Cleanup Date: 09/27/20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Polychlorinated Biphenyls by GC - Westborough Lab** | | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 36.3 | 3.23 | 1 | A |
| Aroclor 1221 | ND | | ug/kg | 36.3 | 3.64 | 1 | A |
| Aroclor 1232 | ND | | ug/kg | 36.3 | 7.70 | 1 | A |
| Aroclor 1242 | ND | | ug/kg | 36.3 | 4.90 | 1 | A |
| Aroclor 1248 | ND | | ug/kg | 36.3 | 5.45 | 1 | A |
| Aroclor 1254 | ND | | ug/kg | 36.3 | 3.98 | 1 | A |
| Aroclor 1260 | 53.7 | | ug/kg | 36.3 | 6.72 | 1 | A |
| Aroclor 1262 | ND | | ug/kg | 36.3 | 4.62 | 1 | A |
| Aroclor 1268 | ND | | ug/kg | 36.3 | 3.76 | 1 | A |
| PCBs, Total | 53.7 | | ug/kg | 36.3 | 3.23 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 60 | | 30-150 | A |
| Decachlorobiphenyl | 70 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 59 | | 30-150 | B |
| Decachlorobiphenyl | 51 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 09/27/20 15:12
Analyst: AD

Extraction Method: EPA 3546
Extraction Date: 09/26/20 15:50
Cleanup Method: EPA 3665A
Cleanup Date: 09/27/20
Cleanup Method: EPA 3660B
Cleanup Date: 09/27/20

| Parameter | Result | Qualifier | Units | RL | MDL | Column |
|---|---|---|---|---|---|---|
| Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-08 Batch: WG1415014-1 | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 33.1 | 2.94 | A |
| Aroclor 1221 | ND | | ug/kg | 33.1 | 3.31 | A |
| Aroclor 1232 | ND | | ug/kg | 33.1 | 7.01 | A |
| Aroclor 1242 | ND | | ug/kg | 33.1 | 4.46 | A |
| Aroclor 1248 | ND | | ug/kg | 33.1 | 4.96 | A |
| Aroclor 1254 | ND | | ug/kg | 33.1 | 3.62 | A |
| Aroclor 1260 | ND | | ug/kg | 33.1 | 6.11 | A |
| Aroclor 1262 | ND | | ug/kg | 33.1 | 4.20 | A |
| Aroclor 1268 | ND | | ug/kg | 33.1 | 3.42 | A |
| PCBs, Total | ND | | ug/kg | 33.1 | 2.94 | A |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 56 | | 30-150 | A |
| Decachlorobiphenyl | 70 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 58 | | 30-150 | B |
| Decachlorobiphenyl | 54 | | 30-150 | B |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040350

**Report Date:** 10/01/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits | Column |
|---|---|---|---|---|---|---|---|---|---|
| Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-08 Batch: WG1415014-2 WG1415014-3 | | | | | | | | | |
| Aroclor 1016 | 80 | | 80 | | 40-140 | 0 | | 50 | A |
| Aroclor 1260 | 69 | | 75 | | 40-140 | 8 | | 50 | A |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria | Column |
|---|---|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 52 | | 56 | | 30-150 | A |
| Decachlorobiphenyl | 63 | | 69 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 53 | | 58 | | 30-150 | B |
| Decachlorobiphenyl | 48 | | 53 | | 30-150 | B |

# PESTICIDES

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-01
Client ID: WC-A (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 13:00
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 09/29/20 02:36
Analyst: SM
Percent Solids: 87%

Extraction Method: EPA 3546
Extraction Date: 09/26/20 15:49
Cleanup Method: EPA 3620B
Cleanup Date: 09/27/20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Organochlorine Pesticides by GC - Westborough Lab** | | | | | | | |
| Delta-BHC | ND | | ug/kg | 1.76 | 0.345 | 1 | A |
| Lindane | ND | | ug/kg | 0.735 | 0.328 | 1 | A |
| Alpha-BHC | ND | | ug/kg | 0.735 | 0.209 | 1 | A |
| Beta-BHC | ND | | ug/kg | 1.76 | 0.668 | 1 | A |
| Heptachlor | ND | | ug/kg | 0.882 | 0.395 | 1 | A |
| Aldrin | ND | | ug/kg | 1.76 | 0.621 | 1 | A |
| Heptachlor epoxide | ND | | ug/kg | 3.30 | 0.992 | 1 | A |
| Endrin | ND | | ug/kg | 0.735 | 0.301 | 1 | A |
| Endrin aldehyde | ND | | ug/kg | 2.20 | 0.771 | 1 | A |
| Endrin ketone | ND | | ug/kg | 1.76 | 0.454 | 1 | A |
| Dieldrin | ND | | ug/kg | 1.10 | 0.551 | 1 | A |
| 4,4'-DDE | ND | | ug/kg | 1.76 | 0.408 | 1 | A |
| 4,4'-DDD | ND | | ug/kg | 1.76 | 0.629 | 1 | A |
| 4,4'-DDT | ND | | ug/kg | 3.30 | 1.42 | 1 | A |
| Endosulfan I | ND | | ug/kg | 1.76 | 0.416 | 1 | A |
| Endosulfan II | ND | | ug/kg | 1.76 | 0.589 | 1 | A |
| Endosulfan sulfate | ND | | ug/kg | 0.735 | 0.350 | 1 | A |
| Methoxychlor | ND | | ug/kg | 3.30 | 1.03 | 1 | A |
| Toxaphene | ND | | ug/kg | 33.0 | 9.26 | 1 | A |
| cis-Chlordane | ND | | ug/kg | 2.20 | 0.614 | 1 | A |
| trans-Chlordane | ND | | ug/kg | 2.20 | 0.582 | 1 | A |
| Chlordane | ND | | ug/kg | 14.7 | 5.84 | 1 | A |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-01 Date Collected: 09/24/20 13:00

Client ID: WC-A (0-5') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab | | | | | | | |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 73 | | 30-150 | A |
| Decachlorobiphenyl | 75 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 77 | | 30-150 | B |
| Decachlorobiphenyl | 73 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040350
**Project Number:** 135173-002
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-01
Client ID: WC-A (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 13:00
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 09/29/20 00:46
Analyst: JMC
Percent Solids: 87%
Methylation Date: 09/28/20 05:52

Extraction Method: EPA 8151A
Extraction Date: 09/26/20 12:25

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides by GC - Westborough Lab** | | | | | | | |
| 2,4-D | ND | | ug/kg | 191 | 12.0 | 1 | A |
| 2,4,5-T | ND | | ug/kg | 191 | 5.92 | 1 | A |
| 2,4,5-TP (Silvex) | ND | | ug/kg | 191 | 5.08 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| DCAA | 105 | | 30-150 | A |
| DCAA | 100 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-02
Client ID: WC-A (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 13:02
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 09/29/20 02:46
Analyst: SM
Percent Solids: 91%

Extraction Method: EPA 3546
Extraction Date: 09/26/20 15:49
Cleanup Method: EPA 3620B
Cleanup Date: 09/27/20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Organochlorine Pesticides by GC - Westborough Lab** | | | | | | | |
| Delta-BHC | ND | | ug/kg | 1.69 | 0.330 | 1 | A |
| Lindane | ND | | ug/kg | 0.703 | 0.314 | 1 | A |
| Alpha-BHC | ND | | ug/kg | 0.703 | 0.200 | 1 | A |
| Beta-BHC | ND | | ug/kg | 1.69 | 0.640 | 1 | A |
| Heptachlor | ND | | ug/kg | 0.844 | 0.378 | 1 | A |
| Aldrin | ND | | ug/kg | 1.69 | 0.594 | 1 | A |
| Heptachlor epoxide | ND | | ug/kg | 3.16 | 0.949 | 1 | A |
| Endrin | ND | | ug/kg | 0.703 | 0.288 | 1 | A |
| Endrin aldehyde | ND | | ug/kg | 2.11 | 0.738 | 1 | A |
| Endrin ketone | ND | | ug/kg | 1.69 | 0.434 | 1 | A |
| Dieldrin | ND | | ug/kg | 1.05 | 0.527 | 1 | A |
| 4,4'-DDE | ND | | ug/kg | 1.69 | 0.390 | 1 | A |
| 4,4'-DDD | ND | | ug/kg | 1.69 | 0.602 | 1 | A |
| 4,4'-DDT | ND | | ug/kg | 3.16 | 1.36 | 1 | A |
| Endosulfan I | ND | | ug/kg | 1.69 | 0.399 | 1 | A |
| Endosulfan II | ND | | ug/kg | 1.69 | 0.564 | 1 | A |
| Endosulfan sulfate | ND | | ug/kg | 0.703 | 0.335 | 1 | A |
| Methoxychlor | ND | | ug/kg | 3.16 | 0.984 | 1 | A |
| Toxaphene | ND | | ug/kg | 31.6 | 8.86 | 1 | A |
| cis-Chlordane | ND | | ug/kg | 2.11 | 0.588 | 1 | A |
| trans-Chlordane | ND | | ug/kg | 2.11 | 0.557 | 1 | A |
| Chlordane | ND | | ug/kg | 14.1 | 5.59 | 1 | A |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

**SAMPLE RESULTS**

Lab ID: L2040350-02 Date Collected: 09/24/20 13:02

Client ID: WC-A (5-10') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab | | | | | | | |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 77 | | 30-150 | A |
| Decachlorobiphenyl | 77 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 77 | | 30-150 | B |
| Decachlorobiphenyl | 71 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040350
**Project Number:** 135173-002
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-02
Client ID: WC-A (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 13:02
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 09/29/20 01:04
Analyst: JMC
Percent Solids: 91%
Methylation Date: 09/28/20 05:52

Extraction Method: EPA 8151A
Extraction Date: 09/26/20 12:26

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides by GC - Westborough Lab** | | | | | | | |
| 2,4-D | ND | | ug/kg | 180 | 11.3 | 1 | A |
| 2,4,5-T | ND | | ug/kg | 180 | 5.56 | 1 | A |
| 2,4,5-TP (Silvex) | ND | | ug/kg | 180 | 4.77 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| DCAA | 96 | | 30-150 | A |
| DCAA | 89 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-03
Client ID: WC-B (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 14:15
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 09/29/20 02:55
Analyst: SM
Percent Solids: 88%

Extraction Method: EPA 3546
Extraction Date: 09/26/20 15:49
Cleanup Method: EPA 3620B
Cleanup Date: 09/27/20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Organochlorine Pesticides by GC - Westborough Lab** | | | | | | | |
| Delta-BHC | ND | | ug/kg | 1.80 | 0.352 | 1 | A |
| Lindane | ND | | ug/kg | 0.750 | 0.335 | 1 | A |
| Alpha-BHC | ND | | ug/kg | 0.750 | 0.213 | 1 | A |
| Beta-BHC | ND | | ug/kg | 1.80 | 0.683 | 1 | A |
| Heptachlor | ND | | ug/kg | 0.900 | 0.404 | 1 | A |
| Aldrin | ND | | ug/kg | 1.80 | 0.634 | 1 | A |
| Heptachlor epoxide | ND | | ug/kg | 3.38 | 1.01 | 1 | A |
| Endrin | ND | | ug/kg | 0.750 | 0.308 | 1 | A |
| Endrin aldehyde | ND | | ug/kg | 2.25 | 0.788 | 1 | A |
| Endrin ketone | ND | | ug/kg | 1.80 | 0.464 | 1 | A |
| Dieldrin | ND | | ug/kg | 1.12 | 0.563 | 1 | A |
| 4,4'-DDE | ND | | ug/kg | 1.80 | 0.416 | 1 | A |
| 4,4'-DDD | ND | | ug/kg | 1.80 | 0.642 | 1 | A |
| 4,4'-DDT | ND | | ug/kg | 3.38 | 1.45 | 1 | A |
| Endosulfan I | ND | | ug/kg | 1.80 | 0.425 | 1 | A |
| Endosulfan II | ND | | ug/kg | 1.80 | 0.602 | 1 | A |
| Endosulfan sulfate | ND | | ug/kg | 0.750 | 0.357 | 1 | A |
| Methoxychlor | ND | | ug/kg | 3.38 | 1.05 | 1 | A |
| Toxaphene | ND | | ug/kg | 33.8 | 9.45 | 1 | A |
| cis-Chlordane | ND | | ug/kg | 2.25 | 0.627 | 1 | A |
| trans-Chlordane | ND | | ug/kg | 2.25 | 0.594 | 1 | A |
| Chlordane | ND | | ug/kg | 15.0 | 5.96 | 1 | A |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-03 Date Collected: 09/24/20 14:15

Client ID: WC-B (0-5') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab | | | | | | | |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 83 | | 30-150 | A |
| Decachlorobiphenyl | 93 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 79 | | 30-150 | B |
| Decachlorobiphenyl | 102 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040350
**Project Number:** 135173-002
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-03
Client ID: WC-B (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 14:15
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 09/29/20 01:22
Analyst: JMC
Percent Solids: 88%
Methylation Date: 09/28/20 05:52

Extraction Method: EPA 8151A
Extraction Date: 09/26/20 12:26

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides by GC - Westborough Lab** | | | | | | | |
| 2,4-D | ND | | ug/kg | 186 | 11.7 | 1 | A |
| 2,4,5-T | ND | | ug/kg | 186 | 5.76 | 1 | A |
| 2,4,5-TP (Silvex) | ND | | ug/kg | 186 | 4.94 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| DCAA | 98 | | 30-150 | A |
| DCAA | 92 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-04
Client ID: WC-B (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 14:20
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 09/29/20 03:05
Analyst: SM
Percent Solids: 92%

Extraction Method: EPA 3546
Extraction Date: 09/26/20 15:49
Cleanup Method: EPA 3620B
Cleanup Date: 09/27/20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Organochlorine Pesticides by GC - Westborough Lab** | | | | | | | |
| Delta-BHC | ND | | ug/kg | 1.72 | 0.336 | 1 | A |
| Lindane | ND | | ug/kg | 0.715 | 0.320 | 1 | A |
| Alpha-BHC | ND | | ug/kg | 0.715 | 0.203 | 1 | A |
| Beta-BHC | ND | | ug/kg | 1.72 | 0.651 | 1 | A |
| Heptachlor | ND | | ug/kg | 0.858 | 0.385 | 1 | A |
| Aldrin | ND | | ug/kg | 1.72 | 0.604 | 1 | A |
| Heptachlor epoxide | ND | | ug/kg | 3.22 | 0.966 | 1 | A |
| Endrin | ND | | ug/kg | 0.715 | 0.293 | 1 | A |
| Endrin aldehyde | ND | | ug/kg | 2.14 | 0.751 | 1 | A |
| Endrin ketone | ND | | ug/kg | 1.72 | 0.442 | 1 | A |
| Dieldrin | ND | | ug/kg | 1.07 | 0.536 | 1 | A |
| 4,4'-DDE | ND | | ug/kg | 1.72 | 0.397 | 1 | A |
| 4,4'-DDD | ND | | ug/kg | 1.72 | 0.612 | 1 | A |
| 4,4'-DDT | ND | | ug/kg | 3.22 | 1.38 | 1 | A |
| Endosulfan I | ND | | ug/kg | 1.72 | 0.406 | 1 | A |
| Endosulfan II | ND | | ug/kg | 1.72 | 0.574 | 1 | A |
| Endosulfan sulfate | ND | | ug/kg | 0.715 | 0.340 | 1 | A |
| Methoxychlor | ND | | ug/kg | 3.22 | 1.00 | 1 | A |
| Toxaphene | ND | | ug/kg | 32.2 | 9.01 | 1 | A |
| cis-Chlordane | ND | | ug/kg | 2.14 | 0.598 | 1 | A |
| trans-Chlordane | ND | | ug/kg | 2.14 | 0.566 | 1 | A |
| Chlordane | ND | | ug/kg | 14.3 | 5.69 | 1 | A |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

**SAMPLE RESULTS**

Lab ID: L2040350-04 Date Collected: 09/24/20 14:20

Client ID: WC-B (5-10') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab | | | | | | | |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 82 | | 30-150 | A |
| Decachlorobiphenyl | 76 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 82 | | 30-150 | B |
| Decachlorobiphenyl | 73 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040350
**Project Number:** 135173-002
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-04
Client ID: WC-B (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 14:20
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 09/29/20 01:40
Analyst: JMC
Percent Solids: 92%
Methylation Date: 09/28/20 05:52

Extraction Method: EPA 8151A
Extraction Date: 09/26/20 12:26

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides by GC - Westborough Lab** | | | | | | | |
| 2,4-D | ND | | ug/kg | 179 | 11.3 | 1 | A |
| 2,4,5-T | ND | | ug/kg | 179 | 5.54 | 1 | A |
| 2,4,5-TP (Silvex) | ND | | ug/kg | 179 | 4.76 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| DCAA | 96 | | 30-150 | A |
| DCAA | 94 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-05
Client ID: WC-F (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 11:07
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 09/29/20 03:15
Analyst: SM
Percent Solids: 90%

Extraction Method: EPA 3546
Extraction Date: 09/26/20 15:49
Cleanup Method: EPA 3620B
Cleanup Date: 09/27/20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Organochlorine Pesticides by GC - Westborough Lab** | | | | | | | |
| Delta-BHC | ND | | ug/kg | 1.74 | 0.341 | 1 | A |
| Lindane | ND | | ug/kg | 0.726 | 0.325 | 1 | A |
| Alpha-BHC | ND | | ug/kg | 0.726 | 0.206 | 1 | A |
| Beta-BHC | ND | | ug/kg | 1.74 | 0.661 | 1 | A |
| Heptachlor | ND | | ug/kg | 0.872 | 0.391 | 1 | A |
| Aldrin | ND | | ug/kg | 1.74 | 0.614 | 1 | A |
| Heptachlor epoxide | ND | | ug/kg | 3.27 | 0.980 | 1 | A |
| Endrin | ND | | ug/kg | 0.726 | 0.298 | 1 | A |
| Endrin aldehyde | ND | | ug/kg | 2.18 | 0.763 | 1 | A |
| Endrin ketone | ND | | ug/kg | 1.74 | 0.449 | 1 | A |
| Dieldrin | ND | | ug/kg | 1.09 | 0.545 | 1 | A |
| 4,4'-DDE | ND | | ug/kg | 1.74 | 0.403 | 1 | A |
| 4,4'-DDD | ND | | ug/kg | 1.74 | 0.622 | 1 | A |
| 4,4'-DDT | ND | | ug/kg | 3.27 | 1.40 | 1 | A |
| Endosulfan I | ND | | ug/kg | 1.74 | 0.412 | 1 | A |
| Endosulfan II | ND | | ug/kg | 1.74 | 0.582 | 1 | A |
| Endosulfan sulfate | ND | | ug/kg | 0.726 | 0.346 | 1 | A |
| Methoxychlor | ND | | ug/kg | 3.27 | 1.02 | 1 | A |
| Toxaphene | ND | | ug/kg | 32.7 | 9.15 | 1 | A |
| cis-Chlordane | ND | | ug/kg | 2.18 | 0.607 | 1 | A |
| trans-Chlordane | ND | | ug/kg | 2.18 | 0.575 | 1 | A |
| Chlordane | ND | | ug/kg | 14.5 | 5.77 | 1 | A |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-05 Date Collected: 09/24/20 11:07

Client ID: WC-F (0-5') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab | | | | | | | |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 76 | | 30-150 | A |
| Decachlorobiphenyl | 76 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 78 | | 30-150 | B |
| Decachlorobiphenyl | 69 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040350
**Project Number:** 135173-002
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-05
Client ID: WC-F (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 11:07
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 09/29/20 01:58
Analyst: JMC
Percent Solids: 90%
Methylation Date: 09/28/20 05:52

Extraction Method: EPA 8151A
Extraction Date: 09/26/20 12:26

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides by GC - Westborough Lab** | | | | | | | |
| 2,4-D | ND | | ug/kg | 182 | 11.5 | 1 | A |
| 2,4,5-T | ND | | ug/kg | 182 | 5.66 | 1 | A |
| 2,4,5-TP (Silvex) | ND | | ug/kg | 182 | 4.86 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| DCAA | 92 | | 30-150 | A |
| DCAA | 90 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-06
Client ID: WC-F (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 11:10
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 09/29/20 03:24
Analyst: SM
Percent Solids: 90%

Extraction Method: EPA 3546
Extraction Date: 09/26/20 15:49
Cleanup Method: EPA 3620B
Cleanup Date: 09/27/20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Organochlorine Pesticides by GC - Westborough Lab** | | | | | | | |
| Delta-BHC | ND | | ug/kg | 1.75 | 0.343 | 1 | A |
| Lindane | ND | | ug/kg | 0.729 | 0.326 | 1 | A |
| Alpha-BHC | ND | | ug/kg | 0.729 | 0.207 | 1 | A |
| Beta-BHC | ND | | ug/kg | 1.75 | 0.664 | 1 | A |
| Heptachlor | ND | | ug/kg | 0.875 | 0.392 | 1 | A |
| Aldrin | ND | | ug/kg | 1.75 | 0.616 | 1 | A |
| Heptachlor epoxide | ND | | ug/kg | 3.28 | 0.984 | 1 | A |
| Endrin | ND | | ug/kg | 0.729 | 0.299 | 1 | A |
| Endrin aldehyde | ND | | ug/kg | 2.19 | 0.766 | 1 | A |
| Endrin ketone | ND | | ug/kg | 1.75 | 0.450 | 1 | A |
| Dieldrin | ND | | ug/kg | 1.09 | 0.547 | 1 | A |
| 4,4'-DDE | ND | | ug/kg | 1.75 | 0.405 | 1 | A |
| 4,4'-DDD | ND | | ug/kg | 1.75 | 0.624 | 1 | A |
| 4,4'-DDT | ND | | ug/kg | 3.28 | 1.41 | 1 | A |
| Endosulfan I | ND | | ug/kg | 1.75 | 0.413 | 1 | A |
| Endosulfan II | ND | | ug/kg | 1.75 | 0.585 | 1 | A |
| Endosulfan sulfate | ND | | ug/kg | 0.729 | 0.347 | 1 | A |
| Methoxychlor | ND | | ug/kg | 3.28 | 1.02 | 1 | A |
| Toxaphene | ND | | ug/kg | 32.8 | 9.19 | 1 | A |
| cis-Chlordane | ND | | ug/kg | 2.19 | 0.610 | 1 | A |
| trans-Chlordane | ND | | ug/kg | 2.19 | 0.577 | 1 | A |
| Chlordane | ND | | ug/kg | 14.6 | 5.80 | 1 | A |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-06 Date Collected: 09/24/20 11:10

Client ID: WC-F (5-10') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab | | | | | | | |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 75 | | 30-150 | A |
| Decachlorobiphenyl | 73 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 76 | | 30-150 | B |
| Decachlorobiphenyl | 73 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040350
**Project Number:** 135173-002
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-06
Client ID: WC-F (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 11:10
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 09/29/20 02:16
Analyst: JMC
Percent Solids: 90%
Methylation Date: 09/28/20 05:52

Extraction Method: EPA 8151A
Extraction Date: 09/26/20 12:26

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides by GC - Westborough Lab** | | | | | | | |
| 2,4-D | ND | | ug/kg | 181 | 11.4 | 1 | A |
| 2,4,5-T | ND | | ug/kg | 181 | 5.61 | 1 | A |
| 2,4,5-TP (Silvex) | ND | | ug/kg | 181 | 4.82 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| DCAA | 77 | | 30-150 | A |
| DCAA | 77 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-07
Client ID: WC-F (10-15')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 11:11
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 09/29/20 03:34
Analyst: SM
Percent Solids: 88%

Extraction Method: EPA 3546
Extraction Date: 09/26/20 15:49
Cleanup Method: EPA 3620B
Cleanup Date: 09/27/20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Organochlorine Pesticides by GC - Westborough Lab** | | | | | | | |
| Delta-BHC | ND | | ug/kg | 1.77 | 0.347 | 1 | A |
| Lindane | ND | | ug/kg | 0.738 | 0.330 | 1 | A |
| Alpha-BHC | ND | | ug/kg | 0.738 | 0.210 | 1 | A |
| Beta-BHC | ND | | ug/kg | 1.77 | 0.672 | 1 | A |
| Heptachlor | ND | | ug/kg | 0.886 | 0.397 | 1 | A |
| Aldrin | ND | | ug/kg | 1.77 | 0.624 | 1 | A |
| Heptachlor epoxide | ND | | ug/kg | 3.32 | 0.997 | 1 | A |
| Endrin | ND | | ug/kg | 0.738 | 0.303 | 1 | A |
| Endrin aldehyde | ND | | ug/kg | 2.22 | 0.775 | 1 | A |
| Endrin ketone | ND | | ug/kg | 1.77 | 0.456 | 1 | A |
| Dieldrin | ND | | ug/kg | 1.11 | 0.554 | 1 | A |
| 4,4'-DDE | ND | | ug/kg | 1.77 | 0.410 | 1 | A |
| 4,4'-DDD | ND | | ug/kg | 1.77 | 0.632 | 1 | A |
| 4,4'-DDT | ND | | ug/kg | 3.32 | 1.42 | 1 | A |
| Endosulfan I | ND | | ug/kg | 1.77 | 0.419 | 1 | A |
| Endosulfan II | ND | | ug/kg | 1.77 | 0.592 | 1 | A |
| Endosulfan sulfate | ND | | ug/kg | 0.738 | 0.351 | 1 | A |
| Methoxychlor | ND | | ug/kg | 3.32 | 1.03 | 1 | A |
| Toxaphene | ND | | ug/kg | 33.2 | 9.30 | 1 | A |
| cis-Chlordane | ND | | ug/kg | 2.22 | 0.617 | 1 | A |
| trans-Chlordane | ND | | ug/kg | 2.22 | 0.585 | 1 | A |
| Chlordane | ND | | ug/kg | 14.8 | 5.87 | 1 | A |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-07 Date Collected: 09/24/20 11:11

Client ID: WC-F (10-15') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab | | | | | | | |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 66 | | 30-150 | A |
| Decachlorobiphenyl | 64 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 72 | | 30-150 | B |
| Decachlorobiphenyl | 63 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-07
Client ID: WC-F (10-15')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 11:11
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 09/29/20 02:34
Analyst: JMC
Percent Solids: 88%
Methylation Date: 09/28/20 05:52

Extraction Method: EPA 8151A
Extraction Date: 09/26/20 12:26

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides by GC - Westborough Lab** | | | | | | | |
| 2,4-D | ND | | ug/kg | 188 | 11.9 | 1 | A |
| 2,4,5-T | ND | | ug/kg | 188 | 5.84 | 1 | A |
| 2,4,5-TP (Silvex) | ND | | ug/kg | 188 | 5.01 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| DCAA | 98 | | 30-150 | A |
| DCAA | 85 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-08
Client ID: WC-F (15-20')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 11:12
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 09/29/20 03:44
Analyst: SM
Percent Solids: 88%

Extraction Method: EPA 3546
Extraction Date: 09/26/20 15:49
Cleanup Method: EPA 3620B
Cleanup Date: 09/27/20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Organochlorine Pesticides by GC - Westborough Lab** | | | | | | | |
| Delta-BHC | ND | | ug/kg | 1.74 | 0.342 | 1 | B |
| Lindane | ND | | ug/kg | 0.727 | 0.325 | 1 | B |
| Alpha-BHC | ND | | ug/kg | 0.727 | 0.206 | 1 | B |
| Beta-BHC | ND | | ug/kg | 1.74 | 0.662 | 1 | B |
| Heptachlor | ND | | ug/kg | 0.873 | 0.391 | 1 | B |
| Aldrin | ND | | ug/kg | 1.74 | 0.615 | 1 | B |
| Heptachlor epoxide | ND | | ug/kg | 3.27 | 0.982 | 1 | B |
| Endrin | ND | | ug/kg | 0.727 | 0.298 | 1 | B |
| Endrin aldehyde | ND | | ug/kg | 2.18 | 0.764 | 1 | B |
| Endrin ketone | ND | | ug/kg | 1.74 | 0.450 | 1 | B |
| Dieldrin | ND | | ug/kg | 1.09 | 0.546 | 1 | B |
| 4,4'-DDE | ND | | ug/kg | 1.74 | 0.404 | 1 | B |
| 4,4'-DDD | ND | | ug/kg | 1.74 | 0.623 | 1 | B |
| 4,4'-DDT | ND | | ug/kg | 3.27 | 1.40 | 1 | B |
| Endosulfan I | ND | | ug/kg | 1.74 | 0.412 | 1 | B |
| Endosulfan II | ND | | ug/kg | 1.74 | 0.583 | 1 | B |
| Endosulfan sulfate | ND | | ug/kg | 0.727 | 0.346 | 1 | B |
| Methoxychlor | ND | | ug/kg | 3.27 | 1.02 | 1 | B |
| Toxaphene | ND | | ug/kg | 32.7 | 9.16 | 1 | B |
| cis-Chlordane | ND | | ug/kg | 2.18 | 0.608 | 1 | B |
| trans-Chlordane | ND | | ug/kg | 2.18 | 0.576 | 1 | B |
| Chlordane | ND | | ug/kg | 14.5 | 5.78 | 1 | B |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-08 Date Collected: 09/24/20 11:12

Client ID: WC-F (15-20') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab | | | | | | | |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 43 | | 30-150 | A |
| Decachlorobiphenyl | 36 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 72 | | 30-150 | B |
| Decachlorobiphenyl | 65 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040350
**Project Number:** 135173-002
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-08
Client ID: WC-F (15-20')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/24/20 11:12
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 09/29/20 03:10
Analyst: JMC
Percent Solids: 88%
Methylation Date: 09/28/20 05:52

Extraction Method: EPA 8151A
Extraction Date: 09/26/20 12:26

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides by GC - Westborough Lab** | | | | | | | |
| 2,4-D | ND | | ug/kg | 183 | 11.6 | 1 | A |
| 2,4,5-T | ND | | ug/kg | 183 | 5.69 | 1 | A |
| 2,4,5-TP (Silvex) | ND | | ug/kg | 183 | 4.88 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| DCAA | 96 | | 30-150 | A |
| DCAA | 89 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8151A
Analytical Date: 09/28/20 23:52
Analyst: JMC

Extraction Method: EPA 8151A
Extraction Date: 09/26/20 12:25

Methylation Date: 09/28/20 05:52

| Parameter | Result | Qualifier | Units | RL | MDL | Column |
|---|---|---|---|---|---|---|
| Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01-08 Batch: WG1414978-1 | | | | | | |
| 2,4-D | ND | | ug/kg | 162 | 10.2 | A |
| 2,4,5-T | ND | | ug/kg | 162 | 5.02 | A |
| 2,4,5-TP (Silvex) | ND | | ug/kg | 162 | 4.30 | A |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| DCAA | 89 | | 30-150 | A |
| DCAA | 86 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 09/29/20 00:59
Analyst: SM

Extraction Method: EPA 3546
Extraction Date: 09/26/20 15:49
Cleanup Method: EPA 3620B
Cleanup Date: 09/27/20

| Parameter | Result | Qualifier | Units | RL | MDL | Column |
|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-08 Batch: WG1415016-1 | | | | | | |
| Delta-BHC | ND | | ug/kg | 1.52 | 0.298 | A |
| Lindane | ND | | ug/kg | 0.634 | 0.284 | A |
| Alpha-BHC | ND | | ug/kg | 0.634 | 0.180 | A |
| Beta-BHC | ND | | ug/kg | 1.52 | 0.577 | A |
| Heptachlor | ND | | ug/kg | 0.761 | 0.341 | A |
| Aldrin | ND | | ug/kg | 1.52 | 0.536 | A |
| Heptachlor epoxide | ND | | ug/kg | 2.86 | 0.856 | A |
| Endrin | ND | | ug/kg | 0.634 | 0.260 | A |
| Endrin aldehyde | ND | | ug/kg | 1.90 | 0.666 | A |
| Endrin ketone | ND | | ug/kg | 1.52 | 0.392 | A |
| Dieldrin | ND | | ug/kg | 0.952 | 0.476 | A |
| 4,4'-DDE | ND | | ug/kg | 1.52 | 0.352 | A |
| 4,4'-DDD | ND | | ug/kg | 1.52 | 0.543 | A |
| 4,4'-DDT | ND | | ug/kg | 2.86 | 1.22 | A |
| Endosulfan I | ND | | ug/kg | 1.52 | 0.360 | A |
| Endosulfan II | ND | | ug/kg | 1.52 | 0.509 | A |
| Endosulfan sulfate | ND | | ug/kg | 0.634 | 0.302 | A |
| Methoxychlor | ND | | ug/kg | 2.86 | 0.888 | A |
| Toxaphene | ND | | ug/kg | 28.6 | 7.99 | A |
| cis-Chlordane | ND | | ug/kg | 1.90 | 0.530 | A |
| trans-Chlordane | ND | | ug/kg | 1.90 | 0.502 | A |
| Chlordane | ND | | ug/kg | 12.7 | 5.04 | A |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 09/29/20 00:59
Analyst: SM

Extraction Method: EPA 3546
Extraction Date: 09/26/20 15:49
Cleanup Method: EPA 3620B
Cleanup Date: 09/27/20

| Parameter | Result | Qualifier | Units | RL | MDL | Column |
|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-08 Batch: WG1415016-1 | | | | | | |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 79 | | 30-150 | A |
| Decachlorobiphenyl | 78 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 77 | | 30-150 | B |
| Decachlorobiphenyl | 66 | | 30-150 | B |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040350

**Report Date:** 10/01/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits | Column |
|---|---|---|---|---|---|---|---|---|---|
| Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01-08 Batch: WG1414978-2 WG1414978-3 | | | | | | | | | |
| 2,4-D | 111 | | 106 | | 30-150 | 5 | | 30 | A |
| 2,4,5-T | 95 | | 96 | | 30-150 | 1 | | 30 | A |
| 2,4,5-TP (Silvex) | 91 | | 90 | | 30-150 | 1 | | 30 | A |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria | Column |
|---|---|---|---|---|---|---|
| DCAA | 93 | | 98 | | 30-150 | A |
| DCAA | 88 | | 89 | | 30-150 | B |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040350

**Report Date:** 10/01/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits | Column |
|---|---|---|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-08 Batch: WG1415016-2 WG1415016-3 | | | | | | | | | |
| Delta-BHC | 86 | | 96 | | 30-150 | 11 | | 30 | A |
| Lindane | 79 | | 85 | | 30-150 | 7 | | 30 | A |
| Alpha-BHC | 81 | | 85 | | 30-150 | 5 | | 30 | A |
| Beta-BHC | 81 | | 86 | | 30-150 | 6 | | 30 | A |
| Heptachlor | 80 | | 84 | | 30-150 | 5 | | 30 | A |
| Aldrin | 80 | | 85 | | 30-150 | 6 | | 30 | A |
| Heptachlor epoxide | 78 | | 84 | | 30-150 | 7 | | 30 | A |
| Endrin | 85 | | 94 | | 30-150 | 10 | | 30 | A |
| Endrin aldehyde | 46 | | 58 | | 30-150 | 23 | | 30 | A |
| Endrin ketone | 75 | | 87 | | 30-150 | 15 | | 30 | A |
| Dieldrin | 87 | | 96 | | 30-150 | 10 | | 30 | A |
| 4,4'-DDE | 88 | | 97 | | 30-150 | 10 | | 30 | A |
| 4,4'-DDD | 97 | | 109 | | 30-150 | 12 | | 30 | A |
| 4,4'-DDT | 88 | | 99 | | 30-150 | 12 | | 30 | A |
| Endosulfan I | 76 | | 84 | | 30-150 | 10 | | 30 | A |
| Endosulfan II | 82 | | 93 | | 30-150 | 13 | | 30 | A |
| Endosulfan sulfate | 65 | | 77 | | 30-150 | 17 | | 30 | A |
| Methoxychlor | 79 | | 90 | | 30-150 | 13 | | 30 | A |
| cis-Chlordane | 77 | | 82 | | 30-150 | 6 | | 30 | A |
| trans-Chlordane | 78 | | 85 | | 30-150 | 9 | | 30 | A |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040350

**Report Date:** 10/01/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-08 Batch: WG1415016-2 WG1415016-3 | | | | | | | | |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria | Column |
|---|---|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 73 | | 78 | | 30-150 | A |
| Decachlorobiphenyl | 71 | | 67 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 68 | | 75 | | 30-150 | B |
| Decachlorobiphenyl | 59 | | 69 | | 30-150 | B |

# METALS

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-01 Date Collected: 09/24/20 13:00

Client ID: WC-A (0-5') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth: TCLP/SPLP Ext. Date: 09/25/20 05:57

Matrix: Soil

Percent Solids: 87%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Arsenic, TCLP | ND | | mg/l | 1.00 | 0.019 | 1 | 09/29/20 09:07 | 09/30/20 20:40 | EPA 3015 | 1,6010D | BV |
| Barium, TCLP | 0.561 | | mg/l | 0.500 | 0.021 | 1 | 09/29/20 09:07 | 09/30/20 20:40 | EPA 3015 | 1,6010D | BV |
| Cadmium, TCLP | 0.015 | J | mg/l | 0.100 | 0.010 | 1 | 09/29/20 09:07 | 09/30/20 20:40 | EPA 3015 | 1,6010D | BV |
| Chromium, TCLP | ND | | mg/l | 0.200 | 0.021 | 1 | 09/29/20 09:07 | 09/30/20 20:40 | EPA 3015 | 1,6010D | BV |
| Lead, TCLP | 0.310 | J | mg/l | 0.500 | 0.027 | 1 | 09/29/20 09:07 | 09/30/20 20:40 | EPA 3015 | 1,6010D | BV |
| Mercury, TCLP | ND | | mg/l | 0.0010 | 0.0005 | 1 | 09/29/20 09:17 | 09/29/20 18:12 | EPA 7470A | 1,7470A | AL |
| Selenium, TCLP | ND | | mg/l | 0.500 | 0.035 | 1 | 09/29/20 09:07 | 09/30/20 20:40 | EPA 3015 | 1,6010D | BV |
| Silver, TCLP | ND | | mg/l | 0.100 | 0.028 | 1 | 09/29/20 09:07 | 09/30/20 20:40 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040350
**Project Number:** 135173-002
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-01
Client ID: WC-A (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 09/24/20 13:00
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 87%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Aluminum, Total | 10700 | | mg/kg | 8.66 | 2.34 | 2 | 09/29/20 12:57 | 10/01/20 15:21 | EPA 3050B | 1,6010D | GD |
| Antimony, Total | 1.38 | J | mg/kg | 4.33 | 0.329 | 2 | 09/29/20 12:57 | 10/01/20 15:21 | EPA 3050B | 1,6010D | GD |
| Arsenic, Total | 4.76 | | mg/kg | 0.866 | 0.180 | 2 | 09/29/20 12:57 | 10/01/20 15:21 | EPA 3050B | 1,6010D | GD |
| Barium, Total | 110 | | mg/kg | 0.866 | 0.151 | 2 | 09/29/20 12:57 | 10/01/20 15:21 | EPA 3050B | 1,6010D | GD |
| Beryllium, Total | 0.398 | J | mg/kg | 0.433 | 0.029 | 2 | 09/29/20 12:57 | 10/01/20 15:21 | EPA 3050B | 1,6010D | GD |
| Cadmium, Total | 1.21 | | mg/kg | 0.866 | 0.085 | 2 | 09/29/20 12:57 | 10/01/20 15:21 | EPA 3050B | 1,6010D | GD |
| Calcium, Total | 8360 | | mg/kg | 8.66 | 3.03 | 2 | 09/29/20 12:57 | 10/01/20 15:21 | EPA 3050B | 1,6010D | GD |
| Chromium, Total | 16.2 | | mg/kg | 0.866 | 0.083 | 2 | 09/29/20 12:57 | 10/01/20 15:21 | EPA 3050B | 1,6010D | GD |
| Cobalt, Total | 7.18 | | mg/kg | 1.73 | 0.144 | 2 | 09/29/20 12:57 | 10/01/20 15:21 | EPA 3050B | 1,6010D | GD |
| Copper, Total | 80.2 | | mg/kg | 0.866 | 0.223 | 2 | 09/29/20 12:57 | 10/01/20 15:21 | EPA 3050B | 1,6010D | GD |
| Iron, Total | 17400 | | mg/kg | 4.33 | 0.782 | 2 | 09/29/20 12:57 | 10/01/20 15:21 | EPA 3050B | 1,6010D | GD |
| Lead, Total | 390 | | mg/kg | 4.33 | 0.232 | 2 | 09/29/20 12:57 | 10/01/20 15:21 | EPA 3050B | 1,6010D | GD |
| Magnesium, Total | 4350 | | mg/kg | 8.66 | 1.33 | 2 | 09/29/20 12:57 | 10/01/20 15:21 | EPA 3050B | 1,6010D | GD |
| Manganese, Total | 341 | | mg/kg | 0.866 | 0.138 | 2 | 09/29/20 12:57 | 10/01/20 15:21 | EPA 3050B | 1,6010D | GD |
| Mercury, Total | 0.702 | | mg/kg | 0.074 | 0.048 | 1 | 09/29/20 13:10 | 09/29/20 18:40 | EPA 7471B | 1,7471B | AL |
| Nickel, Total | 16.1 | | mg/kg | 2.16 | 0.210 | 2 | 09/29/20 12:57 | 10/01/20 15:21 | EPA 3050B | 1,6010D | GD |
| Potassium, Total | 1040 | | mg/kg | 216 | 12.5 | 2 | 09/29/20 12:57 | 10/01/20 15:21 | EPA 3050B | 1,6010D | GD |
| Selenium, Total | ND | | mg/kg | 1.73 | 0.223 | 2 | 09/29/20 12:57 | 10/01/20 15:21 | EPA 3050B | 1,6010D | GD |
| Silver, Total | ND | | mg/kg | 0.866 | 0.245 | 2 | 09/29/20 12:57 | 10/01/20 15:21 | EPA 3050B | 1,6010D | GD |
| Sodium, Total | 134 | J | mg/kg | 173 | 2.73 | 2 | 09/29/20 12:57 | 10/01/20 15:21 | EPA 3050B | 1,6010D | GD |
| Thallium, Total | ND | | mg/kg | 1.73 | 0.273 | 2 | 09/29/20 12:57 | 10/01/20 15:21 | EPA 3050B | 1,6010D | GD |
| Vanadium, Total | 22.2 | | mg/kg | 0.866 | 0.176 | 2 | 09/29/20 12:57 | 10/01/20 15:21 | EPA 3050B | 1,6010D | GD |
| Zinc, Total | 303 | | mg/kg | 4.33 | 0.254 | 2 | 09/29/20 12:57 | 10/01/20 15:21 | EPA 3050B | 1,6010D | GD |
| **General Chemistry - Mansfield Lab** | | | | | | | | | | | |
| Chromium, Trivalent | 16 | | mg/kg | 0.92 | 0.92 | 1 | | 10/01/20 15:21 | NA | 107,- | |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-02 Date Collected: 09/24/20 13:02

Client ID: WC-A (5-10') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

TCLP/SPLP Ext. Date: 09/25/20 05:57

Matrix: Soil

Percent Solids: 91%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Arsenic, TCLP | ND | | mg/l | 1.00 | 0.019 | 1 | 09/29/20 09:07 | 09/30/20 20:45 | EPA 3015 | 1,6010D | BV |
| Barium, TCLP | 0.331 | J | mg/l | 0.500 | 0.021 | 1 | 09/29/20 09:07 | 09/30/20 20:45 | EPA 3015 | 1,6010D | BV |
| Cadmium, TCLP | ND | | mg/l | 0.100 | 0.010 | 1 | 09/29/20 09:07 | 09/30/20 20:45 | EPA 3015 | 1,6010D | BV |
| Chromium, TCLP | ND | | mg/l | 0.200 | 0.021 | 1 | 09/29/20 09:07 | 09/30/20 20:45 | EPA 3015 | 1,6010D | BV |
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 09/29/20 09:07 | 09/30/20 20:45 | EPA 3015 | 1,6010D | BV |
| Mercury, TCLP | ND | | mg/l | 0.0010 | 0.0005 | 1 | 09/29/20 09:17 | 09/29/20 18:15 | EPA 7470A | 1,7470A | AL |
| Selenium, TCLP | ND | | mg/l | 0.500 | 0.035 | 1 | 09/29/20 09:07 | 09/30/20 20:45 | EPA 3015 | 1,6010D | BV |
| Silver, TCLP | ND | | mg/l | 0.100 | 0.028 | 1 | 09/29/20 09:07 | 09/30/20 20:45 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-02 Date Collected: 09/24/20 13:02

Client ID: WC-A (5-10') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 91%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Aluminum, Total | 10300 | | mg/kg | 8.48 | 2.29 | 2 | 09/29/20 12:57 | 10/01/20 15:25 | EPA 3050B | 1,6010D | GD |
| Antimony, Total | 0.586 | J | mg/kg | 4.24 | 0.322 | 2 | 09/29/20 12:57 | 10/01/20 15:25 | EPA 3050B | 1,6010D | GD |
| Arsenic, Total | 2.21 | | mg/kg | 0.848 | 0.176 | 2 | 09/29/20 12:57 | 10/01/20 15:25 | EPA 3050B | 1,6010D | GD |
| Barium, Total | 49.2 | | mg/kg | 0.848 | 0.148 | 2 | 09/29/20 12:57 | 10/01/20 15:25 | EPA 3050B | 1,6010D | GD |
| Beryllium, Total | 0.178 | J | mg/kg | 0.424 | 0.028 | 2 | 09/29/20 12:57 | 10/01/20 15:25 | EPA 3050B | 1,6010D | GD |
| Cadmium, Total | 0.492 | J | mg/kg | 0.848 | 0.083 | 2 | 09/29/20 12:57 | 10/01/20 15:25 | EPA 3050B | 1,6010D | GD |
| Calcium, Total | 3720 | | mg/kg | 8.48 | 2.97 | 2 | 09/29/20 12:57 | 10/01/20 15:25 | EPA 3050B | 1,6010D | GD |
| Chromium, Total | 19.5 | | mg/kg | 0.848 | 0.082 | 2 | 09/29/20 12:57 | 10/01/20 15:25 | EPA 3050B | 1,6010D | GD |
| Cobalt, Total | 8.92 | | mg/kg | 1.70 | 0.141 | 2 | 09/29/20 12:57 | 10/01/20 15:25 | EPA 3050B | 1,6010D | GD |
| Copper, Total | 18.4 | | mg/kg | 0.848 | 0.219 | 2 | 09/29/20 12:57 | 10/01/20 15:25 | EPA 3050B | 1,6010D | GD |
| Iron, Total | 16100 | | mg/kg | 4.24 | 0.766 | 2 | 09/29/20 12:57 | 10/01/20 15:25 | EPA 3050B | 1,6010D | GD |
| Lead, Total | 6.42 | | mg/kg | 4.24 | 0.227 | 2 | 09/29/20 12:57 | 10/01/20 15:25 | EPA 3050B | 1,6010D | GD |
| Magnesium, Total | 6690 | | mg/kg | 8.48 | 1.31 | 2 | 09/29/20 12:57 | 10/01/20 15:25 | EPA 3050B | 1,6010D | GD |
| Manganese, Total | 337 | | mg/kg | 0.848 | 0.135 | 2 | 09/29/20 12:57 | 10/01/20 15:25 | EPA 3050B | 1,6010D | GD |
| Mercury, Total | ND | | mg/kg | 0.079 | 0.051 | 1 | 09/29/20 13:10 | 09/29/20 18:43 | EPA 7471B | 1,7471B | AL |
| Nickel, Total | 15.4 | | mg/kg | 2.12 | 0.205 | 2 | 09/29/20 12:57 | 10/01/20 15:25 | EPA 3050B | 1,6010D | GD |
| Potassium, Total | 1620 | | mg/kg | 212 | 12.2 | 2 | 09/29/20 12:57 | 10/01/20 15:25 | EPA 3050B | 1,6010D | GD |
| Selenium, Total | ND | | mg/kg | 1.70 | 0.219 | 2 | 09/29/20 12:57 | 10/01/20 15:25 | EPA 3050B | 1,6010D | GD |
| Silver, Total | ND | | mg/kg | 0.848 | 0.240 | 2 | 09/29/20 12:57 | 10/01/20 15:25 | EPA 3050B | 1,6010D | GD |
| Sodium, Total | 167 | J | mg/kg | 170 | 2.67 | 2 | 09/29/20 12:57 | 10/01/20 15:25 | EPA 3050B | 1,6010D | GD |
| Thallium, Total | ND | | mg/kg | 1.70 | 0.267 | 2 | 09/29/20 12:57 | 10/01/20 15:25 | EPA 3050B | 1,6010D | GD |
| Vanadium, Total | 26.3 | | mg/kg | 0.848 | 0.172 | 2 | 09/29/20 12:57 | 10/01/20 15:25 | EPA 3050B | 1,6010D | GD |
| Zinc, Total | 45.3 | | mg/kg | 4.24 | 0.249 | 2 | 09/29/20 12:57 | 10/01/20 15:25 | EPA 3050B | 1,6010D | GD |
| **General Chemistry - Mansfield Lab** | | | | | | | | | | | |
| Chromium, Trivalent | 20 | | mg/kg | 0.88 | 0.88 | 1 | | 10/01/20 15:25 | NA | 107,- | |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040350
**Project Number:** 135173-002
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-03
Client ID: WC-B (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 09/24/20 14:15
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 88%
TCLP/SPLP Ext. Date: 09/25/20 05:57

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Arsenic, TCLP | ND | | mg/l | 1.00 | 0.019 | 1 | 09/29/20 09:07 | 09/30/20 19:21 | EPA 3015 | 1,6010D | BV |
| Barium, TCLP | 0.470 | J | mg/l | 0.500 | 0.021 | 1 | 09/29/20 09:07 | 09/30/20 19:21 | EPA 3015 | 1,6010D | BV |
| Cadmium, TCLP | 0.025 | J | mg/l | 0.100 | 0.010 | 1 | 09/29/20 09:07 | 09/30/20 19:21 | EPA 3015 | 1,6010D | BV |
| Chromium, TCLP | ND | | mg/l | 0.200 | 0.021 | 1 | 09/29/20 09:07 | 09/30/20 19:21 | EPA 3015 | 1,6010D | BV |
| Lead, TCLP | 10.8 | | mg/l | 0.500 | 0.027 | 1 | 09/29/20 09:07 | 09/30/20 19:21 | EPA 3015 | 1,6010D | BV |
| Mercury, TCLP | ND | | mg/l | 0.0010 | 0.0005 | 1 | 09/29/20 09:17 | 09/29/20 17:38 | EPA 7470A | 1,7470A | AL |
| Selenium, TCLP | 0.053 | J | mg/l | 0.500 | 0.035 | 1 | 09/29/20 09:07 | 09/30/20 19:21 | EPA 3015 | 1,6010D | BV |
| Silver, TCLP | ND | | mg/l | 0.100 | 0.028 | 1 | 09/29/20 09:07 | 09/30/20 19:21 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-03
Client ID: WC-B (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 09/24/20 14:15
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 88%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Aluminum, Total | 5680 | | mg/kg | 8.61 | 2.32 | 2 | 09/29/20 12:57 | 10/01/20 15:39 | EPA 3050B | 1,6010D | GD |
| Antimony, Total | 2.19 | J | mg/kg | 4.31 | 0.327 | 2 | 09/29/20 12:57 | 10/01/20 15:39 | EPA 3050B | 1,6010D | GD |
| Arsenic, Total | 4.72 | | mg/kg | 0.861 | 0.179 | 2 | 09/29/20 12:57 | 10/01/20 15:39 | EPA 3050B | 1,6010D | GD |
| Barium, Total | 371 | | mg/kg | 0.861 | 0.150 | 2 | 09/29/20 12:57 | 10/01/20 15:39 | EPA 3050B | 1,6010D | GD |
| Beryllium, Total | 0.164 | J | mg/kg | 0.431 | 0.028 | 2 | 09/29/20 12:57 | 10/01/20 15:39 | EPA 3050B | 1,6010D | GD |
| Cadmium, Total | 0.947 | | mg/kg | 0.861 | 0.084 | 2 | 09/29/20 12:57 | 10/01/20 15:39 | EPA 3050B | 1,6010D | GD |
| Calcium, Total | 25900 | | mg/kg | 8.61 | 3.01 | 2 | 09/29/20 12:57 | 10/01/20 15:39 | EPA 3050B | 1,6010D | GD |
| Chromium, Total | 15.4 | | mg/kg | 0.861 | 0.083 | 2 | 09/29/20 12:57 | 10/01/20 15:39 | EPA 3050B | 1,6010D | GD |
| Cobalt, Total | 5.00 | | mg/kg | 1.72 | 0.143 | 2 | 09/29/20 12:57 | 10/01/20 15:39 | EPA 3050B | 1,6010D | GD |
| Copper, Total | 56.3 | | mg/kg | 0.861 | 0.222 | 2 | 09/29/20 12:57 | 10/01/20 15:39 | EPA 3050B | 1,6010D | GD |
| Iron, Total | 12500 | | mg/kg | 4.31 | 0.778 | 2 | 09/29/20 12:57 | 10/01/20 15:39 | EPA 3050B | 1,6010D | GD |
| Lead, Total | 766 | | mg/kg | 4.31 | 0.231 | 2 | 09/29/20 12:57 | 10/01/20 15:39 | EPA 3050B | 1,6010D | GD |
| Magnesium, Total | 4330 | | mg/kg | 8.61 | 1.33 | 2 | 09/29/20 12:57 | 10/01/20 15:39 | EPA 3050B | 1,6010D | GD |
| Manganese, Total | 236 | | mg/kg | 0.861 | 0.137 | 2 | 09/29/20 12:57 | 10/01/20 15:39 | EPA 3050B | 1,6010D | GD |
| Mercury, Total | 0.403 | | mg/kg | 0.078 | 0.051 | 1 | 09/29/20 13:10 | 09/29/20 18:46 | EPA 7471B | 1,7471B | AL |
| Nickel, Total | 10.8 | | mg/kg | 2.15 | 0.208 | 2 | 09/29/20 12:57 | 10/01/20 15:39 | EPA 3050B | 1,6010D | GD |
| Potassium, Total | 879 | | mg/kg | 215 | 12.4 | 2 | 09/29/20 12:57 | 10/01/20 15:39 | EPA 3050B | 1,6010D | GD |
| Selenium, Total | ND | | mg/kg | 1.72 | 0.222 | 2 | 09/29/20 12:57 | 10/01/20 15:39 | EPA 3050B | 1,6010D | GD |
| Silver, Total | ND | | mg/kg | 0.861 | 0.244 | 2 | 09/29/20 12:57 | 10/01/20 15:39 | EPA 3050B | 1,6010D | GD |
| Sodium, Total | 166 | J | mg/kg | 172 | 2.71 | 2 | 09/29/20 12:57 | 10/01/20 15:39 | EPA 3050B | 1,6010D | GD |
| Thallium, Total | ND | | mg/kg | 1.72 | 0.271 | 2 | 09/29/20 12:57 | 10/01/20 15:39 | EPA 3050B | 1,6010D | GD |
| Vanadium, Total | 14.4 | | mg/kg | 0.861 | 0.175 | 2 | 09/29/20 12:57 | 10/01/20 15:39 | EPA 3050B | 1,6010D | GD |
| Zinc, Total | 296 | | mg/kg | 4.31 | 0.252 | 2 | 09/29/20 12:57 | 10/01/20 15:39 | EPA 3050B | 1,6010D | GD |
| **General Chemistry - Mansfield Lab** | | | | | | | | | | | |
| Chromium, Trivalent | 15 | | mg/kg | 0.91 | 0.91 | 1 | | 10/01/20 15:39 | NA | 107,- | |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040350
**Project Number:** 135173-002
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-04
Client ID: WC-B (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 09/24/20 14:20
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 92%
TCLP/SPLP Ext. Date: 09/25/20 05:57

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Arsenic, TCLP | ND | | mg/l | 1.00 | 0.019 | 1 | 09/29/20 10:03 | 09/30/20 20:49 | EPA 3015 | 1,6010D | BV |
| Barium, TCLP | 0.634 | | mg/l | 0.500 | 0.021 | 1 | 09/29/20 10:03 | 09/30/20 20:49 | EPA 3015 | 1,6010D | BV |
| Cadmium, TCLP | ND | | mg/l | 0.100 | 0.010 | 1 | 09/29/20 10:03 | 09/30/20 20:49 | EPA 3015 | 1,6010D | BV |
| Chromium, TCLP | ND | | mg/l | 0.200 | 0.021 | 1 | 09/29/20 10:03 | 09/30/20 20:49 | EPA 3015 | 1,6010D | BV |
| Lead, TCLP | 1.68 | | mg/l | 0.500 | 0.027 | 1 | 09/29/20 10:03 | 09/30/20 20:49 | EPA 3015 | 1,6010D | BV |
| Mercury, TCLP | ND | | mg/l | 0.0010 | 0.0005 | 1 | 09/29/20 09:17 | 09/29/20 18:17 | EPA 7470A | 1,7470A | AL |
| Selenium, TCLP | ND | | mg/l | 0.500 | 0.035 | 1 | 09/29/20 10:03 | 09/30/20 20:49 | EPA 3015 | 1,6010D | BV |
| Silver, TCLP | ND | | mg/l | 0.100 | 0.028 | 1 | 09/29/20 10:03 | 09/30/20 20:49 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040350
**Project Number:** 135173-002
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-04
Client ID: WC-B (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 09/24/20 14:20
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 92%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Aluminum, Total | 12200 | | mg/kg | 8.33 | 2.25 | 2 | 09/29/20 12:57 | 10/01/20 15:44 | EPA 3050B | 1,6010D | GD |
| Antimony, Total | 2.01 | J | mg/kg | 4.16 | 0.316 | 2 | 09/29/20 12:57 | 10/01/20 15:44 | EPA 3050B | 1,6010D | GD |
| Arsenic, Total | 4.11 | | mg/kg | 0.833 | 0.173 | 2 | 09/29/20 12:57 | 10/01/20 15:44 | EPA 3050B | 1,6010D | GD |
| Barium, Total | 87.0 | | mg/kg | 0.833 | 0.145 | 2 | 09/29/20 12:57 | 10/01/20 15:44 | EPA 3050B | 1,6010D | GD |
| Beryllium, Total | 0.441 | | mg/kg | 0.416 | 0.028 | 2 | 09/29/20 12:57 | 10/01/20 15:44 | EPA 3050B | 1,6010D | GD |
| Cadmium, Total | 0.800 | J | mg/kg | 0.833 | 0.082 | 2 | 09/29/20 12:57 | 10/01/20 15:44 | EPA 3050B | 1,6010D | GD |
| Calcium, Total | 13100 | | mg/kg | 8.33 | 2.91 | 2 | 09/29/20 12:57 | 10/01/20 15:44 | EPA 3050B | 1,6010D | GD |
| Chromium, Total | 26.6 | | mg/kg | 0.833 | 0.080 | 2 | 09/29/20 12:57 | 10/01/20 15:44 | EPA 3050B | 1,6010D | GD |
| Cobalt, Total | 7.20 | | mg/kg | 1.66 | 0.138 | 2 | 09/29/20 12:57 | 10/01/20 15:44 | EPA 3050B | 1,6010D | GD |
| Copper, Total | 29.1 | | mg/kg | 0.833 | 0.215 | 2 | 09/29/20 12:57 | 10/01/20 15:44 | EPA 3050B | 1,6010D | GD |
| Iron, Total | 25600 | | mg/kg | 4.16 | 0.752 | 2 | 09/29/20 12:57 | 10/01/20 15:44 | EPA 3050B | 1,6010D | GD |
| Lead, Total | 179 | | mg/kg | 4.16 | 0.223 | 2 | 09/29/20 12:57 | 10/01/20 15:44 | EPA 3050B | 1,6010D | GD |
| Magnesium, Total | 7240 | | mg/kg | 8.33 | 1.28 | 2 | 09/29/20 12:57 | 10/01/20 15:44 | EPA 3050B | 1,6010D | GD |
| Manganese, Total | 327 | | mg/kg | 0.833 | 0.132 | 2 | 09/29/20 12:57 | 10/01/20 15:44 | EPA 3050B | 1,6010D | GD |
| Mercury, Total | 0.162 | | mg/kg | 0.073 | 0.047 | 1 | 09/29/20 13:10 | 09/29/20 18:50 | EPA 7471B | 1,7471B | AL |
| Nickel, Total | 14.1 | | mg/kg | 2.08 | 0.202 | 2 | 09/29/20 12:57 | 10/01/20 15:44 | EPA 3050B | 1,6010D | GD |
| Potassium, Total | 1910 | | mg/kg | 208 | 12.0 | 2 | 09/29/20 12:57 | 10/01/20 15:44 | EPA 3050B | 1,6010D | GD |
| Selenium, Total | ND | | mg/kg | 1.66 | 0.215 | 2 | 09/29/20 12:57 | 10/01/20 15:44 | EPA 3050B | 1,6010D | GD |
| Silver, Total | ND | | mg/kg | 0.833 | 0.236 | 2 | 09/29/20 12:57 | 10/01/20 15:44 | EPA 3050B | 1,6010D | GD |
| Sodium, Total | 368 | | mg/kg | 166 | 2.62 | 2 | 09/29/20 12:57 | 10/01/20 15:44 | EPA 3050B | 1,6010D | GD |
| Thallium, Total | ND | | mg/kg | 1.66 | 0.262 | 2 | 09/29/20 12:57 | 10/01/20 15:44 | EPA 3050B | 1,6010D | GD |
| Vanadium, Total | 38.9 | | mg/kg | 0.833 | 0.169 | 2 | 09/29/20 12:57 | 10/01/20 15:44 | EPA 3050B | 1,6010D | GD |
| Zinc, Total | 57.2 | | mg/kg | 4.16 | 0.244 | 2 | 09/29/20 12:57 | 10/01/20 15:44 | EPA 3050B | 1,6010D | GD |
| **General Chemistry - Mansfield Lab** | | | | | | | | | | | |
| Chromium, Trivalent | 27 | | mg/kg | 0.87 | 0.87 | 1 | | 10/01/20 15:44 | NA | 107,- | |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040350
**Project Number:** 135173-002
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-05
Client ID: WC-F (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 09/24/20 11:07
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 90%
TCLP/SPLP Ext. Date: 09/25/20 05:57

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Arsenic, TCLP | ND | | mg/l | 1.00 | 0.019 | 1 | 09/29/20 10:03 | 09/30/20 20:54 | EPA 3015 | 1,6010D | BV |
| Barium, TCLP | 0.793 | | mg/l | 0.500 | 0.021 | 1 | 09/29/20 10:03 | 09/30/20 20:54 | EPA 3015 | 1,6010D | BV |
| Cadmium, TCLP | ND | | mg/l | 0.100 | 0.010 | 1 | 09/29/20 10:03 | 09/30/20 20:54 | EPA 3015 | 1,6010D | BV |
| Chromium, TCLP | ND | | mg/l | 0.200 | 0.021 | 1 | 09/29/20 10:03 | 09/30/20 20:54 | EPA 3015 | 1,6010D | BV |
| Lead, TCLP | 0.211 | J | mg/l | 0.500 | 0.027 | 1 | 09/29/20 10:03 | 09/30/20 20:54 | EPA 3015 | 1,6010D | BV |
| Mercury, TCLP | ND | | mg/l | 0.0010 | 0.0005 | 1 | 09/29/20 09:17 | 09/29/20 18:19 | EPA 7470A | 1,7470A | AL |
| Selenium, TCLP | ND | | mg/l | 0.500 | 0.035 | 1 | 09/29/20 10:03 | 09/30/20 20:54 | EPA 3015 | 1,6010D | BV |
| Silver, TCLP | ND | | mg/l | 0.100 | 0.028 | 1 | 09/29/20 10:03 | 09/30/20 20:54 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040350
**Project Number:** 135173-002
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-05
Client ID: WC-F (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 09/24/20 11:07
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 90%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Aluminum, Total | 7610 | | mg/kg | 8.52 | 2.30 | 2 | 09/29/20 12:57 | 10/01/20 15:48 | EPA 3050B | 1,6010D | GD |
| Antimony, Total | 0.920 | J | mg/kg | 4.26 | 0.324 | 2 | 09/29/20 12:57 | 10/01/20 15:48 | EPA 3050B | 1,6010D | GD |
| Arsenic, Total | 3.66 | | mg/kg | 0.852 | 0.177 | 2 | 09/29/20 12:57 | 10/01/20 15:48 | EPA 3050B | 1,6010D | GD |
| Barium, Total | 151 | | mg/kg | 0.852 | 0.148 | 2 | 09/29/20 12:57 | 10/01/20 15:48 | EPA 3050B | 1,6010D | GD |
| Beryllium, Total | 0.256 | J | mg/kg | 0.426 | 0.028 | 2 | 09/29/20 12:57 | 10/01/20 15:48 | EPA 3050B | 1,6010D | GD |
| Cadmium, Total | 0.903 | | mg/kg | 0.852 | 0.084 | 2 | 09/29/20 12:57 | 10/01/20 15:48 | EPA 3050B | 1,6010D | GD |
| Calcium, Total | 19300 | | mg/kg | 8.52 | 2.98 | 2 | 09/29/20 12:57 | 10/01/20 15:48 | EPA 3050B | 1,6010D | GD |
| Chromium, Total | 14.0 | | mg/kg | 0.852 | 0.082 | 2 | 09/29/20 12:57 | 10/01/20 15:48 | EPA 3050B | 1,6010D | GD |
| Cobalt, Total | 5.80 | | mg/kg | 1.70 | 0.141 | 2 | 09/29/20 12:57 | 10/01/20 15:48 | EPA 3050B | 1,6010D | GD |
| Copper, Total | 25.3 | | mg/kg | 0.852 | 0.220 | 2 | 09/29/20 12:57 | 10/01/20 15:48 | EPA 3050B | 1,6010D | GD |
| Iron, Total | 12900 | | mg/kg | 4.26 | 0.770 | 2 | 09/29/20 12:57 | 10/01/20 15:48 | EPA 3050B | 1,6010D | GD |
| Lead, Total | 172 | | mg/kg | 4.26 | 0.228 | 2 | 09/29/20 12:57 | 10/01/20 15:48 | EPA 3050B | 1,6010D | GD |
| Magnesium, Total | 8980 | | mg/kg | 8.52 | 1.31 | 2 | 09/29/20 12:57 | 10/01/20 15:48 | EPA 3050B | 1,6010D | GD |
| Manganese, Total | 280 | | mg/kg | 0.852 | 0.136 | 2 | 09/29/20 12:57 | 10/01/20 15:48 | EPA 3050B | 1,6010D | GD |
| Mercury, Total | 0.123 | | mg/kg | 0.074 | 0.048 | 1 | 09/29/20 13:10 | 09/29/20 18:53 | EPA 7471B | 1,7471B | AL |
| Nickel, Total | 11.6 | | mg/kg | 2.13 | 0.206 | 2 | 09/29/20 12:57 | 10/01/20 15:48 | EPA 3050B | 1,6010D | GD |
| Potassium, Total | 1030 | | mg/kg | 213 | 12.3 | 2 | 09/29/20 12:57 | 10/01/20 15:48 | EPA 3050B | 1,6010D | GD |
| Selenium, Total | ND | | mg/kg | 1.70 | 0.220 | 2 | 09/29/20 12:57 | 10/01/20 15:48 | EPA 3050B | 1,6010D | GD |
| Silver, Total | ND | | mg/kg | 0.852 | 0.241 | 2 | 09/29/20 12:57 | 10/01/20 15:48 | EPA 3050B | 1,6010D | GD |
| Sodium, Total | 363 | | mg/kg | 170 | 2.68 | 2 | 09/29/20 12:57 | 10/01/20 15:48 | EPA 3050B | 1,6010D | GD |
| Thallium, Total | ND | | mg/kg | 1.70 | 0.268 | 2 | 09/29/20 12:57 | 10/01/20 15:48 | EPA 3050B | 1,6010D | GD |
| Vanadium, Total | 19.2 | | mg/kg | 0.852 | 0.173 | 2 | 09/29/20 12:57 | 10/01/20 15:48 | EPA 3050B | 1,6010D | GD |
| Zinc, Total | 123 | | mg/kg | 4.26 | 0.250 | 2 | 09/29/20 12:57 | 10/01/20 15:48 | EPA 3050B | 1,6010D | GD |
| **General Chemistry - Mansfield Lab** | | | | | | | | | | | |
| Chromium, Trivalent | 14 | | mg/kg | 0.88 | 0.89 | 1 | | 10/01/20 15:48 | NA | 107,- | |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-06 Date Collected: 09/24/20 11:10

Client ID: WC-F (5-10') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

TCLP/SPLP Ext. Date: 09/25/20 05:57

Matrix: Soil

Percent Solids: 90%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Arsenic, TCLP | ND | | mg/l | 1.00 | 0.019 | 1 | 09/29/20 10:03 | 09/30/20 20:59 | EPA 3015 | 1,6010D | BV |
| Barium, TCLP | 0.723 | | mg/l | 0.500 | 0.021 | 1 | 09/29/20 10:03 | 09/30/20 20:59 | EPA 3015 | 1,6010D | BV |
| Cadmium, TCLP | ND | | mg/l | 0.100 | 0.010 | 1 | 09/29/20 10:03 | 09/30/20 20:59 | EPA 3015 | 1,6010D | BV |
| Chromium, TCLP | ND | | mg/l | 0.200 | 0.021 | 1 | 09/29/20 10:03 | 09/30/20 20:59 | EPA 3015 | 1,6010D | BV |
| Lead, TCLP | 0.255 | J | mg/l | 0.500 | 0.027 | 1 | 09/29/20 10:03 | 09/30/20 20:59 | EPA 3015 | 1,6010D | BV |
| Mercury, TCLP | ND | | mg/l | 0.0010 | 0.0005 | 1 | 09/29/20 09:17 | 09/29/20 18:21 | EPA 7470A | 1,7470A | AL |
| Selenium, TCLP | ND | | mg/l | 0.500 | 0.035 | 1 | 09/29/20 10:03 | 09/30/20 20:59 | EPA 3015 | 1,6010D | BV |
| Silver, TCLP | ND | | mg/l | 0.100 | 0.028 | 1 | 09/29/20 10:03 | 09/30/20 20:59 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040350
**Project Number:** 135173-002
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-06
Client ID: WC-F (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 09/24/20 11:10
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 90%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Aluminum, Total | 9520 | | mg/kg | 8.45 | 2.28 | 2 | 09/29/20 12:57 | 10/01/20 15:53 | EPA 3050B | 1,6010D | GD |
| Antimony, Total | 0.516 | J | mg/kg | 4.23 | 0.321 | 2 | 09/29/20 12:57 | 10/01/20 15:53 | EPA 3050B | 1,6010D | GD |
| Arsenic, Total | 2.77 | | mg/kg | 0.845 | 0.176 | 2 | 09/29/20 12:57 | 10/01/20 15:53 | EPA 3050B | 1,6010D | GD |
| Barium, Total | 95.4 | | mg/kg | 0.845 | 0.147 | 2 | 09/29/20 12:57 | 10/01/20 15:53 | EPA 3050B | 1,6010D | GD |
| Beryllium, Total | 0.211 | J | mg/kg | 0.423 | 0.028 | 2 | 09/29/20 12:57 | 10/01/20 15:53 | EPA 3050B | 1,6010D | GD |
| Cadmium, Total | 0.583 | J | mg/kg | 0.845 | 0.083 | 2 | 09/29/20 12:57 | 10/01/20 15:53 | EPA 3050B | 1,6010D | GD |
| Calcium, Total | 10600 | | mg/kg | 8.45 | 2.96 | 2 | 09/29/20 12:57 | 10/01/20 15:53 | EPA 3050B | 1,6010D | GD |
| Chromium, Total | 17.0 | | mg/kg | 0.845 | 0.081 | 2 | 09/29/20 12:57 | 10/01/20 15:53 | EPA 3050B | 1,6010D | GD |
| Cobalt, Total | 7.84 | | mg/kg | 1.69 | 0.140 | 2 | 09/29/20 12:57 | 10/01/20 15:53 | EPA 3050B | 1,6010D | GD |
| Copper, Total | 29.2 | | mg/kg | 0.845 | 0.218 | 2 | 09/29/20 12:57 | 10/01/20 15:53 | EPA 3050B | 1,6010D | GD |
| Iron, Total | 14800 | | mg/kg | 4.23 | 0.763 | 2 | 09/29/20 12:57 | 10/01/20 15:53 | EPA 3050B | 1,6010D | GD |
| Lead, Total | 57.6 | | mg/kg | 4.23 | 0.226 | 2 | 09/29/20 12:57 | 10/01/20 15:53 | EPA 3050B | 1,6010D | GD |
| Magnesium, Total | 6390 | | mg/kg | 8.45 | 1.30 | 2 | 09/29/20 12:57 | 10/01/20 15:53 | EPA 3050B | 1,6010D | GD |
| Manganese, Total | 277 | | mg/kg | 0.845 | 0.134 | 2 | 09/29/20 12:57 | 10/01/20 15:53 | EPA 3050B | 1,6010D | GD |
| Mercury, Total | 0.088 | | mg/kg | 0.085 | 0.055 | 1 | 09/29/20 13:10 | 09/29/20 18:56 | EPA 7471B | 1,7471B | AL |
| Nickel, Total | 14.7 | | mg/kg | 2.11 | 0.204 | 2 | 09/29/20 12:57 | 10/01/20 15:53 | EPA 3050B | 1,6010D | GD |
| Potassium, Total | 1970 | | mg/kg | 211 | 12.2 | 2 | 09/29/20 12:57 | 10/01/20 15:53 | EPA 3050B | 1,6010D | GD |
| Selenium, Total | ND | | mg/kg | 1.69 | 0.218 | 2 | 09/29/20 12:57 | 10/01/20 15:53 | EPA 3050B | 1,6010D | GD |
| Silver, Total | ND | | mg/kg | 0.845 | 0.239 | 2 | 09/29/20 12:57 | 10/01/20 15:53 | EPA 3050B | 1,6010D | GD |
| Sodium, Total | 298 | | mg/kg | 169 | 2.66 | 2 | 09/29/20 12:57 | 10/01/20 15:53 | EPA 3050B | 1,6010D | GD |
| Thallium, Total | ND | | mg/kg | 1.69 | 0.266 | 2 | 09/29/20 12:57 | 10/01/20 15:53 | EPA 3050B | 1,6010D | GD |
| Vanadium, Total | 22.2 | | mg/kg | 0.845 | 0.172 | 2 | 09/29/20 12:57 | 10/01/20 15:53 | EPA 3050B | 1,6010D | GD |
| Zinc, Total | 91.3 | | mg/kg | 4.23 | 0.248 | 2 | 09/29/20 12:57 | 10/01/20 15:53 | EPA 3050B | 1,6010D | GD |
| **General Chemistry - Mansfield Lab** | | | | | | | | | | | |
| Chromium, Trivalent | 17 | | mg/kg | 0.89 | 0.89 | 1 | | 10/01/20 15:53 | NA | 107,- | |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-07 Date Collected: 09/24/20 11:11

Client ID: WC-F (10-15') Date Received: 09/24/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth: TCLP/SPLP Ext. Date: 09/25/20 05:57

Matrix: Soil

Percent Solids: 88%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Arsenic, TCLP | ND | | mg/l | 1.00 | 0.019 | 1 | 09/29/20 10:03 | 09/30/20 21:04 | EPA 3015 | 1,6010D | BV |
| Barium, TCLP | 0.508 | | mg/l | 0.500 | 0.021 | 1 | 09/29/20 10:03 | 09/30/20 21:04 | EPA 3015 | 1,6010D | BV |
| Cadmium, TCLP | ND | | mg/l | 0.100 | 0.010 | 1 | 09/29/20 10:03 | 09/30/20 21:04 | EPA 3015 | 1,6010D | BV |
| Chromium, TCLP | ND | | mg/l | 0.200 | 0.021 | 1 | 09/29/20 10:03 | 09/30/20 21:04 | EPA 3015 | 1,6010D | BV |
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 09/29/20 10:03 | 09/30/20 21:04 | EPA 3015 | 1,6010D | BV |
| Mercury, TCLP | ND | | mg/l | 0.0010 | 0.0005 | 1 | 09/29/20 09:17 | 09/29/20 18:24 | EPA 7470A | 1,7470A | AL |
| Selenium, TCLP | ND | | mg/l | 0.500 | 0.035 | 1 | 09/29/20 10:03 | 09/30/20 21:04 | EPA 3015 | 1,6010D | BV |
| Silver, TCLP | ND | | mg/l | 0.100 | 0.028 | 1 | 09/29/20 10:03 | 09/30/20 21:04 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040350
**Project Number:** 135173-002
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-07
Client ID: WC-F (10-15')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 09/24/20 11:11
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 88%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Aluminum, Total | 9170 | | mg/kg | 8.71 | 2.35 | 2 | 09/29/20 12:57 | 10/01/20 15:57 | EPA 3050B | 1,6010D | GD |
| Antimony, Total | ND | | mg/kg | 4.35 | 0.331 | 2 | 09/29/20 12:57 | 10/01/20 15:57 | EPA 3050B | 1,6010D | GD |
| Arsenic, Total | 1.25 | | mg/kg | 0.871 | 0.181 | 2 | 09/29/20 12:57 | 10/01/20 15:57 | EPA 3050B | 1,6010D | GD |
| Barium, Total | 57.0 | | mg/kg | 0.871 | 0.152 | 2 | 09/29/20 12:57 | 10/01/20 15:57 | EPA 3050B | 1,6010D | GD |
| Beryllium, Total | 0.061 | J | mg/kg | 0.435 | 0.029 | 2 | 09/29/20 12:57 | 10/01/20 15:57 | EPA 3050B | 1,6010D | GD |
| Cadmium, Total | 0.444 | J | mg/kg | 0.871 | 0.085 | 2 | 09/29/20 12:57 | 10/01/20 15:57 | EPA 3050B | 1,6010D | GD |
| Calcium, Total | 44300 | | mg/kg | 8.71 | 3.05 | 2 | 09/29/20 12:57 | 10/01/20 15:57 | EPA 3050B | 1,6010D | GD |
| Chromium, Total | 16.7 | | mg/kg | 0.871 | 0.084 | 2 | 09/29/20 12:57 | 10/01/20 15:57 | EPA 3050B | 1,6010D | GD |
| Cobalt, Total | 7.25 | | mg/kg | 1.74 | 0.144 | 2 | 09/29/20 12:57 | 10/01/20 15:57 | EPA 3050B | 1,6010D | GD |
| Copper, Total | 18.2 | | mg/kg | 0.871 | 0.225 | 2 | 09/29/20 12:57 | 10/01/20 15:57 | EPA 3050B | 1,6010D | GD |
| Iron, Total | 13200 | | mg/kg | 4.35 | 0.786 | 2 | 09/29/20 12:57 | 10/01/20 15:57 | EPA 3050B | 1,6010D | GD |
| Lead, Total | 4.08 | J | mg/kg | 4.35 | 0.233 | 2 | 09/29/20 12:57 | 10/01/20 15:57 | EPA 3050B | 1,6010D | GD |
| Magnesium, Total | 29300 | | mg/kg | 8.71 | 1.34 | 2 | 09/29/20 12:57 | 10/01/20 15:57 | EPA 3050B | 1,6010D | GD |
| Manganese, Total | 415 | | mg/kg | 0.871 | 0.138 | 2 | 09/29/20 12:57 | 10/01/20 15:57 | EPA 3050B | 1,6010D | GD |
| Mercury, Total | ND | | mg/kg | 0.076 | 0.050 | 1 | 09/29/20 13:10 | 09/29/20 19:00 | EPA 7471B | 1,7471B | AL |
| Nickel, Total | 12.9 | | mg/kg | 2.18 | 0.211 | 2 | 09/29/20 12:57 | 10/01/20 15:57 | EPA 3050B | 1,6010D | GD |
| Potassium, Total | 1830 | | mg/kg | 218 | 12.5 | 2 | 09/29/20 12:57 | 10/01/20 15:57 | EPA 3050B | 1,6010D | GD |
| Selenium, Total | ND | | mg/kg | 1.74 | 0.225 | 2 | 09/29/20 12:57 | 10/01/20 15:57 | EPA 3050B | 1,6010D | GD |
| Silver, Total | ND | | mg/kg | 0.871 | 0.246 | 2 | 09/29/20 12:57 | 10/01/20 15:57 | EPA 3050B | 1,6010D | GD |
| Sodium, Total | 370 | | mg/kg | 174 | 2.74 | 2 | 09/29/20 12:57 | 10/01/20 15:57 | EPA 3050B | 1,6010D | GD |
| Thallium, Total | ND | | mg/kg | 1.74 | 0.274 | 2 | 09/29/20 12:57 | 10/01/20 15:57 | EPA 3050B | 1,6010D | GD |
| Vanadium, Total | 24.9 | | mg/kg | 0.871 | 0.177 | 2 | 09/29/20 12:57 | 10/01/20 15:57 | EPA 3050B | 1,6010D | GD |
| Zinc, Total | 47.9 | | mg/kg | 4.35 | 0.255 | 2 | 09/29/20 12:57 | 10/01/20 15:57 | EPA 3050B | 1,6010D | GD |
| **General Chemistry - Mansfield Lab** | | | | | | | | | | | |
| Chromium, Trivalent | 17 | | mg/kg | 0.91 | 0.91 | 1 | | 10/01/20 15:57 | NA | 107,- | |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040350
**Project Number:** 135173-002
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-08
Client ID: WC-F (15-20')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 09/24/20 11:12
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 88%
TCLP/SPLP Ext. Date: 09/25/20 05:57

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Arsenic, TCLP | ND | | mg/l | 1.00 | 0.019 | 1 | 09/29/20 10:03 | 09/30/20 21:08 | EPA 3015 | 1,6010D | BV |
| Barium, TCLP | 0.460 | J | mg/l | 0.500 | 0.021 | 1 | 09/29/20 10:03 | 09/30/20 21:08 | EPA 3015 | 1,6010D | BV |
| Cadmium, TCLP | ND | | mg/l | 0.100 | 0.010 | 1 | 09/29/20 10:03 | 09/30/20 21:08 | EPA 3015 | 1,6010D | BV |
| Chromium, TCLP | ND | | mg/l | 0.200 | 0.021 | 1 | 09/29/20 10:03 | 09/30/20 21:08 | EPA 3015 | 1,6010D | BV |
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 09/29/20 10:03 | 09/30/20 21:08 | EPA 3015 | 1,6010D | BV |
| Mercury, TCLP | ND | | mg/l | 0.0010 | 0.0005 | 1 | 09/29/20 09:17 | 09/29/20 18:26 | EPA 7470A | 1,7470A | AL |
| Selenium, TCLP | ND | | mg/l | 0.500 | 0.035 | 1 | 09/29/20 10:03 | 09/30/20 21:08 | EPA 3015 | 1,6010D | BV |
| Silver, TCLP | ND | | mg/l | 0.100 | 0.028 | 1 | 09/29/20 10:03 | 09/30/20 21:08 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040350
**Project Number:** 135173-002
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-08
Client ID: WC-F (15-20')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 09/24/20 11:12
Date Received: 09/24/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 88%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Aluminum, Total | 4820 | | mg/kg | 8.57 | 2.31 | 2 | 09/29/20 12:57 | 10/01/20 16:02 | EPA 3050B | 1,6010D | GD |
| Antimony, Total | ND | | mg/kg | 4.29 | 0.326 | 2 | 09/29/20 12:57 | 10/01/20 16:02 | EPA 3050B | 1,6010D | GD |
| Arsenic, Total | 1.71 | | mg/kg | 0.857 | 0.178 | 2 | 09/29/20 12:57 | 10/01/20 16:02 | EPA 3050B | 1,6010D | GD |
| Barium, Total | 34.0 | | mg/kg | 0.857 | 0.149 | 2 | 09/29/20 12:57 | 10/01/20 16:02 | EPA 3050B | 1,6010D | GD |
| Beryllium, Total | 1.41 | | mg/kg | 0.429 | 0.028 | 2 | 09/29/20 12:57 | 10/01/20 16:02 | EPA 3050B | 1,6010D | GD |
| Cadmium, Total | 0.480 | J | mg/kg | 0.857 | 0.084 | 2 | 09/29/20 12:57 | 10/01/20 16:02 | EPA 3050B | 1,6010D | GD |
| Calcium, Total | 56000 | | mg/kg | 8.57 | 3.00 | 2 | 09/29/20 12:57 | 10/01/20 16:02 | EPA 3050B | 1,6010D | GD |
| Chromium, Total | 9.89 | | mg/kg | 0.857 | 0.082 | 2 | 09/29/20 12:57 | 10/01/20 16:02 | EPA 3050B | 1,6010D | GD |
| Cobalt, Total | 5.76 | | mg/kg | 1.71 | 0.142 | 2 | 09/29/20 12:57 | 10/01/20 16:02 | EPA 3050B | 1,6010D | GD |
| Copper, Total | 11.7 | | mg/kg | 0.857 | 0.221 | 2 | 09/29/20 12:57 | 10/01/20 16:02 | EPA 3050B | 1,6010D | GD |
| Iron, Total | 14700 | | mg/kg | 4.29 | 0.774 | 2 | 09/29/20 12:57 | 10/01/20 16:02 | EPA 3050B | 1,6010D | GD |
| Lead, Total | 12.9 | | mg/kg | 4.29 | 0.230 | 2 | 09/29/20 12:57 | 10/01/20 16:02 | EPA 3050B | 1,6010D | GD |
| Magnesium, Total | 31300 | | mg/kg | 8.57 | 1.32 | 2 | 09/29/20 12:57 | 10/01/20 16:02 | EPA 3050B | 1,6010D | GD |
| Manganese, Total | 223 | | mg/kg | 0.857 | 0.136 | 2 | 09/29/20 12:57 | 10/01/20 16:02 | EPA 3050B | 1,6010D | GD |
| Mercury, Total | ND | | mg/kg | 0.077 | 0.050 | 1 | 09/29/20 13:10 | 09/29/20 19:09 | EPA 7471B | 1,7471B | AL |
| Nickel, Total | 15.4 | | mg/kg | 2.14 | 0.207 | 2 | 09/29/20 12:57 | 10/01/20 16:02 | EPA 3050B | 1,6010D | GD |
| Potassium, Total | 1310 | | mg/kg | 214 | 12.3 | 2 | 09/29/20 12:57 | 10/01/20 16:02 | EPA 3050B | 1,6010D | GD |
| Selenium, Total | ND | | mg/kg | 1.71 | 0.221 | 2 | 09/29/20 12:57 | 10/01/20 16:02 | EPA 3050B | 1,6010D | GD |
| Silver, Total | ND | | mg/kg | 0.857 | 0.243 | 2 | 09/29/20 12:57 | 10/01/20 16:02 | EPA 3050B | 1,6010D | GD |
| Sodium, Total | 93.0 | J | mg/kg | 171 | 2.70 | 2 | 09/29/20 12:57 | 10/01/20 16:02 | EPA 3050B | 1,6010D | GD |
| Thallium, Total | ND | | mg/kg | 1.71 | 0.270 | 2 | 09/29/20 12:57 | 10/01/20 16:02 | EPA 3050B | 1,6010D | GD |
| Vanadium, Total | 21.0 | | mg/kg | 0.857 | 0.174 | 2 | 09/29/20 12:57 | 10/01/20 16:02 | EPA 3050B | 1,6010D | GD |
| Zinc, Total | 143 | | mg/kg | 4.29 | 0.251 | 2 | 09/29/20 12:57 | 10/01/20 16:02 | EPA 3050B | 1,6010D | GD |
| **General Chemistry - Mansfield Lab** | | | | | | | | | | | |
| Chromium, Trivalent | 9.9 | | mg/kg | 0.91 | 0.91 | 1 | | 10/01/20 16:02 | NA | 107,- | |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

# Method Blank Analysis
# Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 03 Batch: WG1415541-1 | | | | | | | | | | |
| Arsenic, TCLP | ND | | mg/l | 1.00 | 0.019 | 1 | 09/29/20 08:30 | 09/30/20 12:25 | 1,6010D | PS |
| Barium, TCLP | ND | | mg/l | 0.500 | 0.021 | 1 | 09/29/20 08:30 | 09/30/20 12:25 | 1,6010D | PS |
| Cadmium, TCLP | ND | | mg/l | 0.100 | 0.010 | 1 | 09/29/20 08:30 | 09/30/20 12:25 | 1,6010D | PS |
| Chromium, TCLP | ND | | mg/l | 0.200 | 0.021 | 1 | 09/29/20 08:30 | 09/30/20 12:25 | 1,6010D | PS |
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 09/29/20 08:30 | 09/30/20 12:25 | 1,6010D | PS |
| Selenium, TCLP | ND | | mg/l | 0.500 | 0.035 | 1 | 09/29/20 08:30 | 09/30/20 12:25 | 1,6010D | PS |
| Silver, TCLP | ND | | mg/l | 0.100 | 0.028 | 1 | 09/29/20 08:30 | 09/30/20 12:25 | 1,6010D | PS |

**Prep Information**

Digestion Method: EPA 3015

TCLP/SPLP Extraction Date: 09/25/20 05:57

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 03 Batch: WG1415543-1 | | | | | | | | | | |
| Mercury, TCLP | ND | | mg/l | 0.0010 | 0.0005 | 1 | 09/29/20 09:17 | 09/29/20 16:57 | 1,7470A | AL |

**Prep Information**

Digestion Method: EPA 7470A

TCLP/SPLP Extraction Date: 09/25/20 05:57

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab for sample(s): 01-08 Batch: WG1415571-1 | | | | | | | | | | |
| Aluminum, Total | 1.22 | J | mg/kg | 4.00 | 1.08 | 1 | 09/29/20 12:57 | 10/01/20 13:54 | 1,6010D | GD |
| Antimony, Total | ND | | mg/kg | 2.00 | 0.152 | 1 | 09/29/20 12:57 | 10/01/20 13:54 | 1,6010D | GD |
| Arsenic, Total | ND | | mg/kg | 0.400 | 0.083 | 1 | 09/29/20 12:57 | 10/01/20 13:54 | 1,6010D | GD |
| Barium, Total | ND | | mg/kg | 0.400 | 0.070 | 1 | 09/29/20 12:57 | 10/01/20 13:54 | 1,6010D | GD |
| Beryllium, Total | ND | | mg/kg | 0.200 | 0.013 | 1 | 09/29/20 12:57 | 10/01/20 13:54 | 1,6010D | GD |
| Cadmium, Total | ND | | mg/kg | 0.400 | 0.039 | 1 | 09/29/20 12:57 | 10/01/20 13:54 | 1,6010D | GD |
| Calcium, Total | ND | | mg/kg | 4.00 | 1.40 | 1 | 09/29/20 12:57 | 10/01/20 13:54 | 1,6010D | GD |
| Chromium, Total | ND | | mg/kg | 0.400 | 0.038 | 1 | 09/29/20 12:57 | 10/01/20 13:54 | 1,6010D | GD |
| Cobalt, Total | ND | | mg/kg | 0.800 | 0.066 | 1 | 09/29/20 12:57 | 10/01/20 13:54 | 1,6010D | GD |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

# Method Blank Analysis
# Batch Quality Control

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Copper, Total | ND | | mg/kg | 0.400 | 0.103 | 1 | 09/29/20 12:57 | 10/01/20 13:54 | 1,6010D | GD |
| Iron, Total | 0.424 | J | mg/kg | 2.00 | 0.361 | 1 | 09/29/20 12:57 | 10/01/20 13:54 | 1,6010D | GD |
| Lead, Total | ND | | mg/kg | 2.00 | 0.107 | 1 | 09/29/20 12:57 | 10/01/20 13:54 | 1,6010D | GD |
| Magnesium, Total | ND | | mg/kg | 4.00 | 0.616 | 1 | 09/29/20 12:57 | 10/01/20 13:54 | 1,6010D | GD |
| Manganese, Total | ND | | mg/kg | 0.400 | 0.064 | 1 | 09/29/20 12:57 | 10/01/20 13:54 | 1,6010D | GD |
| Nickel, Total | ND | | mg/kg | 1.00 | 0.097 | 1 | 09/29/20 12:57 | 10/01/20 13:54 | 1,6010D | GD |
| Potassium, Total | ND | | mg/kg | 100 | 5.76 | 1 | 09/29/20 12:57 | 10/01/20 13:54 | 1,6010D | GD |
| Selenium, Total | ND | | mg/kg | 0.800 | 0.103 | 1 | 09/29/20 12:57 | 10/01/20 13:54 | 1,6010D | GD |
| Silver, Total | ND | | mg/kg | 0.400 | 0.113 | 1 | 09/29/20 12:57 | 10/01/20 13:54 | 1,6010D | GD |
| Sodium, Total | 4.18 | J | mg/kg | 80.0 | 1.26 | 1 | 09/29/20 12:57 | 10/01/20 13:54 | 1,6010D | GD |
| Thallium, Total | ND | | mg/kg | 0.800 | 0.126 | 1 | 09/29/20 12:57 | 10/01/20 13:54 | 1,6010D | GD |
| Vanadium, Total | ND | | mg/kg | 0.400 | 0.081 | 1 | 09/29/20 12:57 | 10/01/20 13:54 | 1,6010D | GD |
| Zinc, Total | ND | | mg/kg | 2.00 | 0.117 | 1 | 09/29/20 12:57 | 10/01/20 13:54 | 1,6010D | GD |

**Prep Information**

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab for sample(s): 01-08 Batch: WG1415572-1 | | | | | | | | | | |
| Mercury, Total | ND | | mg/kg | 0.083 | 0.054 | 1 | 09/29/20 13:10 | 09/29/20 17:34 | 1,7471B | AL |

**Prep Information**

Digestion Method: EPA 7471B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 01-02,04-08 Batch: WG1415594-1 | | | | | | | | | | |
| Arsenic, TCLP | ND | | mg/l | 1.00 | 0.019 | 1 | 09/29/20 09:07 | 09/30/20 13:34 | 1,6010D | GD |
| Barium, TCLP | ND | | mg/l | 0.500 | 0.021 | 1 | 09/29/20 09:07 | 09/30/20 13:34 | 1,6010D | GD |
| Cadmium, TCLP | ND | | mg/l | 0.100 | 0.010 | 1 | 09/29/20 09:07 | 09/30/20 13:34 | 1,6010D | GD |
| Chromium, TCLP | ND | | mg/l | 0.200 | 0.021 | 1 | 09/29/20 09:07 | 09/30/20 13:34 | 1,6010D | GD |
| Lead, TCLP | 0.147 | J | mg/l | 0.500 | 0.027 | 1 | 09/29/20 09:07 | 09/30/20 13:34 | 1,6010D | GD |
| Selenium, TCLP | ND | | mg/l | 0.500 | 0.035 | 1 | 09/29/20 09:07 | 09/30/20 13:34 | 1,6010D | GD |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040350

**Project Number:** 135173-002 **Report Date:** 10/01/20

# Method Blank Analysis
# Batch Quality Control

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Silver, TCLP | ND | mg/l | 0.100 | 0.028 | 1 | 09/29/20 09:07 | 09/30/20 13:34 | 1,6010D | GD |

**Prep Information**

Digestion Method: EPA 3015

TCLP/SPLP Extraction Date: 09/24/20 05:43

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 01-02,04-08 Batch: WG1415595-1 | | | | | | | | | | |
| Mercury, TCLP | ND | | mg/l | 0.0010 | 0.0005 | 1 | 09/29/20 09:17 | 09/29/20 17:54 | 1,7470A | AL |

**Prep Information**

Digestion Method: EPA 7470A

TCLP/SPLP Extraction Date: 09/24/20 05:43

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040350

**Report Date:** 10/01/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 03 Batch: WG1415541-2 | | | | | | | | |
| Arsenic, TCLP | 102 | | - | | 75-125 | - | | 20 |
| Barium, TCLP | 99 | | - | | 75-125 | - | | 20 |
| Cadmium, TCLP | 103 | | - | | 75-125 | - | | 20 |
| Chromium, TCLP | 98 | | - | | 75-125 | - | | 20 |
| Lead, TCLP | 99 | | - | | 75-125 | - | | 20 |
| Selenium, TCLP | 101 | | - | | 75-125 | - | | 20 |
| Silver, TCLP | 97 | | - | | 75-125 | - | | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 03 Batch: WG1415543-2 | | | | | | | | |
| Mercury, TCLP | 105 | | - | | 80-120 | - | | |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040350

**Report Date:** 10/01/20

| Parameter | LCS %Recovery | LCSD %Recovery | %Recovery Limits | RPD | RPD Limits |
|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01-08 Batch: WG1415571-2 SRM Lot Number: D109-540 | | | | | |
| Aluminum, Total | 73 | - | 50-150 | - | |
| Antimony, Total | 153 | - | 19-250 | - | |
| Arsenic, Total | 104 | - | 70-130 | - | |
| Barium, Total | 104 | - | 75-125 | - | |
| Beryllium, Total | 109 | - | 75-125 | - | |
| Cadmium, Total | 97 | - | 75-125 | - | |
| Calcium, Total | 100 | - | 73-128 | - | |
| Chromium, Total | 101 | - | 70-130 | - | |
| Cobalt, Total | 101 | - | 75-125 | - | |
| Copper, Total | 102 | - | 75-125 | - | |
| Iron, Total | 96 | - | 35-165 | - | |
| Lead, Total | 98 | - | 72-128 | - | |
| Magnesium, Total | 90 | - | 62-138 | - | |
| Manganese, Total | 99 | - | 74-126 | - | |
| Nickel, Total | 98 | - | 70-130 | - | |
| Potassium, Total | 85 | - | 59-141 | - | |
| Selenium, Total | 101 | - | 68-132 | - | |
| Silver, Total | 104 | - | 68-131 | - | |
| Sodium, Total | 111 | - | 35-165 | - | |
| Thallium, Total | 99 | - | 68-131 | - | |
| Vanadium, Total | 100 | - | 59-141 | - | |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040350

**Report Date:** 10/01/20

| Parameter | LCS %Recovery | LCSD %Recovery | %Recovery Limits | RPD | RPD Limits |
|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01-08 Batch: WG1415571-2 SRM Lot Number: D109-540 | | | | | |
| Zinc, Total | 99 | - | 70-130 | - | |
| Total Metals - Mansfield Lab Associated sample(s): 01-08 Batch: WG1415572-2 SRM Lot Number: D109-540 | | | | | |
| Mercury, Total | 96 | - | 60-140 | - | |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01-02,04-08 Batch: WG1415594-2 | | | | | |
| Arsenic, TCLP | 103 | - | 75-125 | - | 20 |
| Barium, TCLP | 100 | - | 75-125 | - | 20 |
| Cadmium, TCLP | 104 | - | 75-125 | - | 20 |
| Chromium, TCLP | 96 | - | 75-125 | - | 20 |
| Lead, TCLP | 102 | - | 75-125 | - | 20 |
| Selenium, TCLP | 107 | - | 75-125 | - | 20 |
| Silver, TCLP | 100 | - | 75-125 | - | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01-02,04-08 Batch: WG1415595-2 | | | | | |
| Mercury, TCLP | 109 | - | 80-120 | - | |

# Matrix Spike Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2040350
**Report Date:** 10/01/20

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG1415541-3 QC Sample: L2040009-01 Client ID: MS Sample | | | | | | | | | | | | |
| Arsenic, TCLP | ND | 1.2 | 1.23 | 102 | | - | - | | 75-125 | - | | 20 |
| Barium, TCLP | 0.237J | 20 | 19.8 | 99 | | - | - | | 75-125 | - | | 20 |
| Cadmium, TCLP | ND | 0.51 | 0.513 | 100 | | - | - | | 75-125 | - | | 20 |
| Chromium, TCLP | 0.332 | 2 | 2.21 | 94 | | - | - | | 75-125 | - | | 20 |
| Lead, TCLP | 0.028J | 5.1 | 4.89 | 96 | | - | - | | 75-125 | - | | 20 |
| Selenium, TCLP | 0.037J | 1.2 | 1.27 | 106 | | - | - | | 75-125 | - | | 20 |
| Silver, TCLP | ND | 0.5 | 0.484 | 97 | | - | - | | 75-125 | - | | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG1415543-3 QC Sample: L2040009-01 Client ID: MS Sample | | | | | | | | | | | | |
| Mercury, TCLP | ND | 0.025 | 0.0274 | 109 | | - | - | | 80-120 | - | | 20 |

# Matrix Spike Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2040350
**Report Date:** 10/01/20

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | | MSD Found | MSD %Recovery | Recovery Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG1415571-3 QC Sample: L2040317-01 Client ID: MS Sample | | | | | | | | | | |
| Aluminum, Total | 1440 | 170 | 1990 | **323** | Q | - | - | 75-125 | - | 20 |
| Antimony, Total | 2.59J | 42.5 | 42.4 | 100 | | - | - | 75-125 | - | 20 |
| Arsenic, Total | 3.55 | 10.2 | 12.8 | 91 | | - | - | 75-125 | - | 20 |
| Barium, Total | 372 | 170 | 486 | **67** | Q | - | - | 75-125 | - | 20 |
| Beryllium, Total | 0.043J | 4.25 | 4.43 | 104 | | - | - | 75-125 | - | 20 |
| Cadmium, Total | 1.32 | 4.34 | 5.20 | 89 | | - | - | 75-125 | - | 20 |
| Calcium, Total | 13700 | 850 | 9190 | **0** | Q | - | - | 75-125 | - | 20 |
| Chromium, Total | 9.22 | 17 | 26.5 | 102 | | - | - | 75-125 | - | 20 |
| Cobalt, Total | 2.04 | 42.5 | 40.9 | 91 | | - | - | 75-125 | - | 20 |
| Copper, Total | 35.0 | 21.2 | 60.0 | 118 | | - | - | 75-125 | - | 20 |
| Iron, Total | 6350 | 85 | 6330 | **0** | Q | - | - | 75-125 | - | 20 |
| Lead, Total | 1600 | 43.4 | 666 | **0** | Q | - | - | 75-125 | - | 20 |
| Magnesium, Total | 2160 | 850 | 1670 | **0** | Q | - | - | 75-125 | - | 20 |
| Manganese, Total | 77.4 | 42.5 | 140 | **147** | Q | - | - | 75-125 | - | 20 |
| Nickel, Total | 11.6 | 42.5 | 46.8 | 83 | | - | - | 75-125 | - | 20 |
| Potassium, Total | 192J | 850 | 1040 | 122 | | - | - | 75-125 | - | 20 |
| Selenium, Total | 0.311J | 10.2 | 8.62 | 84 | | - | - | 75-125 | - | 20 |
| Silver, Total | 0.259J | 25.5 | 25.7 | 101 | | - | - | 75-125 | - | 20 |
| Sodium, Total | 57.2J | 850 | 984 | 116 | | - | - | 75-125 | - | 20 |
| Thallium, Total | ND | 10.2 | 8.73 | 86 | | - | - | 75-125 | - | 20 |
| Vanadium, Total | 9.40 | 42.5 | 52.3 | 101 | | - | - | 75-125 | - | 20 |

# Matrix Spike Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2040350
**Report Date:** 10/01/20

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | | MSD Found | MSD %Recovery | Recovery Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG1415571-3 QC Sample: L2040317-01 Client ID: MS Sample | | | | | | | | | | |
| Zinc, Total | 543 | 42.5 | 466 | **0** | Q | - | - | 75-125 | - | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG1415572-3 QC Sample: L2040317-01 Client ID: MS Sample | | | | | | | | | | |
| Mercury, Total | 0.628 | 0.163 | 0.525 | **0** | Q | - | - | 80-120 | - | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01-02,04-08 QC Batch ID: WG1415594-3 QC Sample: L2040271-01 Client ID: MS Sample | | | | | | | | | | |
| Arsenic, TCLP | ND | 1.2 | 1.22 | 102 | | - | - | 75-125 | - | 20 |
| Barium, TCLP | 0.843 | 20 | 20.9 | 100 | | - | - | 75-125 | - | 20 |
| Cadmium, TCLP | ND | 0.51 | 0.523 | 102 | | - | - | 75-125 | - | 20 |
| Chromium, TCLP | ND | 2 | 1.90 | 95 | | - | - | 75-125 | - | 20 |
| Lead, TCLP | ND | 5.1 | 4.98 | 98 | | - | - | 75-125 | - | 20 |
| Selenium, TCLP | ND | 1.2 | 1.26 | 105 | | - | - | 75-125 | - | 20 |
| Silver, TCLP | ND | 0.5 | 0.494 | 99 | | - | - | 75-125 | - | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01-02,04-08 QC Batch ID: WG1415595-3 QC Sample: L2040271-01 Client ID: MS Sample | | | | | | | | | | |
| Mercury, TCLP | ND | 0.025 | 0.0276 | 110 | | - | - | 80-120 | - | 20 |

# Lab Duplicate Analysis
*Batch Quality Control*

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

***Lab Number:*** L2040350
***Report Date:*** 10/01/20

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG1415541-4 QC Sample: L2040009-01 Client ID: DUP Sample | | | | | | |
| Arsenic, TCLP | ND | ND | mg/l | NC | | 20 |
| Barium, TCLP | 0.237J | 0.235J | mg/l | NC | | 20 |
| Cadmium, TCLP | ND | ND | mg/l | NC | | 20 |
| Chromium, TCLP | 0.332 | 0.322 | mg/l | 3 | | 20 |
| Lead, TCLP | 0.028J | 0.039J | mg/l | NC | | 20 |
| Selenium, TCLP | 0.037J | 0.041J | mg/l | NC | | 20 |
| Silver, TCLP | ND | ND | mg/l | NC | | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG1415543-4 QC Sample: L2040009-01 Client ID: DUP Sample | | | | | | |
| Mercury, TCLP | ND | ND | mg/l | NC | | 20 |

# Lab Duplicate Analysis
*Batch Quality Control*

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

***Lab Number:*** L2040350
***Report Date:*** 10/01/20

| Parameter | Native Sample | Duplicate Sample | Units | RPD | | RPD Limits |
|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG1415571-4 QC Sample: L2040317-01 Client ID: DUP Sample | | | | | | |
| Aluminum, Total | 1440 | 1060 | mg/kg | **30** | Q | 20 |
| Antimony, Total | 2.59J | 1.02J | mg/kg | NC | | 20 |
| Arsenic, Total | 3.55 | 2.55 | mg/kg | **33** | Q | 20 |
| Barium, Total | 372 | 259 | mg/kg | **36** | Q | 20 |
| Beryllium, Total | 0.043J | ND | mg/kg | NC | | 20 |
| Cadmium, Total | 1.32 | 0.751J | mg/kg | NC | | 20 |
| Calcium, Total | 13700 | 4520 | mg/kg | **101** | Q | 20 |
| Chromium, Total | 9.22 | 7.46 | mg/kg | **21** | Q | 20 |
| Cobalt, Total | 2.04 | 1.78 | mg/kg | 14 | | 20 |
| Copper, Total | 35.0 | 35.5 | mg/kg | 1 | | 20 |
| Iron, Total | 6350 | 4150 | mg/kg | **42** | Q | 20 |
| Lead, Total | 1600 | 570 | mg/kg | **95** | Q | 20 |
| Magnesium, Total | 2160 | 532 | mg/kg | **121** | Q | 20 |
| Manganese, Total | 77.4 | 57.8 | mg/kg | **29** | Q | 20 |
| Nickel, Total | 11.6 | 7.30 | mg/kg | **46** | Q | 20 |
| Potassium, Total | 192J | 129J | mg/kg | NC | | 20 |
| Selenium, Total | 0.311J | 0.273J | mg/kg | NC | | 20 |
| Silver, Total | 0.259J | ND | mg/kg | NC | | 20 |
| Sodium, Total | 57.2J | 36.3J | mg/kg | NC | | 20 |

# Lab Duplicate Analysis
*Batch Quality Control*

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

***Lab Number:*** L2040350
***Report Date:*** 10/01/20

| Parameter | Native Sample | Duplicate Sample | Units | RPD | | RPD Limits |
|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG1415571-4 QC Sample: L2040317-01 Client ID: DUP Sample | | | | | | |
| Thallium, Total | ND | ND | mg/kg | NC | | 20 |
| Vanadium, Total | 9.40 | 8.96 | mg/kg | 5 | | 20 |
| Zinc, Total | 543 | 326 | mg/kg | **50** | Q | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG1415572-4 QC Sample: L2040317-01 Client ID: DUP Sample | | | | | | |
| Mercury, Total | 0.628 | 0.583 | mg/kg | 7 | | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01-02,04-08 QC Batch ID: WG1415594-4 QC Sample: L2040271-01 Client ID: DUP Sample | | | | | | |
| Arsenic, TCLP | ND | ND | mg/l | NC | | 20 |
| Barium, TCLP | 0.843 | 0.840 | mg/l | 0 | | 20 |
| Cadmium, TCLP | ND | ND | mg/l | NC | | 20 |
| Chromium, TCLP | ND | ND | mg/l | NC | | 20 |
| Lead, TCLP | ND | ND | mg/l | NC | | 20 |
| Selenium, TCLP | ND | ND | mg/l | NC | | 20 |
| Silver, TCLP | ND | ND | mg/l | NC | | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01-02,04-08 QC Batch ID: WG1415595-4 QC Sample: L2040271-01 Client ID: DUP Sample | | | | | | |
| Mercury, TCLP | ND | ND | mg/l | NC | | 20 |

# INORGANICS
# &
# MISCELLANEOUS

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-01
Client ID: WC-A (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 09/24/20 13:00
Date Received: 09/24/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 87.2 | | % | 0.100 | NA | 1 | - | 09/25/20 11:33 | 121,2540G | RI |
| Cyanide, Total | ND | | mg/kg | 1.1 | 0.23 | 1 | 09/26/20 19:00 | 09/29/20 15:09 | 1,9010C/9012B | AG |
| pH (H) | 9.0 | | SU | - | NA | 1 | - | 09/25/20 18:54 | 1,9045D | AS |
| Chromium, Hexavalent | ND | | mg/kg | 0.917 | 0.183 | 1 | 09/30/20 22:08 | 10/01/20 10:45 | 1,7196A | JT |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-02
Client ID: WC-A (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 09/24/20 13:02
Date Received: 09/24/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 91.0 | | % | 0.100 | NA | 1 | - | 09/25/20 11:33 | 121,2540G | RI |
| Cyanide, Total | ND | | mg/kg | 1.1 | 0.23 | 1 | 09/26/20 19:00 | 09/29/20 15:10 | 1,9010C/9012B | AG |
| pH (H) | 8.7 | | SU | - | NA | 1 | - | 09/25/20 18:54 | 1,9045D | AS |
| Chromium, Hexavalent | ND | | mg/kg | 0.879 | 0.176 | 1 | 09/30/20 22:08 | 10/01/20 10:45 | 1,7196A | JT |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-03
Client ID: WC-B (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil

Date Collected: 09/24/20 14:15
Date Received: 09/24/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 87.7 | | % | 0.100 | NA | 1 | - | 09/25/20 11:33 | 121,2540G | RI |
| Cyanide, Total | 0.37 | J | mg/kg | 1.1 | 0.23 | 1 | 09/29/20 19:15 | 09/30/20 15:12 | 1,9010C/9012B | AG |
| pH (H) | 8.0 | | SU | - | NA | 1 | - | 09/25/20 18:54 | 1,9045D | AS |
| Chromium, Hexavalent | ND | | mg/kg | 0.912 | 0.182 | 1 | 09/30/20 22:08 | 10/01/20 10:45 | 1,7196A | JT |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-04
Client ID: WC-B (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 09/24/20 14:20
Date Received: 09/24/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 91.8 | | % | 0.100 | NA | 1 | - | 09/25/20 11:33 | 121,2540G | RI |
| Cyanide, Total | ND | | mg/kg | 0.99 | 0.21 | 1 | 09/29/20 19:15 | 09/30/20 15:37 | 1,9010C/9012B | AG |
| pH (H) | 8.4 | | SU | - | NA | 1 | - | 09/25/20 18:54 | 1,9045D | AS |
| Chromium, Hexavalent | ND | | mg/kg | 0.871 | 0.174 | 1 | 09/30/20 22:08 | 10/01/20 10:45 | 1,7196A | JT |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-05
Client ID: WC-F (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 09/24/20 11:07
Date Received: 09/24/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 90.4 | | % | 0.100 | NA | 1 | - | 09/25/20 11:33 | 121,2540G | RI |
| Cyanide, Total | 0.31 | J | mg/kg | 1.1 | 0.23 | 1 | 09/29/20 19:15 | 09/30/20 15:16 | 1,9010C/9012B | AG |
| pH (H) | 8.4 | | SU | - | NA | 1 | - | 09/25/20 18:54 | 1,9045D | AS |
| Chromium, Hexavalent | ND | | mg/kg | 0.885 | 0.177 | 1 | 09/30/20 22:08 | 10/01/20 10:45 | 1,7196A | JT |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-06
Client ID: WC-F (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 09/24/20 11:10
Date Received: 09/24/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 89.7 | | % | 0.100 | NA | 1 | - | 09/25/20 11:33 | 121,2540G | RI |
| Cyanide, Total | ND | | mg/kg | 1.0 | 0.22 | 1 | 09/29/20 19:15 | 09/30/20 15:17 | 1,9010C/9012B | AG |
| pH (H) | 8.9 | | SU | - | NA | 1 | - | 09/25/20 18:54 | 1,9045D | AS |
| Chromium, Hexavalent | ND | | mg/kg | 0.892 | 0.178 | 1 | 09/30/20 22:08 | 10/01/20 10:45 | 1,7196A | JT |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-07
Client ID: WC-F (10-15')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 09/24/20 11:11
Date Received: 09/24/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 88.0 | | % | 0.100 | NA | 1 | - | 09/25/20 11:33 | 121,2540G | RI |
| Cyanide, Total | ND | | mg/kg | 1.1 | 0.23 | 1 | 09/29/20 19:15 | 09/30/20 15:38 | 1,9010C/9012B | AG |
| pH (H) | 8.0 | | SU | - | NA | 1 | - | 09/25/20 18:54 | 1,9045D | AS |
| Chromium, Hexavalent | ND | | mg/kg | 0.909 | 0.182 | 1 | 09/30/20 22:08 | 10/01/20 10:45 | 1,7196A | JT |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-08
Client ID: WC-F (15-20')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 09/24/20 11:12
Date Received: 09/24/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 88.3 | | % | 0.100 | NA | 1 | - | 09/25/20 11:33 | 121,2540G | RI |
| Cyanide, Total | ND | | mg/kg | 1.1 | 0.23 | 1 | 09/29/20 19:15 | 09/30/20 15:19 | 1,9010C/9012B | AG |
| pH (H) | 8.1 | | SU | - | NA | 1 | - | 09/25/20 18:54 | 1,9045D | AS |
| Chromium, Hexavalent | ND | | mg/kg | 0.906 | 0.181 | 1 | 09/30/20 22:08 | 10/01/20 10:45 | 1,7196A | JT |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-09
Client ID: A-B3 (1-3')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 09/24/20 11:42
Date Received: 09/24/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 89.3 | | % | 0.100 | NA | 1 | - | 09/25/20 11:33 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-10
Client ID: A-B5 (7-9')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 09/24/20 12:56
Date Received: 09/24/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 92.0 | | % | 0.100 | NA | 1 | - | 09/25/20 11:33 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-11
Client ID: B-B3 (8-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 09/24/20 13:50
Date Received: 09/24/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 88.3 | | % | 0.100 | NA | 1 | - | 09/25/20 11:33 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-12
Client ID: B-B4 (3-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil

Date Collected: 09/24/20 14:11
Date Received: 09/24/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 92.6 | | % | 0.100 | NA | 1 | - | 09/25/20 11:33 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-13
Client ID: F-B2 (10-12')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil

Date Collected: 09/24/20 08:25
Date Received: 09/24/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 79.6 | | % | 0.100 | NA | 1 | - | 09/25/20 11:33 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-14
Client ID: F-B3 (15-17')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil

Date Collected: 09/24/20 08:56
Date Received: 09/24/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 80.4 | | % | 0.100 | NA | 1 | - | 09/25/20 11:33 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-15
Client ID: F-B4 (3-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 09/24/20 09:34
Date Received: 09/24/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 90.2 | | % | 0.100 | NA | 1 | - | 09/25/20 11:33 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

## SAMPLE RESULTS

Lab ID: L2040350-16
Client ID: F-B5 (9-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 09/24/20 11:02
Date Received: 09/24/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 72.1 | | % | 0.100 | NA | 1 | - | 09/25/20 11:33 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040350
**Report Date:** 10/01/20

# Method Blank Analysis
## Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1415021-1 | | | | | | | | | | |
| Cyanide, Total | ND | | mg/kg | 1.0 | 0.21 | 1 | 09/26/20 19:00 | 09/29/20 14:47 | 1,9010C/9012B | AG |
| General Chemistry - Westborough Lab for sample(s): 03-08 Batch: WG1415908-1 | | | | | | | | | | |
| Cyanide, Total | ND | | mg/kg | 0.92 | 0.19 | 1 | 09/29/20 19:15 | 09/30/20 15:34 | 1,9010C/9012B | AG |
| General Chemistry - Westborough Lab for sample(s): 01-08 Batch: WG1416621-1 | | | | | | | | | | |
| Chromium, Hexavalent | ND | | mg/kg | 0.800 | 0.160 | 1 | 09/30/20 22:08 | 10/01/20 10:45 | 1,7196A | JT |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040350

**Report Date:** 10/01/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| General Chemistry - Westborough Lab Associated sample(s): 01-08 Batch: WG1414735-1 | | | | | | | | |
| pH | 100 | | - | | 99-101 | - | | |
| General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1415021-2 WG1415021-3 | | | | | | | | |
| Cyanide, Total | **35** | Q | **58** | Q | 80-120 | **39** | Q | 35 |
| General Chemistry - Westborough Lab Associated sample(s): 03-08 Batch: WG1415908-2 WG1415908-3 | | | | | | | | |
| Cyanide, Total | **71** | Q | **74** | Q | 80-120 | 1 | | 35 |
| General Chemistry - Westborough Lab Associated sample(s): 01-08 Batch: WG1416621-2 | | | | | | | | |
| Chromium, Hexavalent | 104 | | - | | 80-120 | - | | 20 |

# Matrix Spike Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2040350
**Report Date:** 10/01/20

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1415021-4 WG1415021-5 QC Sample: L2040178-02 Client ID: MS Sample | | | | | | | | | | | | |
| Cyanide, Total | ND | 11 | 10 | 87 | | 11 | 93 | | 75-125 | 10 | | 35 |
| General Chemistry - Westborough Lab Associated sample(s): 03-08 QC Batch ID: WG1415908-4 WG1415908-5 QC Sample: L2040350-03 Client ID: WC-B (0-5') | | | | | | | | | | | | |
| Cyanide, Total | 0.37J | 11 | 12 | 100 | | 11 | 96 | | 75-125 | 9 | | 35 |
| General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG1416621-4 QC Sample: L2040350-04 Client ID: WC-B (5-10') | | | | | | | | | | | | |
| Chromium, Hexavalent | ND | 822 | 809 | 98 | | - | - | | 75-125 | - | | 20 |

# Lab Duplicate Analysis
*Batch Quality Control*

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

***Lab Number:*** L2040350
***Report Date:*** 10/01/20

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| General Chemistry - Westborough Lab Associated sample(s): 01-16 QC Batch ID: WG1414455-1 QC Sample: L2040350-01 Client ID: WC-A (0-5') | | | | | | |
| Solids, Total | 87.2 | 86.8 | % | 0 | | 20 |
| General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG1414735-2 QC Sample: L2040009-01 Client ID: DUP Sample | | | | | | |
| pH | 12.1 | 12.0 | SU | 1 | | 5 |
| General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG1416621-6 QC Sample: L2040350-04 Client ID: WC-B (5-10') | | | | | | |
| Chromium, Hexavalent | ND | ND | mg/kg | NC | | 20 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2040350
**Report Date:** 10/01/20

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

### Cooler Information

| Cooler | Custody Seal |
|---|---|
| A | Absent |

### Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2040350-01A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 4.1 | Y | Absent | | BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),NI-TI(180),CR-TI(180),TL-TI(180),TRICR-CALC(30),AL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),ZN-TI(180),SE-TI(180),V-TI(180),CO-TI(180),MN-TI(180),HG-T(28),FE-TI(180),CD-TI(180) |
| L2040350-01B | Glass 250ml/8oz unpreserved | A | NA | | 4.1 | Y | Absent | | NJEPH-TPH-CAT2(14),NYTCL-8270(14),TCN-9010(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14) |
| L2040350-01C | Glass 120ml/4oz unpreserved | A | NA | | 4.1 | Y | Absent | | HEXCR-7196(30) |
| L2040350-01D | Glass 250ml/8oz unpreserved | A | NA | | 4.1 | Y | Absent | | NJEPH-TPH-CAT2(14),NYTCL-8270(14),TCN-9010(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14) |
| L2040350-01X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 4.1 | Y | Absent | | CD-CI(180),AS-CI(180),BA-CI(180),HG-C(28),PB-CI(180),CR-CI(180),SE-CI(180),AG-CI(180) |
| L2040350-01X9 | Tumble Vessel | A | NA | | 4.1 | Y | Absent | | - |
| L2040350-02A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 4.1 | Y | Absent | | BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),NI-TI(180),TRICR-CALC(30),TL-TI(180),AL-TI(180),CR-TI(180),SE-TI(180),ZN-TI(180),SB-TI(180),PB-TI(180),CU-TI(180),V-TI(180),CO-TI(180),HG-T(28),FE-TI(180),MN-TI(180),CD-TI(180) |
| L2040350-02B | Glass 250ml/8oz unpreserved | A | NA | | 4.1 | Y | Absent | | TCN-9010(14),NYTCL-8270(14),NJEPH-TPH-CAT2(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14) |
| L2040350-02C | Glass 120ml/4oz unpreserved | A | NA | | 4.1 | Y | Absent | | HEXCR-7196(30) |
| L2040350-02D | Glass 250ml/8oz unpreserved | A | NA | | 4.1 | Y | Absent | | TCN-9010(14),NYTCL-8270(14),NJEPH-TPH-CAT2(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14) |
| L2040350-02X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 4.1 | Y | Absent | | CD-CI(180),AS-CI(180),BA-CI(180),HG-C(28),PB-CI(180),SE-CI(180),CR-CI(180),AG-CI(180) |
| L2040350-02X9 | Tumble Vessel | A | NA | | 4.1 | Y | Absent | | - |



*Values in parentheses indicate holding time in days

## Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2040350-03A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 4.1 | Y | Absent | | BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),CR-TI(180),TL-TI(180),NI-TI(180),TRICR-CALC(30),AL-TI(180),CU-TI(180),SE-TI(180),SB-TI(180),ZN-TI(180),PB-TI(180),CO-TI(180),V-TI(180),FE-TI(180),MN-TI(180),HG-T(28),CD-TI(180) |
| L2040350-03B | Glass 250ml/8oz unpreserved | A | NA | | 4.1 | Y | Absent | | NJEPH-TPH-CAT2(14),TCN-9010(14),NYTCL-8270(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14) |
| L2040350-03C | Glass 120ml/4oz unpreserved | A | NA | | 4.1 | Y | Absent | | HEXCR-7196(30) |
| L2040350-03D | Glass 250ml/8oz unpreserved | A | NA | | 4.1 | Y | Absent | | NJEPH-TPH-CAT2(14),TCN-9010(14),NYTCL-8270(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14) |
| L2040350-03X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 4.1 | Y | Absent | | CD-CI(180),AS-CI(180),BA-CI(180),HG-C(28),PB-CI(180),CR-CI(180),SE-CI(180),AG-CI(180) |
| L2040350-03X9 | Tumble Vessel | A | NA | | 4.1 | Y | Absent | | - |
| L2040350-04A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 4.1 | Y | Absent | | BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),TRICR-CALC(30),NI-TI(180),TL-TI(180),AL-TI(180),ZN-TI(180),PB-TI(180),SE-TI(180),CU-TI(180),SB-TI(180),CO-TI(180),V-TI(180),MN-TI(180),FE-TI(180),HG-T(28),CD-TI(180) |
| L2040350-04B | Glass 250ml/8oz unpreserved | A | NA | | 4.1 | Y | Absent | | NJEPH-TPH-CAT2(14),NYTCL-8270(14),TCN-9010(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14) |
| L2040350-04C | Glass 120ml/4oz unpreserved | A | NA | | 4.1 | Y | Absent | | HEXCR-7196(30) |
| L2040350-04D | Glass 250ml/8oz unpreserved | A | NA | | 4.1 | Y | Absent | | NJEPH-TPH-CAT2(14),NYTCL-8270(14),TCN-9010(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14) |
| L2040350-04X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 4.1 | Y | Absent | | CD-CI(180),BA-CI(180),AS-CI(180),HG-C(28),PB-CI(180),SE-CI(180),CR-CI(180),AG-CI(180) |
| L2040350-04X9 | Tumble Vessel | A | NA | | 4.1 | Y | Absent | | - |
| L2040350-05A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 4.1 | Y | Absent | | BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),TRICR-CALC(30),TL-TI(180),NI-TI(180),SE-TI(180),SB-TI(180),ZN-TI(180),CU-TI(180),PB-TI(180),V-TI(180),CO-TI(180),FE-TI(180),HG-T(28),MN-TI(180),CD-TI(180) |
| L2040350-05B | Glass 250ml/8oz unpreserved | A | NA | | 4.1 | Y | Absent | | NYTCL-8270(14),TCN-9010(14),NJEPH-TPH-CAT2(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14) |
| L2040350-05C | Glass 120ml/4oz unpreserved | A | NA | | 4.1 | Y | Absent | | HEXCR-7196(30) |



*Values in parentheses indicate holding time in days

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2040350
**Report Date:** 10/01/20

## Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2040350-05D | Glass 250ml/8oz unpreserved | A | NA | | 4.1 | Y | Absent | | NYTCL-8270(14),TCN-9010(14),NJEPH-TPH-CAT2(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14) |
| L2040350-05X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 4.1 | Y | Absent | | CD-CI(180),BA-CI(180),AS-CI(180),HG-C(28),PB-CI(180),SE-CI(180),CR-CI(180),AG-CI(180) |
| L2040350-05X9 | Tumble Vessel | A | NA | | 4.1 | Y | Absent | | - |
| L2040350-06A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 4.1 | Y | Absent | | BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),TL-TI(180),NI-TI(180),AL-TI(180),TRICR-CALC(30),SE-TI(180),SB-TI(180),CU-TI(180),PB-TI(180),ZN-TI(180),V-TI(180),CO-TI(180),HG-T(28),FE-TI(180),MN-TI(180),CD-TI(180) |
| L2040350-06B | Glass 250ml/8oz unpreserved | A | NA | | 4.1 | Y | Absent | | NJEPH-TPH-CAT2(14),NYTCL-8270(14),TCN-9010(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14) |
| L2040350-06C | Glass 120ml/4oz unpreserved | A | NA | | 4.1 | Y | Absent | | HEXCR-7196(30) |
| L2040350-06D | Glass 250ml/8oz unpreserved | A | NA | | 4.1 | Y | Absent | | NJEPH-TPH-CAT2(14),NYTCL-8270(14),TCN-9010(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14) |
| L2040350-06X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 4.1 | Y | Absent | | CD-CI(180),AS-CI(180),BA-CI(180),HG-C(28),PB-CI(180),SE-CI(180),CR-CI(180),AG-CI(180) |
| L2040350-06X9 | Tumble Vessel | A | NA | | 4.1 | Y | Absent | | - |
| L2040350-07A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 4.1 | Y | Absent | | BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),NI-TI(180),TL-TI(180),CR-TI(180),TRICR-CALC(30),AL-TI(180),SE-TI(180),PB-TI(180),ZN-TI(180),SB-TI(180),CU-TI(180),CO-TI(180),V-TI(180),HG-T(28),FE-TI(180),MN-TI(180),CD-TI(180) |
| L2040350-07B | Glass 250ml/8oz unpreserved | A | NA | | 4.1 | Y | Absent | | TCN-9010(14),NYTCL-8270(14),NJEPH-TPH-CAT2(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14) |
| L2040350-07C | Glass 120ml/4oz unpreserved | A | NA | | 4.1 | Y | Absent | | HEXCR-7196(30) |
| L2040350-07D | Glass 250ml/8oz unpreserved | A | NA | | 4.1 | Y | Absent | | TCN-9010(14),NYTCL-8270(14),NJEPH-TPH-CAT2(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14) |
| L2040350-07X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 4.1 | Y | Absent | | CD-CI(180),BA-CI(180),AS-CI(180),HG-C(28),PB-CI(180),CR-CI(180),SE-CI(180),AG-CI(180) |
| L2040350-07X9 | Tumble Vessel | A | NA | | 4.1 | Y | Absent | | - |



*Values in parentheses indicate holding time in days

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2040350
**Report Date:** 10/01/20

## Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2040350-08A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 4.1 | Y | Absent | | BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),TRICR-CALC(30),NI-TI(180),TL-TI(180),AL-TI(180),CR-TI(180),SE-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),HG-T(28),FE-TI(180),MN-TI(180),CD-TI(180) |
| L2040350-08B | Glass 250ml/8oz unpreserved | A | NA | | 4.1 | Y | Absent | | NYTCL-8270(14),NJEPH-TPH-CAT2(14),TCN-9010(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14) |
| L2040350-08C | Glass 120ml/4oz unpreserved | A | NA | | 4.1 | Y | Absent | | HEXCR-7196(30) |
| L2040350-08D | Glass 250ml/8oz unpreserved | A | NA | | 4.1 | Y | Absent | | NYTCL-8270(14),NJEPH-TPH-CAT2(14),TCN-9010(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14) |
| L2040350-08X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 4.1 | Y | Absent | | CD-CI(180),BA-CI(180),AS-CI(180),HG-C(28),PB-CI(180),SE-CI(180),CR-CI(180),AG-CI(180) |
| L2040350-08X9 | Tumble Vessel | A | NA | | 4.1 | Y | Absent | | - |
| L2040350-09A | Vial MeOH preserved | A | NA | | 4.1 | Y | Absent | | NYTCL-8260HLW(14) |
| L2040350-09B | Vial water preserved | A | NA | | 4.1 | Y | Absent | 24-SEP-20 23:57 | NYTCL-8260HLW(14) |
| L2040350-09C | Vial water preserved | A | NA | | 4.1 | Y | Absent | 24-SEP-20 23:57 | NYTCL-8260HLW(14) |
| L2040350-09D | Plastic 2oz unpreserved for TS | A | NA | | 4.1 | Y | Absent | | TS(7) |
| L2040350-10A | Vial MeOH preserved | A | NA | | 4.1 | Y | Absent | | NYTCL-8260HLW(14) |
| L2040350-10B | Vial water preserved | A | NA | | 4.1 | Y | Absent | 24-SEP-20 23:57 | NYTCL-8260HLW(14) |
| L2040350-10C | Vial water preserved | A | NA | | 4.1 | Y | Absent | 24-SEP-20 23:57 | NYTCL-8260HLW(14) |
| L2040350-10D | Plastic 2oz unpreserved for TS | A | NA | | 4.1 | Y | Absent | | TS(7) |
| L2040350-11A | Vial MeOH preserved | A | NA | | 4.1 | Y | Absent | | NYTCL-8260HLW(14) |
| L2040350-11B | Vial water preserved | A | NA | | 4.1 | Y | Absent | 24-SEP-20 23:57 | NYTCL-8260HLW(14) |
| L2040350-11C | Vial water preserved | A | NA | | 4.1 | Y | Absent | 24-SEP-20 23:57 | NYTCL-8260HLW(14) |
| L2040350-11D | Plastic 2oz unpreserved for TS | A | NA | | 4.1 | Y | Absent | | TS(7) |
| L2040350-12A | Vial MeOH preserved | A | NA | | 4.1 | Y | Absent | | NYTCL-8260HLW(14) |
| L2040350-12B | Vial water preserved | A | NA | | 4.1 | Y | Absent | 24-SEP-20 23:57 | NYTCL-8260HLW(14) |
| L2040350-12C | Vial water preserved | A | NA | | 4.1 | Y | Absent | 24-SEP-20 23:57 | NYTCL-8260HLW(14) |
| L2040350-12D | Plastic 2oz unpreserved for TS | A | NA | | 4.1 | Y | Absent | | TS(7) |
| L2040350-13A | Vial MeOH preserved | A | NA | | 4.1 | Y | Absent | | NYTCL-8260HLW(14) |



*Values in parentheses indicate holding time in days

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2040350
**Report Date:** 10/01/20

## Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2040350-13B | Vial water preserved | A | NA | | 4.1 | Y | Absent | 24-SEP-20 23:57 | NYTCL-8260HLW(14) |
| L2040350-13C | Vial water preserved | A | NA | | 4.1 | Y | Absent | 24-SEP-20 23:57 | NYTCL-8260HLW(14) |
| L2040350-13D | Plastic 2oz unpreserved for TS | A | NA | | 4.1 | Y | Absent | | TS(7) |
| L2040350-14A | Vial MeOH preserved | A | NA | | 4.1 | Y | Absent | | NYTCL-8260HLW(14) |
| L2040350-14B | Vial water preserved | A | NA | | 4.1 | Y | Absent | 24-SEP-20 23:57 | NYTCL-8260HLW(14) |
| L2040350-14C | Vial water preserved | A | NA | | 4.1 | Y | Absent | 24-SEP-20 23:57 | NYTCL-8260HLW(14) |
| L2040350-14D | Plastic 2oz unpreserved for TS | A | NA | | 4.1 | Y | Absent | | TS(7) |
| L2040350-15A | Vial MeOH preserved | A | NA | | 4.1 | Y | Absent | | NYTCL-8260HLW(14) |
| L2040350-15B | Vial water preserved | A | NA | | 4.1 | Y | Absent | 24-SEP-20 23:57 | NYTCL-8260HLW(14) |
| L2040350-15C | Vial water preserved | A | NA | | 4.1 | Y | Absent | 24-SEP-20 23:57 | NYTCL-8260HLW(14) |
| L2040350-15D | Plastic 2oz unpreserved for TS | A | NA | | 4.1 | Y | Absent | | TS(7) |
| L2040350-16A | Vial MeOH preserved | A | NA | | 4.1 | Y | Absent | | NYTCL-8260HLW(14) |
| L2040350-16B | Vial water preserved | A | NA | | 4.1 | Y | Absent | 24-SEP-20 23:57 | NYTCL-8260HLW(14) |
| L2040350-16C | Vial water preserved | A | NA | | 4.1 | Y | Absent | 24-SEP-20 23:57 | NYTCL-8260HLW(14) |
| L2040350-16D | Plastic 2oz unpreserved for TS | A | NA | | 4.1 | Y | Absent | | TS(7) |



*Values in parentheses indicate holding time in days

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2040350 |
| **Project Number:** | 135173-002 | **Report Date:** | 10/01/20 |

## GLOSSARY

***Acronyms***

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

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

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

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

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

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

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

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

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

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

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

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

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

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

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

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2040350 |
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***Footnotes***

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

***Terms***

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

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

***Data Qualifiers***

**A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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

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

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

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

**F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

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

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

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

**J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

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

**ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

**NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2040350 |
| **Project Number:** | 135173-002 | **Report Date:** | 10/01/20 |

***Data Qualifiers***

the identification is based on a mass spectral library search.

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

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

**R** - Analytical results are from sample re-analysis.

**RE** - Analytical results are from sample re-extraction.

**S** - Analytical results are from modified screening analysis.

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2040350 |
| **Project Number:** | 135173-002 | **Report Date:** | 10/01/20 |

## REFERENCES


1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

103 Analysis of Extractable Petroleum Hydrocarbon Compounds (EPH) in Aqueous and Soil/Sediment/Sludge Matrices. New Jersey Department of Environmental Protection, Site Remediation Program, (Version 1.1), Document # NJDEP EPH 10/08, Revision 3, August 2010.

107 Alpha Analytical - In-house calculation method.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.


## LIMITATION OF LIABILITIES

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

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

# Certification Information

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

**Westborough Facility**
**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene
**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
**EPA 8270D:** NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
**SM4500**: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

**Mansfield Facility**
**SM 2540D:** TSS
**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
**EPA TO-12** Non-methane organics
**EPA 3C** Fixed gases
**Biological Tissue Matrix:** EPA 3050B

**The following analytes are included in our Massachusetts DEP Scope of Accreditation**

**Westborough Facility:**

***Drinking Water***
**EPA 300.0**: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
**EPA 332**: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
**Microbiology**: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

***Non-Potable Water***
**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
**EPA 624.1**: Volatile Halocarbons & Aromatics,
**EPA 608.3**: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
**EPA 625.1**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
**Microbiology**: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

**Mansfield Facility:**

***Drinking Water***
**EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
**EPA 522.**

***Non-Potable Water***
**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
**EPA 200.8:** Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
**EPA 245.1** Hg.
**SM2340B**

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

# NEW YORK CHAIN OF CUSTODY

ALPHA

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

**Service Centers**
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

Date Rec'd in Lab: 9/24/20

ALPHA Job #: L2040350

## Client Information

Client: Haley & Aldrich of NY
Address: 237 West 35th Street
New York, NY 10123
Phone:
Fax:
Email: MConlon@haleyaldrich.com

## Project Information

Project Name: 310 Grand Concourse
Project Location: 310 Grand Concourse, Bronx, NY
Project # 135173-002
(Use Project name as Project #) ☐
Project Manager: Mari Conlon
ALPHAQuote #:

## Turn-Around Time

Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

## Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☑ Other PDF + Excel

## Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☑ NY Restricted Use ☐ Other
☑ NY Unrestricted Use
☐ NYC Sewer Discharge

## Billing Information

☑ Same as Client Info
PO #

## Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

**Other project specific requirements/comments:**

**Please specify Metals or TAL.**

## ANALYSIS

*Sample Filtration*
☐ Done
☐ Lab to do
*Preservation*
☐ Lab to do
*(Please Specify below)*

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection Date | Collection Time | Sample Matrix | Sampler's Initials | Impact Env. Package B | VOCs 8260 | Sample Specific Comments | Total Bottles |
|---|---|---|---|---|---|---|---|---|---|
| 40350-01 | WC-A (0-5') | 9-24-20 | 1300 | S | ZS | X | | | 4 |
| -02 | WC-A (5-10') | 9-24-20 | 1302 | S | ZS | X | | | 4 |
| -03 | WC-B (0-5') | 9-24-20 | 1415 | S | ZS | X | | | 4 |
| -04 | WC-B (5-10') | 9-24-20 | 1420 | S | ZS | X | | | 4 |
| -05 | WC-F (0-5') | 9-24-20 | 1107 | S | ZS | X | | | 4 |
| -06 | WC-F (5-10') | 9-24-20 | 1110 | S | ZS | X | | | 4 |
| -07 | WC-F (10-15') | 9-24-20 | 1111 | S | ZS | X | | | 4 |
| -08 | WC-F (15-20') | 9-24-20 | 1112 | S | ZS | X | | | 4 |
| -09 | A-B3 (1-3') | 9-24-20 | 1142 | S | ZS | | X | | 3 |
| -10 | A-B5 (7-9') | 9-24-20 | 1256 | S | ZS | | X | | 3 |

Container Type: A V
Preservative: A F

Preservative Code:
A = None
B = HCl
C = $HNO_3$
D = $H_2SO_4$
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

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

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

| Relinquished By: | Date/Time | Received By: | Date/Time |
|---|---|---|---|
| Mark Simmel | 9-24-20 1440 | [illegible] | 9/24/2020 1440 |
| [illegible] | 9/24/20 1700 | [illegible] | 9/24/20 1700 |
| [illegible] | 9/24/20 2125 | [illegible] | 9/24/20 2125 |

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

# NEW YORK CHAIN OF CUSTODY

ALPHA

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

**Service Centers**
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 2 of 2

Date Rec'd in Lab: 9/24/20

ALPHA Job #: L2040350

## Client Information

Client: Haley & Aldrich of NY
Address: 237 West 35th Street
New York, NY 10123
Phone:
Fax:
Email: MConlon@haleyaldrich.com

## Project Information

Project Name: 310 Grand Concourse
Project Location: 310 Grand Concourse, Bronx, NY
Project #: 135173-002
(Use Project name as Project #): ☐
Project Manager: Mari Conlon
ALPHAQuote #:

## Turn-Around Time

Standard: ☑ Due Date:
Rush (only if pre approved): ☐ # of Days:

These samples have been previously analyzed by Alpha: ☐

**Other project specific requirements/comments:**

**Please specify Metals or TAL.**

## Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☑ Other PDF + Excel

## Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☑ NY Restricted Use ☐ Other
☑ NY Unrestricted Use
☐ NYC Sewer Discharge

## Billing Information

☑ Same as Client Info
PO #

## Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

## ANALYSIS

VOCs 8260

**Sample Filtration**
☐ Done
☐ Lab to do
**Preservation**
☐ Lab to do
*(Please Specify below)*

**Sample Specific Comments**

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection Date | Collection Time | Sample Matrix | Sampler's Initials | VOCs 8260 | Total # Bottles |
|---|---|---|---|---|---|---|---|
| 40350-11 | B-B3 (8-10') | 9-24-20 | 1350 | S | ZS | X | 3 |
| -12 | B-B4 (3-5') | 9-24-20 | 1411 | S | ZS | X | 3 |
| -13 | F-B2 (10-12') | 9-24-20 | 0825 | S | ZS | X | 3 |
| -14 | F-B3 (15-17') | 9-24-20 | 0856 | S | ZS | X | 3 |
| -15 | F-B4 (3-5') | 9-24-20 | 0934 | S | ZS | X | 3 |
| -16 | F-B5 (9-10') | 9-24-20 | 1102 | S | ZS | X | 3 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Container Type: V
Preservative: F

Preservative Code:
A = None
B = HCl
C = $HNO_3$
D = $H_2SO_4$
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

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

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

| Relinquished By: | Date/Time | Received By: | Date/Time |
|---|---|---|---|
| Mark Simmel | 9-24-20 1440 | [illegible] | 9/24/2020 1440 |
| [illegible] | 9/24/2020 1700 | [illegible] | 9/24/20 1700 |
| [illegible] | 9/24/2021 25 | [illegible] | 9/24/20 2125 |

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

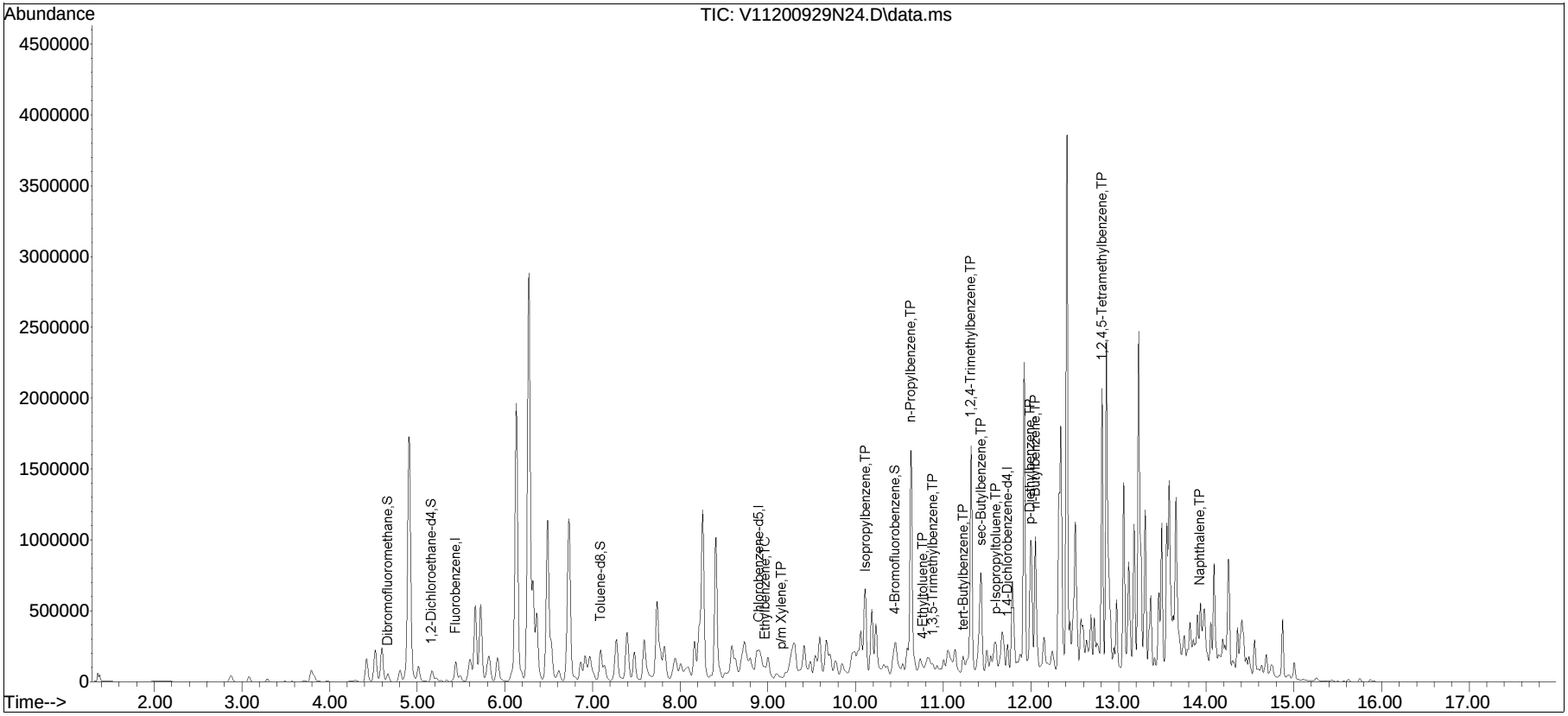
Form No: 01-25 HC (rev. 30-Sept-2013)

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA111\2020\200929N\
Data File : V11200929N24.D
Acq On : 30 Sep 2020 02:13 am
Operator : VOA111:MV
Sample : l2040350-13,31H,4.87,5,0.100,,a
Misc : WG1416245,ICAL17138
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Sep 30 07:02:08 2020
Quant Method : I:\VOLATILES\VOA111\2020\200929N\V111_200916B_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Sep 22 13:53:08 2020
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox00929N\V11200929N01.D•



ANALYTICAL REPORT

| | |
|---|---|
| Lab Number: | L2040645 |
| Client: | Haley & Aldrich<br>237 West 35th Street<br>16th Floor<br>New York, NY 10123 |
| ATTN: | Mari Conlon |
| Phone: | (347) 271-1521 |
| Project Name: | 310 GRAND CONCOURSE |
| Project Number: | 135173-002 |
| Report Date: | 10/02/20 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2040645
**Report Date:** 10/02/20

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|---|---|---|---|---|---|
| L2040645-01 | C-B3 (7-9') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 09/25/20 10:34 | 09/25/20 |
| L2040645-02 | C-B4 (2-4') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 09/25/20 10:44 | 09/25/20 |
| L2040645-03 | D-B4 (2-4') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 09/25/20 08:13 | 09/25/20 |
| L2040645-04 | D-B3 (7-9') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 09/25/20 08:07 | 09/25/20 |
| L2040645-05 | E-B4 (7-8') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 09/25/20 09:06 | 09/25/20 |
| L2040645-06 | E-B5 (2-4') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 09/25/20 09:26 | 09/25/20 |
| L2040645-07 | WC-C (0-5') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 09/25/20 10:58 | 09/25/20 |
| L2040645-08 | WC-C (5-10') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 09/25/20 10:57 | 09/25/20 |
| L2040645-09 | WC-D (0-5') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 09/25/20 08:25 | 09/25/20 |
| L2040645-10 | WC-D (5-10') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 09/25/20 08:28 | 09/25/20 |
| L2040645-11 | WC-E (0-4') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 09/25/20 09:20 | 09/25/20 |
| L2040645-12 | WC-E (4-7') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 09/25/20 09:22 | 09/25/20 |
| L2040645-13 | C-B3 (2-4') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 09/25/20 10:32 | 09/25/20 |

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2040645 |
| **Project Number:** | 135173-002 | **Report Date:** | 10/02/20 |

## Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

Please contact Project Management at 800-624-9220 with any questions.

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2040645 |
| **Project Number:** | 135173-002 | **Report Date:** | 10/02/20 |

**Case Narrative (continued)**

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Total Metals

L2040645-07 through -12 (WC-C (0-5'), WC-C (5-10'), WC-D (0-5'), WC-D (5-10'), WC-E (0-4') and WC-E (4-7')): The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.

Cyanide, Total

The WG1416567-2/-3 LCS/LCSD recoveries for cyanide, total (69%/71%), associated with L2040645-07 through -13 (WC-C (0-5'), WC-C (5-10'), WC-D (0-5'), WC-D (5-10'), WC-E (0-4'), WC-E (4-7') and C-B3 (2-4')), are outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original analyses are reported.

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

Authorized Signature: Melissa Sturgis Melissa Sturgis

Title: Technical Director/Representative Date: 10/02/20

# ORGANICS

# VOLATILES

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-01 Date Collected: 09/25/20 10:34

Client ID: C-B3 (7-9') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Analytical Method: 1,8260C

Analytical Date: 09/30/20 23:37

Analyst: MV

Percent Solids: 89%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/kg | 4.2 | 1.9 | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 0.84 | 0.12 | 1 |
| Chloroform | ND | | ug/kg | 1.3 | 0.12 | 1 |
| Carbon tetrachloride | ND | | ug/kg | 0.84 | 0.19 | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 0.84 | 0.10 | 1 |
| Dibromochloromethane | ND | | ug/kg | 0.84 | 0.12 | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 0.84 | 0.22 | 1 |
| Tetrachloroethene | ND | | ug/kg | 0.42 | 0.16 | 1 |
| Chlorobenzene | ND | | ug/kg | 0.42 | 0.11 | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 3.4 | 0.58 | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 0.84 | 0.22 | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 0.42 | 0.14 | 1 |
| Bromodichloromethane | ND | | ug/kg | 0.42 | 0.09 | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 0.84 | 0.23 | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 0.42 | 0.13 | 1 |
| 1,3-Dichloropropene, Total | ND | | ug/kg | 0.42 | 0.13 | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 0.42 | 0.13 | 1 |
| Bromoform | ND | | ug/kg | 3.4 | 0.21 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 0.42 | 0.14 | 1 |
| Benzene | ND | | ug/kg | 0.42 | 0.14 | 1 |
| Toluene | ND | | ug/kg | 0.84 | 0.46 | 1 |
| Ethylbenzene | ND | | ug/kg | 0.84 | 0.12 | 1 |
| Chloromethane | ND | | ug/kg | 3.4 | 0.78 | 1 |
| Bromomethane | ND | | ug/kg | 1.7 | 0.49 | 1 |
| Vinyl chloride | ND | | ug/kg | 0.84 | 0.28 | 1 |
| Chloroethane | ND | | ug/kg | 1.7 | 0.38 | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 0.84 | 0.20 | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 1.3 | 0.12 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-01 Date Collected: 09/25/20 10:34

Client ID: C-B3 (7-9') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Trichloroethene | ND | | ug/kg | 0.42 | 0.12 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 1.7 | 0.12 | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 1.7 | 0.12 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 1.7 | 0.14 | 1 |
| Methyl tert butyl ether | ND | | ug/kg | 1.7 | 0.17 | 1 |
| p/m-Xylene | ND | | ug/kg | 1.7 | 0.47 | 1 |
| o-Xylene | ND | | ug/kg | 0.84 | 0.24 | 1 |
| Xylenes, Total | ND | | ug/kg | 0.84 | 0.24 | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 0.84 | 0.15 | 1 |
| 1,2-Dichloroethene, Total | ND | | ug/kg | 0.84 | 0.12 | 1 |
| Dibromomethane | ND | | ug/kg | 1.7 | 0.20 | 1 |
| Styrene | ND | | ug/kg | 0.84 | 0.16 | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 8.4 | 0.77 | 1 |
| Acetone | ND | | ug/kg | 8.4 | 4.0 | 1 |
| Carbon disulfide | ND | | ug/kg | 8.4 | 3.8 | 1 |
| 2-Butanone | ND | | ug/kg | 8.4 | 1.9 | 1 |
| Vinyl acetate | ND | | ug/kg | 8.4 | 1.8 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 8.4 | 1.1 | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 1.7 | 0.11 | 1 |
| 2-Hexanone | ND | | ug/kg | 8.4 | 0.99 | 1 |
| Bromochloromethane | ND | | ug/kg | 1.7 | 0.17 | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 1.7 | 0.17 | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 0.84 | 0.23 | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 1.7 | 0.14 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 0.42 | 0.11 | 1 |
| Bromobenzene | ND | | ug/kg | 1.7 | 0.12 | 1 |
| n-Butylbenzene | ND | | ug/kg | 0.84 | 0.14 | 1 |
| sec-Butylbenzene | ND | | ug/kg | 0.84 | 0.12 | 1 |
| tert-Butylbenzene | ND | | ug/kg | 1.7 | 0.10 | 1 |
| o-Chlorotoluene | ND | | ug/kg | 1.7 | 0.16 | 1 |
| p-Chlorotoluene | ND | | ug/kg | 1.7 | 0.09 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 2.5 | 0.84 | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 3.4 | 0.14 | 1 |
| Isopropylbenzene | ND | | ug/kg | 0.84 | 0.09 | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 0.84 | 0.09 | 1 |
| Naphthalene | ND | | ug/kg | 3.4 | 0.55 | 1 |
| Acrylonitrile | ND | | ug/kg | 3.4 | 0.97 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-01 Date Collected: 09/25/20 10:34

Client ID: C-B3 (7-9') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| n-Propylbenzene | ND | | ug/kg | 0.84 | 0.14 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 1.7 | 0.27 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 1.7 | 0.23 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 1.7 | 0.16 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 1.7 | 0.28 | 1 |
| 1,4-Dioxane | ND | | ug/kg | 67 | 30. | 1 |
| p-Diethylbenzene | ND | | ug/kg | 1.7 | 0.15 | 1 |
| p-Ethyltoluene | ND | | ug/kg | 1.7 | 0.32 | 1 |
| 1,2,4,5-Tetramethylbenzene | ND | | ug/kg | 1.7 | 0.16 | 1 |
| Ethyl ether | ND | | ug/kg | 1.7 | 0.29 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 4.2 | 1.2 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 90 | | 70-130 |
| Toluene-d8 | 103 | | 70-130 |
| 4-Bromofluorobenzene | 106 | | 70-130 |
| Dibromofluoromethane | 92 | | 70-130 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-02
Client ID: C-B4 (2-4')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/25/20 10:44
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 10/01/20 00:04
Analyst: MV
Percent Solids: 92%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/kg | 5.0 | 2.3 | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 1.0 | 0.15 | 1 |
| Chloroform | ND | | ug/kg | 1.5 | 0.14 | 1 |
| Carbon tetrachloride | ND | | ug/kg | 1.0 | 0.23 | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 1.0 | 0.12 | 1 |
| Dibromochloromethane | ND | | ug/kg | 1.0 | 0.14 | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 1.0 | 0.27 | 1 |
| Tetrachloroethene | ND | | ug/kg | 0.50 | 0.20 | 1 |
| Chlorobenzene | ND | | ug/kg | 0.50 | 0.13 | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 4.0 | 0.70 | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 1.0 | 0.26 | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 0.50 | 0.17 | 1 |
| Bromodichloromethane | ND | | ug/kg | 0.50 | 0.11 | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 1.0 | 0.28 | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 0.50 | 0.16 | 1 |
| 1,3-Dichloropropene, Total | ND | | ug/kg | 0.50 | 0.16 | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 0.50 | 0.16 | 1 |
| Bromoform | ND | | ug/kg | 4.0 | 0.25 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 0.50 | 0.17 | 1 |
| Benzene | ND | | ug/kg | 0.50 | 0.17 | 1 |
| Toluene | ND | | ug/kg | 1.0 | 0.55 | 1 |
| Ethylbenzene | ND | | ug/kg | 1.0 | 0.14 | 1 |
| Chloromethane | ND | | ug/kg | 4.0 | 0.94 | 1 |
| Bromomethane | ND | | ug/kg | 2.0 | 0.58 | 1 |
| Vinyl chloride | ND | | ug/kg | 1.0 | 0.34 | 1 |
| Chloroethane | ND | | ug/kg | 2.0 | 0.46 | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 1.0 | 0.24 | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 1.5 | 0.14 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-02 Date Collected: 09/25/20 10:44

Client ID: C-B4 (2-4') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Trichloroethene | ND | | ug/kg | 0.50 | 0.14 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 2.0 | 0.14 | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 2.0 | 0.15 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 2.0 | 0.17 | 1 |
| Methyl tert butyl ether | ND | | ug/kg | 2.0 | 0.20 | 1 |
| p/m-Xylene | ND | | ug/kg | 2.0 | 0.56 | 1 |
| o-Xylene | ND | | ug/kg | 1.0 | 0.29 | 1 |
| Xylenes, Total | ND | | ug/kg | 1.0 | 0.29 | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 1.0 | 0.18 | 1 |
| 1,2-Dichloroethene, Total | ND | | ug/kg | 1.0 | 0.14 | 1 |
| Dibromomethane | ND | | ug/kg | 2.0 | 0.24 | 1 |
| Styrene | ND | | ug/kg | 1.0 | 0.20 | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 10 | 0.92 | 1 |
| Acetone | ND | | ug/kg | 10 | 4.8 | 1 |
| Carbon disulfide | ND | | ug/kg | 10 | 4.6 | 1 |
| 2-Butanone | ND | | ug/kg | 10 | 2.2 | 1 |
| Vinyl acetate | ND | | ug/kg | 10 | 2.2 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 10 | 1.3 | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 2.0 | 0.13 | 1 |
| 2-Hexanone | ND | | ug/kg | 10 | 1.2 | 1 |
| Bromochloromethane | ND | | ug/kg | 2.0 | 0.21 | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 2.0 | 0.20 | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 1.0 | 0.28 | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 2.0 | 0.17 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 0.50 | 0.13 | 1 |
| Bromobenzene | ND | | ug/kg | 2.0 | 0.15 | 1 |
| n-Butylbenzene | ND | | ug/kg | 1.0 | 0.17 | 1 |
| sec-Butylbenzene | ND | | ug/kg | 1.0 | 0.15 | 1 |
| tert-Butylbenzene | ND | | ug/kg | 2.0 | 0.12 | 1 |
| o-Chlorotoluene | ND | | ug/kg | 2.0 | 0.19 | 1 |
| p-Chlorotoluene | ND | | ug/kg | 2.0 | 0.11 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 3.0 | 1.0 | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 4.0 | 0.17 | 1 |
| Isopropylbenzene | ND | | ug/kg | 1.0 | 0.11 | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 1.0 | 0.11 | 1 |
| Naphthalene | ND | | ug/kg | 4.0 | 0.66 | 1 |
| Acrylonitrile | ND | | ug/kg | 4.0 | 1.2 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-02 Date Collected: 09/25/20 10:44

Client ID: C-B4 (2-4') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab | | | | | | |
| n-Propylbenzene | ND | | ug/kg | 1.0 | 0.17 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 2.0 | 0.32 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 2.0 | 0.27 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 2.0 | 0.19 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 2.0 | 0.34 | 1 |
| 1,4-Dioxane | ND | | ug/kg | 81 | 35. | 1 |
| p-Diethylbenzene | ND | | ug/kg | 2.0 | 0.18 | 1 |
| p-Ethyltoluene | ND | | ug/kg | 2.0 | 0.39 | 1 |
| 1,2,4,5-Tetramethylbenzene | ND | | ug/kg | 2.0 | 0.19 | 1 |
| Ethyl ether | ND | | ug/kg | 2.0 | 0.34 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 5.0 | 1.4 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 88 | | 70-130 |
| Toluene-d8 | 105 | | 70-130 |
| 4-Bromofluorobenzene | 109 | | 70-130 |
| Dibromofluoromethane | 93 | | 70-130 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-03
Client ID: D-B4 (2-4')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 09/25/20 08:13
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 10/01/20 00:31
Analyst: MV
Percent Solids: 88%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/kg | 6.1 | 2.8 | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 1.2 | 0.18 | 1 |
| Chloroform | ND | | ug/kg | 1.8 | 0.17 | 1 |
| Carbon tetrachloride | ND | | ug/kg | 1.2 | 0.28 | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 1.2 | 0.15 | 1 |
| Dibromochloromethane | ND | | ug/kg | 1.2 | 0.17 | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 1.2 | 0.33 | 1 |
| Tetrachloroethene | 0.59 | J | ug/kg | 0.61 | 0.24 | 1 |
| Chlorobenzene | ND | | ug/kg | 0.61 | 0.16 | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 4.9 | 0.85 | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 1.2 | 0.32 | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 0.61 | 0.20 | 1 |
| Bromodichloromethane | ND | | ug/kg | 0.61 | 0.13 | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 1.2 | 0.34 | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 0.61 | 0.19 | 1 |
| 1,3-Dichloropropene, Total | ND | | ug/kg | 0.61 | 0.19 | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 0.61 | 0.20 | 1 |
| Bromoform | ND | | ug/kg | 4.9 | 0.30 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 0.61 | 0.20 | 1 |
| Benzene | ND | | ug/kg | 0.61 | 0.20 | 1 |
| Toluene | ND | | ug/kg | 1.2 | 0.67 | 1 |
| Ethylbenzene | ND | | ug/kg | 1.2 | 0.17 | 1 |
| Chloromethane | ND | | ug/kg | 4.9 | 1.1 | 1 |
| Bromomethane | ND | | ug/kg | 2.4 | 0.71 | 1 |
| Vinyl chloride | ND | | ug/kg | 1.2 | 0.41 | 1 |
| Chloroethane | ND | | ug/kg | 2.4 | 0.56 | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 1.2 | 0.29 | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 1.8 | 0.17 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-03 Date Collected: 09/25/20 08:13

Client ID: D-B4 (2-4') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Trichloroethene | ND | | ug/kg | 0.61 | 0.17 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 2.4 | 0.18 | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 2.4 | 0.18 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 2.4 | 0.21 | 1 |
| Methyl tert butyl ether | ND | | ug/kg | 2.4 | 0.25 | 1 |
| p/m-Xylene | ND | | ug/kg | 2.4 | 0.69 | 1 |
| o-Xylene | ND | | ug/kg | 1.2 | 0.36 | 1 |
| Xylenes, Total | ND | | ug/kg | 1.2 | 0.36 | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 1.2 | 0.22 | 1 |
| 1,2-Dichloroethene, Total | ND | | ug/kg | 1.2 | 0.17 | 1 |
| Dibromomethane | ND | | ug/kg | 2.4 | 0.29 | 1 |
| Styrene | ND | | ug/kg | 1.2 | 0.24 | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 12 | 1.1 | 1 |
| Acetone | ND | | ug/kg | 12 | 5.9 | 1 |
| Carbon disulfide | ND | | ug/kg | 12 | 5.6 | 1 |
| 2-Butanone | ND | | ug/kg | 12 | 2.7 | 1 |
| Vinyl acetate | ND | | ug/kg | 12 | 2.6 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 12 | 1.6 | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 2.4 | 0.16 | 1 |
| 2-Hexanone | ND | | ug/kg | 12 | 1.4 | 1 |
| Bromochloromethane | ND | | ug/kg | 2.4 | 0.25 | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 2.4 | 0.25 | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 1.2 | 0.34 | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 2.4 | 0.20 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 0.61 | 0.16 | 1 |
| Bromobenzene | ND | | ug/kg | 2.4 | 0.18 | 1 |
| n-Butylbenzene | ND | | ug/kg | 1.2 | 0.20 | 1 |
| sec-Butylbenzene | ND | | ug/kg | 1.2 | 0.18 | 1 |
| tert-Butylbenzene | ND | | ug/kg | 2.4 | 0.14 | 1 |
| o-Chlorotoluene | ND | | ug/kg | 2.4 | 0.23 | 1 |
| p-Chlorotoluene | ND | | ug/kg | 2.4 | 0.13 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 3.7 | 1.2 | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 4.9 | 0.21 | 1 |
| Isopropylbenzene | ND | | ug/kg | 1.2 | 0.13 | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 1.2 | 0.13 | 1 |
| Naphthalene | ND | | ug/kg | 4.9 | 0.80 | 1 |
| Acrylonitrile | ND | | ug/kg | 4.9 | 1.4 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-03 Date Collected: 09/25/20 08:13

Client ID: D-B4 (2-4') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab | | | | | | |
| n-Propylbenzene | ND | | ug/kg | 1.2 | 0.21 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 2.4 | 0.40 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 2.4 | 0.33 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 2.4 | 0.24 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 2.4 | 0.41 | 1 |
| 1,4-Dioxane | ND | | ug/kg | 98 | 43. | 1 |
| p-Diethylbenzene | ND | | ug/kg | 2.4 | 0.22 | 1 |
| p-Ethyltoluene | ND | | ug/kg | 2.4 | 0.47 | 1 |
| 1,2,4,5-Tetramethylbenzene | ND | | ug/kg | 2.4 | 0.23 | 1 |
| Ethyl ether | ND | | ug/kg | 2.4 | 0.42 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 6.1 | 1.7 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | | 70-130 |
| Toluene-d8 | 102 | | 70-130 |
| 4-Bromofluorobenzene | 106 | | 70-130 |
| Dibromofluoromethane | 94 | | 70-130 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-04
Client ID: D-B3 (7-9')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 09/25/20 08:07
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 10/01/20 00:58
Analyst: MV
Percent Solids: 92%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/kg | 4.3 | 2.0 | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 0.86 | 0.12 | 1 |
| Chloroform | ND | | ug/kg | 1.3 | 0.12 | 1 |
| Carbon tetrachloride | ND | | ug/kg | 0.86 | 0.20 | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 0.86 | 0.11 | 1 |
| Dibromochloromethane | ND | | ug/kg | 0.86 | 0.12 | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 0.86 | 0.23 | 1 |
| Tetrachloroethene | ND | | ug/kg | 0.43 | 0.17 | 1 |
| Chlorobenzene | ND | | ug/kg | 0.43 | 0.11 | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 3.4 | 0.59 | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 0.86 | 0.22 | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 0.43 | 0.14 | 1 |
| Bromodichloromethane | ND | | ug/kg | 0.43 | 0.09 | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 0.86 | 0.23 | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 0.43 | 0.14 | 1 |
| 1,3-Dichloropropene, Total | ND | | ug/kg | 0.43 | 0.14 | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 0.43 | 0.14 | 1 |
| Bromoform | ND | | ug/kg | 3.4 | 0.21 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 0.43 | 0.14 | 1 |
| Benzene | ND | | ug/kg | 0.43 | 0.14 | 1 |
| Toluene | ND | | ug/kg | 0.86 | 0.46 | 1 |
| Ethylbenzene | ND | | ug/kg | 0.86 | 0.12 | 1 |
| Chloromethane | ND | | ug/kg | 3.4 | 0.80 | 1 |
| Bromomethane | ND | | ug/kg | 1.7 | 0.50 | 1 |
| Vinyl chloride | ND | | ug/kg | 0.86 | 0.29 | 1 |
| Chloroethane | ND | | ug/kg | 1.7 | 0.39 | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 0.86 | 0.20 | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 1.3 | 0.12 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-04 Date Collected: 09/25/20 08:07

Client ID: D-B3 (7-9') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Trichloroethene | ND | | ug/kg | 0.43 | 0.12 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 1.7 | 0.12 | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 1.7 | 0.13 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 1.7 | 0.15 | 1 |
| Methyl tert butyl ether | ND | | ug/kg | 1.7 | 0.17 | 1 |
| p/m-Xylene | ND | | ug/kg | 1.7 | 0.48 | 1 |
| o-Xylene | ND | | ug/kg | 0.86 | 0.25 | 1 |
| Xylenes, Total | ND | | ug/kg | 0.86 | 0.25 | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 0.86 | 0.15 | 1 |
| 1,2-Dichloroethene, Total | ND | | ug/kg | 0.86 | 0.12 | 1 |
| Dibromomethane | ND | | ug/kg | 1.7 | 0.20 | 1 |
| Styrene | ND | | ug/kg | 0.86 | 0.17 | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 8.6 | 0.78 | 1 |
| Acetone | ND | | ug/kg | 8.6 | 4.1 | 1 |
| Carbon disulfide | ND | | ug/kg | 8.6 | 3.9 | 1 |
| 2-Butanone | ND | | ug/kg | 8.6 | 1.9 | 1 |
| Vinyl acetate | ND | | ug/kg | 8.6 | 1.8 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 8.6 | 1.1 | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 1.7 | 0.11 | 1 |
| 2-Hexanone | ND | | ug/kg | 8.6 | 1.0 | 1 |
| Bromochloromethane | ND | | ug/kg | 1.7 | 0.18 | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 1.7 | 0.17 | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 0.86 | 0.24 | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 1.7 | 0.14 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 0.43 | 0.11 | 1 |
| Bromobenzene | ND | | ug/kg | 1.7 | 0.12 | 1 |
| n-Butylbenzene | ND | | ug/kg | 0.86 | 0.14 | 1 |
| sec-Butylbenzene | ND | | ug/kg | 0.86 | 0.12 | 1 |
| tert-Butylbenzene | ND | | ug/kg | 1.7 | 0.10 | 1 |
| o-Chlorotoluene | ND | | ug/kg | 1.7 | 0.16 | 1 |
| p-Chlorotoluene | ND | | ug/kg | 1.7 | 0.09 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 2.6 | 0.85 | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 3.4 | 0.14 | 1 |
| Isopropylbenzene | ND | | ug/kg | 0.86 | 0.09 | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 0.86 | 0.09 | 1 |
| Naphthalene | ND | | ug/kg | 3.4 | 0.56 | 1 |
| Acrylonitrile | ND | | ug/kg | 3.4 | 0.98 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-04 Date Collected: 09/25/20 08:07

Client ID: D-B3 (7-9') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab | | | | | | |
| n-Propylbenzene | ND | | ug/kg | 0.86 | 0.15 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 1.7 | 0.28 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 1.7 | 0.23 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 1.7 | 0.16 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 1.7 | 0.28 | 1 |
| 1,4-Dioxane | ND | | ug/kg | 68 | 30. | 1 |
| p-Diethylbenzene | ND | | ug/kg | 1.7 | 0.15 | 1 |
| p-Ethyltoluene | ND | | ug/kg | 1.7 | 0.33 | 1 |
| 1,2,4,5-Tetramethylbenzene | ND | | ug/kg | 1.7 | 0.16 | 1 |
| Ethyl ether | ND | | ug/kg | 1.7 | 0.29 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 4.3 | 1.2 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 86 | | 70-130 |
| Toluene-d8 | 104 | | 70-130 |
| 4-Bromofluorobenzene | 105 | | 70-130 |
| Dibromofluoromethane | 92 | | 70-130 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-05
Client ID: E-B4 (7-8')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 09/25/20 09:06
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 10/01/20 01:25
Analyst: MV
Percent Solids: 84%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/kg | 5.1 | 2.3 | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 1.0 | 0.15 | 1 |
| Chloroform | ND | | ug/kg | 1.5 | 0.14 | 1 |
| Carbon tetrachloride | ND | | ug/kg | 1.0 | 0.24 | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 1.0 | 0.13 | 1 |
| Dibromochloromethane | ND | | ug/kg | 1.0 | 0.14 | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 1.0 | 0.27 | 1 |
| Tetrachloroethene | ND | | ug/kg | 0.51 | 0.20 | 1 |
| Chlorobenzene | ND | | ug/kg | 0.51 | 0.13 | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 4.1 | 0.71 | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 1.0 | 0.26 | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 0.51 | 0.17 | 1 |
| Bromodichloromethane | ND | | ug/kg | 0.51 | 0.11 | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 1.0 | 0.28 | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 0.51 | 0.16 | 1 |
| 1,3-Dichloropropene, Total | ND | | ug/kg | 0.51 | 0.16 | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 0.51 | 0.16 | 1 |
| Bromoform | ND | | ug/kg | 4.1 | 0.25 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 0.51 | 0.17 | 1 |
| Benzene | ND | | ug/kg | 0.51 | 0.17 | 1 |
| Toluene | ND | | ug/kg | 1.0 | 0.56 | 1 |
| Ethylbenzene | ND | | ug/kg | 1.0 | 0.14 | 1 |
| Chloromethane | ND | | ug/kg | 4.1 | 0.96 | 1 |
| Bromomethane | ND | | ug/kg | 2.0 | 0.60 | 1 |
| Vinyl chloride | ND | | ug/kg | 1.0 | 0.34 | 1 |
| Chloroethane | ND | | ug/kg | 2.0 | 0.46 | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 1.0 | 0.24 | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 1.5 | 0.14 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-05 Date Collected: 09/25/20 09:06

Client ID: E-B4 (7-8') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Trichloroethene | ND | | ug/kg | 0.51 | 0.14 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 2.0 | 0.15 | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 2.0 | 0.15 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 2.0 | 0.18 | 1 |
| Methyl tert butyl ether | ND | | ug/kg | 2.0 | 0.21 | 1 |
| p/m-Xylene | ND | | ug/kg | 2.0 | 0.57 | 1 |
| o-Xylene | ND | | ug/kg | 1.0 | 0.30 | 1 |
| Xylenes, Total | ND | | ug/kg | 1.0 | 0.30 | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 1.0 | 0.18 | 1 |
| 1,2-Dichloroethene, Total | ND | | ug/kg | 1.0 | 0.14 | 1 |
| Dibromomethane | ND | | ug/kg | 2.0 | 0.24 | 1 |
| Styrene | ND | | ug/kg | 1.0 | 0.20 | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 10 | 0.94 | 1 |
| Acetone | ND | | ug/kg | 10 | 4.9 | 1 |
| Carbon disulfide | ND | | ug/kg | 10 | 4.7 | 1 |
| 2-Butanone | ND | | ug/kg | 10 | 2.3 | 1 |
| Vinyl acetate | ND | | ug/kg | 10 | 2.2 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 10 | 1.3 | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 2.0 | 0.13 | 1 |
| 2-Hexanone | ND | | ug/kg | 10 | 1.2 | 1 |
| Bromochloromethane | ND | | ug/kg | 2.0 | 0.21 | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 2.0 | 0.21 | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 1.0 | 0.29 | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 2.0 | 0.17 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 0.51 | 0.14 | 1 |
| Bromobenzene | ND | | ug/kg | 2.0 | 0.15 | 1 |
| n-Butylbenzene | ND | | ug/kg | 1.0 | 0.17 | 1 |
| sec-Butylbenzene | ND | | ug/kg | 1.0 | 0.15 | 1 |
| tert-Butylbenzene | ND | | ug/kg | 2.0 | 0.12 | 1 |
| o-Chlorotoluene | ND | | ug/kg | 2.0 | 0.20 | 1 |
| p-Chlorotoluene | ND | | ug/kg | 2.0 | 0.11 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 3.1 | 1.0 | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 4.1 | 0.17 | 1 |
| Isopropylbenzene | ND | | ug/kg | 1.0 | 0.11 | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 1.0 | 0.11 | 1 |
| Naphthalene | ND | | ug/kg | 4.1 | 0.67 | 1 |
| Acrylonitrile | ND | | ug/kg | 4.1 | 1.2 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-05 Date Collected: 09/25/20 09:06

Client ID: E-B4 (7-8') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab | | | | | | |
| n-Propylbenzene | ND | | ug/kg | 1.0 | 0.18 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 2.0 | 0.33 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 2.0 | 0.28 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 2.0 | 0.20 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 2.0 | 0.34 | 1 |
| 1,4-Dioxane | ND | | ug/kg | 82 | 36. | 1 |
| p-Diethylbenzene | ND | | ug/kg | 2.0 | 0.18 | 1 |
| p-Ethyltoluene | ND | | ug/kg | 2.0 | 0.39 | 1 |
| 1,2,4,5-Tetramethylbenzene | ND | | ug/kg | 2.0 | 0.20 | 1 |
| Ethyl ether | ND | | ug/kg | 2.0 | 0.35 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 5.1 | 1.4 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 88 | | 70-130 |
| Toluene-d8 | 104 | | 70-130 |
| 4-Bromofluorobenzene | 107 | | 70-130 |
| Dibromofluoromethane | 94 | | 70-130 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-06
Client ID: E-B5 (2-4')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 09/25/20 09:26
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 10/01/20 01:51
Analyst: MV
Percent Solids: 93%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/kg | 4.7 | 2.2 | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 0.94 | 0.14 | 1 |
| Chloroform | ND | | ug/kg | 1.4 | 0.13 | 1 |
| Carbon tetrachloride | ND | | ug/kg | 0.94 | 0.22 | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 0.94 | 0.12 | 1 |
| Dibromochloromethane | ND | | ug/kg | 0.94 | 0.13 | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 0.94 | 0.25 | 1 |
| Tetrachloroethene | ND | | ug/kg | 0.47 | 0.18 | 1 |
| Chlorobenzene | ND | | ug/kg | 0.47 | 0.12 | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 3.8 | 0.66 | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 0.94 | 0.24 | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 0.47 | 0.16 | 1 |
| Bromodichloromethane | ND | | ug/kg | 0.47 | 0.10 | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 0.94 | 0.26 | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 0.47 | 0.15 | 1 |
| 1,3-Dichloropropene, Total | ND | | ug/kg | 0.47 | 0.15 | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 0.47 | 0.15 | 1 |
| Bromoform | ND | | ug/kg | 3.8 | 0.23 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 0.47 | 0.16 | 1 |
| Benzene | ND | | ug/kg | 0.47 | 0.16 | 1 |
| Toluene | ND | | ug/kg | 0.94 | 0.51 | 1 |
| Ethylbenzene | ND | | ug/kg | 0.94 | 0.13 | 1 |
| Chloromethane | ND | | ug/kg | 3.8 | 0.88 | 1 |
| Bromomethane | ND | | ug/kg | 1.9 | 0.55 | 1 |
| Vinyl chloride | ND | | ug/kg | 0.94 | 0.32 | 1 |
| Chloroethane | ND | | ug/kg | 1.9 | 0.43 | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 0.94 | 0.22 | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 1.4 | 0.13 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-06 Date Collected: 09/25/20 09:26

Client ID: E-B5 (2-4') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Trichloroethene | ND | | ug/kg | 0.47 | 0.13 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 1.9 | 0.14 | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 1.9 | 0.14 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 1.9 | 0.16 | 1 |
| Methyl tert butyl ether | ND | | ug/kg | 1.9 | 0.19 | 1 |
| p/m-Xylene | ND | | ug/kg | 1.9 | 0.53 | 1 |
| o-Xylene | ND | | ug/kg | 0.94 | 0.27 | 1 |
| Xylenes, Total | ND | | ug/kg | 0.94 | 0.27 | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 0.94 | 0.16 | 1 |
| 1,2-Dichloroethene, Total | ND | | ug/kg | 0.94 | 0.13 | 1 |
| Dibromomethane | ND | | ug/kg | 1.9 | 0.22 | 1 |
| Styrene | ND | | ug/kg | 0.94 | 0.18 | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 9.4 | 0.86 | 1 |
| Acetone | ND | | ug/kg | 9.4 | 4.5 | 1 |
| Carbon disulfide | ND | | ug/kg | 9.4 | 4.3 | 1 |
| 2-Butanone | ND | | ug/kg | 9.4 | 2.1 | 1 |
| Vinyl acetate | ND | | ug/kg | 9.4 | 2.0 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 9.4 | 1.2 | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 1.9 | 0.12 | 1 |
| 2-Hexanone | ND | | ug/kg | 9.4 | 1.1 | 1 |
| Bromochloromethane | ND | | ug/kg | 1.9 | 0.19 | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 1.9 | 0.19 | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 0.94 | 0.26 | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 1.9 | 0.16 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 0.47 | 0.12 | 1 |
| Bromobenzene | ND | | ug/kg | 1.9 | 0.14 | 1 |
| n-Butylbenzene | ND | | ug/kg | 0.94 | 0.16 | 1 |
| sec-Butylbenzene | ND | | ug/kg | 0.94 | 0.14 | 1 |
| tert-Butylbenzene | ND | | ug/kg | 1.9 | 0.11 | 1 |
| o-Chlorotoluene | ND | | ug/kg | 1.9 | 0.18 | 1 |
| p-Chlorotoluene | ND | | ug/kg | 1.9 | 0.10 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 2.8 | 0.94 | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 3.8 | 0.16 | 1 |
| Isopropylbenzene | ND | | ug/kg | 0.94 | 0.10 | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 0.94 | 0.10 | 1 |
| Naphthalene | ND | | ug/kg | 3.8 | 0.61 | 1 |
| Acrylonitrile | ND | | ug/kg | 3.8 | 1.1 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-06 Date Collected: 09/25/20 09:26

Client ID: E-B5 (2-4') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| n-Propylbenzene | ND | | ug/kg | 0.94 | 0.16 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 1.9 | 0.30 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 1.9 | 0.26 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 1.9 | 0.18 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 1.9 | 0.32 | 1 |
| 1,4-Dioxane | ND | | ug/kg | 75 | 33. | 1 |
| p-Diethylbenzene | ND | | ug/kg | 1.9 | 0.17 | 1 |
| p-Ethyltoluene | ND | | ug/kg | 1.9 | 0.36 | 1 |
| 1,2,4,5-Tetramethylbenzene | ND | | ug/kg | 1.9 | 0.18 | 1 |
| Ethyl ether | ND | | ug/kg | 1.9 | 0.32 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 4.7 | 1.3 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 89 | | 70-130 |
| Toluene-d8 | 102 | | 70-130 |
| 4-Bromofluorobenzene | 106 | | 70-130 |
| Dibromofluoromethane | 93 | | 70-130 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 09/30/20 16:54
Analyst: AD

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-06 Batch: WG1416724-5 | | | | | |
| Methylene chloride | ND | | ug/kg | 5.0 | 2.3 |
| 1,1-Dichloroethane | ND | | ug/kg | 1.0 | 0.14 |
| Chloroform | ND | | ug/kg | 1.5 | 0.14 |
| Carbon tetrachloride | ND | | ug/kg | 1.0 | 0.23 |
| 1,2-Dichloropropane | ND | | ug/kg | 1.0 | 0.12 |
| Dibromochloromethane | ND | | ug/kg | 1.0 | 0.14 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 1.0 | 0.27 |
| Tetrachloroethene | ND | | ug/kg | 0.50 | 0.20 |
| Chlorobenzene | ND | | ug/kg | 0.50 | 0.13 |
| Trichlorofluoromethane | ND | | ug/kg | 4.0 | 0.70 |
| 1,2-Dichloroethane | ND | | ug/kg | 1.0 | 0.26 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 0.50 | 0.17 |
| Bromodichloromethane | ND | | ug/kg | 0.50 | 0.11 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 1.0 | 0.27 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 0.50 | 0.16 |
| 1,3-Dichloropropene, Total | ND | | ug/kg | 0.50 | 0.16 |
| 1,1-Dichloropropene | ND | | ug/kg | 0.50 | 0.16 |
| Bromoform | ND | | ug/kg | 4.0 | 0.25 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 0.50 | 0.17 |
| Benzene | ND | | ug/kg | 0.50 | 0.17 |
| Toluene | ND | | ug/kg | 1.0 | 0.54 |
| Ethylbenzene | ND | | ug/kg | 1.0 | 0.14 |
| Chloromethane | ND | | ug/kg | 4.0 | 0.93 |
| Bromomethane | 0.72 | J | ug/kg | 2.0 | 0.58 |
| Vinyl chloride | ND | | ug/kg | 1.0 | 0.34 |
| Chloroethane | ND | | ug/kg | 2.0 | 0.45 |
| 1,1-Dichloroethene | ND | | ug/kg | 1.0 | 0.24 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 1.5 | 0.14 |
| Trichloroethene | ND | | ug/kg | 0.50 | 0.14 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 09/30/20 16:54
Analyst: AD

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-06 Batch: WG1416724-5 | | | | | |
| 1,2-Dichlorobenzene | ND | | ug/kg | 2.0 | 0.14 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 2.0 | 0.15 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 2.0 | 0.17 |
| Methyl tert butyl ether | ND | | ug/kg | 2.0 | 0.20 |
| p/m-Xylene | ND | | ug/kg | 2.0 | 0.56 |
| o-Xylene | ND | | ug/kg | 1.0 | 0.29 |
| Xylenes, Total | ND | | ug/kg | 1.0 | 0.29 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 1.0 | 0.18 |
| 1,2-Dichloroethene, Total | ND | | ug/kg | 1.0 | 0.14 |
| Dibromomethane | ND | | ug/kg | 2.0 | 0.24 |
| Styrene | ND | | ug/kg | 1.0 | 0.20 |
| Dichlorodifluoromethane | ND | | ug/kg | 10 | 0.92 |
| Acetone | ND | | ug/kg | 10 | 4.8 |
| Carbon disulfide | ND | | ug/kg | 10 | 4.6 |
| 2-Butanone | ND | | ug/kg | 10 | 2.2 |
| Vinyl acetate | ND | | ug/kg | 10 | 2.2 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 10 | 1.3 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 2.0 | 0.13 |
| 2-Hexanone | ND | | ug/kg | 10 | 1.2 |
| Bromochloromethane | ND | | ug/kg | 2.0 | 0.20 |
| 2,2-Dichloropropane | ND | | ug/kg | 2.0 | 0.20 |
| 1,2-Dibromoethane | ND | | ug/kg | 1.0 | 0.28 |
| 1,3-Dichloropropane | ND | | ug/kg | 2.0 | 0.17 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 0.50 | 0.13 |
| Bromobenzene | ND | | ug/kg | 2.0 | 0.14 |
| n-Butylbenzene | ND | | ug/kg | 1.0 | 0.17 |
| sec-Butylbenzene | ND | | ug/kg | 1.0 | 0.15 |
| tert-Butylbenzene | ND | | ug/kg | 2.0 | 0.12 |
| o-Chlorotoluene | ND | | ug/kg | 2.0 | 0.19 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 09/30/20 16:54
Analyst: AD

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-06 Batch: WG1416724-5 | | | | | |
| p-Chlorotoluene | ND | | ug/kg | 2.0 | 0.11 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 3.0 | 1.0 |
| Hexachlorobutadiene | ND | | ug/kg | 4.0 | 0.17 |
| Isopropylbenzene | ND | | ug/kg | 1.0 | 0.11 |
| p-Isopropyltoluene | ND | | ug/kg | 1.0 | 0.11 |
| Naphthalene | ND | | ug/kg | 4.0 | 0.65 |
| Acrylonitrile | ND | | ug/kg | 4.0 | 1.2 |
| n-Propylbenzene | ND | | ug/kg | 1.0 | 0.17 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 2.0 | 0.32 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 2.0 | 0.27 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 2.0 | 0.19 |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 2.0 | 0.33 |
| 1,4-Dioxane | ND | | ug/kg | 80 | 35. |
| p-Diethylbenzene | ND | | ug/kg | 2.0 | 0.18 |
| p-Ethyltoluene | ND | | ug/kg | 2.0 | 0.38 |
| 1,2,4,5-Tetramethylbenzene | ND | | ug/kg | 2.0 | 0.19 |
| Ethyl ether | ND | | ug/kg | 2.0 | 0.34 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 5.0 | 1.4 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 91 | | 70-130 |
| Toluene-d8 | 104 | | 70-130 |
| 4-Bromofluorobenzene | 107 | | 70-130 |
| Dibromofluoromethane | 93 | | 70-130 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-06 Batch: WG1416724-3 WG1416724-4 | | | | | | | | |
| Methylene chloride | 93 | | 89 | | 70-130 | 4 | | 30 |
| 1,1-Dichloroethane | 100 | | 97 | | 70-130 | 3 | | 30 |
| Chloroform | 96 | | 95 | | 70-130 | 1 | | 30 |
| Carbon tetrachloride | 96 | | 94 | | 70-130 | 2 | | 30 |
| 1,2-Dichloropropane | 99 | | 100 | | 70-130 | 1 | | 30 |
| Dibromochloromethane | 89 | | 90 | | 70-130 | 1 | | 30 |
| 1,1,2-Trichloroethane | 95 | | 97 | | 70-130 | 2 | | 30 |
| Tetrachloroethene | 95 | | 95 | | 70-130 | 0 | | 30 |
| Chlorobenzene | 89 | | 91 | | 70-130 | 2 | | 30 |
| Trichlorofluoromethane | 107 | | 96 | | 70-139 | 11 | | 30 |
| 1,2-Dichloroethane | 93 | | 96 | | 70-130 | 3 | | 30 |
| 1,1,1-Trichloroethane | 96 | | 95 | | 70-130 | 1 | | 30 |
| Bromodichloromethane | 89 | | 91 | | 70-130 | 2 | | 30 |
| trans-1,3-Dichloropropene | 93 | | 94 | | 70-130 | 1 | | 30 |
| cis-1,3-Dichloropropene | 91 | | 92 | | 70-130 | 1 | | 30 |
| 1,1-Dichloropropene | 100 | | 100 | | 70-130 | 0 | | 30 |
| Bromoform | 90 | | 91 | | 70-130 | 1 | | 30 |
| 1,1,2,2-Tetrachloroethane | 103 | | 107 | | 70-130 | 4 | | 30 |
| Benzene | 92 | | 92 | | 70-130 | 0 | | 30 |
| Toluene | 98 | | 98 | | 70-130 | 0 | | 30 |
| Ethylbenzene | 96 | | 97 | | 70-130 | 1 | | 30 |
| Chloromethane | 94 | | 94 | | 52-130 | 0 | | 30 |
| Bromomethane | 114 | | 114 | | 57-147 | 0 | | 30 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-06 Batch: WG1416724-3 WG1416724-4 | | | | | | | | |
| Vinyl chloride | 108 | | 104 | | 67-130 | 4 | | 30 |
| Chloroethane | 135 | | 126 | | 50-151 | 7 | | 30 |
| 1,1-Dichloroethene | 105 | | 101 | | 65-135 | 4 | | 30 |
| trans-1,2-Dichloroethene | 106 | | 104 | | 70-130 | 2 | | 30 |
| Trichloroethene | 96 | | 96 | | 70-130 | 0 | | 30 |
| 1,2-Dichlorobenzene | 99 | | 101 | | 70-130 | 2 | | 30 |
| 1,3-Dichlorobenzene | 104 | | 105 | | 70-130 | 1 | | 30 |
| 1,4-Dichlorobenzene | 101 | | 101 | | 70-130 | 0 | | 30 |
| Methyl tert butyl ether | 93 | | 94 | | 66-130 | 1 | | 30 |
| p/m-Xylene | 96 | | 97 | | 70-130 | 1 | | 30 |
| o-Xylene | 94 | | 96 | | 70-130 | 2 | | 30 |
| cis-1,2-Dichloroethene | 103 | | 100 | | 70-130 | 3 | | 30 |
| Dibromomethane | 98 | | 100 | | 70-130 | 2 | | 30 |
| Styrene | 96 | | 98 | | 70-130 | 2 | | 30 |
| Dichlorodifluoromethane | 91 | | 88 | | 30-146 | 3 | | 30 |
| Acetone | 94 | | 97 | | 54-140 | 3 | | 30 |
| Carbon disulfide | 97 | | 90 | | 59-130 | 7 | | 30 |
| 2-Butanone | 89 | | 89 | | 70-130 | 0 | | 30 |
| Vinyl acetate | 88 | | 91 | | 70-130 | 3 | | 30 |
| 4-Methyl-2-pentanone | 101 | | 108 | | 70-130 | 7 | | 30 |
| 1,2,3-Trichloropropane | 107 | | 113 | | 68-130 | 5 | | 30 |
| 2-Hexanone | 94 | | 102 | | 70-130 | 8 | | 30 |
| Bromochloromethane | 97 | | 97 | | 70-130 | 0 | | 30 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2040645
**Report Date:** 10/02/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-06 Batch: WG1416724-3 WG1416724-4 | | | | | | | | |
| 2,2-Dichloropropane | 92 | | 88 | | 70-130 | 4 | | 30 |
| 1,2-Dibromoethane | 102 | | 106 | | 70-130 | 4 | | 30 |
| 1,3-Dichloropropane | 98 | | 104 | | 69-130 | 6 | | 30 |
| 1,1,1,2-Tetrachloroethane | 88 | | 89 | | 70-130 | 1 | | 30 |
| Bromobenzene | 97 | | 98 | | 70-130 | 1 | | 30 |
| n-Butylbenzene | 113 | | 112 | | 70-130 | 1 | | 30 |
| sec-Butylbenzene | 107 | | 106 | | 70-130 | 1 | | 30 |
| tert-Butylbenzene | 102 | | 102 | | 70-130 | 0 | | 30 |
| o-Chlorotoluene | 103 | | 104 | | 70-130 | 1 | | 30 |
| p-Chlorotoluene | 104 | | 105 | | 70-130 | 1 | | 30 |
| 1,2-Dibromo-3-chloropropane | 87 | | 93 | | 68-130 | 7 | | 30 |
| Hexachlorobutadiene | 89 | | 91 | | 67-130 | 2 | | 30 |
| Isopropylbenzene | 103 | | 103 | | 70-130 | 0 | | 30 |
| p-Isopropyltoluene | 107 | | 107 | | 70-130 | 0 | | 30 |
| Naphthalene | 96 | | 100 | | 70-130 | 4 | | 30 |
| Acrylonitrile | 96 | | 101 | | 70-130 | 5 | | 30 |
| n-Propylbenzene | 107 | | 105 | | 70-130 | 2 | | 30 |
| 1,2,3-Trichlorobenzene | 95 | | 97 | | 70-130 | 2 | | 30 |
| 1,2,4-Trichlorobenzene | 104 | | 103 | | 70-130 | 1 | | 30 |
| 1,3,5-Trimethylbenzene | 109 | | 108 | | 70-130 | 1 | | 30 |
| 1,2,4-Trimethylbenzene | 107 | | 107 | | 70-130 | 0 | | 30 |
| 1,4-Dioxane | 99 | | 107 | | 65-136 | 8 | | 30 |
| p-Diethylbenzene | 109 | | 108 | | 70-130 | 1 | | 30 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-06 Batch: WG1416724-3 WG1416724-4 | | | | | | | | |
| p-Ethyltoluene | 107 | | 105 | | 70-130 | 2 | | 30 |
| 1,2,4,5-Tetramethylbenzene | 104 | | 104 | | 70-130 | 0 | | 30 |
| Ethyl ether | 101 | | 101 | | 67-130 | 0 | | 30 |
| trans-1,4-Dichloro-2-butene | 100 | | 107 | | 70-130 | 7 | | 30 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 92 | | 97 | | 70-130 |
| Toluene-d8 | 99 | | 99 | | 70-130 |
| 4-Bromofluorobenzene | 97 | | 96 | | 70-130 |
| Dibromofluoromethane | 100 | | 98 | | 70-130 |

# SEMIVOLATILES

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-07
Client ID: WC-C (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/25/20 10:58
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/29/20 20:04
Analyst: EK
Percent Solids: 90%

Extraction Method: EPA 3546
Extraction Date: 09/28/20 08:33

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Acenaphthene | 21 | J | ug/kg | 140 | 19. | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 180 | 21. | 1 |
| Hexachlorobenzene | ND | | ug/kg | 110 | 20. | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 160 | 25. | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 180 | 18. | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 180 | 32. | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 180 | 31. | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 180 | 32. | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 180 | 48. | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 180 | 36. | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 180 | 31. | 1 |
| Fluoranthene | 830 | | ug/kg | 110 | 21. | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 180 | 19. | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 180 | 28. | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 220 | 31. | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 200 | 18. | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 180 | 26. | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 520 | 160 | 1 |
| Hexachloroethane | ND | | ug/kg | 140 | 29. | 1 |
| Isophorone | ND | | ug/kg | 160 | 24. | 1 |
| Naphthalene | 25 | J | ug/kg | 180 | 22. | 1 |
| Nitrobenzene | ND | | ug/kg | 160 | 27. | 1 |
| NDPA/DPA | ND | | ug/kg | 140 | 21. | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 180 | 28. | 1 |
| Bis(2-ethylhexyl)phthalate | ND | | ug/kg | 180 | 63. | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 180 | 46. | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 180 | 34. | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 180 | 62. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-07 Date Collected: 09/25/20 10:58

Client ID: WC-C (0-5') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Diethyl phthalate | ND | | ug/kg | 180 | 17. | 1 |
| Dimethyl phthalate | ND | | ug/kg | 180 | 38. | 1 |
| Benzo(a)anthracene | 520 | | ug/kg | 110 | 20. | 1 |
| Benzo(a)pyrene | 480 | | ug/kg | 140 | 44. | 1 |
| Benzo(b)fluoranthene | 530 | | ug/kg | 110 | 30. | 1 |
| Benzo(k)fluoranthene | 200 | | ug/kg | 110 | 29. | 1 |
| Chrysene | 570 | | ug/kg | 110 | 19. | 1 |
| Acenaphthylene | 54 | J | ug/kg | 140 | 28. | 1 |
| Anthracene | 120 | | ug/kg | 110 | 35. | 1 |
| Benzo(ghi)perylene | 260 | | ug/kg | 140 | 21. | 1 |
| Fluorene | 25 | J | ug/kg | 180 | 18. | 1 |
| Phenanthrene | 430 | | ug/kg | 110 | 22. | 1 |
| Dibenzo(a,h)anthracene | 55 | J | ug/kg | 110 | 21. | 1 |
| Indeno(1,2,3-cd)pyrene | 230 | | ug/kg | 140 | 25. | 1 |
| Pyrene | 900 | | ug/kg | 110 | 18. | 1 |
| Biphenyl | ND | | ug/kg | 410 | 42. | 1 |
| 4-Chloroaniline | ND | | ug/kg | 180 | 33. | 1 |
| 2-Nitroaniline | ND | | ug/kg | 180 | 35. | 1 |
| 3-Nitroaniline | ND | | ug/kg | 180 | 34. | 1 |
| 4-Nitroaniline | ND | | ug/kg | 180 | 75. | 1 |
| Dibenzofuran | ND | | ug/kg | 180 | 17. | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 220 | 22. | 1 |
| 1,2,4,5-Tetrachlorobenzene | ND | | ug/kg | 180 | 19. | 1 |
| Acetophenone | ND | | ug/kg | 180 | 22. | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 110 | 34. | 1 |
| p-Chloro-m-cresol | ND | | ug/kg | 180 | 27. | 1 |
| 2-Chlorophenol | ND | | ug/kg | 180 | 21. | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 160 | 29. | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 180 | 60. | 1 |
| 2-Nitrophenol | ND | | ug/kg | 390 | 68. | 1 |
| 4-Nitrophenol | ND | | ug/kg | 250 | 74. | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 870 | 84. | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 470 | 87. | 1 |
| Pentachlorophenol | ND | | ug/kg | 140 | 40. | 1 |
| Phenol | ND | | ug/kg | 180 | 27. | 1 |
| 2-Methylphenol | ND | | ug/kg | 180 | 28. | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 260 | 28. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-07 Date Collected: 09/25/20 10:58

Client ID: WC-C (0-5') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 180 | 35. | 1 |
| Benzoic Acid | ND | | ug/kg | 590 | 180 | 1 |
| Benzyl Alcohol | ND | | ug/kg | 180 | 56. | 1 |
| Carbazole | 30 | J | ug/kg | 180 | 18. | 1 |
| 1,4-Dioxane | ND | | ug/kg | 27 | 8.3 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 92 | | 25-120 |
| Phenol-d6 | 96 | | 10-120 |
| Nitrobenzene-d5 | 107 | | 23-120 |
| 2-Fluorobiphenyl | 85 | | 30-120 |
| 2,4,6-Tribromophenol | 76 | | 10-136 |
| 4-Terphenyl-d14 | 78 | | 18-120 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-08
Client ID: WC-C (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/25/20 10:57
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/29/20 18:56
Analyst: EK
Percent Solids: 93%

Extraction Method: EPA 3546
Extraction Date: 09/28/20 08:33

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Acenaphthene | ND | | ug/kg | 140 | 18. | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 180 | 20. | 1 |
| Hexachlorobenzene | ND | | ug/kg | 100 | 20. | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 160 | 24. | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 180 | 17. | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 180 | 31. | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 180 | 30. | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 180 | 30. | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 180 | 46. | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 180 | 35. | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 180 | 30. | 1 |
| Fluoranthene | 38 | J | ug/kg | 100 | 20. | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 180 | 19. | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 180 | 27. | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 210 | 30. | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 190 | 18. | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 180 | 26. | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 500 | 160 | 1 |
| Hexachloroethane | ND | | ug/kg | 140 | 28. | 1 |
| Isophorone | ND | | ug/kg | 160 | 23. | 1 |
| Naphthalene | ND | | ug/kg | 180 | 21. | 1 |
| Nitrobenzene | ND | | ug/kg | 160 | 26. | 1 |
| NDPA/DPA | ND | | ug/kg | 140 | 20. | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 180 | 27. | 1 |
| Bis(2-ethylhexyl)phthalate | ND | | ug/kg | 180 | 60. | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 180 | 44. | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 180 | 33. | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 180 | 60. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-08 Date Collected: 09/25/20 10:57

Client ID: WC-C (5-10') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Diethyl phthalate | ND | | ug/kg | 180 | 16. | 1 |
| Dimethyl phthalate | ND | | ug/kg | 180 | 37. | 1 |
| Benzo(a)anthracene | 25 | J | ug/kg | 100 | 20. | 1 |
| Benzo(a)pyrene | ND | | ug/kg | 140 | 43. | 1 |
| Benzo(b)fluoranthene | ND | | ug/kg | 100 | 29. | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 100 | 28. | 1 |
| Chrysene | 24 | J | ug/kg | 100 | 18. | 1 |
| Acenaphthylene | ND | | ug/kg | 140 | 27. | 1 |
| Anthracene | ND | | ug/kg | 100 | 34. | 1 |
| Benzo(ghi)perylene | ND | | ug/kg | 140 | 20. | 1 |
| Fluorene | ND | | ug/kg | 180 | 17. | 1 |
| Phenanthrene | 40 | J | ug/kg | 100 | 21. | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 100 | 20. | 1 |
| Indeno(1,2,3-cd)pyrene | ND | | ug/kg | 140 | 24. | 1 |
| Pyrene | 37 | J | ug/kg | 100 | 17. | 1 |
| Biphenyl | ND | | ug/kg | 400 | 41. | 1 |
| 4-Chloroaniline | ND | | ug/kg | 180 | 32. | 1 |
| 2-Nitroaniline | ND | | ug/kg | 180 | 34. | 1 |
| 3-Nitroaniline | ND | | ug/kg | 180 | 33. | 1 |
| 4-Nitroaniline | ND | | ug/kg | 180 | 72. | 1 |
| Dibenzofuran | ND | | ug/kg | 180 | 16. | 1 |
| 2-Methylnaphthalene | 23 | J | ug/kg | 210 | 21. | 1 |
| 1,2,4,5-Tetrachlorobenzene | ND | | ug/kg | 180 | 18. | 1 |
| Acetophenone | ND | | ug/kg | 180 | 22. | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 100 | 33. | 1 |
| p-Chloro-m-cresol | ND | | ug/kg | 180 | 26. | 1 |
| 2-Chlorophenol | ND | | ug/kg | 180 | 21. | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 160 | 28. | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 180 | 58. | 1 |
| 2-Nitrophenol | ND | | ug/kg | 380 | 66. | 1 |
| 4-Nitrophenol | ND | | ug/kg | 240 | 71. | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 840 | 82. | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 460 | 84. | 1 |
| Pentachlorophenol | ND | | ug/kg | 140 | 38. | 1 |
| Phenol | ND | | ug/kg | 180 | 26. | 1 |
| 2-Methylphenol | ND | | ug/kg | 180 | 27. | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 250 | 27. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-08 Date Collected: 09/25/20 10:57

Client ID: WC-C (5-10') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 180 | 34. | 1 |
| Benzoic Acid | ND | | ug/kg | 570 | 180 | 1 |
| Benzyl Alcohol | ND | | ug/kg | 180 | 54. | 1 |
| Carbazole | ND | | ug/kg | 180 | 17. | 1 |
| 1,4-Dioxane | ND | | ug/kg | 26 | 8.0 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 113 | | 25-120 |
| Phenol-d6 | 115 | | 10-120 |
| Nitrobenzene-d5 | **121** | Q | 23-120 |
| 2-Fluorobiphenyl | 97 | | 30-120 |
| 2,4,6-Tribromophenol | 89 | | 10-136 |
| 4-Terphenyl-d14 | 91 | | 18-120 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-09
Client ID: WC-D (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/25/20 08:25
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/29/20 20:50
Analyst: EK
Percent Solids: 87%

Extraction Method: EPA 3546
Extraction Date: 09/28/20 08:33

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Acenaphthene | 130 | J | ug/kg | 150 | 20. | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 190 | 22. | 1 |
| Hexachlorobenzene | ND | | ug/kg | 110 | 21. | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 170 | 26. | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 190 | 19. | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 190 | 34. | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 190 | 32. | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 190 | 33. | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 190 | 50. | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 190 | 38. | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 190 | 32. | 1 |
| Fluoranthene | 4400 | | ug/kg | 110 | 22. | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 190 | 20. | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 190 | 29. | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 230 | 32. | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 200 | 19. | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 190 | 28. | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 540 | 170 | 1 |
| Hexachloroethane | ND | | ug/kg | 150 | 30. | 1 |
| Isophorone | ND | | ug/kg | 170 | 24. | 1 |
| Naphthalene | 130 | J | ug/kg | 190 | 23. | 1 |
| Nitrobenzene | ND | | ug/kg | 170 | 28. | 1 |
| NDPA/DPA | ND | | ug/kg | 150 | 21. | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 190 | 29. | 1 |
| Bis(2-ethylhexyl)phthalate | ND | | ug/kg | 190 | 65. | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 190 | 48. | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 190 | 36. | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 190 | 64. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-09 Date Collected: 09/25/20 08:25

Client ID: WC-D (0-5') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Diethyl phthalate | ND | | ug/kg | 190 | 17. | 1 |
| Dimethyl phthalate | ND | | ug/kg | 190 | 40. | 1 |
| Benzo(a)anthracene | 2400 | | ug/kg | 110 | 21. | 1 |
| Benzo(a)pyrene | 2800 | | ug/kg | 150 | 46. | 1 |
| Benzo(b)fluoranthene | 3300 | | ug/kg | 110 | 32. | 1 |
| Benzo(k)fluoranthene | 1100 | | ug/kg | 110 | 30. | 1 |
| Chrysene | 2800 | | ug/kg | 110 | 20. | 1 |
| Acenaphthylene | 530 | | ug/kg | 150 | 29. | 1 |
| Anthracene | 600 | | ug/kg | 110 | 37. | 1 |
| Benzo(ghi)perylene | 1800 | | ug/kg | 150 | 22. | 1 |
| Fluorene | 160 | J | ug/kg | 190 | 18. | 1 |
| Phenanthrene | 2500 | | ug/kg | 110 | 23. | 1 |
| Dibenzo(a,h)anthracene | 380 | | ug/kg | 110 | 22. | 1 |
| Indeno(1,2,3-cd)pyrene | 1700 | | ug/kg | 150 | 26. | 1 |
| Pyrene | 4200 | | ug/kg | 110 | 19. | 1 |
| Biphenyl | ND | | ug/kg | 430 | 44. | 1 |
| 4-Chloroaniline | ND | | ug/kg | 190 | 34. | 1 |
| 2-Nitroaniline | ND | | ug/kg | 190 | 36. | 1 |
| 3-Nitroaniline | ND | | ug/kg | 190 | 36. | 1 |
| 4-Nitroaniline | ND | | ug/kg | 190 | 78. | 1 |
| Dibenzofuran | 78 | J | ug/kg | 190 | 18. | 1 |
| 2-Methylnaphthalene | 56 | J | ug/kg | 230 | 23. | 1 |
| 1,2,4,5-Tetrachlorobenzene | ND | | ug/kg | 190 | 20. | 1 |
| Acetophenone | ND | | ug/kg | 190 | 23. | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 110 | 36. | 1 |
| p-Chloro-m-cresol | ND | | ug/kg | 190 | 28. | 1 |
| 2-Chlorophenol | ND | | ug/kg | 190 | 22. | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 170 | 30. | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 190 | 62. | 1 |
| 2-Nitrophenol | ND | | ug/kg | 410 | 71. | 1 |
| 4-Nitrophenol | ND | | ug/kg | 260 | 77. | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 910 | 88. | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 490 | 91. | 1 |
| Pentachlorophenol | ND | | ug/kg | 150 | 42. | 1 |
| Phenol | ND | | ug/kg | 190 | 28. | 1 |
| 2-Methylphenol | ND | | ug/kg | 190 | 29. | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 270 | 30. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-09 Date Collected: 09/25/20 08:25

Client ID: WC-D (0-5') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 190 | 36. | 1 |
| Benzoic Acid | ND | | ug/kg | 610 | 190 | 1 |
| Benzyl Alcohol | ND | | ug/kg | 190 | 58. | 1 |
| Carbazole | 260 | | ug/kg | 190 | 18. | 1 |
| 1,4-Dioxane | ND | | ug/kg | 28 | 8.7 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 94 | | 25-120 |
| Phenol-d6 | 98 | | 10-120 |
| Nitrobenzene-d5 | 112 | | 23-120 |
| 2-Fluorobiphenyl | 87 | | 30-120 |
| 2,4,6-Tribromophenol | 80 | | 10-136 |
| 4-Terphenyl-d14 | 66 | | 18-120 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-10
Client ID: WC-D (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/25/20 08:28
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/29/20 19:19
Analyst: EK
Percent Solids: 75%

Extraction Method: EPA 3546
Extraction Date: 09/28/20 08:33

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Acenaphthene | 40 | J | ug/kg | 180 | 23. | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 220 | 25. | 1 |
| Hexachlorobenzene | ND | | ug/kg | 130 | 24. | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 200 | 30. | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 220 | 22. | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 220 | 39. | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 220 | 38. | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 220 | 38. | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 220 | 58. | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 220 | 44. | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 220 | 38. | 1 |
| Fluoranthene | 1200 | | ug/kg | 130 | 25. | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 220 | 23. | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 220 | 33. | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 260 | 37. | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 240 | 22. | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 220 | 32. | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 630 | 200 | 1 |
| Hexachloroethane | ND | | ug/kg | 180 | 35. | 1 |
| Isophorone | ND | | ug/kg | 200 | 28. | 1 |
| Naphthalene | 42 | J | ug/kg | 220 | 27. | 1 |
| Nitrobenzene | ND | | ug/kg | 200 | 32. | 1 |
| NDPA/DPA | ND | | ug/kg | 180 | 25. | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 220 | 34. | 1 |
| Bis(2-ethylhexyl)phthalate | ND | | ug/kg | 220 | 76. | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 220 | 55. | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 220 | 42. | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 220 | 74. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-10 Date Collected: 09/25/20 08:28

Client ID: WC-D (5-10') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Diethyl phthalate | ND | | ug/kg | 220 | 20. | 1 |
| Dimethyl phthalate | ND | | ug/kg | 220 | 46. | 1 |
| Benzo(a)anthracene | 590 | | ug/kg | 130 | 25. | 1 |
| Benzo(a)pyrene | 600 | | ug/kg | 180 | 54. | 1 |
| Benzo(b)fluoranthene | 690 | | ug/kg | 130 | 37. | 1 |
| Benzo(k)fluoranthene | 280 | | ug/kg | 130 | 35. | 1 |
| Chrysene | 600 | | ug/kg | 130 | 23. | 1 |
| Acenaphthylene | 59 | J | ug/kg | 180 | 34. | 1 |
| Anthracene | 160 | | ug/kg | 130 | 43. | 1 |
| Benzo(ghi)perylene | 370 | | ug/kg | 180 | 26. | 1 |
| Fluorene | 40 | J | ug/kg | 220 | 21. | 1 |
| Phenanthrene | 600 | | ug/kg | 130 | 27. | 1 |
| Dibenzo(a,h)anthracene | 71 | J | ug/kg | 130 | 25. | 1 |
| Indeno(1,2,3-cd)pyrene | 340 | | ug/kg | 180 | 30. | 1 |
| Pyrene | 1100 | | ug/kg | 130 | 22. | 1 |
| Biphenyl | ND | | ug/kg | 500 | 51. | 1 |
| 4-Chloroaniline | ND | | ug/kg | 220 | 40. | 1 |
| 2-Nitroaniline | ND | | ug/kg | 220 | 42. | 1 |
| 3-Nitroaniline | ND | | ug/kg | 220 | 41. | 1 |
| 4-Nitroaniline | ND | | ug/kg | 220 | 91. | 1 |
| Dibenzofuran | 22 | J | ug/kg | 220 | 21. | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 260 | 26. | 1 |
| 1,2,4,5-Tetrachlorobenzene | ND | | ug/kg | 220 | 23. | 1 |
| Acetophenone | ND | | ug/kg | 220 | 27. | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 130 | 42. | 1 |
| p-Chloro-m-cresol | ND | | ug/kg | 220 | 33. | 1 |
| 2-Chlorophenol | ND | | ug/kg | 220 | 26. | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 200 | 35. | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 220 | 72. | 1 |
| 2-Nitrophenol | ND | | ug/kg | 470 | 82. | 1 |
| 4-Nitrophenol | ND | | ug/kg | 310 | 89. | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 1000 | 100 | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 570 | 100 | 1 |
| Pentachlorophenol | ND | | ug/kg | 180 | 48. | 1 |
| Phenol | ND | | ug/kg | 220 | 33. | 1 |
| 2-Methylphenol | ND | | ug/kg | 220 | 34. | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 320 | 34. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-10 Date Collected: 09/25/20 08:28

Client ID: WC-D (5-10') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 220 | 42. | 1 |
| Benzoic Acid | ND | | ug/kg | 710 | 220 | 1 |
| Benzyl Alcohol | ND | | ug/kg | 220 | 67. | 1 |
| Carbazole | 42 | J | ug/kg | 220 | 21. | 1 |
| 1,4-Dioxane | ND | | ug/kg | 33 | 10. | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 85 | | 25-120 |
| Phenol-d6 | 88 | | 10-120 |
| Nitrobenzene-d5 | 99 | | 23-120 |
| 2-Fluorobiphenyl | 76 | | 30-120 |
| 2,4,6-Tribromophenol | 68 | | 10-136 |
| 4-Terphenyl-d14 | 69 | | 18-120 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-11
Client ID: WC-E (0-4')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/25/20 09:20
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/29/20 20:27
Analyst: EK
Percent Solids: 88%

Extraction Method: EPA 3546
Extraction Date: 09/28/20 08:33

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Acenaphthene | 55 | J | ug/kg | 150 | 19. | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 180 | 21. | 1 |
| Hexachlorobenzene | ND | | ug/kg | 110 | 21. | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 170 | 25. | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 180 | 18. | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 180 | 33. | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 180 | 32. | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 180 | 32. | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 180 | 49. | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 180 | 37. | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 180 | 32. | 1 |
| Fluoranthene | 2200 | | ug/kg | 110 | 21. | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 180 | 20. | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 180 | 28. | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 220 | 32. | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 200 | 18. | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 180 | 27. | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 530 | 170 | 1 |
| Hexachloroethane | ND | | ug/kg | 150 | 30. | 1 |
| Isophorone | ND | | ug/kg | 170 | 24. | 1 |
| Naphthalene | 60 | J | ug/kg | 180 | 22. | 1 |
| Nitrobenzene | ND | | ug/kg | 170 | 27. | 1 |
| NDPA/DPA | ND | | ug/kg | 150 | 21. | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 180 | 28. | 1 |
| Bis(2-ethylhexyl)phthalate | ND | | ug/kg | 180 | 64. | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 180 | 46. | 1 |
| Di-n-butylphthalate | 35 | J | ug/kg | 180 | 35. | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 180 | 63. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-11 Date Collected: 09/25/20 09:20

Client ID: WC-E (0-4') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Diethyl phthalate | ND | | ug/kg | 180 | 17. | 1 |
| Dimethyl phthalate | ND | | ug/kg | 180 | 39. | 1 |
| Benzo(a)anthracene | 1300 | | ug/kg | 110 | 21. | 1 |
| Benzo(a)pyrene | 1300 | | ug/kg | 150 | 45. | 1 |
| Benzo(b)fluoranthene | 1700 | | ug/kg | 110 | 31. | 1 |
| Benzo(k)fluoranthene | 590 | | ug/kg | 110 | 30. | 1 |
| Chrysene | 1400 | | ug/kg | 110 | 19. | 1 |
| Acenaphthylene | 400 | | ug/kg | 150 | 28. | 1 |
| Anthracene | 320 | | ug/kg | 110 | 36. | 1 |
| Benzo(ghi)perylene | 750 | | ug/kg | 150 | 22. | 1 |
| Fluorene | 54 | J | ug/kg | 180 | 18. | 1 |
| Phenanthrene | 850 | | ug/kg | 110 | 22. | 1 |
| Dibenzo(a,h)anthracene | 170 | | ug/kg | 110 | 21. | 1 |
| Indeno(1,2,3-cd)pyrene | 750 | | ug/kg | 150 | 26. | 1 |
| Pyrene | 2000 | | ug/kg | 110 | 18. | 1 |
| Biphenyl | ND | | ug/kg | 420 | 43. | 1 |
| 4-Chloroaniline | ND | | ug/kg | 180 | 34. | 1 |
| 2-Nitroaniline | ND | | ug/kg | 180 | 36. | 1 |
| 3-Nitroaniline | ND | | ug/kg | 180 | 35. | 1 |
| 4-Nitroaniline | ND | | ug/kg | 180 | 76. | 1 |
| Dibenzofuran | 28 | J | ug/kg | 180 | 17. | 1 |
| 2-Methylnaphthalene | 37 | J | ug/kg | 220 | 22. | 1 |
| 1,2,4,5-Tetrachlorobenzene | ND | | ug/kg | 180 | 19. | 1 |
| Acetophenone | ND | | ug/kg | 180 | 23. | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 110 | 35. | 1 |
| p-Chloro-m-cresol | ND | | ug/kg | 180 | 28. | 1 |
| 2-Chlorophenol | ND | | ug/kg | 180 | 22. | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 170 | 30. | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 180 | 61. | 1 |
| 2-Nitrophenol | ND | | ug/kg | 400 | 69. | 1 |
| 4-Nitrophenol | ND | | ug/kg | 260 | 75. | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 890 | 86. | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 480 | 89. | 1 |
| Pentachlorophenol | ND | | ug/kg | 150 | 41. | 1 |
| Phenol | ND | | ug/kg | 180 | 28. | 1 |
| 2-Methylphenol | ND | | ug/kg | 180 | 29. | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 270 | 29. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-11 Date Collected: 09/25/20 09:20

Client ID: WC-E (0-4') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 180 | 35. | 1 |
| Benzoic Acid | ND | | ug/kg | 600 | 190 | 1 |
| Benzyl Alcohol | ND | | ug/kg | 180 | 56. | 1 |
| Carbazole | 110 | J | ug/kg | 180 | 18. | 1 |
| 1,4-Dioxane | ND | | ug/kg | 28 | 8.5 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 91 | | 25-120 |
| Phenol-d6 | 98 | | 10-120 |
| Nitrobenzene-d5 | 110 | | 23-120 |
| 2-Fluorobiphenyl | 80 | | 30-120 |
| 2,4,6-Tribromophenol | 72 | | 10-136 |
| 4-Terphenyl-d14 | 67 | | 18-120 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-12
Client ID: WC-E (4-7')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/25/20 09:22
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/29/20 19:41
Analyst: EK
Percent Solids: 91%

Extraction Method: EPA 3546
Extraction Date: 09/28/20 08:33

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Acenaphthene | ND | | ug/kg | 140 | 19. | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 180 | 21. | 1 |
| Hexachlorobenzene | ND | | ug/kg | 110 | 20. | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 160 | 24. | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 180 | 18. | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 180 | 32. | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 180 | 31. | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 180 | 32. | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 180 | 48. | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 180 | 36. | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 180 | 31. | 1 |
| Fluoranthene | 180 | | ug/kg | 110 | 21. | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 180 | 19. | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 180 | 28. | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 220 | 31. | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 200 | 18. | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 180 | 26. | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 520 | 160 | 1 |
| Hexachloroethane | ND | | ug/kg | 140 | 29. | 1 |
| Isophorone | ND | | ug/kg | 160 | 23. | 1 |
| Naphthalene | ND | | ug/kg | 180 | 22. | 1 |
| Nitrobenzene | ND | | ug/kg | 160 | 27. | 1 |
| NDPA/DPA | ND | | ug/kg | 140 | 20. | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 180 | 28. | 1 |
| Bis(2-ethylhexyl)phthalate | ND | | ug/kg | 180 | 62. | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 180 | 46. | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 180 | 34. | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 180 | 61. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-12 Date Collected: 09/25/20 09:22

Client ID: WC-E (4-7') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Diethyl phthalate | ND | | ug/kg | 180 | 17. | 1 |
| Dimethyl phthalate | ND | | ug/kg | 180 | 38. | 1 |
| Benzo(a)anthracene | 92 | J | ug/kg | 110 | 20. | 1 |
| Benzo(a)pyrene | 86 | J | ug/kg | 140 | 44. | 1 |
| Benzo(b)fluoranthene | 95 | J | ug/kg | 110 | 30. | 1 |
| Benzo(k)fluoranthene | 41 | J | ug/kg | 110 | 29. | 1 |
| Chrysene | 88 | J | ug/kg | 110 | 19. | 1 |
| Acenaphthylene | ND | | ug/kg | 140 | 28. | 1 |
| Anthracene | 38 | J | ug/kg | 110 | 35. | 1 |
| Benzo(ghi)perylene | 52 | J | ug/kg | 140 | 21. | 1 |
| Fluorene | ND | | ug/kg | 180 | 18. | 1 |
| Phenanthrene | 130 | | ug/kg | 110 | 22. | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 110 | 21. | 1 |
| Indeno(1,2,3-cd)pyrene | 47 | J | ug/kg | 140 | 25. | 1 |
| Pyrene | 160 | | ug/kg | 110 | 18. | 1 |
| Biphenyl | ND | | ug/kg | 410 | 42. | 1 |
| 4-Chloroaniline | ND | | ug/kg | 180 | 33. | 1 |
| 2-Nitroaniline | ND | | ug/kg | 180 | 35. | 1 |
| 3-Nitroaniline | ND | | ug/kg | 180 | 34. | 1 |
| 4-Nitroaniline | ND | | ug/kg | 180 | 75. | 1 |
| Dibenzofuran | ND | | ug/kg | 180 | 17. | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 220 | 22. | 1 |
| 1,2,4,5-Tetrachlorobenzene | ND | | ug/kg | 180 | 19. | 1 |
| Acetophenone | ND | | ug/kg | 180 | 22. | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 110 | 34. | 1 |
| p-Chloro-m-cresol | ND | | ug/kg | 180 | 27. | 1 |
| 2-Chlorophenol | ND | | ug/kg | 180 | 21. | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 160 | 29. | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 180 | 60. | 1 |
| 2-Nitrophenol | ND | | ug/kg | 390 | 68. | 1 |
| 4-Nitrophenol | ND | | ug/kg | 250 | 74. | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 870 | 84. | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 470 | 87. | 1 |
| Pentachlorophenol | ND | | ug/kg | 140 | 40. | 1 |
| Phenol | ND | | ug/kg | 180 | 27. | 1 |
| 2-Methylphenol | ND | | ug/kg | 180 | 28. | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 260 | 28. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-12 Date Collected: 09/25/20 09:22

Client ID: WC-E (4-7') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 180 | 35. | 1 |
| Benzoic Acid | ND | | ug/kg | 580 | 180 | 1 |
| Benzyl Alcohol | ND | | ug/kg | 180 | 55. | 1 |
| Carbazole | ND | | ug/kg | 180 | 18. | 1 |
| 1,4-Dioxane | ND | | ug/kg | 27 | 8.3 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 94 | | 25-120 |
| Phenol-d6 | 98 | | 10-120 |
| Nitrobenzene-d5 | 102 | | 23-120 |
| 2-Fluorobiphenyl | 79 | | 30-120 |
| 2,4,6-Tribromophenol | 68 | | 10-136 |
| 4-Terphenyl-d14 | 67 | | 18-120 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 09/29/20 14:01
Analyst: EK

Extraction Method: EPA 3546
Extraction Date: 09/28/20 08:33

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 07-12 Batch: WG1415324-1 | | | | | |
| Acenaphthene | ND | | ug/kg | 130 | 17. |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 160 | 19. |
| Hexachlorobenzene | ND | | ug/kg | 99 | 18. |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 150 | 22. |
| 2-Chloronaphthalene | ND | | ug/kg | 160 | 16. |
| 1,2-Dichlorobenzene | ND | | ug/kg | 160 | 30. |
| 1,3-Dichlorobenzene | ND | | ug/kg | 160 | 28. |
| 1,4-Dichlorobenzene | ND | | ug/kg | 160 | 29. |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 160 | 44. |
| 2,4-Dinitrotoluene | ND | | ug/kg | 160 | 33. |
| 2,6-Dinitrotoluene | ND | | ug/kg | 160 | 28. |
| Fluoranthene | ND | | ug/kg | 99 | 19. |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 160 | 18. |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 160 | 25. |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 200 | 28. |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 180 | 17. |
| Hexachlorobutadiene | ND | | ug/kg | 160 | 24. |
| Hexachlorocyclopentadiene | ND | | ug/kg | 470 | 150 |
| Hexachloroethane | ND | | ug/kg | 130 | 27. |
| Isophorone | ND | | ug/kg | 150 | 22. |
| Naphthalene | ND | | ug/kg | 160 | 20. |
| Nitrobenzene | ND | | ug/kg | 150 | 24. |
| NDPA/DPA | ND | | ug/kg | 130 | 19. |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 160 | 26. |
| Bis(2-ethylhexyl)phthalate | ND | | ug/kg | 160 | 57. |
| Butyl benzyl phthalate | ND | | ug/kg | 160 | 42. |
| Di-n-butylphthalate | ND | | ug/kg | 160 | 31. |
| Di-n-octylphthalate | ND | | ug/kg | 160 | 56. |
| Diethyl phthalate | ND | | ug/kg | 160 | 15. |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 09/29/20 14:01
Analyst: EK

Extraction Method: EPA 3546
Extraction Date: 09/28/20 08:33

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 07-12 Batch: WG1415324-1 | | | | | |
| Dimethyl phthalate | ND | | ug/kg | 160 | 35. |
| Benzo(a)anthracene | ND | | ug/kg | 99 | 19. |
| Benzo(a)pyrene | ND | | ug/kg | 130 | 40. |
| Benzo(b)fluoranthene | ND | | ug/kg | 99 | 28. |
| Benzo(k)fluoranthene | ND | | ug/kg | 99 | 26. |
| Chrysene | ND | | ug/kg | 99 | 17. |
| Acenaphthylene | ND | | ug/kg | 130 | 26. |
| Anthracene | ND | | ug/kg | 99 | 32. |
| Benzo(ghi)perylene | ND | | ug/kg | 130 | 19. |
| Fluorene | ND | | ug/kg | 160 | 16. |
| Phenanthrene | ND | | ug/kg | 99 | 20. |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 99 | 19. |
| Indeno(1,2,3-cd)pyrene | ND | | ug/kg | 130 | 23. |
| Pyrene | ND | | ug/kg | 99 | 16. |
| Biphenyl | ND | | ug/kg | 380 | 38. |
| 4-Chloroaniline | ND | | ug/kg | 160 | 30. |
| 2-Nitroaniline | ND | | ug/kg | 160 | 32. |
| 3-Nitroaniline | ND | | ug/kg | 160 | 31. |
| 4-Nitroaniline | ND | | ug/kg | 160 | 68. |
| Dibenzofuran | ND | | ug/kg | 160 | 16. |
| 2-Methylnaphthalene | ND | | ug/kg | 200 | 20. |
| 1,2,4,5-Tetrachlorobenzene | ND | | ug/kg | 160 | 17. |
| Acetophenone | ND | | ug/kg | 160 | 20. |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 99 | 31. |
| p-Chloro-m-cresol | ND | | ug/kg | 160 | 25. |
| 2-Chlorophenol | ND | | ug/kg | 160 | 20. |
| 2,4-Dichlorophenol | ND | | ug/kg | 150 | 27. |
| 2,4-Dimethylphenol | ND | | ug/kg | 160 | 55. |
| 2-Nitrophenol | ND | | ug/kg | 360 | 62. |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 09/29/20 14:01
Analyst: EK

Extraction Method: EPA 3546
Extraction Date: 09/28/20 08:33

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 07-12 Batch: WG1415324-1 | | | | | |
| 4-Nitrophenol | ND | | ug/kg | 230 | 68. |
| 2,4-Dinitrophenol | ND | | ug/kg | 800 | 77. |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 430 | 80. |
| Pentachlorophenol | ND | | ug/kg | 130 | 36. |
| Phenol | ND | | ug/kg | 160 | 25. |
| 2-Methylphenol | ND | | ug/kg | 160 | 26. |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 240 | 26. |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 160 | 32. |
| Benzoic Acid | ND | | ug/kg | 540 | 170 |
| Benzyl Alcohol | ND | | ug/kg | 160 | 51. |
| Carbazole | ND | | ug/kg | 160 | 16. |
| 1,4-Dioxane | ND | | ug/kg | 25 | 7.6 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 94 | | 25-120 |
| Phenol-d6 | 97 | | 10-120 |
| Nitrobenzene-d5 | 106 | | 23-120 |
| 2-Fluorobiphenyl | 85 | | 30-120 |
| 2,4,6-Tribromophenol | 83 | | 10-136 |
| 4-Terphenyl-d14 | 90 | | 18-120 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2040645
**Report Date:** 10/02/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 07-12 Batch: WG1415324-2 WG1415324-3 | | | | | | | | |
| Acenaphthene | 69 | | 77 | | 31-137 | 11 | | 50 |
| 1,2,4-Trichlorobenzene | 71 | | 78 | | 38-107 | 9 | | 50 |
| Hexachlorobenzene | 67 | | 79 | | 40-140 | 16 | | 50 |
| Bis(2-chloroethyl)ether | 71 | | 76 | | 40-140 | 7 | | 50 |
| 2-Chloronaphthalene | 75 | | 82 | | 40-140 | 9 | | 50 |
| 1,2-Dichlorobenzene | 66 | | 72 | | 40-140 | 9 | | 50 |
| 1,3-Dichlorobenzene | 62 | | 70 | | 40-140 | 12 | | 50 |
| 1,4-Dichlorobenzene | 64 | | 71 | | 28-104 | 10 | | 50 |
| 3,3'-Dichlorobenzidine | 61 | | 65 | | 40-140 | 6 | | 50 |
| 2,4-Dinitrotoluene | 71 | | 76 | | 40-132 | 7 | | 50 |
| 2,6-Dinitrotoluene | 75 | | 89 | | 40-140 | 17 | | 50 |
| Fluoranthene | 72 | | 80 | | 40-140 | 11 | | 50 |
| 4-Chlorophenyl phenyl ether | 68 | | 75 | | 40-140 | 10 | | 50 |
| 4-Bromophenyl phenyl ether | 68 | | 77 | | 40-140 | 12 | | 50 |
| Bis(2-chloroisopropyl)ether | 42 | | 45 | | 40-140 | 7 | | 50 |
| Bis(2-chloroethoxy)methane | 74 | | 84 | | 40-117 | 13 | | 50 |
| Hexachlorobutadiene | 69 | | 77 | | 40-140 | 11 | | 50 |
| Hexachlorocyclopentadiene | 40 | | 48 | | 40-140 | 18 | | 50 |
| Hexachloroethane | 67 | | 75 | | 40-140 | 11 | | 50 |
| Isophorone | 78 | | 86 | | 40-140 | 10 | | 50 |
| Naphthalene | 70 | | 77 | | 40-140 | 10 | | 50 |
| Nitrobenzene | 74 | | 78 | | 40-140 | 5 | | 50 |
| NDPA/DPA | 69 | | 75 | | 36-157 | 8 | | 50 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 07-12 Batch: WG1415324-2 WG1415324-3 | | | | | | | | |
| n-Nitrosodi-n-propylamine | 76 | | 82 | | 32-121 | 8 | | 50 |
| Bis(2-ethylhexyl)phthalate | 75 | | 82 | | 40-140 | 9 | | 50 |
| Butyl benzyl phthalate | 80 | | 88 | | 40-140 | 10 | | 50 |
| Di-n-butylphthalate | 77 | | 84 | | 40-140 | 9 | | 50 |
| Di-n-octylphthalate | 77 | | 84 | | 40-140 | 9 | | 50 |
| Diethyl phthalate | 70 | | 78 | | 40-140 | 11 | | 50 |
| Dimethyl phthalate | 76 | | 86 | | 40-140 | 12 | | 50 |
| Benzo(a)anthracene | 67 | | 73 | | 40-140 | 9 | | 50 |
| Benzo(a)pyrene | 68 | | 74 | | 40-140 | 8 | | 50 |
| Benzo(b)fluoranthene | 72 | | 78 | | 40-140 | 8 | | 50 |
| Benzo(k)fluoranthene | 67 | | 73 | | 40-140 | 9 | | 50 |
| Chrysene | 67 | | 73 | | 40-140 | 9 | | 50 |
| Acenaphthylene | 82 | | 90 | | 40-140 | 9 | | 50 |
| Anthracene | 73 | | 79 | | 40-140 | 8 | | 50 |
| Benzo(ghi)perylene | 65 | | 72 | | 40-140 | 10 | | 50 |
| Fluorene | 69 | | 76 | | 40-140 | 10 | | 50 |
| Phenanthrene | 71 | | 77 | | 40-140 | 8 | | 50 |
| Dibenzo(a,h)anthracene | 66 | | 72 | | 40-140 | 9 | | 50 |
| Indeno(1,2,3-cd)pyrene | 66 | | 73 | | 40-140 | 10 | | 50 |
| Pyrene | 75 | | 83 | | 35-142 | 10 | | 50 |
| Biphenyl | 75 | | 83 | | 37-127 | 10 | | 50 |
| 4-Chloroaniline | 55 | | 58 | | 40-140 | 5 | | 50 |
| 2-Nitroaniline | 76 | | 87 | | 47-134 | 13 | | 50 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2040645
**Report Date:** 10/02/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 07-12 Batch: WG1415324-2 WG1415324-3 | | | | | | | | |
| 3-Nitroaniline | 62 | | 68 | | 26-129 | 9 | | 50 |
| 4-Nitroaniline | 65 | | 73 | | 41-125 | 12 | | 50 |
| Dibenzofuran | 70 | | 76 | | 40-140 | 8 | | 50 |
| 2-Methylnaphthalene | 74 | | 80 | | 40-140 | 8 | | 50 |
| 1,2,4,5-Tetrachlorobenzene | 75 | | 82 | | 40-117 | 9 | | 50 |
| Acetophenone | 72 | | 79 | | 14-144 | 9 | | 50 |
| 2,4,6-Trichlorophenol | 74 | | 84 | | 30-130 | 13 | | 50 |
| p-Chloro-m-cresol | 79 | | 91 | | 26-103 | 14 | | 50 |
| 2-Chlorophenol | 72 | | 81 | | 25-102 | 12 | | 50 |
| 2,4-Dichlorophenol | 79 | | 92 | | 30-130 | 15 | | 50 |
| 2,4-Dimethylphenol | 86 | | 95 | | 30-130 | 10 | | 50 |
| 2-Nitrophenol | 73 | | 82 | | 30-130 | 12 | | 50 |
| 4-Nitrophenol | 75 | | 83 | | 11-114 | 10 | | 50 |
| 2,4-Dinitrophenol | 56 | | 68 | | 4-130 | 19 | | 50 |
| 4,6-Dinitro-o-cresol | 61 | | 69 | | 10-130 | 12 | | 50 |
| Pentachlorophenol | 53 | | 65 | | 17-109 | 20 | | 50 |
| Phenol | 75 | | 83 | | 26-90 | 10 | | 50 |
| 2-Methylphenol | 78 | | 86 | | 30-130. | 10 | | 50 |
| 3-Methylphenol/4-Methylphenol | 75 | | 85 | | 30-130 | 13 | | 50 |
| 2,4,5-Trichlorophenol | 76 | | 89 | | 30-130 | 16 | | 50 |
| Benzoic Acid | 51 | | 69 | | 10-110 | 30 | | 50 |
| Benzyl Alcohol | 86 | | 93 | | 40-140 | 8 | | 50 |
| Carbazole | 74 | | 81 | | 54-128 | 9 | | 50 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040645

**Report Date:** 10/02/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 07-12 Batch: WG1415324-2 WG1415324-3 | | | | | | | | |
| 1,4-Dioxane | 52 | | 58 | | 40-140 | 11 | | 50 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| 2-Fluorophenol | 74 | | 83 | | 25-120 |
| Phenol-d6 | 83 | | 90 | | 10-120 |
| Nitrobenzene-d5 | 81 | | 86 | | 23-120 |
| 2-Fluorobiphenyl | 79 | | 88 | | 30-120 |
| 2,4,6-Tribromophenol | 71 | | 82 | | 10-136 |
| 4-Terphenyl-d14 | 76 | | 84 | | 18-120 |

# PETROLEUM HYDROCARBONS

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040645
**Project Number:** 135173-002
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-07
Client ID: WC-C (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/25/20 10:58
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 103,NJDEP EPH
Analytical Date: 09/30/20 05:56
Analyst: MEO
Percent Solids: 90%

Extraction Method: EPA 3546
Extraction Date: 09/28/20 20:58

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab | | | | | | |
| Total EPH | 79.6 | | mg/kg | 26.0 | 26.0 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Chloro-Octadecane | 76 | | 40-140 |
| o-Terphenyl | 72 | | 40-140 |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040645
**Project Number:** 135173-002
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-08
Client ID: WC-C (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/25/20 10:57
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 103,NJDEP EPH
Analytical Date: 09/30/20 06:26
Analyst: MEO
Percent Solids: 93%

Extraction Method: EPA 3546
Extraction Date: 09/28/20 20:58

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab | | | | | | |
| Total EPH | ND | | mg/kg | 24.8 | 24.8 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Chloro-Octadecane | 70 | | 40-140 |
| o-Terphenyl | 69 | | 40-140 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-09
Client ID: WC-D (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/25/20 08:25
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 103,NJDEP EPH
Analytical Date: 09/30/20 06:57
Analyst: MEO
Percent Solids: 87%

Extraction Method: EPA 3546
Extraction Date: 09/28/20 20:58

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab | | | | | | |
| Total EPH | 116 | | mg/kg | 26.2 | 26.2 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Chloro-Octadecane | 83 | | 40-140 |
| o-Terphenyl | 74 | | 40-140 |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040645
**Project Number:** 135173-002
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-10
Client ID: WC-D (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/25/20 08:28
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 103,NJDEP EPH
Analytical Date: 09/30/20 07:27
Analyst: MEO
Percent Solids: 75%

Extraction Method: EPA 3546
Extraction Date: 09/28/20 20:58

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab | | | | | | |
| Total EPH | 60.3 | | mg/kg | 30.8 | 30.8 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Chloro-Octadecane | 72 | | 40-140 |
| o-Terphenyl | 69 | | 40-140 |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040645
**Project Number:** 135173-002
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-11
Client ID: WC-E (0-4')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/25/20 09:20
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 103,NJDEP EPH
Analytical Date: 09/30/20 07:57
Analyst: MEO
Percent Solids: 88%

Extraction Method: EPA 3546
Extraction Date: 09/28/20 20:58

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab | | | | | | |
| Total EPH | 176 | | mg/kg | 26.7 | 26.7 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Chloro-Octadecane | 76 | | 40-140 |
| o-Terphenyl | 72 | | 40-140 |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040645
**Project Number:** 135173-002
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-12
Client ID: WC-E (4-7')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/25/20 09:22
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 103,NJDEP EPH
Analytical Date: 09/30/20 08:28
Analyst: MEO
Percent Solids: 91%

Extraction Method: EPA 3546
Extraction Date: 09/28/20 20:58

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab | | | | | | |
| Total EPH | 33.5 | | mg/kg | 25.9 | 25.9 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Chloro-Octadecane | 76 | | 40-140 |
| o-Terphenyl | 74 | | 40-140 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 103,NJDEP EPH
Analytical Date: 09/30/20 00:23
Analyst: MEO

Extraction Method: EPA 3546
Extraction Date: 09/28/20 05:23

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab for sample(s): 07-12 Batch: WG1415240-1 | | | | | |
| Total EPH | ND | | mg/kg | 23.5 | 23.5 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Chloro-Octadecane | 72 | | 40-140 |
| o-Terphenyl | 70 | | 40-140 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040645

**Report Date:** 10/02/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab Associated sample(s): 07-12 Batch: WG1415240-2 WG1415240-3 | | | | | | | | |
| Total EPH | 89 | | 81 | | 40-140 | 9 | | 25 |
| Nonane (C9) | 70 | | 66 | | 40-140 | 6 | | 25 |
| Decane (C10) | 67 | | 64 | | 40-140 | 5 | | 25 |
| Dodecane (C12) | 69 | | 66 | | 40-140 | 4 | | 25 |
| Tetradecane (C14) | 71 | | 66 | | 40-140 | 7 | | 25 |
| Hexadecane (C16) | 75 | | 69 | | 40-140 | 8 | | 25 |
| Octadecane (C18) | 76 | | 72 | | 40-140 | 5 | | 25 |
| Eicosane (C20) | 77 | | 73 | | 40-140 | 5 | | 25 |
| Heneicosane (C21) | 77 | | 72 | | 40-140 | 7 | | 25 |
| Docosane (C22) | 78 | | 73 | | 40-140 | 7 | | 25 |
| Tetracosane (C24) | 77 | | 73 | | 40-140 | 5 | | 25 |
| Hexacosane (C26) | 78 | | 74 | | 40-140 | 5 | | 25 |
| Octacosane (C28) | 79 | | 74 | | 40-140 | 7 | | 25 |
| Triacontane (C30) | 78 | | 74 | | 40-140 | 5 | | 25 |
| Dotriacontane (C32) | 80 | | 76 | | 40-140 | 5 | | 25 |
| Tetratriacontane (C34) | 75 | | 71 | | 40-140 | 5 | | 25 |
| Hexatriacontane (C36) | 77 | | 73 | | 40-140 | 5 | | 25 |
| Octatriacontane (C38) | 76 | | 71 | | 40-140 | 7 | | 25 |
| Tetracontane (C40) | 73 | | 70 | | 40-140 | 4 | | 25 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040645

**Report Date:** 10/02/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab Associated sample(s): 07-12 Batch: WG1415240-2 WG1415240-3 | | | | | | | | |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| Chloro-Octadecane | 76 | | 74 | | 40-140 |
| o-Terphenyl | 74 | | 71 | | 40-140 |

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040645

**Report Date:** 10/02/20

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab Associated sample(s): 07-12 QC Batch ID: WG1415240-4 QC Sample: L2040640-01 Client ID: MS Sample | | | | | | | | | | | | |
| Total EPH | ND | 258 | 219 | 85 | | - | - | | 40-140 | - | | 50 |
| Nonane (C9) | ND | 7.18 | 5.10 | 71 | | - | - | | 40-140 | - | | 50 |
| Decane (C10) | ND | 7.18 | 4.91 | 68 | | - | - | | 40-140 | - | | 50 |
| Dodecane (C12) | ND | 7.18 | 5.08 | 71 | | - | - | | 40-140 | - | | 50 |
| Tetradecane (C14) | ND | 7.18 | 5.10 | 71 | | - | - | | 40-140 | - | | 50 |
| Hexadecane (C16) | ND | 7.18 | 5.24 | 73 | | - | - | | 40-140 | - | | 50 |
| Octadecane (C18) | ND | 7.18 | 5.37 | 75 | | - | - | | 40-140 | - | | 50 |
| Eicosane (C20) | ND | 7.18 | 5.45 | 76 | | - | - | | 40-140 | - | | 50 |
| Heneicosane (C21) | ND | 7.18 | 5.42 | 76 | | - | - | | 40-140 | - | | 50 |
| Docosane (C22) | ND | 7.18 | 5.46 | 76 | | - | - | | 40-140 | - | | 50 |
| Tetracosane (C24) | ND | 7.18 | 5.44 | 76 | | - | - | | 40-140 | - | | 50 |
| Hexacosane (C26) | ND | 7.18 | 5.48 | 76 | | - | - | | 40-140 | - | | 50 |
| Octacosane (C28) | ND | 7.18 | 5.54 | 77 | | - | - | | 40-140 | - | | 50 |
| Triacontane (C30) | ND | 7.18 | 5.46 | 76 | | - | - | | 40-140 | - | | 50 |
| Dotriacontane (C32) | ND | 7.18 | 5.59 | 78 | | - | - | | 40-140 | - | | 50 |
| Tetratriacontane (C34) | ND | 7.18 | 5.30 | 74 | | - | - | | 40-140 | - | | 50 |
| Hexatriacontane (C36) | ND | 7.18 | 5.47 | 76 | | - | - | | 40-140 | - | | 50 |
| Octatriacontane (C38) | ND | 7.18 | 5.39 | 75 | | - | - | | 40-140 | - | | 50 |
| Tetracontane (C40) | ND | 7.18 | 5.32 | 74 | | - | - | | 40-140 | - | | 50 |

| Surrogate | MS % Recovery | MS Qualifier | MSD % Recovery | MSD Qualifier | Acceptance Criteria |
|---|---|---|---|---|---|
| Chloro-Octadecane | 73 | | | | 40-140 |

# Matrix Spike Analysis

***Batch Quality Control***

***Project Name:*** 310 GRAND CONCOURSE

***Project Number:*** 135173-002

***Lab Number:*** L2040645

***Report Date:*** 10/02/20

| *Parameter* | *Native Sample* | *MS Added* | *MS Found* | *MS %Recovery* | *Qual* | *MSD Found* | *MSD %Recovery* | *Qual* | *Recovery Limits* | *RPD* | *Qual* | *RPD Limits* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab Associated sample(s): 07-12 QC Batch ID: WG1415240-4 QC Sample: L2040640-01 Client ID: MS Sample | | | | | | | | | | | | |

| *Surrogate* | *MS % Recovery* | *MS Qualifier* | *MSD % Recovery* | *MSD Qualifier* | *Acceptance Criteria* |
|---|---|---|---|---|---|
| o-Terphenyl | 71 | | | | 40-140 |

# Lab Duplicate Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2040645
**Report Date:** 10/02/20

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab Associated sample(s): 07-12 QC Batch ID: WG1415240-5 QC Sample: L2040640-01 Client ID: DUP Sample | | | | | | |
| Total EPH | ND | ND | mg/kg | NC | | 50 |

| Surrogate | %Recovery | Qualifier | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|---|---|
| Chloro-Octadecane | 70 | | 73 | | 40-140 |
| o-Terphenyl | 68 | | 72 | | 40-140 |

# PCBS

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-07
Client ID: WC-C (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/25/20 10:58
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 09/29/20 19:09
Analyst: AD
Percent Solids: 90%

Extraction Method: EPA 3546
Extraction Date: 09/28/20 05:23
Cleanup Method: EPA 3665A
Cleanup Date: 09/29/20
Cleanup Method: EPA 3660B
Cleanup Date: 09/29/20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Polychlorinated Biphenyls by GC - Westborough Lab** | | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 36.3 | 3.22 | 1 | A |
| Aroclor 1221 | ND | | ug/kg | 36.3 | 3.64 | 1 | A |
| Aroclor 1232 | ND | | ug/kg | 36.3 | 7.70 | 1 | A |
| Aroclor 1242 | ND | | ug/kg | 36.3 | 4.89 | 1 | A |
| Aroclor 1248 | ND | | ug/kg | 36.3 | 5.44 | 1 | A |
| Aroclor 1254 | ND | | ug/kg | 36.3 | 3.97 | 1 | A |
| Aroclor 1260 | ND | | ug/kg | 36.3 | 6.71 | 1 | A |
| Aroclor 1262 | ND | | ug/kg | 36.3 | 4.61 | 1 | A |
| Aroclor 1268 | ND | | ug/kg | 36.3 | 3.76 | 1 | A |
| PCBs, Total | ND | | ug/kg | 36.3 | 3.22 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 59 | | 30-150 | A |
| Decachlorobiphenyl | 59 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 54 | | 30-150 | B |
| Decachlorobiphenyl | 59 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-08
Client ID: WC-C (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/25/20 10:57
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 09/29/20 19:17
Analyst: AD
Percent Solids: 93%

Extraction Method: EPA 3546
Extraction Date: 09/28/20 05:33
Cleanup Method: EPA 3665A
Cleanup Date: 09/29/20
Cleanup Method: EPA 3660B
Cleanup Date: 09/29/20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Polychlorinated Biphenyls by GC - Westborough Lab** | | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 34.0 | 3.02 | 1 | A |
| Aroclor 1221 | ND | | ug/kg | 34.0 | 3.40 | 1 | A |
| Aroclor 1232 | ND | | ug/kg | 34.0 | 7.20 | 1 | A |
| Aroclor 1242 | ND | | ug/kg | 34.0 | 4.58 | 1 | A |
| Aroclor 1248 | ND | | ug/kg | 34.0 | 5.09 | 1 | A |
| Aroclor 1254 | 128 | | ug/kg | 34.0 | 3.72 | 1 | B |
| Aroclor 1260 | ND | | ug/kg | 34.0 | 6.28 | 1 | A |
| Aroclor 1262 | ND | | ug/kg | 34.0 | 4.31 | 1 | A |
| Aroclor 1268 | ND | | ug/kg | 34.0 | 3.52 | 1 | A |
| PCBs, Total | 128 | | ug/kg | 34.0 | 3.02 | 1 | B |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 60 | | 30-150 | A |
| Decachlorobiphenyl | 56 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 55 | | 30-150 | B |
| Decachlorobiphenyl | 58 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-09
Client ID: WC-D (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/25/20 08:25
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 09/29/20 19:24
Analyst: AD
Percent Solids: 87%

Extraction Method: EPA 3546
Extraction Date: 09/28/20 05:23
Cleanup Method: EPA 3665A
Cleanup Date: 09/29/20
Cleanup Method: EPA 3660B
Cleanup Date: 09/29/20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Polychlorinated Biphenyls by GC - Westborough Lab** | | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 37.1 | 3.30 | 1 | A |
| Aroclor 1221 | ND | | ug/kg | 37.1 | 3.72 | 1 | A |
| Aroclor 1232 | ND | | ug/kg | 37.1 | 7.87 | 1 | A |
| Aroclor 1242 | ND | | ug/kg | 37.1 | 5.00 | 1 | A |
| Aroclor 1248 | ND | | ug/kg | 37.1 | 5.57 | 1 | A |
| Aroclor 1254 | 7.76 | J | ug/kg | 37.1 | 4.06 | 1 | B |
| Aroclor 1260 | ND | | ug/kg | 37.1 | 6.86 | 1 | A |
| Aroclor 1262 | ND | | ug/kg | 37.1 | 4.72 | 1 | A |
| Aroclor 1268 | ND | | ug/kg | 37.1 | 3.85 | 1 | A |
| PCBs, Total | 7.76 | J | ug/kg | 37.1 | 3.30 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 51 | | 30-150 | A |
| Decachlorobiphenyl | 44 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 46 | | 30-150 | B |
| Decachlorobiphenyl | 46 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-10
Client ID: WC-D (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/25/20 08:28
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 09/29/20 19:31
Analyst: AD
Percent Solids: 75%

Extraction Method: EPA 3546
Extraction Date: 09/28/20 05:23
Cleanup Method: EPA 3665A
Cleanup Date: 09/29/20
Cleanup Method: EPA 3660B
Cleanup Date: 09/29/20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Polychlorinated Biphenyls by GC - Westborough Lab** | | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 41.9 | 3.72 | 1 | A |
| Aroclor 1221 | ND | | ug/kg | 41.9 | 4.20 | 1 | A |
| Aroclor 1232 | ND | | ug/kg | 41.9 | 8.88 | 1 | A |
| Aroclor 1242 | ND | | ug/kg | 41.9 | 5.65 | 1 | A |
| Aroclor 1248 | ND | | ug/kg | 41.9 | 6.29 | 1 | A |
| Aroclor 1254 | 7.26 | J | ug/kg | 41.9 | 4.58 | 1 | A |
| Aroclor 1260 | ND | | ug/kg | 41.9 | 7.74 | 1 | A |
| Aroclor 1262 | ND | | ug/kg | 41.9 | 5.32 | 1 | A |
| Aroclor 1268 | ND | | ug/kg | 41.9 | 4.34 | 1 | A |
| PCBs, Total | 7.26 | J | ug/kg | 41.9 | 3.72 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 61 | | 30-150 | A |
| Decachlorobiphenyl | 62 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 57 | | 30-150 | B |
| Decachlorobiphenyl | 64 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-11
Client ID: WC-E (0-4')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/25/20 09:20
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 09/29/20 19:39
Analyst: AD
Percent Solids: 88%

Extraction Method: EPA 3546
Extraction Date: 09/28/20 05:26
Cleanup Method: EPA 3665A
Cleanup Date: 09/29/20
Cleanup Method: EPA 3660B
Cleanup Date: 09/29/20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Polychlorinated Biphenyls by GC - Westborough Lab** | | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 36.1 | 3.20 | 1 | A |
| Aroclor 1221 | ND | | ug/kg | 36.1 | 3.61 | 1 | A |
| Aroclor 1232 | ND | | ug/kg | 36.1 | 7.64 | 1 | A |
| Aroclor 1242 | ND | | ug/kg | 36.1 | 4.86 | 1 | A |
| Aroclor 1248 | ND | | ug/kg | 36.1 | 5.41 | 1 | A |
| Aroclor 1254 | 13.7 | J | ug/kg | 36.1 | 3.94 | 1 | A |
| Aroclor 1260 | 18.3 | J | ug/kg | 36.1 | 6.66 | 1 | A |
| Aroclor 1262 | ND | | ug/kg | 36.1 | 4.58 | 1 | A |
| Aroclor 1268 | ND | | ug/kg | 36.1 | 3.74 | 1 | A |
| PCBs, Total | 32.0 | J | ug/kg | 36.1 | 3.20 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 63 | | 30-150 | A |
| Decachlorobiphenyl | 64 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 58 | | 30-150 | B |
| Decachlorobiphenyl | 72 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-12
Client ID: WC-E (4-7')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/25/20 09:22
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 09/29/20 19:46
Analyst: AD
Percent Solids: 91%

Extraction Method: EPA 3546
Extraction Date: 09/28/20 05:26
Cleanup Method: EPA 3665A
Cleanup Date: 09/29/20
Cleanup Method: EPA 3660B
Cleanup Date: 09/29/20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Polychlorinated Biphenyls by GC - Westborough Lab** | | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 35.7 | 3.17 | 1 | A |
| Aroclor 1221 | ND | | ug/kg | 35.7 | 3.57 | 1 | A |
| Aroclor 1232 | ND | | ug/kg | 35.7 | 7.56 | 1 | A |
| Aroclor 1242 | ND | | ug/kg | 35.7 | 4.81 | 1 | A |
| Aroclor 1248 | ND | | ug/kg | 35.7 | 5.35 | 1 | A |
| Aroclor 1254 | 5.78 | J | ug/kg | 35.7 | 3.90 | 1 | B |
| Aroclor 1260 | ND | | ug/kg | 35.7 | 6.59 | 1 | A |
| Aroclor 1262 | ND | | ug/kg | 35.7 | 4.53 | 1 | A |
| Aroclor 1268 | ND | | ug/kg | 35.7 | 3.70 | 1 | A |
| PCBs, Total | 5.78 | J | ug/kg | 35.7 | 3.17 | 1 | B |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 59 | | 30-150 | A |
| Decachlorobiphenyl | 56 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 55 | | 30-150 | B |
| Decachlorobiphenyl | 59 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 09/29/20 20:08
Analyst: AD

Extraction Method: EPA 3546
Extraction Date: 09/28/20 05:23
Cleanup Method: EPA 3665A
Cleanup Date: 09/29/20
Cleanup Method: EPA 3660B
Cleanup Date: 09/29/20

| Parameter | Result | Qualifier | Units | RL | MDL | Column |
|---|---|---|---|---|---|---|
| Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 07-12 Batch: WG1415242-1 | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 31.8 | 2.83 | A |
| Aroclor 1221 | ND | | ug/kg | 31.8 | 3.19 | A |
| Aroclor 1232 | ND | | ug/kg | 31.8 | 6.75 | A |
| Aroclor 1242 | ND | | ug/kg | 31.8 | 4.29 | A |
| Aroclor 1248 | ND | | ug/kg | 31.8 | 4.77 | A |
| Aroclor 1254 | ND | | ug/kg | 31.8 | 3.48 | A |
| Aroclor 1260 | ND | | ug/kg | 31.8 | 5.88 | A |
| Aroclor 1262 | ND | | ug/kg | 31.8 | 4.04 | A |
| Aroclor 1268 | ND | | ug/kg | 31.8 | 3.30 | A |
| PCBs, Total | ND | | ug/kg | 31.8 | 2.83 | A |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 63 | | 30-150 | A |
| Decachlorobiphenyl | 63 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 59 | | 30-150 | B |
| Decachlorobiphenyl | 64 | | 30-150 | B |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040645

**Report Date:** 10/02/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits | Column |
|---|---|---|---|---|---|---|---|---|---|
| Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 07-12 Batch: WG1415242-2 WG1415242-3 | | | | | | | | | |
| Aroclor 1016 | 64 | | 64 | | 40-140 | 0 | | 50 | A |
| Aroclor 1260 | 56 | | 57 | | 40-140 | 2 | | 50 | A |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria | Column |
|---|---|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 60 | | 58 | | 30-150 | A |
| Decachlorobiphenyl | 58 | | 58 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 56 | | 54 | | 30-150 | B |
| Decachlorobiphenyl | 58 | | 58 | | 30-150 | B |

# PESTICIDES

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-07
Client ID: WC-C (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/25/20 10:58
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 09/29/20 20:19
Analyst: SL
Percent Solids: 90%

Extraction Method: EPA 3546
Extraction Date: 09/28/20 02:55
Cleanup Method: EPA 3620B
Cleanup Date: 09/29/20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Organochlorine Pesticides by GC - Westborough Lab** | | | | | | | |
| Delta-BHC | ND | | ug/kg | 1.74 | 0.340 | 1 | A |
| Lindane | ND | | ug/kg | 0.724 | 0.323 | 1 | A |
| Alpha-BHC | ND | | ug/kg | 0.724 | 0.206 | 1 | A |
| Beta-BHC | ND | | ug/kg | 1.74 | 0.658 | 1 | A |
| Heptachlor | ND | | ug/kg | 0.868 | 0.389 | 1 | A |
| Aldrin | ND | | ug/kg | 1.74 | 0.611 | 1 | A |
| Heptachlor epoxide | ND | | ug/kg | 3.26 | 0.977 | 1 | A |
| Endrin | ND | | ug/kg | 0.724 | 0.297 | 1 | A |
| Endrin aldehyde | ND | | ug/kg | 2.17 | 0.760 | 1 | A |
| Endrin ketone | ND | | ug/kg | 1.74 | 0.447 | 1 | A |
| Dieldrin | ND | | ug/kg | 1.08 | 0.543 | 1 | A |
| 4,4'-DDE | ND | | ug/kg | 1.74 | 0.402 | 1 | A |
| 4,4'-DDD | ND | | ug/kg | 1.74 | 0.619 | 1 | A |
| 4,4'-DDT | ND | | ug/kg | 3.26 | 1.40 | 1 | A |
| Endosulfan I | ND | | ug/kg | 1.74 | 0.410 | 1 | A |
| Endosulfan II | ND | | ug/kg | 1.74 | 0.580 | 1 | A |
| Endosulfan sulfate | ND | | ug/kg | 0.724 | 0.344 | 1 | A |
| Methoxychlor | ND | | ug/kg | 3.26 | 1.01 | 1 | A |
| Toxaphene | ND | | ug/kg | 32.6 | 9.12 | 1 | A |
| cis-Chlordane | ND | | ug/kg | 2.17 | 0.605 | 1 | A |
| trans-Chlordane | ND | IP | ug/kg | 2.17 | 0.573 | 1 | A |
| Chlordane | ND | | ug/kg | 14.5 | 5.75 | 1 | A |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

**SAMPLE RESULTS**

Lab ID: L2040645-07 Date Collected: 09/25/20 10:58

Client ID: WC-C (0-5') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab | | | | | | | |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 84 | | 30-150 | A |
| Decachlorobiphenyl | 74 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 84 | | 30-150 | B |
| Decachlorobiphenyl | 81 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040645
**Project Number:** 135173-002
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-07
Client ID: WC-C (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/25/20 10:58
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 09/29/20 03:28
Analyst: JMC
Percent Solids: 90%
Methylation Date: 09/28/20 05:52

Extraction Method: EPA 8151A
Extraction Date: 09/26/20 12:34

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides by GC - Westborough Lab** | | | | | | | |
| 2,4-D | ND | | ug/kg | 180 | 11.4 | 1 | A |
| 2,4,5-T | ND | | ug/kg | 180 | 5.60 | 1 | A |
| 2,4,5-TP (Silvex) | ND | | ug/kg | 180 | 4.80 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| DCAA | 101 | | 30-150 | A |
| DCAA | 99 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-08
Client ID: WC-C (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/25/20 10:57
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 09/29/20 20:28
Analyst: SL
Percent Solids: 93%

Extraction Method: EPA 3546
Extraction Date: 09/28/20 02:55
Cleanup Method: EPA 3620B
Cleanup Date: 09/29/20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Organochlorine Pesticides by GC - Westborough Lab** | | | | | | | |
| Delta-BHC | ND | | ug/kg | 1.65 | 0.323 | 1 | A |
| Lindane | ND | | ug/kg | 0.688 | 0.308 | 1 | A |
| Alpha-BHC | ND | | ug/kg | 0.688 | 0.195 | 1 | A |
| Beta-BHC | ND | | ug/kg | 1.65 | 0.626 | 1 | A |
| Heptachlor | ND | | ug/kg | 0.826 | 0.370 | 1 | A |
| Aldrin | ND | | ug/kg | 1.65 | 0.582 | 1 | A |
| Heptachlor epoxide | ND | | ug/kg | 3.10 | 0.929 | 1 | A |
| Endrin | ND | | ug/kg | 0.688 | 0.282 | 1 | A |
| Endrin aldehyde | ND | | ug/kg | 2.06 | 0.723 | 1 | A |
| Endrin ketone | ND | | ug/kg | 1.65 | 0.425 | 1 | A |
| Dieldrin | ND | | ug/kg | 1.03 | 0.516 | 1 | A |
| 4,4'-DDE | ND | | ug/kg | 1.65 | 0.382 | 1 | A |
| 4,4'-DDD | ND | | ug/kg | 1.65 | 0.589 | 1 | A |
| 4,4'-DDT | ND | | ug/kg | 3.10 | 1.33 | 1 | A |
| Endosulfan I | ND | | ug/kg | 1.65 | 0.390 | 1 | A |
| Endosulfan II | ND | | ug/kg | 1.65 | 0.552 | 1 | A |
| Endosulfan sulfate | ND | | ug/kg | 0.688 | 0.328 | 1 | A |
| Methoxychlor | ND | | ug/kg | 3.10 | 0.964 | 1 | A |
| Toxaphene | ND | | ug/kg | 31.0 | 8.67 | 1 | A |
| cis-Chlordane | ND | | ug/kg | 2.06 | 0.575 | 1 | A |
| trans-Chlordane | ND | | ug/kg | 2.06 | 0.545 | 1 | A |
| Chlordane | ND | | ug/kg | 13.8 | 5.47 | 1 | A |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

**SAMPLE RESULTS**

Lab ID: L2040645-08 Date Collected: 09/25/20 10:57

Client ID: WC-C (5-10') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab | | | | | | | |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 85 | | 30-150 | A |
| Decachlorobiphenyl | 81 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 85 | | 30-150 | B |
| Decachlorobiphenyl | 80 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040645
**Project Number:** 135173-002
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-08
Client ID: WC-C (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/25/20 10:57
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 09/29/20 03:46
Analyst: JMC
Percent Solids: 93%
Methylation Date: 09/28/20 05:52

Extraction Method: EPA 8151A
Extraction Date: 09/26/20 12:34

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides by GC - Westborough Lab** | | | | | | | |
| 2,4-D | ND | | ug/kg | 178 | 11.2 | 1 | A |
| 2,4,5-T | ND | | ug/kg | 178 | 5.52 | 1 | A |
| 2,4,5-TP (Silvex) | ND | | ug/kg | 178 | 4.74 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| DCAA | 78 | | 30-150 | A |
| DCAA | 70 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-09
Client ID: WC-D (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/25/20 08:25
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 09/29/20 20:38
Analyst: SL
Percent Solids: 87%

Extraction Method: EPA 3546
Extraction Date: 09/28/20 02:55
Cleanup Method: EPA 3620B
Cleanup Date: 09/29/20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Organochlorine Pesticides by GC - Westborough Lab** | | | | | | | |
| Delta-BHC | ND | | ug/kg | 1.76 | 0.345 | 1 | A |
| Lindane | ND | | ug/kg | 0.734 | 0.328 | 1 | A |
| Alpha-BHC | ND | | ug/kg | 0.734 | 0.208 | 1 | A |
| Beta-BHC | ND | | ug/kg | 1.76 | 0.668 | 1 | A |
| Heptachlor | ND | | ug/kg | 0.881 | 0.395 | 1 | A |
| Aldrin | ND | | ug/kg | 1.76 | 0.620 | 1 | A |
| Heptachlor epoxide | ND | | ug/kg | 3.30 | 0.991 | 1 | A |
| Endrin | ND | | ug/kg | 0.734 | 0.301 | 1 | A |
| Endrin aldehyde | ND | | ug/kg | 2.20 | 0.771 | 1 | A |
| Endrin ketone | ND | | ug/kg | 1.76 | 0.454 | 1 | A |
| Dieldrin | ND | | ug/kg | 1.10 | 0.550 | 1 | A |
| 4,4'-DDE | 0.437 | JIP | ug/kg | 1.76 | 0.407 | 1 | B |
| 4,4'-DDD | ND | | ug/kg | 1.76 | 0.628 | 1 | A |
| 4,4'-DDT | ND | | ug/kg | 3.30 | 1.42 | 1 | A |
| Endosulfan I | ND | | ug/kg | 1.76 | 0.416 | 1 | A |
| Endosulfan II | ND | | ug/kg | 1.76 | 0.589 | 1 | A |
| Endosulfan sulfate | ND | | ug/kg | 0.734 | 0.349 | 1 | A |
| Methoxychlor | ND | | ug/kg | 3.30 | 1.03 | 1 | A |
| Toxaphene | ND | | ug/kg | 33.0 | 9.25 | 1 | A |
| cis-Chlordane | ND | | ug/kg | 2.20 | 0.614 | 1 | A |
| trans-Chlordane | ND | | ug/kg | 2.20 | 0.581 | 1 | A |
| Chlordane | ND | | ug/kg | 14.7 | 5.84 | 1 | A |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

**SAMPLE RESULTS**

Lab ID: L2040645-09 Date Collected: 09/25/20 08:25

Client ID: WC-D (0-5') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab | | | | | | | |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 104 | | 30-150 | A |
| Decachlorobiphenyl | 88 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 102 | | 30-150 | B |
| Decachlorobiphenyl | 109 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-09
Client ID: WC-D (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/25/20 08:25
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 09/29/20 04:04
Analyst: JMC
Percent Solids: 87%
Methylation Date: 09/28/20 05:52

Extraction Method: EPA 8151A
Extraction Date: 09/26/20 12:34

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides by GC - Westborough Lab** | | | | | | | |
| 2,4-D | ND | | ug/kg | 186 | 11.7 | 1 | A |
| 2,4,5-T | ND | | ug/kg | 186 | 5.75 | 1 | A |
| 2,4,5-TP (Silvex) | ND | | ug/kg | 186 | 4.94 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| DCAA | 103 | | 30-150 | A |
| DCAA | 97 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-10
Client ID: WC-D (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/25/20 08:28
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 09/29/20 20:48
Analyst: SL
Percent Solids: 75%

Extraction Method: EPA 3546
Extraction Date: 09/28/20 02:55
Cleanup Method: EPA 3620B
Cleanup Date: 09/29/20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Organochlorine Pesticides by GC - Westborough Lab** | | | | | | | |
| Delta-BHC | ND | | ug/kg | 2.05 | 0.402 | 1 | A |
| Lindane | ND | | ug/kg | 0.855 | 0.382 | 1 | A |
| Alpha-BHC | ND | | ug/kg | 0.855 | 0.243 | 1 | A |
| Beta-BHC | ND | | ug/kg | 2.05 | 0.778 | 1 | A |
| Heptachlor | ND | | ug/kg | 1.03 | 0.460 | 1 | A |
| Aldrin | ND | | ug/kg | 2.05 | 0.723 | 1 | A |
| Heptachlor epoxide | ND | | ug/kg | 3.85 | 1.15 | 1 | A |
| Endrin | ND | | ug/kg | 0.855 | 0.351 | 1 | A |
| Endrin aldehyde | ND | | ug/kg | 2.57 | 0.898 | 1 | A |
| Endrin ketone | ND | | ug/kg | 2.05 | 0.529 | 1 | A |
| Dieldrin | ND | | ug/kg | 1.28 | 0.642 | 1 | A |
| 4,4'-DDE | 0.494 | J | ug/kg | 2.05 | 0.475 | 1 | B |
| 4,4'-DDD | ND | | ug/kg | 2.05 | 0.732 | 1 | A |
| 4,4'-DDT | ND | | ug/kg | 3.85 | 1.65 | 1 | A |
| Endosulfan I | ND | | ug/kg | 2.05 | 0.485 | 1 | A |
| Endosulfan II | ND | | ug/kg | 2.05 | 0.686 | 1 | A |
| Endosulfan sulfate | ND | | ug/kg | 0.855 | 0.407 | 1 | A |
| Methoxychlor | ND | | ug/kg | 3.85 | 1.20 | 1 | A |
| Toxaphene | ND | | ug/kg | 38.5 | 10.8 | 1 | A |
| cis-Chlordane | ND | | ug/kg | 2.57 | 0.715 | 1 | A |
| trans-Chlordane | ND | IP | ug/kg | 2.57 | 0.677 | 1 | A |
| Chlordane | ND | | ug/kg | 17.1 | 6.80 | 1 | A |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

**SAMPLE RESULTS**

Lab ID: L2040645-10 Date Collected: 09/25/20 08:28

Client ID: WC-D (5-10') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab | | | | | | | |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 95 | | 30-150 | A |
| Decachlorobiphenyl | 85 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 96 | | 30-150 | B |
| Decachlorobiphenyl | 103 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040645
**Project Number:** 135173-002
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-10
Client ID: WC-D (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/25/20 08:28
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 09/30/20 13:06
Analyst: JMC
Percent Solids: 75%
Methylation Date: 09/28/20 05:52

Extraction Method: EPA 8151A
Extraction Date: 09/26/20 12:34

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides by GC - Westborough Lab** | | | | | | | |
| 2,4-D | ND | | ug/kg | 218 | 13.7 | 1 | A |
| 2,4,5-T | ND | | ug/kg | 218 | 6.75 | 1 | A |
| 2,4,5-TP (Silvex) | ND | | ug/kg | 218 | 5.79 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| DCAA | 104 | | 30-150 | A |
| DCAA | 85 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-11
Client ID: WC-E (0-4')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/25/20 09:20
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 09/29/20 20:57
Analyst: SL
Percent Solids: 88%

Extraction Method: EPA 3546
Extraction Date: 09/28/20 02:55
Cleanup Method: EPA 3620B
Cleanup Date: 09/29/20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Organochlorine Pesticides by GC - Westborough Lab** | | | | | | | |
| Delta-BHC | ND | | ug/kg | 1.75 | 0.343 | 1 | A |
| Lindane | ND | | ug/kg | 0.730 | 0.326 | 1 | A |
| Alpha-BHC | ND | | ug/kg | 0.730 | 0.207 | 1 | A |
| Beta-BHC | ND | | ug/kg | 1.75 | 0.664 | 1 | A |
| Heptachlor | ND | | ug/kg | 0.876 | 0.393 | 1 | A |
| Aldrin | ND | | ug/kg | 1.75 | 0.617 | 1 | A |
| Heptachlor epoxide | ND | | ug/kg | 3.28 | 0.986 | 1 | A |
| Endrin | ND | | ug/kg | 0.730 | 0.299 | 1 | A |
| Endrin aldehyde | ND | | ug/kg | 2.19 | 0.767 | 1 | A |
| Endrin ketone | ND | | ug/kg | 1.75 | 0.451 | 1 | A |
| Dieldrin | ND | | ug/kg | 1.10 | 0.548 | 1 | A |
| 4,4'-DDE | 1.41 | JP | ug/kg | 1.75 | 0.405 | 1 | A |
| 4,4'-DDD | ND | | ug/kg | 1.75 | 0.625 | 1 | A |
| 4,4'-DDT | 5.30 | | ug/kg | 3.28 | 1.41 | 1 | B |
| Endosulfan I | ND | | ug/kg | 1.75 | 0.414 | 1 | A |
| Endosulfan II | ND | | ug/kg | 1.75 | 0.586 | 1 | A |
| Endosulfan sulfate | ND | | ug/kg | 0.730 | 0.348 | 1 | A |
| Methoxychlor | ND | | ug/kg | 3.28 | 1.02 | 1 | A |
| Toxaphene | ND | | ug/kg | 32.8 | 9.20 | 1 | A |
| cis-Chlordane | 0.772 | J | ug/kg | 2.19 | 0.610 | 1 | B |
| trans-Chlordane | 1.49 | JIP | ug/kg | 2.19 | 0.578 | 1 | A |
| Chlordane | ND | | ug/kg | 14.6 | 5.80 | 1 | A |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

**SAMPLE RESULTS**

Lab ID: L2040645-11 Date Collected: 09/25/20 09:20

Client ID: WC-E (0-4') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab | | | | | | | |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 92 | | 30-150 | A |
| Decachlorobiphenyl | 91 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 94 | | 30-150 | B |
| Decachlorobiphenyl | 98 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040645
**Project Number:** 135173-002
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-11
Client ID: WC-E (0-4')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/25/20 09:20
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 09/29/20 04:40
Analyst: JMC
Percent Solids: 88%
Methylation Date: 09/28/20 05:52

Extraction Method: EPA 8151A
Extraction Date: 09/26/20 12:34

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides by GC - Westborough Lab** | | | | | | | |
| 2,4-D | ND | | ug/kg | 186 | 11.7 | 1 | A |
| 2,4,5-T | ND | | ug/kg | 186 | 5.75 | 1 | A |
| 2,4,5-TP (Silvex) | ND | | ug/kg | 186 | 4.94 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| DCAA | 97 | | 30-150 | A |
| DCAA | 96 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-12
Client ID: WC-E (4-7')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/25/20 09:22
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 09/29/20 21:07
Analyst: SL
Percent Solids: 91%

Extraction Method: EPA 3546
Extraction Date: 09/28/20 02:55
Cleanup Method: EPA 3620B
Cleanup Date: 09/29/20

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Organochlorine Pesticides by GC - Westborough Lab** | | | | | | | |
| Delta-BHC | ND | | ug/kg | 1.72 | 0.337 | 1 | A |
| Lindane | ND | | ug/kg | 0.716 | 0.320 | 1 | A |
| Alpha-BHC | ND | | ug/kg | 0.716 | 0.204 | 1 | A |
| Beta-BHC | ND | | ug/kg | 1.72 | 0.652 | 1 | A |
| Heptachlor | ND | | ug/kg | 0.860 | 0.386 | 1 | A |
| Aldrin | ND | | ug/kg | 1.72 | 0.606 | 1 | A |
| Heptachlor epoxide | ND | | ug/kg | 3.22 | 0.967 | 1 | A |
| Endrin | ND | | ug/kg | 0.716 | 0.294 | 1 | A |
| Endrin aldehyde | ND | | ug/kg | 2.15 | 0.752 | 1 | A |
| Endrin ketone | ND | | ug/kg | 1.72 | 0.443 | 1 | A |
| Dieldrin | ND | | ug/kg | 1.07 | 0.537 | 1 | A |
| 4,4'-DDE | ND | | ug/kg | 1.72 | 0.398 | 1 | A |
| 4,4'-DDD | ND | | ug/kg | 1.72 | 0.613 | 1 | A |
| 4,4'-DDT | ND | | ug/kg | 3.22 | 1.38 | 1 | B |
| Endosulfan I | ND | | ug/kg | 1.72 | 0.406 | 1 | A |
| Endosulfan II | ND | | ug/kg | 1.72 | 0.575 | 1 | A |
| Endosulfan sulfate | ND | | ug/kg | 0.716 | 0.341 | 1 | A |
| Methoxychlor | ND | | ug/kg | 3.22 | 1.00 | 1 | A |
| Toxaphene | ND | | ug/kg | 32.2 | 9.03 | 1 | A |
| cis-Chlordane | ND | | ug/kg | 2.15 | 0.599 | 1 | A |
| trans-Chlordane | ND | IP | ug/kg | 2.15 | 0.568 | 1 | A |
| Chlordane | ND | | ug/kg | 14.3 | 5.70 | 1 | A |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

**SAMPLE RESULTS**

Lab ID: L2040645-12 Date Collected: 09/25/20 09:22

Client ID: WC-E (4-7') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab | | | | | | | |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 96 | | 30-150 | A |
| Decachlorobiphenyl | 77 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 96 | | 30-150 | B |
| Decachlorobiphenyl | 84 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040645
**Project Number:** 135173-002
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-12
Client ID: WC-E (4-7')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/25/20 09:22
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8151A
Analytical Date: 09/29/20 04:58
Analyst: JMC
Percent Solids: 91%
Methylation Date: 09/28/20 05:53

Extraction Method: EPA 8151A
Extraction Date: 09/26/20 12:34

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Chlorinated Herbicides by GC - Westborough Lab** | | | | | | | |
| 2,4-D | ND | | ug/kg | 180 | 11.3 | 1 | A |
| 2,4,5-T | ND | | ug/kg | 180 | 5.57 | 1 | A |
| 2,4,5-TP (Silvex) | ND | | ug/kg | 180 | 4.78 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| DCAA | 96 | | 30-150 | A |
| DCAA | 92 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8151A
Analytical Date: 09/28/20 23:52
Analyst: JMC

Extraction Method: EPA 8151A
Extraction Date: 09/26/20 12:25

Methylation Date: 09/28/20 05:52

| Parameter | Result | Qualifier | Units | RL | MDL | Column |
|---|---|---|---|---|---|---|
| Chlorinated Herbicides by GC - Westborough Lab for sample(s): 07-12 Batch: WG1414978-1 | | | | | | |
| 2,4-D | ND | | ug/kg | 162 | 10.2 | A |
| 2,4,5-T | ND | | ug/kg | 162 | 5.02 | A |
| 2,4,5-TP (Silvex) | ND | | ug/kg | 162 | 4.30 | A |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| DCAA | 89 | | 30-150 | A |
| DCAA | 86 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 09/29/20 21:27
Analyst: SL

Extraction Method: EPA 3546
Extraction Date: 09/28/20 02:55
Cleanup Method: EPA 3620B
Cleanup Date: 09/29/20

| Parameter | Result | Qualifier | Units | RL | MDL | Column |
|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab for sample(s): 07-12 Batch: WG1415223-1 | | | | | | |
| Delta-BHC | ND | | ug/kg | 1.56 | 0.306 | A |
| Lindane | ND | | ug/kg | 0.651 | 0.291 | A |
| Alpha-BHC | ND | | ug/kg | 0.651 | 0.185 | A |
| Beta-BHC | ND | | ug/kg | 1.56 | 0.592 | A |
| Heptachlor | ND | | ug/kg | 0.781 | 0.350 | A |
| Aldrin | ND | | ug/kg | 1.56 | 0.550 | A |
| Heptachlor epoxide | ND | | ug/kg | 2.93 | 0.878 | A |
| Endrin | ND | | ug/kg | 0.651 | 0.267 | A |
| Endrin aldehyde | ND | | ug/kg | 1.95 | 0.683 | A |
| Endrin ketone | ND | | ug/kg | 1.56 | 0.402 | A |
| Dieldrin | ND | | ug/kg | 0.976 | 0.488 | A |
| 4,4'-DDE | ND | | ug/kg | 1.56 | 0.361 | A |
| 4,4'-DDD | ND | | ug/kg | 1.56 | 0.557 | A |
| 4,4'-DDT | ND | | ug/kg | 2.93 | 1.26 | A |
| Endosulfan I | ND | | ug/kg | 1.56 | 0.369 | A |
| Endosulfan II | ND | | ug/kg | 1.56 | 0.522 | A |
| Endosulfan sulfate | ND | | ug/kg | 0.651 | 0.310 | A |
| Methoxychlor | ND | | ug/kg | 2.93 | 0.911 | A |
| Toxaphene | ND | | ug/kg | 29.3 | 8.20 | A |
| cis-Chlordane | ND | | ug/kg | 1.95 | 0.544 | A |
| trans-Chlordane | ND | | ug/kg | 1.95 | 0.515 | A |
| Chlordane | ND | | ug/kg | 13.0 | 5.17 | A |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 09/29/20 21:27
Analyst: SL

Extraction Method: EPA 3546
Extraction Date: 09/28/20 02:55
Cleanup Method: EPA 3620B
Cleanup Date: 09/29/20

| Parameter | Result | Qualifier | Units | RL | MDL | Column |
|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab for sample(s): 07-12 Batch: WG1415223-1 | | | | | | |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 70 | | 30-150 | A |
| Decachlorobiphenyl | 69 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 68 | | 30-150 | B |
| Decachlorobiphenyl | 65 | | 30-150 | B |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040645

**Report Date:** 10/02/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits | Column |
|---|---|---|---|---|---|---|---|---|---|
| Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 07-12 Batch: WG1414978-2 WG1414978-3 | | | | | | | | | |
| 2,4-D | 111 | | 106 | | 30-150 | 5 | | 30 | A |
| 2,4,5-T | 95 | | 96 | | 30-150 | 1 | | 30 | A |
| 2,4,5-TP (Silvex) | 91 | | 90 | | 30-150 | 1 | | 30 | A |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria | Column |
|---|---|---|---|---|---|---|
| DCAA | 93 | | 98 | | 30-150 | A |
| DCAA | 88 | | 89 | | 30-150 | B |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040645

**Report Date:** 10/02/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits | Column |
|---|---|---|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 07-12 Batch: WG1415223-2 WG1415223-3 | | | | | | | | | |
| Delta-BHC | 93 | | 83 | | 30-150 | 11 | | 30 | A |
| Lindane | 82 | | 76 | | 30-150 | 8 | | 30 | A |
| Alpha-BHC | 84 | | 79 | | 30-150 | 6 | | 30 | A |
| Beta-BHC | 84 | | 76 | | 30-150 | 10 | | 30 | A |
| Heptachlor | 84 | | 78 | | 30-150 | 7 | | 30 | A |
| Aldrin | 83 | | 76 | | 30-150 | 9 | | 30 | A |
| Heptachlor epoxide | 80 | | 73 | | 30-150 | 9 | | 30 | A |
| Endrin | 86 | | 77 | | 30-150 | 11 | | 30 | A |
| Endrin aldehyde | 57 | | 54 | | 30-150 | 5 | | 30 | A |
| Endrin ketone | 80 | | 71 | | 30-150 | 12 | | 30 | A |
| Dieldrin | 89 | | 80 | | 30-150 | 11 | | 30 | A |
| 4,4'-DDE | 88 | | 79 | | 30-150 | 11 | | 30 | A |
| 4,4'-DDD | 96 | | 85 | | 30-150 | 12 | | 30 | A |
| 4,4'-DDT | 90 | | 81 | | 30-150 | 11 | | 30 | A |
| Endosulfan I | 77 | | 70 | | 30-150 | 10 | | 30 | A |
| Endosulfan II | 82 | | 74 | | 30-150 | 10 | | 30 | A |
| Endosulfan sulfate | 71 | | 63 | | 30-150 | 12 | | 30 | A |
| Methoxychlor | 84 | | 75 | | 30-150 | 11 | | 30 | A |
| cis-Chlordane | 75 | | 70 | | 30-150 | 7 | | 30 | A |
| trans-Chlordane | 74 | | 70 | | 30-150 | 6 | | 30 | A |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040645

**Report Date:** 10/02/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 07-12 Batch: WG1415223-2 WG1415223-3 | | | | | | | | |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria | Column |
|---|---|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 89 | | 84 | | 30-150 | A |
| Decachlorobiphenyl | 83 | | 73 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 91 | | 85 | | 30-150 | B |
| Decachlorobiphenyl | 87 | | 76 | | 30-150 | B |

# METALS

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040645
**Project Number:** 135173-002
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-07
Client ID: WC-C (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 09/25/20 10:58
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 90%
TCLP/SPLP Ext. Date: 09/27/20 05:02

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Arsenic, TCLP | ND | | mg/l | 1.00 | 0.019 | 1 | 09/30/20 13:06 | 10/01/20 19:00 | EPA 3015 | 1,6010D | BV |
| Barium, TCLP | 1.31 | | mg/l | 0.500 | 0.021 | 1 | 09/30/20 13:06 | 10/01/20 19:00 | EPA 3015 | 1,6010D | BV |
| Cadmium, TCLP | ND | | mg/l | 0.100 | 0.010 | 1 | 09/30/20 13:06 | 10/01/20 19:00 | EPA 3015 | 1,6010D | BV |
| Chromium, TCLP | ND | | mg/l | 0.200 | 0.021 | 1 | 09/30/20 13:06 | 10/01/20 19:00 | EPA 3015 | 1,6010D | BV |
| Lead, TCLP | 0.305 | J | mg/l | 0.500 | 0.027 | 1 | 09/30/20 13:06 | 10/01/20 19:00 | EPA 3015 | 1,6010D | BV |
| Mercury, TCLP | ND | | mg/l | 0.0010 | 0.0005 | 1 | 09/30/20 14:34 | 10/01/20 09:10 | EPA 7470A | 1,7470A | EW |
| Selenium, TCLP | ND | | mg/l | 0.500 | 0.035 | 1 | 09/30/20 13:06 | 10/01/20 19:00 | EPA 3015 | 1,6010D | BV |
| Silver, TCLP | ND | | mg/l | 0.100 | 0.028 | 1 | 09/30/20 13:06 | 10/01/20 19:00 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-07
Client ID: WC-C (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 09/25/20 10:58
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 90%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Aluminum, Total | 10100 | | mg/kg | 8.32 | 2.25 | 2 | 09/30/20 06:45 | 10/02/20 15:06 | EPA 3050B | 1,6010D | PS |
| Antimony, Total | 0.574 | J | mg/kg | 4.16 | 0.316 | 2 | 09/30/20 06:45 | 10/02/20 15:06 | EPA 3050B | 1,6010D | PS |
| Arsenic, Total | 5.78 | | mg/kg | 0.832 | 0.173 | 2 | 09/30/20 06:45 | 10/02/20 15:06 | EPA 3050B | 1,6010D | PS |
| Barium, Total | 151 | | mg/kg | 0.832 | 0.145 | 2 | 09/30/20 06:45 | 10/02/20 15:06 | EPA 3050B | 1,6010D | PS |
| Beryllium, Total | 0.408 | J | mg/kg | 0.416 | 0.028 | 2 | 09/30/20 06:45 | 10/02/20 15:06 | EPA 3050B | 1,6010D | PS |
| Cadmium, Total | ND | | mg/kg | 0.832 | 0.082 | 2 | 09/30/20 06:45 | 10/02/20 15:06 | EPA 3050B | 1,6010D | PS |
| Calcium, Total | 20500 | | mg/kg | 8.32 | 2.91 | 2 | 09/30/20 06:45 | 10/02/20 15:06 | EPA 3050B | 1,6010D | PS |
| Chromium, Total | 13.9 | | mg/kg | 0.832 | 0.080 | 2 | 09/30/20 06:45 | 10/02/20 15:06 | EPA 3050B | 1,6010D | PS |
| Cobalt, Total | 6.22 | | mg/kg | 1.66 | 0.138 | 2 | 09/30/20 06:45 | 10/02/20 15:06 | EPA 3050B | 1,6010D | PS |
| Copper, Total | 68.5 | | mg/kg | 0.832 | 0.215 | 2 | 09/30/20 06:45 | 10/02/20 15:06 | EPA 3050B | 1,6010D | PS |
| Iron, Total | 15600 | | mg/kg | 4.16 | 0.752 | 2 | 09/30/20 06:45 | 10/02/20 15:06 | EPA 3050B | 1,6010D | PS |
| Lead, Total | 219 | | mg/kg | 4.16 | 0.223 | 2 | 09/30/20 06:45 | 10/02/20 15:06 | EPA 3050B | 1,6010D | PS |
| Magnesium, Total | 5400 | | mg/kg | 8.32 | 1.28 | 2 | 09/30/20 06:45 | 10/02/20 15:06 | EPA 3050B | 1,6010D | PS |
| Manganese, Total | 349 | | mg/kg | 0.832 | 0.132 | 2 | 09/30/20 06:45 | 10/02/20 15:06 | EPA 3050B | 1,6010D | PS |
| Mercury, Total | 0.932 | | mg/kg | 0.070 | 0.045 | 1 | 09/30/20 08:50 | 09/30/20 12:03 | EPA 7471B | 1,7471B | EW |
| Nickel, Total | 12.2 | | mg/kg | 2.08 | 0.201 | 2 | 09/30/20 06:45 | 10/02/20 15:06 | EPA 3050B | 1,6010D | PS |
| Potassium, Total | 582 | | mg/kg | 208 | 12.0 | 2 | 09/30/20 06:45 | 10/02/20 15:06 | EPA 3050B | 1,6010D | PS |
| Selenium, Total | 0.291 | J | mg/kg | 1.66 | 0.215 | 2 | 09/30/20 06:45 | 10/02/20 15:06 | EPA 3050B | 1,6010D | PS |
| Silver, Total | ND | | mg/kg | 0.832 | 0.236 | 2 | 09/30/20 06:45 | 10/02/20 15:06 | EPA 3050B | 1,6010D | PS |
| Sodium, Total | 135 | J | mg/kg | 166 | 2.62 | 2 | 09/30/20 06:45 | 10/02/20 15:06 | EPA 3050B | 1,6010D | PS |
| Thallium, Total | ND | | mg/kg | 1.66 | 0.262 | 2 | 09/30/20 06:45 | 10/02/20 15:06 | EPA 3050B | 1,6010D | PS |
| Vanadium, Total | 20.0 | | mg/kg | 0.832 | 0.169 | 2 | 09/30/20 06:45 | 10/02/20 15:06 | EPA 3050B | 1,6010D | PS |
| Zinc, Total | 163 | | mg/kg | 4.16 | 0.244 | 2 | 09/30/20 06:45 | 10/02/20 15:06 | EPA 3050B | 1,6010D | PS |
| **General Chemistry - Mansfield Lab** | | | | | | | | | | | |
| Chromium, Trivalent | 14 | | mg/kg | 0.89 | 0.89 | 1 | | 10/02/20 15:06 | NA | 107,- | |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040645
**Project Number:** 135173-002
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-08
Client ID: WC-C (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 09/25/20 10:57
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 93%
TCLP/SPLP Ext. Date: 09/27/20 05:02

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Arsenic, TCLP | ND | | mg/l | 1.00 | 0.019 | 1 | 09/30/20 13:06 | 10/01/20 19:05 | EPA 3015 | 1,6010D | BV |
| Barium, TCLP | 0.538 | | mg/l | 0.500 | 0.021 | 1 | 09/30/20 13:06 | 10/01/20 19:05 | EPA 3015 | 1,6010D | BV |
| Cadmium, TCLP | ND | | mg/l | 0.100 | 0.010 | 1 | 09/30/20 13:06 | 10/01/20 19:05 | EPA 3015 | 1,6010D | BV |
| Chromium, TCLP | ND | | mg/l | 0.200 | 0.021 | 1 | 09/30/20 13:06 | 10/01/20 19:05 | EPA 3015 | 1,6010D | BV |
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 09/30/20 13:06 | 10/01/20 19:05 | EPA 3015 | 1,6010D | BV |
| Mercury, TCLP | ND | | mg/l | 0.0010 | 0.0005 | 1 | 09/30/20 14:34 | 10/01/20 09:12 | EPA 7470A | 1,7470A | EW |
| Selenium, TCLP | ND | | mg/l | 0.500 | 0.035 | 1 | 09/30/20 13:06 | 10/01/20 19:05 | EPA 3015 | 1,6010D | BV |
| Silver, TCLP | ND | | mg/l | 0.100 | 0.028 | 1 | 09/30/20 13:06 | 10/01/20 19:05 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-08
Client ID: WC-C (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 09/25/20 10:57
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 93%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Aluminum, Total | 11200 | | mg/kg | 8.34 | 2.25 | 2 | 09/30/20 06:45 | 10/02/20 15:10 | EPA 3050B | 1,6010D | PS |
| Antimony, Total | ND | | mg/kg | 4.17 | 0.317 | 2 | 09/30/20 06:45 | 10/02/20 15:10 | EPA 3050B | 1,6010D | PS |
| Arsenic, Total | 3.35 | | mg/kg | 0.834 | 0.174 | 2 | 09/30/20 06:45 | 10/02/20 15:10 | EPA 3050B | 1,6010D | PS |
| Barium, Total | 55.3 | | mg/kg | 0.834 | 0.145 | 2 | 09/30/20 06:45 | 10/02/20 15:10 | EPA 3050B | 1,6010D | PS |
| Beryllium, Total | 0.426 | | mg/kg | 0.417 | 0.028 | 2 | 09/30/20 06:45 | 10/02/20 15:10 | EPA 3050B | 1,6010D | PS |
| Cadmium, Total | ND | | mg/kg | 0.834 | 0.082 | 2 | 09/30/20 06:45 | 10/02/20 15:10 | EPA 3050B | 1,6010D | PS |
| Calcium, Total | 11600 | | mg/kg | 8.34 | 2.92 | 2 | 09/30/20 06:45 | 10/02/20 15:10 | EPA 3050B | 1,6010D | PS |
| Chromium, Total | 19.8 | | mg/kg | 0.834 | 0.080 | 2 | 09/30/20 06:45 | 10/02/20 15:10 | EPA 3050B | 1,6010D | PS |
| Cobalt, Total | 10.2 | | mg/kg | 1.67 | 0.138 | 2 | 09/30/20 06:45 | 10/02/20 15:10 | EPA 3050B | 1,6010D | PS |
| Copper, Total | 42.9 | | mg/kg | 0.834 | 0.215 | 2 | 09/30/20 06:45 | 10/02/20 15:10 | EPA 3050B | 1,6010D | PS |
| Iron, Total | 18400 | | mg/kg | 4.17 | 0.754 | 2 | 09/30/20 06:45 | 10/02/20 15:10 | EPA 3050B | 1,6010D | PS |
| Lead, Total | 20.9 | | mg/kg | 4.17 | 0.224 | 2 | 09/30/20 06:45 | 10/02/20 15:10 | EPA 3050B | 1,6010D | PS |
| Magnesium, Total | 8020 | | mg/kg | 8.34 | 1.28 | 2 | 09/30/20 06:45 | 10/02/20 15:10 | EPA 3050B | 1,6010D | PS |
| Manganese, Total | 327 | | mg/kg | 0.834 | 0.133 | 2 | 09/30/20 06:45 | 10/02/20 15:10 | EPA 3050B | 1,6010D | PS |
| Mercury, Total | 1.36 | | mg/kg | 0.069 | 0.045 | 1 | 09/30/20 08:50 | 09/30/20 12:06 | EPA 7471B | 1,7471B | EW |
| Nickel, Total | 16.2 | | mg/kg | 2.09 | 0.202 | 2 | 09/30/20 06:45 | 10/02/20 15:10 | EPA 3050B | 1,6010D | PS |
| Potassium, Total | 1700 | | mg/kg | 209 | 12.0 | 2 | 09/30/20 06:45 | 10/02/20 15:10 | EPA 3050B | 1,6010D | PS |
| Selenium, Total | ND | | mg/kg | 1.67 | 0.215 | 2 | 09/30/20 06:45 | 10/02/20 15:10 | EPA 3050B | 1,6010D | PS |
| Silver, Total | ND | | mg/kg | 0.834 | 0.236 | 2 | 09/30/20 06:45 | 10/02/20 15:10 | EPA 3050B | 1,6010D | PS |
| Sodium, Total | 98.9 | J | mg/kg | 167 | 2.63 | 2 | 09/30/20 06:45 | 10/02/20 15:10 | EPA 3050B | 1,6010D | PS |
| Thallium, Total | ND | | mg/kg | 1.67 | 0.263 | 2 | 09/30/20 06:45 | 10/02/20 15:10 | EPA 3050B | 1,6010D | PS |
| Vanadium, Total | 28.6 | | mg/kg | 0.834 | 0.169 | 2 | 09/30/20 06:45 | 10/02/20 15:10 | EPA 3050B | 1,6010D | PS |
| Zinc, Total | 58.2 | | mg/kg | 4.17 | 0.244 | 2 | 09/30/20 06:45 | 10/02/20 15:10 | EPA 3050B | 1,6010D | PS |
| **General Chemistry - Mansfield Lab** | | | | | | | | | | | |
| Chromium, Trivalent | 20 | | mg/kg | 0.86 | 0.86 | 1 | | 10/02/20 15:10 | NA | 107,- | |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-09 Date Collected: 09/25/20 08:25

Client ID: WC-D (0-5') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

TCLP/SPLP Ext. Date: 09/27/20 05:02

Matrix: Soil

Percent Solids: 87%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Arsenic, TCLP | ND | | mg/l | 1.00 | 0.019 | 1 | 09/30/20 13:06 | 10/01/20 19:10 | EPA 3015 | 1,6010D | BV |
| Barium, TCLP | 0.739 | | mg/l | 0.500 | 0.021 | 1 | 09/30/20 13:06 | 10/01/20 19:10 | EPA 3015 | 1,6010D | BV |
| Cadmium, TCLP | ND | | mg/l | 0.100 | 0.010 | 1 | 09/30/20 13:06 | 10/01/20 19:10 | EPA 3015 | 1,6010D | BV |
| Chromium, TCLP | ND | | mg/l | 0.200 | 0.021 | 1 | 09/30/20 13:06 | 10/01/20 19:10 | EPA 3015 | 1,6010D | BV |
| Lead, TCLP | 0.483 | J | mg/l | 0.500 | 0.027 | 1 | 09/30/20 13:06 | 10/01/20 19:10 | EPA 3015 | 1,6010D | BV |
| Mercury, TCLP | ND | | mg/l | 0.0010 | 0.0005 | 1 | 09/30/20 14:34 | 10/01/20 09:15 | EPA 7470A | 1,7470A | EW |
| Selenium, TCLP | ND | | mg/l | 0.500 | 0.035 | 1 | 09/30/20 13:06 | 10/01/20 19:10 | EPA 3015 | 1,6010D | BV |
| Silver, TCLP | ND | | mg/l | 0.100 | 0.028 | 1 | 09/30/20 13:06 | 10/01/20 19:10 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040645
**Project Number:** 135173-002
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-09
Client ID: WC-D (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 09/25/20 08:25
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 87%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Aluminum, Total | 9070 | | mg/kg | 8.85 | 2.39 | 2 | 09/30/20 06:45 | 10/02/20 15:14 | EPA 3050B | 1,6010D | PS |
| Antimony, Total | 1.58 | J | mg/kg | 4.43 | 0.336 | 2 | 09/30/20 06:45 | 10/02/20 15:14 | EPA 3050B | 1,6010D | PS |
| Arsenic, Total | 5.79 | | mg/kg | 0.885 | 0.184 | 2 | 09/30/20 06:45 | 10/02/20 15:14 | EPA 3050B | 1,6010D | PS |
| Barium, Total | 626 | | mg/kg | 0.885 | 0.154 | 2 | 09/30/20 06:45 | 10/02/20 15:14 | EPA 3050B | 1,6010D | PS |
| Beryllium, Total | 0.398 | J | mg/kg | 0.443 | 0.029 | 2 | 09/30/20 06:45 | 10/02/20 15:14 | EPA 3050B | 1,6010D | PS |
| Cadmium, Total | 0.274 | J | mg/kg | 0.885 | 0.087 | 2 | 09/30/20 06:45 | 10/02/20 15:14 | EPA 3050B | 1,6010D | PS |
| Calcium, Total | 26300 | | mg/kg | 8.85 | 3.10 | 2 | 09/30/20 06:45 | 10/02/20 15:14 | EPA 3050B | 1,6010D | PS |
| Chromium, Total | 19.7 | | mg/kg | 0.885 | 0.085 | 2 | 09/30/20 06:45 | 10/02/20 15:14 | EPA 3050B | 1,6010D | PS |
| Cobalt, Total | 6.44 | | mg/kg | 1.77 | 0.147 | 2 | 09/30/20 06:45 | 10/02/20 15:14 | EPA 3050B | 1,6010D | PS |
| Copper, Total | 41.6 | | mg/kg | 0.885 | 0.228 | 2 | 09/30/20 06:45 | 10/02/20 15:14 | EPA 3050B | 1,6010D | PS |
| Iron, Total | 16200 | | mg/kg | 4.43 | 0.799 | 2 | 09/30/20 06:45 | 10/02/20 15:14 | EPA 3050B | 1,6010D | PS |
| Lead, Total | 681 | | mg/kg | 4.43 | 0.237 | 2 | 09/30/20 06:45 | 10/02/20 15:14 | EPA 3050B | 1,6010D | PS |
| Magnesium, Total | 9530 | | mg/kg | 8.85 | 1.36 | 2 | 09/30/20 06:45 | 10/02/20 15:14 | EPA 3050B | 1,6010D | PS |
| Manganese, Total | 512 | | mg/kg | 0.885 | 0.141 | 2 | 09/30/20 06:45 | 10/02/20 15:14 | EPA 3050B | 1,6010D | PS |
| Mercury, Total | 0.268 | | mg/kg | 0.072 | 0.047 | 1 | 09/30/20 08:50 | 09/30/20 12:09 | EPA 7471B | 1,7471B | EW |
| Nickel, Total | 14.8 | | mg/kg | 2.21 | 0.214 | 2 | 09/30/20 06:45 | 10/02/20 15:14 | EPA 3050B | 1,6010D | PS |
| Potassium, Total | 1050 | | mg/kg | 221 | 12.7 | 2 | 09/30/20 06:45 | 10/02/20 15:14 | EPA 3050B | 1,6010D | PS |
| Selenium, Total | 0.372 | J | mg/kg | 1.77 | 0.228 | 2 | 09/30/20 06:45 | 10/02/20 15:14 | EPA 3050B | 1,6010D | PS |
| Silver, Total | ND | | mg/kg | 0.885 | 0.250 | 2 | 09/30/20 06:45 | 10/02/20 15:14 | EPA 3050B | 1,6010D | PS |
| Sodium, Total | 181 | | mg/kg | 177 | 2.79 | 2 | 09/30/20 06:45 | 10/02/20 15:14 | EPA 3050B | 1,6010D | PS |
| Thallium, Total | ND | | mg/kg | 1.77 | 0.279 | 2 | 09/30/20 06:45 | 10/02/20 15:14 | EPA 3050B | 1,6010D | PS |
| Vanadium, Total | 21.3 | | mg/kg | 0.885 | 0.180 | 2 | 09/30/20 06:45 | 10/02/20 15:14 | EPA 3050B | 1,6010D | PS |
| Zinc, Total | 291 | | mg/kg | 4.43 | 0.259 | 2 | 09/30/20 06:45 | 10/02/20 15:14 | EPA 3050B | 1,6010D | PS |
| **General Chemistry - Mansfield Lab** | | | | | | | | | | | |
| Chromium, Trivalent | 20 | | mg/kg | 0.92 | 0.92 | 1 | | 10/02/20 15:14 | NA | 107,- | |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040645
**Project Number:** 135173-002
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-10
Client ID: WC-D (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 09/25/20 08:28
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 75%
TCLP/SPLP Ext. Date: 09/27/20 05:02

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Arsenic, TCLP | ND | | mg/l | 1.00 | 0.019 | 1 | 09/30/20 13:06 | 10/01/20 19:21 | EPA 3015 | 1,6010D | BV |
| Barium, TCLP | 0.633 | | mg/l | 0.500 | 0.021 | 1 | 09/30/20 13:06 | 10/01/20 19:21 | EPA 3015 | 1,6010D | BV |
| Cadmium, TCLP | ND | | mg/l | 0.100 | 0.010 | 1 | 09/30/20 13:06 | 10/01/20 19:21 | EPA 3015 | 1,6010D | BV |
| Chromium, TCLP | ND | | mg/l | 0.200 | 0.021 | 1 | 09/30/20 13:06 | 10/01/20 19:21 | EPA 3015 | 1,6010D | BV |
| Lead, TCLP | 0.525 | | mg/l | 0.500 | 0.027 | 1 | 09/30/20 13:06 | 10/01/20 19:21 | EPA 3015 | 1,6010D | BV |
| Mercury, TCLP | ND | | mg/l | 0.0010 | 0.0005 | 1 | 09/30/20 14:34 | 10/01/20 09:17 | EPA 7470A | 1,7470A | EW |
| Selenium, TCLP | ND | | mg/l | 0.500 | 0.035 | 1 | 09/30/20 13:06 | 10/01/20 19:21 | EPA 3015 | 1,6010D | BV |
| Silver, TCLP | ND | | mg/l | 0.100 | 0.028 | 1 | 09/30/20 13:06 | 10/01/20 19:21 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-10 Date Collected: 09/25/20 08:28

Client ID: WC-D (5-10') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 75%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Aluminum, Total | 16300 | | mg/kg | 10.5 | 2.84 | 2 | 09/30/20 06:45 | 10/02/20 15:19 | EPA 3050B | 1,6010D | PS |
| Antimony, Total | ND | | mg/kg | 5.26 | 0.400 | 2 | 09/30/20 06:45 | 10/02/20 15:19 | EPA 3050B | 1,6010D | PS |
| Arsenic, Total | 6.97 | | mg/kg | 1.05 | 0.219 | 2 | 09/30/20 06:45 | 10/02/20 15:19 | EPA 3050B | 1,6010D | PS |
| Barium, Total | 741 | | mg/kg | 1.05 | 0.183 | 2 | 09/30/20 06:45 | 10/02/20 15:19 | EPA 3050B | 1,6010D | PS |
| Beryllium, Total | 0.768 | | mg/kg | 0.526 | 0.035 | 2 | 09/30/20 06:45 | 10/02/20 15:19 | EPA 3050B | 1,6010D | PS |
| Cadmium, Total | ND | | mg/kg | 1.05 | 0.103 | 2 | 09/30/20 06:45 | 10/02/20 15:19 | EPA 3050B | 1,6010D | PS |
| Calcium, Total | 31800 | | mg/kg | 10.5 | 3.68 | 2 | 09/30/20 06:45 | 10/02/20 15:19 | EPA 3050B | 1,6010D | PS |
| Chromium, Total | 26.5 | | mg/kg | 1.05 | 0.101 | 2 | 09/30/20 06:45 | 10/02/20 15:19 | EPA 3050B | 1,6010D | PS |
| Cobalt, Total | 8.66 | | mg/kg | 2.10 | 0.175 | 2 | 09/30/20 06:45 | 10/02/20 15:19 | EPA 3050B | 1,6010D | PS |
| Copper, Total | 37.4 | | mg/kg | 1.05 | 0.272 | 2 | 09/30/20 06:45 | 10/02/20 15:19 | EPA 3050B | 1,6010D | PS |
| Iron, Total | 26900 | | mg/kg | 5.26 | 0.950 | 2 | 09/30/20 06:45 | 10/02/20 15:19 | EPA 3050B | 1,6010D | PS |
| Lead, Total | 619 | | mg/kg | 5.26 | 0.282 | 2 | 09/30/20 06:45 | 10/02/20 15:19 | EPA 3050B | 1,6010D | PS |
| Magnesium, Total | 20800 | | mg/kg | 10.5 | 1.62 | 2 | 09/30/20 06:45 | 10/02/20 15:19 | EPA 3050B | 1,6010D | PS |
| Manganese, Total | 337 | | mg/kg | 1.05 | 0.167 | 2 | 09/30/20 06:45 | 10/02/20 15:19 | EPA 3050B | 1,6010D | PS |
| Mercury, Total | 0.151 | | mg/kg | 0.084 | 0.055 | 1 | 09/30/20 08:50 | 09/30/20 12:19 | EPA 7471B | 1,7471B | EW |
| Nickel, Total | 16.0 | | mg/kg | 2.63 | 0.255 | 2 | 09/30/20 06:45 | 10/02/20 15:19 | EPA 3050B | 1,6010D | PS |
| Potassium, Total | 1510 | | mg/kg | 263 | 15.2 | 2 | 09/30/20 06:45 | 10/02/20 15:19 | EPA 3050B | 1,6010D | PS |
| Selenium, Total | ND | | mg/kg | 2.10 | 0.272 | 2 | 09/30/20 06:45 | 10/02/20 15:19 | EPA 3050B | 1,6010D | PS |
| Silver, Total | ND | | mg/kg | 1.05 | 0.298 | 2 | 09/30/20 06:45 | 10/02/20 15:19 | EPA 3050B | 1,6010D | PS |
| Sodium, Total | 230 | | mg/kg | 210 | 3.32 | 2 | 09/30/20 06:45 | 10/02/20 15:19 | EPA 3050B | 1,6010D | PS |
| Thallium, Total | ND | | mg/kg | 2.10 | 0.332 | 2 | 09/30/20 06:45 | 10/02/20 15:19 | EPA 3050B | 1,6010D | PS |
| Vanadium, Total | 32.8 | | mg/kg | 1.05 | 0.214 | 2 | 09/30/20 06:45 | 10/02/20 15:19 | EPA 3050B | 1,6010D | PS |
| Zinc, Total | 700 | | mg/kg | 5.26 | 0.308 | 2 | 09/30/20 06:45 | 10/02/20 15:19 | EPA 3050B | 1,6010D | PS |
| **General Chemistry - Mansfield Lab** | | | | | | | | | | | |
| Chromium, Trivalent | 26 | | mg/kg | 1.1 | 1.1 | 1 | | 10/02/20 15:19 | NA | 107,- | |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2040645
**Project Number:** 135173-002
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-11
Client ID: WC-E (0-4')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 09/25/20 09:20
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 88%
TCLP/SPLP Ext. Date: 09/27/20 05:02

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Arsenic, TCLP | ND | | mg/l | 1.00 | 0.019 | 1 | 09/30/20 13:06 | 10/01/20 19:26 | EPA 3015 | 1,6010D | BV |
| Barium, TCLP | 0.709 | | mg/l | 0.500 | 0.021 | 1 | 09/30/20 13:06 | 10/01/20 19:26 | EPA 3015 | 1,6010D | BV |
| Cadmium, TCLP | ND | | mg/l | 0.100 | 0.010 | 1 | 09/30/20 13:06 | 10/01/20 19:26 | EPA 3015 | 1,6010D | BV |
| Chromium, TCLP | ND | | mg/l | 0.200 | 0.021 | 1 | 09/30/20 13:06 | 10/01/20 19:26 | EPA 3015 | 1,6010D | BV |
| Lead, TCLP | 0.062 | J | mg/l | 0.500 | 0.027 | 1 | 09/30/20 13:06 | 10/01/20 19:26 | EPA 3015 | 1,6010D | BV |
| Mercury, TCLP | ND | | mg/l | 0.0010 | 0.0005 | 1 | 09/30/20 14:34 | 10/01/20 09:19 | EPA 7470A | 1,7470A | EW |
| Selenium, TCLP | ND | | mg/l | 0.500 | 0.035 | 1 | 09/30/20 13:06 | 10/01/20 19:26 | EPA 3015 | 1,6010D | BV |
| Silver, TCLP | ND | | mg/l | 0.100 | 0.028 | 1 | 09/30/20 13:06 | 10/01/20 19:26 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-11
Client ID: WC-E (0-4')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 09/25/20 09:20
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 88%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Aluminum, Total | 9660 | | mg/kg | 8.93 | 2.41 | 2 | 09/30/20 06:45 | 10/02/20 15:23 | EPA 3050B | 1,6010D | PS |
| Antimony, Total | 0.509 | J | mg/kg | 4.47 | 0.339 | 2 | 09/30/20 06:45 | 10/02/20 15:23 | EPA 3050B | 1,6010D | PS |
| Arsenic, Total | 5.12 | | mg/kg | 0.893 | 0.186 | 2 | 09/30/20 06:45 | 10/02/20 15:23 | EPA 3050B | 1,6010D | PS |
| Barium, Total | 145 | | mg/kg | 0.893 | 0.155 | 2 | 09/30/20 06:45 | 10/02/20 15:23 | EPA 3050B | 1,6010D | PS |
| Beryllium, Total | 0.411 | J | mg/kg | 0.447 | 0.030 | 2 | 09/30/20 06:45 | 10/02/20 15:23 | EPA 3050B | 1,6010D | PS |
| Cadmium, Total | 0.393 | J | mg/kg | 0.893 | 0.088 | 2 | 09/30/20 06:45 | 10/02/20 15:23 | EPA 3050B | 1,6010D | PS |
| Calcium, Total | 24900 | | mg/kg | 8.93 | 3.13 | 2 | 09/30/20 06:45 | 10/02/20 15:23 | EPA 3050B | 1,6010D | PS |
| Chromium, Total | 18.4 | | mg/kg | 0.893 | 0.086 | 2 | 09/30/20 06:45 | 10/02/20 15:23 | EPA 3050B | 1,6010D | PS |
| Cobalt, Total | 6.76 | | mg/kg | 1.79 | 0.148 | 2 | 09/30/20 06:45 | 10/02/20 15:23 | EPA 3050B | 1,6010D | PS |
| Copper, Total | 48.8 | | mg/kg | 0.893 | 0.230 | 2 | 09/30/20 06:45 | 10/02/20 15:23 | EPA 3050B | 1,6010D | PS |
| Iron, Total | 15800 | | mg/kg | 4.47 | 0.807 | 2 | 09/30/20 06:45 | 10/02/20 15:23 | EPA 3050B | 1,6010D | PS |
| Lead, Total | 231 | | mg/kg | 4.47 | 0.239 | 2 | 09/30/20 06:45 | 10/02/20 15:23 | EPA 3050B | 1,6010D | PS |
| Magnesium, Total | 9500 | | mg/kg | 8.93 | 1.38 | 2 | 09/30/20 06:45 | 10/02/20 15:23 | EPA 3050B | 1,6010D | PS |
| Manganese, Total | 294 | | mg/kg | 0.893 | 0.142 | 2 | 09/30/20 06:45 | 10/02/20 15:23 | EPA 3050B | 1,6010D | PS |
| Mercury, Total | 0.711 | | mg/kg | 0.073 | 0.048 | 1 | 09/30/20 08:50 | 09/30/20 12:22 | EPA 7471B | 1,7471B | EW |
| Nickel, Total | 16.8 | | mg/kg | 2.23 | 0.216 | 2 | 09/30/20 06:45 | 10/02/20 15:23 | EPA 3050B | 1,6010D | PS |
| Potassium, Total | 1000 | | mg/kg | 223 | 12.9 | 2 | 09/30/20 06:45 | 10/02/20 15:23 | EPA 3050B | 1,6010D | PS |
| Selenium, Total | ND | | mg/kg | 1.79 | 0.230 | 2 | 09/30/20 06:45 | 10/02/20 15:23 | EPA 3050B | 1,6010D | PS |
| Silver, Total | ND | | mg/kg | 0.893 | 0.253 | 2 | 09/30/20 06:45 | 10/02/20 15:23 | EPA 3050B | 1,6010D | PS |
| Sodium, Total | 159 | J | mg/kg | 179 | 2.81 | 2 | 09/30/20 06:45 | 10/02/20 15:23 | EPA 3050B | 1,6010D | PS |
| Thallium, Total | ND | | mg/kg | 1.79 | 0.281 | 2 | 09/30/20 06:45 | 10/02/20 15:23 | EPA 3050B | 1,6010D | PS |
| Vanadium, Total | 27.4 | | mg/kg | 0.893 | 0.181 | 2 | 09/30/20 06:45 | 10/02/20 15:23 | EPA 3050B | 1,6010D | PS |
| Zinc, Total | 339 | | mg/kg | 4.47 | 0.262 | 2 | 09/30/20 06:45 | 10/02/20 15:23 | EPA 3050B | 1,6010D | PS |
| **General Chemistry - Mansfield Lab** | | | | | | | | | | | |
| Chromium, Trivalent | 18 | | mg/kg | 0.91 | 0.91 | 1 | | 10/02/20 15:23 | NA | 107,- | |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-12 Date Collected: 09/25/20 09:22

Client ID: WC-E (4-7') Date Received: 09/25/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth: TCLP/SPLP Ext. Date: 09/27/20 05:02

Matrix: Soil

Percent Solids: 91%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Arsenic, TCLP | ND | | mg/l | 1.00 | 0.019 | 1 | 09/30/20 13:06 | 10/01/20 19:48 | EPA 3015 | 1,6010D | BV |
| Barium, TCLP | 0.446 | J | mg/l | 0.500 | 0.021 | 1 | 09/30/20 13:06 | 10/01/20 19:48 | EPA 3015 | 1,6010D | BV |
| Cadmium, TCLP | ND | | mg/l | 0.100 | 0.010 | 1 | 09/30/20 13:06 | 10/01/20 19:48 | EPA 3015 | 1,6010D | BV |
| Chromium, TCLP | ND | | mg/l | 0.200 | 0.021 | 1 | 09/30/20 13:06 | 10/01/20 19:48 | EPA 3015 | 1,6010D | BV |
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 09/30/20 13:06 | 10/01/20 19:48 | EPA 3015 | 1,6010D | BV |
| Mercury, TCLP | ND | | mg/l | 0.0010 | 0.0005 | 1 | 09/30/20 14:34 | 10/01/20 09:21 | EPA 7470A | 1,7470A | EW |
| Selenium, TCLP | ND | | mg/l | 0.500 | 0.035 | 1 | 09/30/20 13:06 | 10/01/20 19:48 | EPA 3015 | 1,6010D | BV |
| Silver, TCLP | ND | | mg/l | 0.100 | 0.028 | 1 | 09/30/20 13:06 | 10/01/20 19:48 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-12
Client ID: WC-E (4-7')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 09/25/20 09:22
Date Received: 09/25/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 91%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Aluminum, Total | 5790 | | mg/kg | 8.49 | 2.29 | 2 | 09/30/20 06:45 | 10/02/20 15:27 | EPA 3050B | 1,6010D | PS |
| Antimony, Total | ND | | mg/kg | 4.25 | 0.323 | 2 | 09/30/20 06:45 | 10/02/20 15:27 | EPA 3050B | 1,6010D | PS |
| Arsenic, Total | 1.71 | | mg/kg | 0.849 | 0.177 | 2 | 09/30/20 06:45 | 10/02/20 15:27 | EPA 3050B | 1,6010D | PS |
| Barium, Total | 32.8 | | mg/kg | 0.849 | 0.148 | 2 | 09/30/20 06:45 | 10/02/20 15:27 | EPA 3050B | 1,6010D | PS |
| Beryllium, Total | 0.238 | J | mg/kg | 0.425 | 0.028 | 2 | 09/30/20 06:45 | 10/02/20 15:27 | EPA 3050B | 1,6010D | PS |
| Cadmium, Total | ND | | mg/kg | 0.849 | 0.083 | 2 | 09/30/20 06:45 | 10/02/20 15:27 | EPA 3050B | 1,6010D | PS |
| Calcium, Total | 33900 | | mg/kg | 8.49 | 2.97 | 2 | 09/30/20 06:45 | 10/02/20 15:27 | EPA 3050B | 1,6010D | PS |
| Chromium, Total | 10.8 | | mg/kg | 0.849 | 0.082 | 2 | 09/30/20 06:45 | 10/02/20 15:27 | EPA 3050B | 1,6010D | PS |
| Cobalt, Total | 4.84 | | mg/kg | 1.70 | 0.141 | 2 | 09/30/20 06:45 | 10/02/20 15:27 | EPA 3050B | 1,6010D | PS |
| Copper, Total | 15.2 | | mg/kg | 0.849 | 0.219 | 2 | 09/30/20 06:45 | 10/02/20 15:27 | EPA 3050B | 1,6010D | PS |
| Iron, Total | 9910 | | mg/kg | 4.25 | 0.767 | 2 | 09/30/20 06:45 | 10/02/20 15:27 | EPA 3050B | 1,6010D | PS |
| Lead, Total | 43.8 | | mg/kg | 4.25 | 0.228 | 2 | 09/30/20 06:45 | 10/02/20 15:27 | EPA 3050B | 1,6010D | PS |
| Magnesium, Total | 6310 | | mg/kg | 8.49 | 1.31 | 2 | 09/30/20 06:45 | 10/02/20 15:27 | EPA 3050B | 1,6010D | PS |
| Manganese, Total | 235 | | mg/kg | 0.849 | 0.135 | 2 | 09/30/20 06:45 | 10/02/20 15:27 | EPA 3050B | 1,6010D | PS |
| Mercury, Total | 0.196 | | mg/kg | 0.069 | 0.045 | 1 | 09/30/20 08:50 | 09/30/20 12:26 | EPA 7471B | 1,7471B | EW |
| Nickel, Total | 10.5 | | mg/kg | 2.12 | 0.206 | 2 | 09/30/20 06:45 | 10/02/20 15:27 | EPA 3050B | 1,6010D | PS |
| Potassium, Total | 964 | | mg/kg | 212 | 12.2 | 2 | 09/30/20 06:45 | 10/02/20 15:27 | EPA 3050B | 1,6010D | PS |
| Selenium, Total | 0.263 | J | mg/kg | 1.70 | 0.219 | 2 | 09/30/20 06:45 | 10/02/20 15:27 | EPA 3050B | 1,6010D | PS |
| Silver, Total | ND | | mg/kg | 0.849 | 0.240 | 2 | 09/30/20 06:45 | 10/02/20 15:27 | EPA 3050B | 1,6010D | PS |
| Sodium, Total | 81.5 | J | mg/kg | 170 | 2.68 | 2 | 09/30/20 06:45 | 10/02/20 15:27 | EPA 3050B | 1,6010D | PS |
| Thallium, Total | ND | | mg/kg | 1.70 | 0.268 | 2 | 09/30/20 06:45 | 10/02/20 15:27 | EPA 3050B | 1,6010D | PS |
| Vanadium, Total | 16.1 | | mg/kg | 0.849 | 0.172 | 2 | 09/30/20 06:45 | 10/02/20 15:27 | EPA 3050B | 1,6010D | PS |
| Zinc, Total | 87.0 | | mg/kg | 4.25 | 0.249 | 2 | 09/30/20 06:45 | 10/02/20 15:27 | EPA 3050B | 1,6010D | PS |
| **General Chemistry - Mansfield Lab** | | | | | | | | | | | |
| Chromium, Trivalent | 11 | | mg/kg | 0.88 | 0.88 | 1 | | 10/02/20 15:27 | NA | 107,- | |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

# Method Blank Analysis
# Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab for sample(s): 07-12 Batch: WG1415978-1 | | | | | | | | | | |
| Aluminum, Total | ND | | mg/kg | 4.00 | 1.08 | 1 | 09/30/20 06:45 | 09/30/20 18:40 | 1,6010D | BV |
| Antimony, Total | 0.812 | J | mg/kg | 2.00 | 0.152 | 1 | 09/30/20 06:45 | 09/30/20 18:40 | 1,6010D | BV |
| Arsenic, Total | ND | | mg/kg | 0.400 | 0.083 | 1 | 09/30/20 06:45 | 09/30/20 18:40 | 1,6010D | BV |
| Barium, Total | ND | | mg/kg | 0.400 | 0.070 | 1 | 09/30/20 06:45 | 09/30/20 18:40 | 1,6010D | BV |
| Beryllium, Total | ND | | mg/kg | 0.200 | 0.013 | 1 | 09/30/20 06:45 | 09/30/20 18:40 | 1,6010D | BV |
| Cadmium, Total | ND | | mg/kg | 0.400 | 0.039 | 1 | 09/30/20 06:45 | 09/30/20 18:40 | 1,6010D | BV |
| Calcium, Total | ND | | mg/kg | 4.00 | 1.40 | 1 | 09/30/20 06:45 | 09/30/20 18:40 | 1,6010D | BV |
| Chromium, Total | ND | | mg/kg | 0.400 | 0.038 | 1 | 09/30/20 06:45 | 09/30/20 18:40 | 1,6010D | BV |
| Cobalt, Total | ND | | mg/kg | 0.800 | 0.066 | 1 | 09/30/20 06:45 | 09/30/20 18:40 | 1,6010D | BV |
| Copper, Total | ND | | mg/kg | 0.400 | 0.103 | 1 | 09/30/20 06:45 | 09/30/20 18:40 | 1,6010D | BV |
| Iron, Total | ND | | mg/kg | 2.00 | 0.361 | 1 | 09/30/20 06:45 | 09/30/20 18:40 | 1,6010D | BV |
| Lead, Total | ND | | mg/kg | 2.00 | 0.107 | 1 | 09/30/20 06:45 | 09/30/20 18:40 | 1,6010D | BV |
| Magnesium, Total | ND | | mg/kg | 4.00 | 0.616 | 1 | 09/30/20 06:45 | 09/30/20 18:40 | 1,6010D | BV |
| Manganese, Total | ND | | mg/kg | 0.400 | 0.064 | 1 | 09/30/20 06:45 | 09/30/20 18:40 | 1,6010D | BV |
| Nickel, Total | ND | | mg/kg | 1.00 | 0.097 | 1 | 09/30/20 06:45 | 09/30/20 18:40 | 1,6010D | BV |
| Potassium, Total | ND | | mg/kg | 100 | 5.76 | 1 | 09/30/20 06:45 | 09/30/20 18:40 | 1,6010D | BV |
| Selenium, Total | ND | | mg/kg | 0.800 | 0.103 | 1 | 09/30/20 06:45 | 09/30/20 18:40 | 1,6010D | BV |
| Silver, Total | ND | | mg/kg | 0.400 | 0.113 | 1 | 09/30/20 06:45 | 09/30/20 18:40 | 1,6010D | BV |
| Sodium, Total | 9.81 | J | mg/kg | 80.0 | 1.26 | 1 | 09/30/20 06:45 | 09/30/20 18:40 | 1,6010D | BV |
| Thallium, Total | ND | | mg/kg | 0.800 | 0.126 | 1 | 09/30/20 06:45 | 09/30/20 18:40 | 1,6010D | BV |
| Vanadium, Total | ND | | mg/kg | 0.400 | 0.081 | 1 | 09/30/20 06:45 | 09/30/20 18:40 | 1,6010D | BV |
| Zinc, Total | ND | | mg/kg | 2.00 | 0.117 | 1 | 09/30/20 06:45 | 09/30/20 18:40 | 1,6010D | BV |

**Prep Information**

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab for sample(s): 07-12 Batch: WG1415981-1 | | | | | | | | | | |
| Mercury, Total | ND | | mg/kg | 0.083 | 0.054 | 1 | 09/30/20 08:50 | 09/30/20 11:30 | 1,7471B | EW |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040645

**Project Number:** 135173-002 **Report Date:** 10/02/20

# Method Blank Analysis
# Batch Quality Control

**Prep Information**

Digestion Method: EPA 7471B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 07-12 Batch: WG1416016-1 | | | | | | | | | | |
| Arsenic, TCLP | ND | | mg/l | 1.00 | 0.019 | 1 | 09/30/20 13:06 | 10/01/20 13:47 | 1,6010D | GD |
| Barium, TCLP | ND | | mg/l | 0.500 | 0.021 | 1 | 09/30/20 13:06 | 10/01/20 13:47 | 1,6010D | GD |
| Cadmium, TCLP | ND | | mg/l | 0.100 | 0.010 | 1 | 09/30/20 13:06 | 10/01/20 13:47 | 1,6010D | GD |
| Chromium, TCLP | ND | | mg/l | 0.200 | 0.021 | 1 | 09/30/20 13:06 | 10/01/20 13:47 | 1,6010D | GD |
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 09/30/20 13:06 | 10/01/20 13:47 | 1,6010D | GD |
| Selenium, TCLP | ND | | mg/l | 0.500 | 0.035 | 1 | 09/30/20 13:06 | 10/01/20 13:47 | 1,6010D | GD |
| Silver, TCLP | ND | | mg/l | 0.100 | 0.028 | 1 | 09/30/20 13:06 | 10/01/20 13:47 | 1,6010D | GD |

**Prep Information**

Digestion Method: EPA 3015

TCLP/SPLP Extraction Date: 09/26/20 04:34

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 07-12 Batch: WG1416019-1 | | | | | | | | | | |
| Mercury, TCLP | ND | | mg/l | 0.0010 | 0.0005 | 1 | 09/30/20 14:34 | 10/01/20 08:50 | 1,7470A | EW |

**Prep Information**

Digestion Method: EPA 7470A

TCLP/SPLP Extraction Date: 09/26/20 04:34

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040645

**Report Date:** 10/02/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 07-12 Batch: WG1415978-2 SRM Lot Number: D109-540 | | | | | | | | |
| Aluminum, Total | 70 | | - | | 50-150 | - | | |
| Antimony, Total | 136 | | - | | 19-250 | - | | |
| Arsenic, Total | 90 | | - | | 70-130 | - | | |
| Barium, Total | 89 | | - | | 75-125 | - | | |
| Beryllium, Total | 89 | | - | | 75-125 | - | | |
| Cadmium, Total | 88 | | - | | 75-125 | - | | |
| Calcium, Total | 84 | | - | | 73-128 | - | | |
| Chromium, Total | 84 | | - | | 70-130 | - | | |
| Cobalt, Total | 88 | | - | | 75-125 | - | | |
| Copper, Total | 86 | | - | | 75-125 | - | | |
| Iron, Total | 82 | | - | | 35-165 | - | | |
| Lead, Total | 87 | | - | | 72-128 | - | | |
| Magnesium, Total | 86 | | - | | 62-138 | - | | |
| Manganese, Total | 86 | | - | | 74-126 | - | | |
| Nickel, Total | 88 | | - | | 70-130 | - | | |
| Potassium, Total | 79 | | - | | 59-141 | - | | |
| Selenium, Total | 89 | | - | | 68-132 | - | | |
| Silver, Total | 84 | | - | | 68-131 | - | | |
| Sodium, Total | 99 | | - | | 35-165 | - | | |
| Thallium, Total | 87 | | - | | 68-131 | - | | |
| Vanadium, Total | 88 | | - | | 59-141 | - | | |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040645

**Report Date:** 10/02/20

| Parameter | LCS %Recovery | LCSD %Recovery | %Recovery Limits | RPD | RPD Limits |
|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 07-12 Batch: WG1415978-2 SRM Lot Number: D109-540 | | | | | |
| Zinc, Total | 87 | - | 70-130 | - | |
| Total Metals - Mansfield Lab Associated sample(s): 07-12 Batch: WG1415981-2 SRM Lot Number: D109-540 | | | | | |
| Mercury, Total | 78 | - | 60-140 | - | |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 07-12 Batch: WG1416016-2 | | | | | |
| Arsenic, TCLP | 112 | - | 75-125 | - | 20 |
| Barium, TCLP | 103 | - | 75-125 | - | 20 |
| Cadmium, TCLP | 109 | - | 75-125 | - | 20 |
| Chromium, TCLP | 100 | - | 75-125 | - | 20 |
| Lead, TCLP | 104 | - | 75-125 | - | 20 |
| Selenium, TCLP | 114 | - | 75-125 | - | 20 |
| Silver, TCLP | 103 | - | 75-125 | - | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 07-12 Batch: WG1416019-2 | | | | | |
| Mercury, TCLP | 107 | - | 80-120 | - | |

# Matrix Spike Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2040645
**Report Date:** 10/02/20

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 07-12 QC Batch ID: WG1415978-3 QC Sample: L2040735-01 Client ID: MS Sample | | | | | | | | | | | | |
| Aluminum, Total | 11000 | 172 | 10600 | **0** | Q | - | - | | 75-125 | - | | 20 |
| Antimony, Total | 0.194J | 42.9 | 34.0 | 79 | | - | - | | 75-125 | - | | 20 |
| Arsenic, Total | 10.3 | 10.3 | 20.2 | 96 | | - | - | | 75-125 | - | | 20 |
| Barium, Total | 50.2 | 172 | 192 | 83 | | - | - | | 75-125 | - | | 20 |
| Beryllium, Total | 0.337 | 4.29 | 4.00 | 85 | | - | - | | 75-125 | - | | 20 |
| Cadmium, Total | 0.358J | 4.38 | 4.02 | 92 | | - | - | | 75-125 | - | | 20 |
| Calcium, Total | 1330 | 858 | 1520 | **22** | Q | - | - | | 75-125 | - | | 20 |
| Chromium, Total | 18.7 | 17.2 | 30.4 | **68** | Q | - | - | | 75-125 | - | | 20 |
| Cobalt, Total | 7.04 | 42.9 | 40.3 | 78 | | - | - | | 75-125 | - | | 20 |
| Copper, Total | 11.8 | 21.4 | 29.0 | 80 | | - | - | | 75-125 | - | | 20 |
| Iron, Total | 13300 | 85.8 | 13000 | **0** | Q | - | - | | 75-125 | - | | 20 |
| Lead, Total | 5.95 | 43.8 | 40.7 | 79 | | - | - | | 75-125 | - | | 20 |
| Magnesium, Total | 3520 | 858 | 3940 | **49** | Q | - | - | | 75-125 | - | | 20 |
| Manganese, Total | 181 | 42.9 | 205 | **56** | Q | - | - | | 75-125 | - | | 20 |
| Nickel, Total | 14.6 | 42.9 | 46.5 | **74** | Q | - | - | | 75-125 | - | | 20 |
| Potassium, Total | 1980 | 858 | 2700 | 84 | | - | - | | 75-125 | - | | 20 |
| Selenium, Total | ND | 10.3 | 8.28 | 80 | | - | - | | 75-125 | - | | 20 |
| Silver, Total | ND | 25.7 | 21.5 | 84 | | - | - | | 75-125 | - | | 20 |
| Sodium, Total | 288 | 858 | 951 | 77 | | - | - | | 75-125 | - | | 20 |
| Thallium, Total | ND | 10.3 | 7.62 | **74** | Q | - | - | | 75-125 | - | | 20 |
| Vanadium, Total | 24.0 | 42.9 | 56.7 | 76 | | - | - | | 75-125 | - | | 20 |

# Matrix Spike Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2040645
**Report Date:** 10/02/20

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | MSD Found | MSD %Recovery | Recovery Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 07-12 QC Batch ID: WG1415978-3 QC Sample: L2040735-01 Client ID: MS Sample | | | | | | | | | |
| Zinc, Total | 35.4 | 42.9 | 70.8 | 82 | - | - | 75-125 | - | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 07-12 QC Batch ID: WG1415981-3 QC Sample: L2039927-25 Client ID: MS Sample | | | | | | | | | |
| Mercury, Total | ND | 0.134 | 0.140 | 105 | - | - | 80-120 | - | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 07-12 QC Batch ID: WG1416016-3 QC Sample: L2040685-01 Client ID: MS Sample | | | | | | | | | |
| Arsenic, TCLP | ND | 1.2 | 1.35 | 112 | - | - | 75-125 | - | 20 |
| Barium, TCLP | 0.534 | 20 | 21.1 | 103 | - | - | 75-125 | - | 20 |
| Cadmium, TCLP | ND | 0.51 | 0.545 | 107 | - | - | 75-125 | - | 20 |
| Chromium, TCLP | ND | 2 | 2.01 | 100 | - | - | 75-125 | - | 20 |
| Lead, TCLP | ND | 5.1 | 5.23 | 102 | - | - | 75-125 | - | 20 |
| Selenium, TCLP | ND | 1.2 | 1.38 | 115 | - | - | 75-125 | - | 20 |
| Silver, TCLP | ND | 0.5 | 0.523 | 105 | - | - | 75-125 | - | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 07-12 QC Batch ID: WG1416019-3 QC Sample: L2040401-01 Client ID: MS Sample | | | | | | | | | |
| Mercury, TCLP | ND | 0.025 | 0.0269 | 108 | - | - | 80-120 | - | 20 |

# Lab Duplicate Analysis
*Batch Quality Control*

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

***Lab Number:*** L2040645
***Report Date:*** 10/02/20

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab Associated sample(s): 07-12 QC Batch ID: WG1415978-4 QC Sample: L2040735-01 Client ID: DUP Sample** | | | | | | |
| Arsenic, Total | 10.3 | 12.3 | mg/kg | 18 | | 20 |
| Barium, Total | 50.2 | 59.6 | mg/kg | 17 | | 20 |
| Cadmium, Total | 0.358J | 0.429J | mg/kg | NC | | 20 |
| Chromium, Total | 18.7 | 22.1 | mg/kg | 17 | | 20 |
| Lead, Total | 5.95 | 6.44 | mg/kg | 8 | | 20 |
| Selenium, Total | ND | ND | mg/kg | NC | | 20 |
| Silver, Total | ND | ND | mg/kg | NC | | 20 |
| **Total Metals - Mansfield Lab Associated sample(s): 07-12 QC Batch ID: WG1415981-4 QC Sample: L2039927-25 Client ID: DUP Sample** | | | | | | |
| Mercury, Total | ND | ND | mg/kg | NC | | 20 |
| **TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 07-12 QC Batch ID: WG1416016-4 QC Sample: L2040685-01 Client ID: DUP Sample** | | | | | | |
| Lead, TCLP | ND | ND | mg/l | NC | | 20 |
| **TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 07-12 QC Batch ID: WG1416019-4 QC Sample: L2040401-01 Client ID: DUP Sample** | | | | | | |
| Mercury, TCLP | ND | ND | mg/l | NC | | 20 |

# INORGANICS
# &
# MISCELLANEOUS

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-01
Client ID: C-B3 (7-9')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 09/25/20 10:34
Date Received: 09/25/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 88.6 | | % | 0.100 | NA | 1 | - | 09/26/20 12:08 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-02
Client ID: C-B4 (2-4')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil

Date Collected: 09/25/20 10:44
Date Received: 09/25/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 92.2 | | % | 0.100 | NA | 1 | - | 09/26/20 12:08 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-03
Client ID: D-B4 (2-4')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil

Date Collected: 09/25/20 08:13
Date Received: 09/25/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 88.4 | | % | 0.100 | NA | 1 | - | 09/26/20 12:08 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-04
Client ID: D-B3 (7-9')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil

Date Collected: 09/25/20 08:07
Date Received: 09/25/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 92.0 | | % | 0.100 | NA | 1 | - | 09/26/20 12:08 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-05
Client ID: E-B4 (7-8')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil

Date Collected: 09/25/20 09:06
Date Received: 09/25/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 83.5 | | % | 0.100 | NA | 1 | - | 09/26/20 12:08 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-06
Client ID: E-B5 (2-4')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 09/25/20 09:26
Date Received: 09/25/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 92.8 | | % | 0.100 | NA | 1 | - | 09/26/20 12:08 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-07
Client ID: WC-C (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil

Date Collected: 09/25/20 10:58
Date Received: 09/25/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 90.2 | | % | 0.100 | NA | 1 | - | 09/26/20 12:08 | 121,2540G | RI |
| Cyanide, Total | ND | | mg/kg | 1.1 | 0.23 | 1 | 09/30/20 19:00 | 10/01/20 15:05 | 1,9010C/9012B | AG |
| pH (H) | 7.9 | | SU | - | NA | 1 | - | 09/28/20 11:18 | 1,9045D | KP |
| Chromium, Hexavalent | ND | | mg/kg | 0.887 | 0.177 | 1 | 10/01/20 14:11 | 10/02/20 11:05 | 1,7196A | JT |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-08
Client ID: WC-C (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil

Date Collected: 09/25/20 10:57
Date Received: 09/25/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 92.6 | | % | 0.100 | NA | 1 | - | 09/26/20 12:08 | 121,2540G | RI |
| Cyanide, Total | ND | | mg/kg | 1.0 | 0.22 | 1 | 09/30/20 19:00 | 10/01/20 15:06 | 1,9010C/9012B | AG |
| pH (H) | 7.9 | | SU | - | NA | 1 | - | 09/28/20 11:18 | 1,9045D | KP |
| Chromium, Hexavalent | ND | | mg/kg | 0.864 | 0.173 | 1 | 10/01/20 14:11 | 10/02/20 11:05 | 1,7196A | JT |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-09
Client ID: WC-D (0-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 09/25/20 08:25
Date Received: 09/25/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 87.1 | | % | 0.100 | NA | 1 | - | 09/26/20 12:08 | 121,2540G | RI |
| Cyanide, Total | ND | | mg/kg | 1.1 | 0.24 | 1 | 09/30/20 19:00 | 10/01/20 15:07 | 1,9010C/9012B | AG |
| pH (H) | 8.0 | | SU | - | NA | 1 | - | 09/28/20 11:18 | 1,9045D | KP |
| Chromium, Hexavalent | ND | | mg/kg | 0.918 | 0.184 | 1 | 10/01/20 14:11 | 10/02/20 11:05 | 1,7196A | JT |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-10
Client ID: WC-D (5-10')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 09/25/20 08:28
Date Received: 09/25/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 74.7 | | % | 0.100 | NA | 1 | - | 09/26/20 12:08 | 121,2540G | RI |
| Cyanide, Total | ND | | mg/kg | 1.2 | 0.26 | 1 | 09/30/20 19:00 | 10/01/20 15:08 | 1,9010C/9012B | AG |
| pH (H) | 8.1 | | SU | - | NA | 1 | - | 09/28/20 11:18 | 1,9045D | KP |
| Chromium, Hexavalent | ND | | mg/kg | 1.07 | 0.214 | 1 | 10/01/20 14:11 | 10/02/20 11:05 | 1,7196A | JT |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-11
Client ID: WC-E (0-4')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 09/25/20 09:20
Date Received: 09/25/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 87.8 | | % | 0.100 | NA | 1 | - | 09/26/20 12:08 | 121,2540G | RI |
| Cyanide, Total | ND | | mg/kg | 1.0 | 0.22 | 1 | 09/30/20 19:00 | 10/01/20 15:09 | 1,9010C/9012B | AG |
| pH (H) | 8.4 | | SU | - | NA | 1 | - | 09/28/20 11:18 | 1,9045D | KP |
| Chromium, Hexavalent | ND | | mg/kg | 0.911 | 0.182 | 1 | 10/01/20 14:11 | 10/02/20 11:05 | 1,7196A | JT |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-12
Client ID: WC-E (4-7')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 09/25/20 09:22
Date Received: 09/25/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 90.5 | | % | 0.100 | NA | 1 | - | 09/26/20 12:08 | 121,2540G | RI |
| Cyanide, Total | ND | | mg/kg | 1.0 | 0.22 | 1 | 09/30/20 19:00 | 10/01/20 16:40 | 1,9010C/9012B | AG |
| pH (H) | 9.1 | | SU | - | NA | 1 | - | 09/28/20 11:18 | 1,9045D | KP |
| Chromium, Hexavalent | ND | | mg/kg | 0.884 | 0.177 | 1 | 10/01/20 14:11 | 10/02/20 11:05 | 1,7196A | JT |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

## SAMPLE RESULTS

Lab ID: L2040645-13
Client ID: C-B3 (2-4')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 09/25/20 10:32
Date Received: 09/25/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 89.2 | | % | 0.100 | NA | 1 | - | 09/26/20 12:08 | 121,2540G | RI |
| Cyanide, Total | ND | | mg/kg | 1.1 | 0.23 | 1 | 09/30/20 19:00 | 10/01/20 15:31 | 1,9010C/9012B | AG |
| Paint Filter Liquid | NEGATIVE | | - | 0 | NA | 1 | - | 09/29/20 15:55 | 1,9095B | AS |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040645
**Report Date:** 10/02/20

# Method Blank Analysis
## Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| General Chemistry - Westborough Lab for sample(s): 07-13 Batch: WG1416567-1 | | | | | | | | | | |
| Cyanide, Total | ND | | mg/kg | 0.94 | 0.20 | 1 | 09/30/20 19:00 | 10/01/20 14:55 | 1,9010C/9012B | AG |
| General Chemistry - Westborough Lab for sample(s): 07-12 Batch: WG1416963-1 | | | | | | | | | | |
| Chromium, Hexavalent | ND | | mg/kg | 0.800 | 0.160 | 1 | 10/01/20 14:11 | 10/02/20 11:05 | 1,7196A | JT |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040645

**Report Date:** 10/02/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| General Chemistry - Westborough Lab Associated sample(s): 07-12 Batch: WG1415376-1 | | | | | | | | |
| pH | 100 | | - | | 99-101 | - | | |
| General Chemistry - Westborough Lab Associated sample(s): 07-13 Batch: WG1416567-2 WG1416567-3 | | | | | | | | |
| Cyanide, Total | **69** | Q | **71** | Q | 80-120 | 2 | | 35 |
| General Chemistry - Westborough Lab Associated sample(s): 07-12 Batch: WG1416963-2 | | | | | | | | |
| Chromium, Hexavalent | 97 | | - | | 80-120 | - | | 20 |

# Matrix Spike Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2040645
**Report Date:** 10/02/20

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| General Chemistry - Westborough Lab Associated sample(s): 07-13 QC Batch ID: WG1416567-4 WG1416567-5 QC Sample: L2040645-12 Client ID: WC-E (4-7') | | | | | | | | | | | | |
| Cyanide, Total | ND | 11 | 9.8 | 90 | | 9.4 | 90 | | 75-125 | 4 | | 35 |
| General Chemistry - Westborough Lab Associated sample(s): 07-12 QC Batch ID: WG1416963-4 QC Sample: L2040645-07 Client ID: WC-C (0-5') | | | | | | | | | | | | |
| Chromium, Hexavalent | ND | 988 | 860 | 87 | | - | - | | 75-125 | - | | 20 |

# Lab Duplicate Analysis
*Batch Quality Control*

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

***Lab Number:*** L2040645
***Report Date:*** 10/02/20

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| General Chemistry - Westborough Lab Associated sample(s): 01-13 QC Batch ID: WG1414956-1 QC Sample: L2040645-01 Client ID: C-B3 (7-9') | | | | | | |
| Solids, Total | 88.6 | 88.6 | % | 0 | | 20 |
| General Chemistry - Westborough Lab Associated sample(s): 07-12 QC Batch ID: WG1415376-2 QC Sample: L2040466-04 Client ID: DUP Sample | | | | | | |
| pH | 7.6 | 7.4 | SU | 3 | | 5 |
| General Chemistry - Westborough Lab Associated sample(s): 07-12 QC Batch ID: WG1416963-6 QC Sample: L2040645-07 Client ID: WC-C (0-5') | | | | | | |
| Chromium, Hexavalent | ND | ND | mg/kg | NC | | 20 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2040645
**Report Date:** 10/02/20

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

### Cooler Information

| Cooler | Custody Seal |
|---|---|
| A | Absent |

### Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2040645-01A | Vial MeOH preserved | A | NA | | 2.1 | Y | Absent | | NYTCL-8260HLW(14) |
| L2040645-01B | Vial water preserved | A | NA | | 2.1 | Y | Absent | 26-SEP-20 10:38 | NYTCL-8260HLW(14) |
| L2040645-01C | Vial water preserved | A | NA | | 2.1 | Y | Absent | 26-SEP-20 10:38 | NYTCL-8260HLW(14) |
| L2040645-01D | Plastic 2oz unpreserved for TS | A | NA | | 2.1 | Y | Absent | | TS(7) |
| L2040645-02A | Vial MeOH preserved | A | NA | | 2.1 | Y | Absent | | NYTCL-8260HLW(14) |
| L2040645-02B | Vial water preserved | A | NA | | 2.1 | Y | Absent | 26-SEP-20 10:38 | NYTCL-8260HLW(14) |
| L2040645-02C | Vial water preserved | A | NA | | 2.1 | Y | Absent | 26-SEP-20 10:38 | NYTCL-8260HLW(14) |
| L2040645-02D | Plastic 2oz unpreserved for TS | A | NA | | 2.1 | Y | Absent | | TS(7) |
| L2040645-03A | Vial MeOH preserved | A | NA | | 2.1 | Y | Absent | | NYTCL-8260HLW(14) |
| L2040645-03B | Vial water preserved | A | NA | | 2.1 | Y | Absent | 26-SEP-20 10:38 | NYTCL-8260HLW(14) |
| L2040645-03C | Vial water preserved | A | NA | | 2.1 | Y | Absent | 26-SEP-20 10:38 | NYTCL-8260HLW(14) |
| L2040645-03D | Plastic 2oz unpreserved for TS | A | NA | | 2.1 | Y | Absent | | TS(7) |
| L2040645-04A | Vial MeOH preserved | A | NA | | 2.1 | Y | Absent | | NYTCL-8260HLW(14) |
| L2040645-04B | Vial water preserved | A | NA | | 2.1 | Y | Absent | 26-SEP-20 10:38 | NYTCL-8260HLW(14) |
| L2040645-04C | Vial water preserved | A | NA | | 2.1 | Y | Absent | 26-SEP-20 10:38 | NYTCL-8260HLW(14) |
| L2040645-04D | Plastic 2oz unpreserved for TS | A | NA | | 2.1 | Y | Absent | | TS(7) |
| L2040645-05A | Vial MeOH preserved | A | NA | | 2.1 | Y | Absent | | NYTCL-8260HLW(14) |
| L2040645-05B | Vial water preserved | A | NA | | 2.1 | Y | Absent | 26-SEP-20 10:38 | NYTCL-8260HLW(14) |
| L2040645-05C | Vial water preserved | A | NA | | 2.1 | Y | Absent | 26-SEP-20 10:38 | NYTCL-8260HLW(14) |
| L2040645-05D | Plastic 2oz unpreserved for TS | A | NA | | 2.1 | Y | Absent | | TS(7) |
| L2040645-06A | Vial MeOH preserved | A | NA | | 2.1 | Y | Absent | | NYTCL-8260HLW(14) |
| L2040645-06B | Vial water preserved | A | NA | | 2.1 | Y | Absent | 26-SEP-20 10:38 | NYTCL-8260HLW(14) |
| L2040645-06C | Vial water preserved | A | NA | | 2.1 | Y | Absent | 26-SEP-20 10:38 | NYTCL-8260HLW(14) |



*Values in parentheses indicate holding time in days

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2040645
**Report Date:** 10/02/20

## Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2040645-06D | Plastic 2oz unpreserved for TS | A | NA | | 2.1 | Y | Absent | | TS(7) |
| L2040645-07A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.1 | Y | Absent | | BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),AL-TI(180),NI-TI(180),TL-TI(180),CR-TI(180),CU-TI(180),PB-TI(180),SE-TI(180),ZN-TI(180),SB-TI(180),V-TI(180),CO-TI(180),MN-TI(180),HG-T(28),FE-TI(180),CD-TI(180) |
| L2040645-07B | Glass 60mL/2oz unpreserved | A | NA | | 2.1 | Y | Absent | | TCN-9010(14),NYTCL-8270(14),NJEPH-TPH-CAT2(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30) |
| L2040645-07C | Glass 120ml/4oz unpreserved | A | NA | | 2.1 | Y | Absent | | TCN-9010(14),NYTCL-8270(14),NJEPH-TPH-CAT2(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30) |
| L2040645-07D | Glass 500ml/16oz unpreserved | A | NA | | 2.1 | Y | Absent | | TCN-9010(14),NYTCL-8270(14),NJEPH-TPH-CAT2(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30) |
| L2040645-07X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 2.1 | Y | Absent | | CD-CI(180),BA-CI(180),AS-CI(180),HG-C(28),PB-CI(180),CR-CI(180),SE-CI(180),AG-CI(180) |
| L2040645-07X9 | Tumble Vessel | A | NA | | 2.1 | Y | Absent | | - |
| L2040645-08A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.1 | Y | Absent | | BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),AL-TI(180),NI-TI(180),TL-TI(180),PB-TI(180),ZN-TI(180),SE-TI(180),CU-TI(180),SB-TI(180),V-TI(180),CO-TI(180),MN-TI(180),FE-TI(180),HG-T(28),CD-TI(180) |
| L2040645-08B | Glass 60mL/2oz unpreserved | A | NA | | 2.1 | Y | Absent | | NYTCL-8270(14),NJEPH-TPH-CAT2(14),TCN-9010(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30) |
| L2040645-08C | Glass 120ml/4oz unpreserved | A | NA | | 2.1 | Y | Absent | | NYTCL-8270(14),NJEPH-TPH-CAT2(14),TCN-9010(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30) |
| L2040645-08D | Glass 500ml/16oz unpreserved | A | NA | | 2.1 | Y | Absent | | NYTCL-8270(14),NJEPH-TPH-CAT2(14),TCN-9010(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30) |
| L2040645-08X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 2.1 | Y | Absent | | CD-CI(180),AS-CI(180),BA-CI(180),HG-C(28),PB-CI(180),SE-CI(180),CR-CI(180),AG-CI(180) |
| L2040645-08X9 | Tumble Vessel | A | NA | | 2.1 | Y | Absent | | - |



*Values in parentheses indicate holding time in days

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2040645
**Report Date:** 10/02/20

### Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2040645-09A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.1 | Y | Absent | | BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),TL-TI(180),CR-TI(180),AL-TI(180),NI-TI(180),CU-TI(180),SE-TI(180),PB-TI(180),ZN-TI(180),SB-TI(180),CO-TI(180),V-TI(180),MN-TI(180),HG-T(28),FE-TI(180),CD-TI(180) |
| L2040645-09B | Glass 60mL/2oz unpreserved | A | NA | | 2.1 | Y | Absent | | NYTCL-8270(14),TCN-9010(14),NJEPH-TPH-CAT2(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30) |
| L2040645-09C | Glass 120ml/4oz unpreserved | A | NA | | 2.1 | Y | Absent | | NYTCL-8270(14),TCN-9010(14),NJEPH-TPH-CAT2(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30) |
| L2040645-09D | Glass 500ml/16oz unpreserved | A | NA | | 2.1 | Y | Absent | | NYTCL-8270(14),TCN-9010(14),NJEPH-TPH-CAT2(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30) |
| L2040645-09X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 2.1 | Y | Absent | | CD-CI(180),AS-CI(180),BA-CI(180),HG-C(28),PB-CI(180),CR-CI(180),SE-CI(180),AG-CI(180) |
| L2040645-09X9 | Tumble Vessel | A | NA | | 2.1 | Y | Absent | | - |
| L2040645-10A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.1 | Y | Absent | | BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),NI-TI(180),TL-TI(180),CR-TI(180),AL-TI(180),PB-TI(180),SB-TI(180),ZN-TI(180),SE-TI(180),CU-TI(180),V-TI(180),CO-TI(180),HG-T(28),FE-TI(180),MN-TI(180),CD-TI(180) |
| L2040645-10B | Glass 60mL/2oz unpreserved | A | NA | | 2.1 | Y | Absent | | NJEPH-TPH-CAT2(14),NYTCL-8270(14),TCN-9010(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30) |
| L2040645-10C | Glass 120ml/4oz unpreserved | A | NA | | 2.1 | Y | Absent | | NJEPH-TPH-CAT2(14),NYTCL-8270(14),TCN-9010(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30) |
| L2040645-10D | Glass 500ml/16oz unpreserved | A | NA | | 2.1 | Y | Absent | | NJEPH-TPH-CAT2(14),NYTCL-8270(14),TCN-9010(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30) |
| L2040645-10X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 2.1 | Y | Absent | | CD-CI(180),AS-CI(180),BA-CI(180),HG-C(28),PB-CI(180),CR-CI(180),SE-CI(180),AG-CI(180) |
| L2040645-10X9 | Tumble Vessel | A | NA | | 2.1 | Y | Absent | | - |
| L2040645-11A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.1 | Y | Absent | | BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),TL-TI(180),CR-TI(180),NI-TI(180),CU-TI(180),SB-TI(180),SE-TI(180),PB-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),HG-T(28),MN-TI(180),FE-TI(180),CD-TI(180) |



*Values in parentheses indicate holding time in days

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2040645
**Report Date:** 10/02/20

### Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2040645-11B | Glass 60mL/2oz unpreserved | A | NA | | 2.1 | Y | Absent | | NJEPH-TPH-CAT2(14),NYTCL-8270(14),TCN-9010(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30) |
| L2040645-11C | Glass 120ml/4oz unpreserved | A | NA | | 2.1 | Y | Absent | | NJEPH-TPH-CAT2(14),NYTCL-8270(14),TCN-9010(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30) |
| L2040645-11D | Glass 500ml/16oz unpreserved | A | NA | | 2.1 | Y | Absent | | NJEPH-TPH-CAT2(14),NYTCL-8270(14),TCN-9010(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30) |
| L2040645-11X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 2.1 | Y | Absent | | CD-CI(180),BA-CI(180),AS-CI(180),HG-C(28),PB-CI(180),CR-CI(180),SE-CI(180),AG-CI(180) |
| L2040645-11X9 | Tumble Vessel | A | NA | | 2.1 | Y | Absent | | - |
| L2040645-12A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.1 | Y | Absent | | BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),AL-TI(180),NI-TI(180),TL-TI(180),SE-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),MN-TI(180),FE-TI(180),HG-T(28),CD-TI(180) |
| L2040645-12B | Glass 60mL/2oz unpreserved | A | NA | | 2.1 | Y | Absent | | NYTCL-8270(14),TCN-9010(14),NJEPH-TPH-CAT2(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30) |
| L2040645-12C | Glass 120ml/4oz unpreserved | A | NA | | 2.1 | Y | Absent | | NYTCL-8270(14),TCN-9010(14),NJEPH-TPH-CAT2(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30) |
| L2040645-12D | Glass 500ml/16oz unpreserved | A | NA | | 2.1 | Y | Absent | | NYTCL-8270(14),TCN-9010(14),NJEPH-TPH-CAT2(14),HERB-APA(14),TS(7),PH-9045(1),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30) |
| L2040645-12X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 2.1 | Y | Absent | | CD-CI(180),AS-CI(180),BA-CI(180),HG-C(28),PB-CI(180),CR-CI(180),SE-CI(180),AG-CI(180) |
| L2040645-12X9 | Tumble Vessel | A | NA | | 2.1 | Y | Absent | | - |
| L2040645-13A | Glass 120ml/4oz unpreserved | A | NA | | 2.1 | Y | Absent | | TCN-9010(14),TS(7),PAINTF() |



*Values in parentheses indicate holding time in days

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2040645 |
| **Project Number:** | 135173-002 | **Report Date:** | 10/02/20 |

## GLOSSARY

***Acronyms***

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

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

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

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

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

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

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

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

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

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

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

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

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

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

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

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2040645 |
| **Project Number:** | 135173-002 | **Report Date:** | 10/02/20 |

***Footnotes***

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

***Terms***

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

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

***Data Qualifiers***

**A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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

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

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

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

**F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

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

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

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

**J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

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

**ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

**NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2040645 |
| **Project Number:** | 135173-002 | **Report Date:** | 10/02/20 |

***Data Qualifiers***

the identification is based on a mass spectral library search.

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

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

**R** - Analytical results are from sample re-analysis.

**RE** - Analytical results are from sample re-extraction.

**S** - Analytical results are from modified screening analysis.

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2040645 |
| **Project Number:** | 135173-002 | **Report Date:** | 10/02/20 |

## REFERENCES


1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

103 Analysis of Extractable Petroleum Hydrocarbon Compounds (EPH) in Aqueous and Soil/Sediment/Sludge Matrices. New Jersey Department of Environmental Protection, Site Remediation Program, (Version 1.1), Document # NJDEP EPH 10/08, Revision 3, August 2010.

107 Alpha Analytical - In-house calculation method.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.


## LIMITATION OF LIABILITIES

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

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

# Certification Information

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

**Westborough Facility**
**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene
**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
**EPA 8270D:** NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
**SM4500**: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

**Mansfield Facility**
**SM 2540D:** TSS
**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
**EPA TO-12** Non-methane organics
**EPA 3C** Fixed gases
**Biological Tissue Matrix:** EPA 3050B

**The following analytes are included in our Massachusetts DEP Scope of Accreditation**

**Westborough Facility:**

***Drinking Water***
**EPA 300.0**: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
**EPA 332**: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
**Microbiology**: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

***Non-Potable Water***
**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
**EPA 624.1**: Volatile Halocarbons & Aromatics,
**EPA 608.3**: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
**EPA 625.1**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
**Microbiology**: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

**Mansfield Facility:**

***Drinking Water***
**EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
**EPA 522.**

***Non-Potable Water***
**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
**EPA 200.8:** Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
**EPA 245.1** Hg.
**SM2340B**

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

# NEW YORK CHAIN OF CUSTODY

ALPHA

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

**Service Centers**
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

Date Rec'd in Lab: 9/25/20

ALPHA Job #: L2040645

## Client Information

Client: Haley and Aldrich of NY
Address: 237 W 35th Street, 10th Floor
New York, NY 10123
Phone:
Fax:
Email: MConlon@haleyaldrich.com

## Project Information

Project Name: 310 Grand Concourse
Project Location: 310 Grand Concourse, Bronx, NY
Project # 135173-002
(Use Project name as Project #)
Project Manager: Mari Cate Conlon
ALPHAQuote #:

## Turn-Around Time

Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

## Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☑ Other PDF+excel

## Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☑ NY Restricted Use ☐ Other
☑ NY Unrestricted Use
☐ NYC Sewer Discharge

## Billing Information

☑ Same as Client Info
PO #

## Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

**Other project specific requirements/comments:**

**Please specify Metals or TAL.**

## ANALYSIS

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection Date | Collection Time | Sample Matrix | Sampler's Initials | Impact Env. Package B | VOCs 8260 | Total Bottles |
|---|---|---|---|---|---|---|---|---|
| 40645 01 | C-B3 (7-9') | 9/25/20 | 1034 | S | | | X | 3 |
| 02 | C-B4 (2-4') | 9/25/20 | 1044 | S | | | X | 3 |
| 03 | D-B4 (2-4') | 9/25/20 | 0813 | S | | | X | 3 |
| 04 | D-B3 (7-9') | 9/25/20 | 0807 | S | | | X | 3 |
| 05 | E-B4 (7-8') | 9/25/20 | 0906 | S | | | X | 3 |
| 06 | E-B5 (2-4') | 9/25/20 | 0926 | S | | | X | 3 |
| 07 | WC-C (0-5') | 9/25/20 | 1058 | S | | X | | 4 |
| 08 | WC-C (5-10') | 9/25/20 | 1057 | S | | X | | 4 |
| 09 | WC-D (0-5') | 9/25/20 | 0825 | S | | X | | 4 |
| 10 | WC-D (5-10') | 9/25/20 | 0828 | S | | X | | 4 |

**Sample Filtration**
☐ Done
☐ Lab to do
*Preservation*
☐ Lab to do
*(Please Specify below)*

**Sample Specific Comments**

Preservative Code:
A = None
B = HCl
C = $HNO_3$
D = $H_2SO_4$
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

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

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Container Type | A | V | | | | | | | | | | |
| Preservative | A | F | | | | | | | | | | |

| Relinquished By: | Date/Time | Received By: | Date/Time |
|---|---|---|---|
| Mark Simonel | 9-25-20 1530 | | 9/25/20 1530 |
| | 9/25/20 17:00 | | 9/25/20 1700 |
| | 9/25/20 2300 | | 9/26/20 230 |

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

# NEW YORK CHAIN OF CUSTODY

ALPHA

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

**Service Centers**
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 2 of 2

Date Rec'd in Lab: 9/25/20

ALPHA Job #: L2040645

**Client Information**
Client: Haley & Aldrich of NY
Address: 237 West 35th Street 16th Floor, New York, NY 10123
Phone:
Fax:
Email: MConlon@haleyaldrich.com

**Project Information**
Project Name: 310 Grand Concourse
Project Location: 310 Grand Concourse, ~~New York~~ Bronx, NY
Project #: 135173-002
(Use Project name as Project #)
Project Manager: Mari Conlon
ALPHAQuote #:

**Turn-Around Time**
Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

**Deliverables**
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☑ Other PDFs Excel

**Regulatory Requirement**
☐ NY TOGS ☐ NY Part 375
☑ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

**Billing Information**
☑ Same as Client Info
PO #

**Disposal Site Information**
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

**Other project specific requirements/comments:**

**Please specify Metals or TAL.**

**ANALYSIS**

**Sample Filtration**
☐ Done
☐ Lab to do
*Preservation*
☐ Lab to do
*(Please Specify below)*

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection Date | Collection Time | Sample Matrix | Sampler's Initials | Impact enva package B | VOCs 8260 | Paint Filter & Total Cyanide | Sample Specific Comments | Total # Bottles |
|---|---|---|---|---|---|---|---|---|---|---|
| L0645 -01 | WC-E(0-4') | 9/25/20 | 0920 | S | | X | | | | 4 |
| -02 | WC-E(4-7') | 9/25/20 | 0922 | S | | X | | | | 4 |
| -03 | C-B3(2-4') | 9/25/20 | 1032 | S | | | | X | | 1 |

Preservative Code:
A = None
B = HCl
C = $HNO_3$
D = $H_2SO_4$
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

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

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Container Type | A | | A | | | | | | | |
| Preservative | A | | A | | | | | | | |

| Relinquished By: | Date/Time | Received By: | Date/Time |
|---|---|---|---|
| Mark Simmel | 9-25-20 1500 | | 9/25/20 1500 |
| | 9/25/20 1700 | | 9/25/20 1700 |
| | 9/25/20 2300 | | 9/25/20 2300 |

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

# ANALYTICAL REPORT

| | |
|---|---|
| Lab Number: | L2121742 |
| Client: | Haley & Aldrich<br>237 West 35th Street<br>16th Floor<br>New York, NY 10123 |
| ATTN: | Mari Cate Conlon |
| Phone: | (347) 271-1521 |
| Project Name: | 310 GRAND CONCOURSE |
| Project Number: | 135173-002 |
| Report Date: | 04/30/21 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2121742
**Report Date:** 04/30/21

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|---|---|---|---|---|---|
| L2121742-01 | WC-20210428 | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 04/28/21 11:15 | 04/28/21 |

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2121742 |
| **Project Number:** | 135173-002 | **Report Date:** | 04/30/21 |

## Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

Please contact Project Management at 800-624-9220 with any questions.

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2121742 |
| **Project Number:** | 135173-002 | **Report Date:** | 04/30/21 |

**Case Narrative (continued)**

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

L2121742-01: The collection date and time on the chain of custody was 28-APR-21 11:15; however, the collection date/time on the container label was 28-APR-21 11:20. At the client's request, the collection date/time is reported as 28-APR-21 11:15.

Volatile Organics

L2121742-01: The sample was analyzed as a High Level Methanol in order to quantitate results within the calibration range. The result should be considered estimated, and is qualified with an E flag, for any compound that exceeded the calibration on the initial Low Level analysis. The results of both analyses are reported.

Pesticides

L2121742-01: The internal standard (IS) response for 1-bromo-2-nitrobenzene (226%) was above the acceptance criteria on column A; however, the sample was not re-analyzed due to obvious interferences. Since the IS response was above method criteria, all associated compounds reported from this column are considered to have a potentially low bias.

Total Metals

L2121742-01: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.

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

Authorized Signature: Lisa Westerlind

Title: Technical Director/Representative Date: 04/30/21

# ORGANICS

# VOLATILES

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2121742

**Project Number:** 135173-002 **Report Date:** 04/30/21

## SAMPLE RESULTS

Lab ID: L2121742-01 Date Collected: 04/28/21 11:15

Client ID: WC-20210428 Date Received: 04/28/21

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Analytical Method: 1,8260C

Analytical Date: 04/29/21 16:29

Analyst: MKS

Percent Solids: 91%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 High - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/kg | 290 | 130 | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 57 | 8.3 | 1 |
| Chloroform | ND | | ug/kg | 86 | 8.0 | 1 |
| Carbon tetrachloride | ND | | ug/kg | 57 | 13. | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 57 | 7.2 | 1 |
| Dibromochloromethane | ND | | ug/kg | 57 | 8.0 | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 57 | 15. | 1 |
| Tetrachloroethene | ND | | ug/kg | 29 | 11. | 1 |
| Chlorobenzene | ND | | ug/kg | 29 | 7.3 | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 230 | 40. | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 57 | 15. | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 29 | 9.6 | 1 |
| Bromodichloromethane | ND | | ug/kg | 29 | 6.2 | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 57 | 16. | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 29 | 9.0 | 1 |
| 1,3-Dichloropropene, Total | ND | | ug/kg | 29 | 9.0 | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 29 | 9.1 | 1 |
| Bromoform | ND | | ug/kg | 230 | 14. | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 29 | 9.5 | 1 |
| Benzene | ND | | ug/kg | 29 | 9.5 | 1 |
| Toluene | 89 | | ug/kg | 57 | 31. | 1 |
| Ethylbenzene | 270 | | ug/kg | 57 | 8.1 | 1 |
| Chloromethane | ND | | ug/kg | 230 | 53. | 1 |
| Bromomethane | ND | | ug/kg | 110 | 33. | 1 |
| Vinyl chloride | ND | | ug/kg | 57 | 19. | 1 |
| Chloroethane | ND | | ug/kg | 110 | 26. | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 57 | 14. | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 86 | 7.8 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2121742

**Project Number:** 135173-002 **Report Date:** 04/30/21

## SAMPLE RESULTS

Lab ID: L2121742-01 Date Collected: 04/28/21 11:15

Client ID: WC-20210428 Date Received: 04/28/21

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 High - Westborough Lab** | | | | | | |
| Trichloroethene | ND | | ug/kg | 29 | 7.8 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 110 | 8.2 | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 110 | 8.5 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 110 | 9.8 | 1 |
| Methyl tert butyl ether | ND | | ug/kg | 110 | 12. | 1 |
| p/m-Xylene | 910 | | ug/kg | 110 | 32. | 1 |
| o-Xylene | 350 | | ug/kg | 57 | 17. | 1 |
| Xylenes, Total | 1300 | | ug/kg | 57 | 17. | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 57 | 10. | 1 |
| 1,2-Dichloroethene, Total | ND | | ug/kg | 57 | 7.8 | 1 |
| Dibromomethane | ND | | ug/kg | 110 | 14. | 1 |
| Styrene | ND | | ug/kg | 57 | 11. | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 570 | 52. | 1 |
| Acetone | ND | | ug/kg | 570 | 280 | 1 |
| Carbon disulfide | ND | | ug/kg | 570 | 260 | 1 |
| 2-Butanone | ND | | ug/kg | 570 | 130 | 1 |
| Vinyl acetate | ND | | ug/kg | 570 | 120 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 570 | 73. | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 110 | 7.3 | 1 |
| 2-Hexanone | ND | | ug/kg | 570 | 68. | 1 |
| Bromochloromethane | ND | | ug/kg | 110 | 12. | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 110 | 12. | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 57 | 16. | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 110 | 9.6 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 29 | 7.6 | 1 |
| Bromobenzene | ND | | ug/kg | 110 | 8.3 | 1 |
| n-Butylbenzene | 150 | | ug/kg | 57 | 9.6 | 1 |
| sec-Butylbenzene | 56 | J | ug/kg | 57 | 8.4 | 1 |
| tert-Butylbenzene | ND | | ug/kg | 110 | 6.8 | 1 |
| o-Chlorotoluene | ND | | ug/kg | 110 | 11. | 1 |
| p-Chlorotoluene | ND | | ug/kg | 110 | 6.2 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 170 | 57. | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 230 | 9.7 | 1 |
| Isopropylbenzene | 63 | | ug/kg | 57 | 6.2 | 1 |
| p-Isopropyltoluene | 27 | J | ug/kg | 57 | 6.2 | 1 |
| Naphthalene | 280 | | ug/kg | 230 | 37. | 1 |
| Acrylonitrile | ND | | ug/kg | 230 | 66. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2121742

**Project Number:** 135173-002 **Report Date:** 04/30/21

## SAMPLE RESULTS

Lab ID: L2121742-01 Date Collected: 04/28/21 11:15

Client ID: WC-20210428 Date Received: 04/28/21

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 High - Westborough Lab** | | | | | | |
| Tert-Butyl Alcohol | ND | | ug/kg | 1100 | 290 | 1 |
| n-Propylbenzene | 260 | | ug/kg | 57 | 9.8 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 110 | 18. | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 110 | 16. | 1 |
| 1,3,5-Trimethylbenzene | 420 | | ug/kg | 110 | 11. | 1 |
| 1,2,4-Trimethylbenzene | 1500 | | ug/kg | 110 | 19. | 1 |
| Methyl Acetate | ND | | ug/kg | 230 | 54. | 1 |
| Acrolein | ND | | ug/kg | 1400 | 320 | 1 |
| Cyclohexane | 82 | J | ug/kg | 570 | 31. | 1 |
| 1,4-Dioxane | ND | | ug/kg | 4600 | 2000 | 1 |
| Freon-113 | ND | | ug/kg | 230 | 40. | 1 |
| p-Diethylbenzene | 750 | | ug/kg | 110 | 10. | 1 |
| p-Ethyltoluene | 1100 | | ug/kg | 110 | 22. | 1 |
| 1,2,4,5-Tetramethylbenzene | 290 | | ug/kg | 110 | 11. | 1 |
| Ethyl ether | ND | | ug/kg | 110 | 20. | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 290 | 81. | 1 |
| Methyl cyclohexane | 98 | J | ug/kg | 230 | 34. | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 110 | | 70-130 |
| Toluene-d8 | 101 | | 70-130 |
| 4-Bromofluorobenzene | 101 | | 70-130 |
| Dibromofluoromethane | 96 | | 70-130 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2121742

**Project Number:** 135173-002 **Report Date:** 04/30/21

## SAMPLE RESULTS

Lab ID: L2121742-01 Date Collected: 04/28/21 11:15

Client ID: WC-20210428 Date Received: 04/28/21

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Analytical Method: 1,8260C

Analytical Date: 04/30/21 16:04

Analyst: MKS

Percent Solids: 91%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/kg | 4.6 | 2.1 | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 0.92 | 0.13 | 1 |
| Chloroform | ND | | ug/kg | 1.4 | 0.13 | 1 |
| Carbon tetrachloride | ND | | ug/kg | 0.92 | 0.21 | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 0.92 | 0.11 | 1 |
| Dibromochloromethane | ND | | ug/kg | 0.92 | 0.13 | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 0.92 | 0.24 | 1 |
| Tetrachloroethene | ND | | ug/kg | 0.46 | 0.18 | 1 |
| Chlorobenzene | ND | | ug/kg | 0.46 | 0.12 | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 3.7 | 0.64 | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 0.92 | 0.24 | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 0.46 | 0.15 | 1 |
| Bromodichloromethane | ND | | ug/kg | 0.46 | 0.10 | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 0.92 | 0.25 | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 0.46 | 0.14 | 1 |
| 1,3-Dichloropropene, Total | ND | | ug/kg | 0.46 | 0.14 | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 0.46 | 0.15 | 1 |
| Bromoform | ND | | ug/kg | 3.7 | 0.23 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 0.46 | 0.15 | 1 |
| Benzene | ND | | ug/kg | 0.46 | 0.15 | 1 |
| Toluene | 37 | | ug/kg | 0.92 | 0.50 | 1 |
| Ethylbenzene | 89 | | ug/kg | 0.92 | 0.13 | 1 |
| Chloromethane | ND | | ug/kg | 3.7 | 0.86 | 1 |
| Bromomethane | ND | | ug/kg | 1.8 | 0.53 | 1 |
| Vinyl chloride | ND | | ug/kg | 0.92 | 0.31 | 1 |
| Chloroethane | ND | | ug/kg | 1.8 | 0.42 | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 0.92 | 0.22 | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 1.4 | 0.13 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2121742

**Project Number:** 135173-002 **Report Date:** 04/30/21

## SAMPLE RESULTS

Lab ID: L2121742-01 Date Collected: 04/28/21 11:15

Client ID: WC-20210428 Date Received: 04/28/21

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Trichloroethene | ND | | ug/kg | 0.46 | 0.13 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 1.8 | 0.13 | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 1.8 | 0.14 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 1.8 | 0.16 | 1 |
| Methyl tert butyl ether | ND | | ug/kg | 1.8 | 0.18 | 1 |
| p/m-Xylene | 270 | | ug/kg | 1.8 | 0.52 | 1 |
| o-Xylene | 120 | | ug/kg | 0.92 | 0.27 | 1 |
| Xylenes, Total | 390 | | ug/kg | 0.92 | 0.27 | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 0.92 | 0.16 | 1 |
| 1,2-Dichloroethene, Total | ND | | ug/kg | 0.92 | 0.13 | 1 |
| Dibromomethane | ND | | ug/kg | 1.8 | 0.22 | 1 |
| Styrene | 0.21 | J | ug/kg | 0.92 | 0.18 | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 9.2 | 0.84 | 1 |
| Acetone | ND | | ug/kg | 9.2 | 4.4 | 1 |
| Carbon disulfide | ND | | ug/kg | 9.2 | 4.2 | 1 |
| 2-Butanone | ND | | ug/kg | 9.2 | 2.0 | 1 |
| Vinyl acetate | ND | | ug/kg | 9.2 | 2.0 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 9.2 | 1.2 | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 1.8 | 0.12 | 1 |
| 2-Hexanone | ND | | ug/kg | 9.2 | 1.1 | 1 |
| Bromochloromethane | ND | | ug/kg | 1.8 | 0.19 | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 1.8 | 0.18 | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 0.92 | 0.26 | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 1.8 | 0.15 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 0.46 | 0.12 | 1 |
| Bromobenzene | ND | | ug/kg | 1.8 | 0.13 | 1 |
| n-Butylbenzene | 18 | | ug/kg | 0.92 | 0.15 | 1 |
| sec-Butylbenzene | 9.2 | | ug/kg | 0.92 | 0.13 | 1 |
| tert-Butylbenzene | 0.25 | J | ug/kg | 1.8 | 0.11 | 1 |
| o-Chlorotoluene | ND | | ug/kg | 1.8 | 0.18 | 1 |
| p-Chlorotoluene | ND | | ug/kg | 1.8 | 0.10 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 2.8 | 0.92 | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 3.7 | 0.16 | 1 |
| Isopropylbenzene | 18 | | ug/kg | 0.92 | 0.10 | 1 |
| p-Isopropyltoluene | 5.0 | | ug/kg | 0.92 | 0.10 | 1 |
| Naphthalene | 23 | | ug/kg | 3.7 | 0.60 | 1 |
| Acrylonitrile | ND | | ug/kg | 3.7 | 1.0 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2121742

**Project Number:** 135173-002 **Report Date:** 04/30/21

## SAMPLE RESULTS

Lab ID: L2121742-01 Date Collected: 04/28/21 11:15

Client ID: WC-20210428 Date Received: 04/28/21

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Tert-Butyl Alcohol | ND | | ug/kg | 18 | 4.7 | 1 |
| n-Propylbenzene | 53 | | ug/kg | 0.92 | 0.16 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 1.8 | 0.30 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 1.8 | 0.25 | 1 |
| 1,3,5-Trimethylbenzene | 110 | | ug/kg | 1.8 | 0.18 | 1 |
| 1,2,4-Trimethylbenzene | 340 | E | ug/kg | 1.8 | 0.31 | 1 |
| Methyl Acetate | ND | | ug/kg | 3.7 | 0.87 | 1 |
| Acrolein | ND | | ug/kg | 23 | 5.2 | 1 |
| Cyclohexane | 20 | | ug/kg | 9.2 | 0.50 | 1 |
| 1,4-Dioxane | ND | | ug/kg | 74 | 32. | 1 |
| Freon-113 | ND | | ug/kg | 3.7 | 0.64 | 1 |
| p-Diethylbenzene | 120 | | ug/kg | 1.8 | 0.16 | 1 |
| p-Ethyltoluene | 270 | | ug/kg | 1.8 | 0.35 | 1 |
| 1,2,4,5-Tetramethylbenzene | 46 | | ug/kg | 1.8 | 0.18 | 1 |
| Ethyl ether | ND | | ug/kg | 1.8 | 0.31 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 4.6 | 1.3 | 1 |
| Methyl cyclohexane | 32 | | ug/kg | 3.7 | 0.55 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 109 | | 70-130 |
| Toluene-d8 | 98 | | 70-130 |
| 4-Bromofluorobenzene | 104 | | 70-130 |
| Dibromofluoromethane | 103 | | 70-130 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2121742

**Project Number:** 135173-002 **Report Date:** 04/30/21

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/30/21 09:37
Analyst: MKS

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01 Batch: WG1492294-12 | | | | | |
| Methylene chloride | ND | | ug/kg | 5.0 | 2.3 |
| 1,1-Dichloroethane | ND | | ug/kg | 1.0 | 0.14 |
| Chloroform | ND | | ug/kg | 1.5 | 0.14 |
| Carbon tetrachloride | ND | | ug/kg | 1.0 | 0.23 |
| 1,2-Dichloropropane | ND | | ug/kg | 1.0 | 0.12 |
| Dibromochloromethane | ND | | ug/kg | 1.0 | 0.14 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 1.0 | 0.27 |
| Tetrachloroethene | ND | | ug/kg | 0.50 | 0.20 |
| Chlorobenzene | ND | | ug/kg | 0.50 | 0.13 |
| Trichlorofluoromethane | ND | | ug/kg | 4.0 | 0.70 |
| 1,2-Dichloroethane | ND | | ug/kg | 1.0 | 0.26 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 0.50 | 0.17 |
| Bromodichloromethane | ND | | ug/kg | 0.50 | 0.11 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 1.0 | 0.27 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 0.50 | 0.16 |
| 1,3-Dichloropropene, Total | ND | | ug/kg | 0.50 | 0.16 |
| 1,1-Dichloropropene | ND | | ug/kg | 0.50 | 0.16 |
| Bromoform | ND | | ug/kg | 4.0 | 0.25 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 0.50 | 0.17 |
| Benzene | ND | | ug/kg | 0.50 | 0.17 |
| Toluene | ND | | ug/kg | 1.0 | 0.54 |
| Ethylbenzene | ND | | ug/kg | 1.0 | 0.14 |
| Chloromethane | ND | | ug/kg | 4.0 | 0.93 |
| Bromomethane | ND | | ug/kg | 2.0 | 0.58 |
| Vinyl chloride | ND | | ug/kg | 1.0 | 0.34 |
| Chloroethane | ND | | ug/kg | 2.0 | 0.45 |
| 1,1-Dichloroethene | ND | | ug/kg | 1.0 | 0.24 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 1.5 | 0.14 |
| Trichloroethene | ND | | ug/kg | 0.50 | 0.14 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2121742

**Project Number:** 135173-002 **Report Date:** 04/30/21

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/30/21 09:37
Analyst: MKS

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01 Batch: WG1492294-12 | | | | | |
| 1,2-Dichlorobenzene | ND | | ug/kg | 2.0 | 0.14 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 2.0 | 0.15 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 2.0 | 0.17 |
| Methyl tert butyl ether | ND | | ug/kg | 2.0 | 0.20 |
| p/m-Xylene | ND | | ug/kg | 2.0 | 0.56 |
| o-Xylene | ND | | ug/kg | 1.0 | 0.29 |
| Xylenes, Total | ND | | ug/kg | 1.0 | 0.29 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 1.0 | 0.18 |
| 1,2-Dichloroethene, Total | ND | | ug/kg | 1.0 | 0.14 |
| Dibromomethane | ND | | ug/kg | 2.0 | 0.24 |
| Styrene | ND | | ug/kg | 1.0 | 0.20 |
| Dichlorodifluoromethane | ND | | ug/kg | 10 | 0.92 |
| Acetone | ND | | ug/kg | 10 | 4.8 |
| Carbon disulfide | ND | | ug/kg | 10 | 4.6 |
| 2-Butanone | ND | | ug/kg | 10 | 2.2 |
| Vinyl acetate | ND | | ug/kg | 10 | 2.2 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 10 | 1.3 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 2.0 | 0.13 |
| 2-Hexanone | ND | | ug/kg | 10 | 1.2 |
| Bromochloromethane | ND | | ug/kg | 2.0 | 0.20 |
| 2,2-Dichloropropane | ND | | ug/kg | 2.0 | 0.20 |
| 1,2-Dibromoethane | ND | | ug/kg | 1.0 | 0.28 |
| 1,3-Dichloropropane | ND | | ug/kg | 2.0 | 0.17 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 0.50 | 0.13 |
| Bromobenzene | ND | | ug/kg | 2.0 | 0.14 |
| n-Butylbenzene | ND | | ug/kg | 1.0 | 0.17 |
| sec-Butylbenzene | ND | | ug/kg | 1.0 | 0.15 |
| tert-Butylbenzene | ND | | ug/kg | 2.0 | 0.12 |
| o-Chlorotoluene | ND | | ug/kg | 2.0 | 0.19 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2121742

**Project Number:** 135173-002 **Report Date:** 04/30/21

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/30/21 09:37
Analyst: MKS

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01 Batch: WG1492294-12 | | | | | |
| p-Chlorotoluene | ND | | ug/kg | 2.0 | 0.11 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 3.0 | 1.0 |
| Hexachlorobutadiene | ND | | ug/kg | 4.0 | 0.17 |
| Isopropylbenzene | ND | | ug/kg | 1.0 | 0.11 |
| p-Isopropyltoluene | ND | | ug/kg | 1.0 | 0.11 |
| Naphthalene | ND | | ug/kg | 4.0 | 0.65 |
| Acrylonitrile | ND | | ug/kg | 4.0 | 1.2 |
| Tert-Butyl Alcohol | ND | | ug/kg | 20 | 5.1 |
| n-Propylbenzene | ND | | ug/kg | 1.0 | 0.17 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 2.0 | 0.32 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 2.0 | 0.27 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 2.0 | 0.19 |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 2.0 | 0.33 |
| Methyl Acetate | ND | | ug/kg | 4.0 | 0.95 |
| Acrolein | ND | | ug/kg | 25 | 5.6 |
| Cyclohexane | ND | | ug/kg | 10 | 0.54 |
| 1,4-Dioxane | ND | | ug/kg | 80 | 35. |
| Freon-113 | ND | | ug/kg | 4.0 | 0.69 |
| p-Diethylbenzene | ND | | ug/kg | 2.0 | 0.18 |
| p-Ethyltoluene | ND | | ug/kg | 2.0 | 0.38 |
| 1,2,4,5-Tetramethylbenzene | ND | | ug/kg | 2.0 | 0.19 |
| Ethyl ether | ND | | ug/kg | 2.0 | 0.34 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 5.0 | 1.4 |
| Methyl cyclohexane | ND | | ug/kg | 4.0 | 0.60 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2121742
**Report Date:** 04/30/21

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/30/21 09:37
Analyst: MKS

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01 Batch: WG1492294-12 | | | | | |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 96 | | 70-130 |
| Toluene-d8 | 95 | | 70-130 |
| 4-Bromofluorobenzene | 96 | | 70-130 |
| Dibromofluoromethane | 102 | | 70-130 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2121742

**Project Number:** 135173-002 **Report Date:** 04/30/21

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/29/21 07:49
Analyst: MV

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 01 Batch: WG1492871-5 | | | | | |
| Methylene chloride | ND | | ug/kg | 250 | 110 |
| 1,1-Dichloroethane | ND | | ug/kg | 50 | 7.2 |
| Chloroform | ND | | ug/kg | 75 | 7.0 |
| Carbon tetrachloride | ND | | ug/kg | 50 | 12. |
| 1,2-Dichloropropane | ND | | ug/kg | 50 | 6.2 |
| Dibromochloromethane | ND | | ug/kg | 50 | 7.0 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 50 | 13. |
| Tetrachloroethene | ND | | ug/kg | 25 | 9.8 |
| Chlorobenzene | ND | | ug/kg | 25 | 6.4 |
| Trichlorofluoromethane | ND | | ug/kg | 200 | 35. |
| 1,2-Dichloroethane | ND | | ug/kg | 50 | 13. |
| 1,1,1-Trichloroethane | ND | | ug/kg | 25 | 8.4 |
| Bromodichloromethane | ND | | ug/kg | 25 | 5.4 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 50 | 14. |
| cis-1,3-Dichloropropene | ND | | ug/kg | 25 | 7.9 |
| 1,3-Dichloropropene, Total | ND | | ug/kg | 25 | 7.9 |
| 1,1-Dichloropropene | ND | | ug/kg | 25 | 8.0 |
| Bromoform | ND | | ug/kg | 200 | 12. |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 25 | 8.3 |
| Benzene | ND | | ug/kg | 25 | 8.3 |
| Toluene | ND | | ug/kg | 50 | 27. |
| Ethylbenzene | ND | | ug/kg | 50 | 7.0 |
| Chloromethane | ND | | ug/kg | 200 | 47. |
| Bromomethane | ND | | ug/kg | 100 | 29. |
| Vinyl chloride | ND | | ug/kg | 50 | 17. |
| Chloroethane | ND | | ug/kg | 100 | 23. |
| 1,1-Dichloroethene | ND | | ug/kg | 50 | 12. |
| trans-1,2-Dichloroethene | ND | | ug/kg | 75 | 6.8 |
| Trichloroethene | ND | | ug/kg | 25 | 6.8 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2121742

**Project Number:** 135173-002 **Report Date:** 04/30/21

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/29/21 07:49
Analyst: MV

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 01 Batch: WG1492871-5 | | | | | |
| 1,2-Dichlorobenzene | ND | | ug/kg | 100 | 7.2 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 100 | 7.4 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 100 | 8.6 |
| Methyl tert butyl ether | ND | | ug/kg | 100 | 10. |
| p/m-Xylene | ND | | ug/kg | 100 | 28. |
| o-Xylene | ND | | ug/kg | 50 | 14. |
| Xylenes, Total | ND | | ug/kg | 50 | 14. |
| cis-1,2-Dichloroethene | ND | | ug/kg | 50 | 8.8 |
| 1,2-Dichloroethene, Total | ND | | ug/kg | 50 | 6.8 |
| Dibromomethane | ND | | ug/kg | 100 | 12. |
| Styrene | ND | | ug/kg | 50 | 9.8 |
| Dichlorodifluoromethane | ND | | ug/kg | 500 | 46. |
| Acetone | ND | | ug/kg | 500 | 240 |
| Carbon disulfide | ND | | ug/kg | 500 | 230 |
| 2-Butanone | ND | | ug/kg | 500 | 110 |
| Vinyl acetate | ND | | ug/kg | 500 | 110 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 500 | 64. |
| 1,2,3-Trichloropropane | ND | | ug/kg | 100 | 6.4 |
| 2-Hexanone | ND | | ug/kg | 500 | 59. |
| Bromochloromethane | ND | | ug/kg | 100 | 10. |
| 2,2-Dichloropropane | ND | | ug/kg | 100 | 10. |
| 1,2-Dibromoethane | ND | | ug/kg | 50 | 14. |
| 1,3-Dichloropropane | ND | | ug/kg | 100 | 8.4 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 25 | 6.6 |
| Bromobenzene | ND | | ug/kg | 100 | 7.2 |
| n-Butylbenzene | ND | | ug/kg | 50 | 8.4 |
| sec-Butylbenzene | ND | | ug/kg | 50 | 7.3 |
| tert-Butylbenzene | ND | | ug/kg | 100 | 5.9 |
| o-Chlorotoluene | ND | | ug/kg | 100 | 9.6 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2121742
**Report Date:** 04/30/21

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/29/21 07:49
Analyst: MV

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 01 Batch: WG1492871-5 | | | | | |
| p-Chlorotoluene | ND | | ug/kg | 100 | 5.4 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 150 | 50. |
| Hexachlorobutadiene | ND | | ug/kg | 200 | 8.4 |
| Isopropylbenzene | ND | | ug/kg | 50 | 5.4 |
| p-Isopropyltoluene | ND | | ug/kg | 50 | 5.4 |
| Naphthalene | ND | | ug/kg | 200 | 32. |
| Acrylonitrile | ND | | ug/kg | 200 | 58. |
| Tert-Butyl Alcohol | ND | | ug/kg | 1000 | 260 |
| n-Propylbenzene | ND | | ug/kg | 50 | 8.6 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 100 | 16. |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 100 | 14. |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 100 | 9.6 |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 100 | 17. |
| Methyl Acetate | ND | | ug/kg | 200 | 48. |
| Acrolein | ND | | ug/kg | 1200 | 280 |
| Cyclohexane | ND | | ug/kg | 500 | 27. |
| 1,4-Dioxane | ND | | ug/kg | 4000 | 1800 |
| Freon-113 | ND | | ug/kg | 200 | 35. |
| p-Diethylbenzene | ND | | ug/kg | 100 | 8.8 |
| p-Ethyltoluene | ND | | ug/kg | 100 | 19. |
| 1,2,4,5-Tetramethylbenzene | ND | | ug/kg | 100 | 9.6 |
| Ethyl ether | ND | | ug/kg | 100 | 17. |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 250 | 71. |
| Methyl cyclohexane | ND | | ug/kg | 200 | 30. |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2121742
**Report Date:** 04/30/21

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 04/29/21 07:49
Analyst: MV

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 01 Batch: WG1492871-5 | | | | | |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 112 | | 70-130 |
| Toluene-d8 | 100 | | 70-130 |
| 4-Bromofluorobenzene | 98 | | 70-130 |
| Dibromofluoromethane | 100 | | 70-130 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2121742
**Report Date:** 04/30/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01 Batch: WG1492294-10 WG1492294-11 | | | | | | | | |
| Methylene chloride | 92 | | 91 | | 70-130 | 1 | | 30 |
| 1,1-Dichloroethane | 91 | | 90 | | 70-130 | 1 | | 30 |
| Chloroform | 105 | | 104 | | 70-130 | 1 | | 30 |
| Carbon tetrachloride | 111 | | 110 | | 70-130 | 1 | | 30 |
| 1,2-Dichloropropane | 89 | | 88 | | 70-130 | 1 | | 30 |
| Dibromochloromethane | 96 | | 93 | | 70-130 | 3 | | 30 |
| 1,1,2-Trichloroethane | 92 | | 90 | | 70-130 | 2 | | 30 |
| Tetrachloroethene | 100 | | 95 | | 70-130 | 5 | | 30 |
| Chlorobenzene | 94 | | 91 | | 70-130 | 3 | | 30 |
| Trichlorofluoromethane | 102 | | 98 | | 70-139 | 4 | | 30 |
| 1,2-Dichloroethane | 98 | | 99 | | 70-130 | 1 | | 30 |
| 1,1,1-Trichloroethane | 111 | | 109 | | 70-130 | 2 | | 30 |
| Bromodichloromethane | 112 | | 110 | | 70-130 | 2 | | 30 |
| trans-1,3-Dichloropropene | 89 | | 87 | | 70-130 | 2 | | 30 |
| cis-1,3-Dichloropropene | 92 | | 90 | | 70-130 | 2 | | 30 |
| 1,1-Dichloropropene | 101 | | 99 | | 70-130 | 2 | | 30 |
| Bromoform | 93 | | 93 | | 70-130 | 0 | | 30 |
| 1,1,2,2-Tetrachloroethane | 89 | | 87 | | 70-130 | 2 | | 30 |
| Benzene | 100 | | 98 | | 70-130 | 2 | | 30 |
| Toluene | 92 | | 89 | | 70-130 | 3 | | 30 |
| Ethylbenzene | 94 | | 90 | | 70-130 | 4 | | 30 |
| Chloromethane | 74 | | 71 | | 52-130 | 4 | | 30 |
| Bromomethane | 101 | | 98 | | 57-147 | 3 | | 30 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2121742
**Report Date:** 04/30/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01 Batch: WG1492294-10 WG1492294-11 | | | | | | | | |
| Vinyl chloride | 90 | | 80 | | 67-130 | 12 | | 30 |
| Chloroethane | 95 | | 90 | | 50-151 | 5 | | 30 |
| 1,1-Dichloroethene | 106 | | 104 | | 65-135 | 2 | | 30 |
| trans-1,2-Dichloroethene | 106 | | 103 | | 70-130 | 3 | | 30 |
| Trichloroethene | 105 | | 103 | | 70-130 | 2 | | 30 |
| 1,2-Dichlorobenzene | 93 | | 93 | | 70-130 | 0 | | 30 |
| 1,3-Dichlorobenzene | 95 | | 93 | | 70-130 | 2 | | 30 |
| 1,4-Dichlorobenzene | 94 | | 93 | | 70-130 | 1 | | 30 |
| Methyl tert butyl ether | 103 | | 101 | | 66-130 | 2 | | 30 |
| p/m-Xylene | 96 | | 94 | | 70-130 | 2 | | 30 |
| o-Xylene | 95 | | 94 | | 70-130 | 1 | | 30 |
| cis-1,2-Dichloroethene | 107 | | 105 | | 70-130 | 2 | | 30 |
| Dibromomethane | 101 | | 101 | | 70-130 | 0 | | 30 |
| Styrene | 99 | | 96 | | 70-130 | 3 | | 30 |
| Dichlorodifluoromethane | 87 | | 84 | | 30-146 | 4 | | 30 |
| Acetone | 64 | | 64 | | 54-140 | 0 | | 30 |
| Carbon disulfide | 104 | | 100 | | 59-130 | 4 | | 30 |
| 2-Butanone | **64** | Q | **61** | Q | 70-130 | 5 | | 30 |
| Vinyl acetate | 78 | | 76 | | 70-130 | 3 | | 30 |
| 4-Methyl-2-pentanone | 75 | | 71 | | 70-130 | 5 | | 30 |
| 1,2,3-Trichloropropane | 85 | | 84 | | 68-130 | 1 | | 30 |
| 2-Hexanone | **65** | Q | **62** | Q | 70-130 | 5 | | 30 |
| Bromochloromethane | 115 | | 111 | | 70-130 | 4 | | 30 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2121742
**Report Date:** 04/30/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01 Batch: WG1492294-10 WG1492294-11 | | | | | | | | |
| 2,2-Dichloropropane | 109 | | 106 | | 70-130 | 3 | | 30 |
| 1,2-Dibromoethane | 90 | | 87 | | 70-130 | 3 | | 30 |
| 1,3-Dichloropropane | 90 | | 89 | | 69-130 | 1 | | 30 |
| 1,1,1,2-Tetrachloroethane | 94 | | 91 | | 70-130 | 3 | | 30 |
| Bromobenzene | 96 | | 95 | | 70-130 | 1 | | 30 |
| n-Butylbenzene | 88 | | 86 | | 70-130 | 2 | | 30 |
| sec-Butylbenzene | 89 | | 87 | | 70-130 | 2 | | 30 |
| tert-Butylbenzene | 93 | | 91 | | 70-130 | 2 | | 30 |
| o-Chlorotoluene | 92 | | 93 | | 70-130 | 1 | | 30 |
| p-Chlorotoluene | 93 | | 94 | | 70-130 | 1 | | 30 |
| 1,2-Dibromo-3-chloropropane | 81 | | 78 | | 68-130 | 4 | | 30 |
| Hexachlorobutadiene | 94 | | 92 | | 67-130 | 2 | | 30 |
| Isopropylbenzene | 93 | | 91 | | 70-130 | 2 | | 30 |
| p-Isopropyltoluene | 92 | | 90 | | 70-130 | 2 | | 30 |
| Naphthalene | 89 | | 88 | | 70-130 | 1 | | 30 |
| Acrylonitrile | 75 | | **68** | Q | 70-130 | 10 | | 30 |
| Tert-Butyl Alcohol | 89 | | 86 | | 70-130 | 3 | | 30 |
| n-Propylbenzene | 89 | | 88 | | 70-130 | 1 | | 30 |
| 1,2,3-Trichlorobenzene | 90 | | 88 | | 70-130 | 2 | | 30 |
| 1,2,4-Trichlorobenzene | 96 | | 94 | | 70-130 | 2 | | 30 |
| 1,3,5-Trimethylbenzene | 94 | | 93 | | 70-130 | 1 | | 30 |
| 1,2,4-Trimethylbenzene | 96 | | 95 | | 70-130 | 1 | | 30 |
| Methyl Acetate | 74 | | 71 | | 51-146 | 4 | | 30 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2121742

**Report Date:** 04/30/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01 Batch: WG1492294-10 WG1492294-11 | | | | | | | | |
| Acrolein | 76 | | 74 | | 70-130 | 3 | | 30 |
| Cyclohexane | 84 | | 82 | | 59-142 | 2 | | 30 |
| 1,4-Dioxane | 88 | | 87 | | 65-136 | 1 | | 30 |
| Freon-113 | 103 | | 98 | | 50-139 | 5 | | 30 |
| p-Diethylbenzene | 92 | | 90 | | 70-130 | 2 | | 30 |
| p-Ethyltoluene | 94 | | 92 | | 70-130 | 2 | | 30 |
| 1,2,4,5-Tetramethylbenzene | 93 | | 93 | | 70-130 | 0 | | 30 |
| Ethyl ether | 98 | | 94 | | 67-130 | 4 | | 30 |
| trans-1,4-Dichloro-2-butene | 77 | | 77 | | 70-130 | 0 | | 30 |
| Methyl cyclohexane | 96 | | 91 | | 70-130 | 5 | | 30 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 99 | | 100 | | 70-130 |
| Toluene-d8 | 96 | | 95 | | 70-130 |
| 4-Bromofluorobenzene | 98 | | 101 | | 70-130 |
| Dibromofluoromethane | 106 | | 106 | | 70-130 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2121742
**Report Date:** 04/30/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 01 Batch: WG1492871-3 WG1492871-4 | | | | | | | | |
| Methylene chloride | 84 | | 84 | | 70-130 | 0 | | 30 |
| 1,1-Dichloroethane | 101 | | 100 | | 70-130 | 1 | | 30 |
| Chloroform | 98 | | 94 | | 70-130 | 4 | | 30 |
| Carbon tetrachloride | 90 | | 89 | | 70-130 | 1 | | 30 |
| 1,2-Dichloropropane | 104 | | 105 | | 70-130 | 1 | | 30 |
| Dibromochloromethane | 86 | | 88 | | 70-130 | 2 | | 30 |
| 1,1,2-Trichloroethane | 99 | | 102 | | 70-130 | 3 | | 30 |
| Tetrachloroethene | 92 | | 89 | | 70-130 | 3 | | 30 |
| Chlorobenzene | 94 | | 93 | | 70-130 | 1 | | 30 |
| Trichlorofluoromethane | 103 | | 101 | | 70-139 | 2 | | 30 |
| 1,2-Dichloroethane | 101 | | 104 | | 70-130 | 3 | | 30 |
| 1,1,1-Trichloroethane | 94 | | 93 | | 70-130 | 1 | | 30 |
| Bromodichloromethane | 100 | | 102 | | 70-130 | 2 | | 30 |
| trans-1,3-Dichloropropene | 105 | | 106 | | 70-130 | 1 | | 30 |
| cis-1,3-Dichloropropene | 104 | | 103 | | 70-130 | 1 | | 30 |
| 1,1-Dichloropropene | 96 | | 95 | | 70-130 | 1 | | 30 |
| Bromoform | 87 | | 90 | | 70-130 | 3 | | 30 |
| 1,1,2,2-Tetrachloroethane | 103 | | 107 | | 70-130 | 4 | | 30 |
| Benzene | 97 | | 96 | | 70-130 | 1 | | 30 |
| Toluene | 82 | | 80 | | 70-130 | 2 | | 30 |
| Ethylbenzene | 94 | | 94 | | 70-130 | 0 | | 30 |
| Chloromethane | 98 | | 95 | | 52-130 | 3 | | 30 |
| Bromomethane | 109 | | 106 | | 57-147 | 3 | | 30 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2121742
**Report Date:** 04/30/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 01 Batch: WG1492871-3 WG1492871-4 | | | | | | | | |
| Vinyl chloride | 101 | | 97 | | 67-130 | 4 | | 30 |
| Chloroethane | 109 | | 106 | | 50-151 | 3 | | 30 |
| 1,1-Dichloroethene | 88 | | 88 | | 65-135 | 0 | | 30 |
| trans-1,2-Dichloroethene | 90 | | 89 | | 70-130 | 1 | | 30 |
| Trichloroethene | 97 | | 94 | | 70-130 | 3 | | 30 |
| 1,2-Dichlorobenzene | 93 | | 92 | | 70-130 | 1 | | 30 |
| 1,3-Dichlorobenzene | 92 | | 91 | | 70-130 | 1 | | 30 |
| 1,4-Dichlorobenzene | 92 | | 90 | | 70-130 | 2 | | 30 |
| Methyl tert butyl ether | 98 | | 102 | | 66-130 | 4 | | 30 |
| p/m-Xylene | 95 | | 95 | | 70-130 | 0 | | 30 |
| o-Xylene | 96 | | 96 | | 70-130 | 0 | | 30 |
| cis-1,2-Dichloroethene | 94 | | 93 | | 70-130 | 1 | | 30 |
| Dibromomethane | 96 | | 97 | | 70-130 | 1 | | 30 |
| Styrene | 100 | | 100 | | 70-130 | 0 | | 30 |
| Dichlorodifluoromethane | 69 | | 66 | | 30-146 | 4 | | 30 |
| Acetone | 119 | | 128 | | 54-140 | 7 | | 30 |
| Carbon disulfide | 84 | | 83 | | 59-130 | 1 | | 30 |
| 2-Butanone | 106 | | 116 | | 70-130 | 9 | | 30 |
| Vinyl acetate | 106 | | 112 | | 70-130 | 6 | | 30 |
| 4-Methyl-2-pentanone | 91 | | 98 | | 70-130 | 7 | | 30 |
| 1,2,3-Trichloropropane | 102 | | 105 | | 68-130 | 3 | | 30 |
| 2-Hexanone | 94 | | 104 | | 70-130 | 10 | | 30 |
| Bromochloromethane | 96 | | 96 | | 70-130 | 0 | | 30 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2121742
**Report Date:** 04/30/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 01 Batch: WG1492871-3 WG1492871-4 | | | | | | | | |
| 2,2-Dichloropropane | 94 | | 92 | | 70-130 | 2 | | 30 |
| 1,2-Dibromoethane | 104 | | 105 | | 70-130 | 1 | | 30 |
| 1,3-Dichloropropane | 101 | | 103 | | 69-130 | 2 | | 30 |
| 1,1,1,2-Tetrachloroethane | 101 | | 101 | | 70-130 | 0 | | 30 |
| Bromobenzene | 93 | | 91 | | 70-130 | 2 | | 30 |
| n-Butylbenzene | 97 | | 95 | | 70-130 | 2 | | 30 |
| sec-Butylbenzene | 94 | | 91 | | 70-130 | 3 | | 30 |
| tert-Butylbenzene | 92 | | 90 | | 70-130 | 2 | | 30 |
| o-Chlorotoluene | 96 | | 95 | | 70-130 | 1 | | 30 |
| p-Chlorotoluene | 96 | | 95 | | 70-130 | 1 | | 30 |
| 1,2-Dibromo-3-chloropropane | 79 | | 85 | | 68-130 | 7 | | 30 |
| Hexachlorobutadiene | 86 | | 83 | | 67-130 | 4 | | 30 |
| Isopropylbenzene | 96 | | 92 | | 70-130 | 4 | | 30 |
| p-Isopropyltoluene | 93 | | 90 | | 70-130 | 3 | | 30 |
| Naphthalene | 92 | | 94 | | 70-130 | 2 | | 30 |
| Acrylonitrile | 118 | | 124 | | 70-130 | 5 | | 30 |
| Tert-Butyl Alcohol | 100 | | 111 | | 70-130 | 10 | | 30 |
| n-Propylbenzene | 96 | | 94 | | 70-130 | 2 | | 30 |
| 1,2,3-Trichlorobenzene | 92 | | 91 | | 70-130 | 1 | | 30 |
| 1,2,4-Trichlorobenzene | 93 | | 92 | | 70-130 | 1 | | 30 |
| 1,3,5-Trimethylbenzene | 94 | | 92 | | 70-130 | 2 | | 30 |
| 1,2,4-Trimethylbenzene | 96 | | 93 | | 70-130 | 3 | | 30 |
| Methyl Acetate | 111 | | 123 | | 51-146 | 10 | | 30 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2121742

**Report Date:** 04/30/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 01 Batch: WG1492871-3 WG1492871-4 | | | | | | | | |
| Acrolein | 109 | | 120 | | 70-130 | 10 | | 30 |
| Cyclohexane | 97 | | 97 | | 59-142 | 0 | | 30 |
| 1,4-Dioxane | 83 | | 90 | | 65-136 | 8 | | 30 |
| Freon-113 | 90 | | 88 | | 50-139 | 2 | | 30 |
| p-Diethylbenzene | 93 | | 91 | | 70-130 | 2 | | 30 |
| p-Ethyltoluene | 95 | | 92 | | 70-130 | 3 | | 30 |
| 1,2,4,5-Tetramethylbenzene | 95 | | 94 | | 70-130 | 1 | | 30 |
| Ethyl ether | 111 | | 115 | | 67-130 | 4 | | 30 |
| trans-1,4-Dichloro-2-butene | 115 | | 118 | | 70-130 | 3 | | 30 |
| Methyl cyclohexane | 90 | | 88 | | 70-130 | 2 | | 30 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 103 | | 105 | | 70-130 |
| Toluene-d8 | 100 | | 100 | | 70-130 |
| 4-Bromofluorobenzene | 101 | | 101 | | 70-130 |
| Dibromofluoromethane | 98 | | 99 | | 70-130 |

# SEMIVOLATILES

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2121742
**Report Date:** 04/30/21

## SAMPLE RESULTS

Lab ID: L2121742-01
Client ID: WC-20210428
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 04/28/21 11:15
Date Received: 04/28/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 04/30/21 15:06
Analyst: WR
Percent Solids: 91%

Extraction Method: EPA 3546
Extraction Date: 04/29/21 21:23

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Acenaphthene | 21 | J | ug/kg | 140 | 18. | 1 |
| Benzidine | ND | | ug/kg | 590 | 190 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 180 | 20. | 1 |
| Hexachlorobenzene | ND | | ug/kg | 110 | 20. | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 160 | 24. | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 180 | 18. | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 180 | 47. | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 180 | 36. | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 180 | 30. | 1 |
| Azobenzene | ND | | ug/kg | 180 | 17. | 1 |
| Fluoranthene | 350 | | ug/kg | 110 | 20. | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 180 | 19. | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 180 | 27. | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 210 | 30. | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 190 | 18. | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 180 | 26. | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 510 | 160 | 1 |
| Hexachloroethane | ND | | ug/kg | 140 | 29. | 1 |
| Isophorone | ND | | ug/kg | 160 | 23. | 1 |
| Naphthalene | 43 | J | ug/kg | 180 | 22. | 1 |
| Nitrobenzene | ND | | ug/kg | 160 | 26. | 1 |
| NDPA/DPA | ND | | ug/kg | 140 | 20. | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 180 | 28. | 1 |
| Bis(2-ethylhexyl)phthalate | ND | | ug/kg | 180 | 62. | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 180 | 45. | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 180 | 34. | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 180 | 60. | 1 |
| Diethyl phthalate | ND | | ug/kg | 180 | 16. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2121742

**Project Number:** 135173-002 **Report Date:** 04/30/21

## SAMPLE RESULTS

Lab ID: L2121742-01 Date Collected: 04/28/21 11:15

Client ID: WC-20210428 Date Received: 04/28/21

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Dimethyl phthalate | ND | | ug/kg | 180 | 37. | 1 |
| Benzo(a)anthracene | 180 | | ug/kg | 110 | 20. | 1 |
| Benzo(a)pyrene | 150 | | ug/kg | 140 | 43. | 1 |
| Benzo(b)fluoranthene | 180 | | ug/kg | 110 | 30. | 1 |
| Benzo(k)fluoranthene | 63 | J | ug/kg | 110 | 28. | 1 |
| Chrysene | 160 | | ug/kg | 110 | 18. | 1 |
| Acenaphthylene | ND | | ug/kg | 140 | 28. | 1 |
| Anthracene | 80 | J | ug/kg | 110 | 35. | 1 |
| Benzo(ghi)perylene | 89 | J | ug/kg | 140 | 21. | 1 |
| Fluorene | 37 | J | ug/kg | 180 | 17. | 1 |
| Phenanthrene | 260 | | ug/kg | 110 | 22. | 1 |
| Dibenzo(a,h)anthracene | 23 | J | ug/kg | 110 | 20. | 1 |
| Indeno(1,2,3-cd)pyrene | 95 | J | ug/kg | 140 | 25. | 1 |
| Pyrene | 320 | | ug/kg | 110 | 18. | 1 |
| Biphenyl | ND | | ug/kg | 410 | 41. | 1 |
| 4-Chloroaniline | ND | | ug/kg | 180 | 32. | 1 |
| 2-Nitroaniline | ND | | ug/kg | 180 | 34. | 1 |
| 3-Nitroaniline | ND | | ug/kg | 180 | 34. | 1 |
| 4-Nitroaniline | ND | | ug/kg | 180 | 74. | 1 |
| Dibenzofuran | 17 | J | ug/kg | 180 | 17. | 1 |
| 2-Methylnaphthalene | 80 | J | ug/kg | 210 | 22. | 1 |
| 1,2,4,5-Tetrachlorobenzene | ND | | ug/kg | 180 | 19. | 1 |
| Acetophenone | ND | | ug/kg | 180 | 22. | 1 |
| n-Nitrosodimethylamine | ND | | ug/kg | 360 | 34. | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 110 | 34. | 1 |
| p-Chloro-m-cresol | ND | | ug/kg | 180 | 26. | 1 |
| 2-Chlorophenol | ND | | ug/kg | 180 | 21. | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 160 | 29. | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 180 | 59. | 1 |
| 2-Nitrophenol | ND | | ug/kg | 380 | 67. | 1 |
| 4-Nitrophenol | ND | | ug/kg | 250 | 73. | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 860 | 83. | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 460 | 86. | 1 |
| Pentachlorophenol | ND | | ug/kg | 140 | 39. | 1 |
| Phenol | ND | | ug/kg | 180 | 27. | 1 |
| 2-Methylphenol | ND | | ug/kg | 180 | 28. | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 260 | 28. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2121742

**Project Number:** 135173-002 **Report Date:** 04/30/21

## SAMPLE RESULTS

Lab ID: L2121742-01 Date Collected: 04/28/21 11:15

Client ID: WC-20210428 Date Received: 04/28/21

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 180 | 34. | 1 |
| Benzoic Acid | ND | | ug/kg | 580 | 180 | 1 |
| Benzyl Alcohol | ND | | ug/kg | 180 | 54. | 1 |
| Carbazole | 26 | J | ug/kg | 180 | 17. | 1 |
| Atrazine | ND | | ug/kg | 140 | 62. | 1 |
| Benzaldehyde | ND | | ug/kg | 240 | 48. | 1 |
| Caprolactam | ND | | ug/kg | 180 | 54. | 1 |
| 2,3,4,6-Tetrachlorophenol | ND | | ug/kg | 180 | 36. | 1 |
| 1,4-Dioxane | ND | | ug/kg | 27 | 8.2 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 94 | | 25-120 |
| Phenol-d6 | 98 | | 10-120 |
| Nitrobenzene-d5 | 107 | | 23-120 |
| 2-Fluorobiphenyl | 83 | | 30-120 |
| 2,4,6-Tribromophenol | 112 | | 10-136 |
| 4-Terphenyl-d14 | 63 | | 18-120 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2121742
**Report Date:** 04/30/21

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 04/30/21 09:02
Analyst: IM

Extraction Method: EPA 3546
Extraction Date: 04/29/21 18:56

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1492525-1 | | | | | |
| Acenaphthene | ND | | ug/kg | 130 | 17. |
| Benzidine | ND | | ug/kg | 530 | 180 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 160 | 18. |
| Hexachlorobenzene | ND | | ug/kg | 97 | 18. |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 140 | 22. |
| 2-Chloronaphthalene | ND | | ug/kg | 160 | 16. |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 160 | 43. |
| 2,4-Dinitrotoluene | ND | | ug/kg | 160 | 32. |
| 2,6-Dinitrotoluene | ND | | ug/kg | 160 | 28. |
| Azobenzene | ND | | ug/kg | 160 | 16. |
| Fluoranthene | ND | | ug/kg | 97 | 18. |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 160 | 17. |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 160 | 25. |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 190 | 28. |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 170 | 16. |
| Hexachlorobutadiene | ND | | ug/kg | 160 | 24. |
| Hexachlorocyclopentadiene | ND | | ug/kg | 460 | 150 |
| Hexachloroethane | ND | | ug/kg | 130 | 26. |
| Isophorone | ND | | ug/kg | 140 | 21. |
| Naphthalene | ND | | ug/kg | 160 | 20. |
| Nitrobenzene | ND | | ug/kg | 140 | 24. |
| NDPA/DPA | ND | | ug/kg | 130 | 18. |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 160 | 25. |
| Bis(2-ethylhexyl)phthalate | ND | | ug/kg | 160 | 56. |
| Butyl benzyl phthalate | ND | | ug/kg | 160 | 41. |
| Di-n-butylphthalate | ND | | ug/kg | 160 | 31. |
| Di-n-octylphthalate | ND | | ug/kg | 160 | 55. |
| Diethyl phthalate | ND | | ug/kg | 160 | 15. |
| Dimethyl phthalate | ND | | ug/kg | 160 | 34. |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2121742
**Report Date:** 04/30/21

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 04/30/21 09:02
Analyst: IM

Extraction Method: EPA 3546
Extraction Date: 04/29/21 18:56

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1492525-1 | | | | | |
| Benzo(a)anthracene | ND | | ug/kg | 97 | 18. |
| Benzo(a)pyrene | ND | | ug/kg | 130 | 39. |
| Benzo(b)fluoranthene | ND | | ug/kg | 97 | 27. |
| Benzo(k)fluoranthene | ND | | ug/kg | 97 | 26. |
| Chrysene | ND | | ug/kg | 97 | 17. |
| Acenaphthylene | ND | | ug/kg | 130 | 25. |
| Anthracene | ND | | ug/kg | 97 | 32. |
| Benzo(ghi)perylene | ND | | ug/kg | 130 | 19. |
| Fluorene | ND | | ug/kg | 160 | 16. |
| Phenanthrene | ND | | ug/kg | 97 | 20. |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 97 | 19. |
| Indeno(1,2,3-cd)pyrene | ND | | ug/kg | 130 | 22. |
| Pyrene | ND | | ug/kg | 97 | 16. |
| Biphenyl | ND | | ug/kg | 370 | 38. |
| 4-Chloroaniline | ND | | ug/kg | 160 | 29. |
| 2-Nitroaniline | ND | | ug/kg | 160 | 31. |
| 3-Nitroaniline | ND | | ug/kg | 160 | 30. |
| 4-Nitroaniline | ND | | ug/kg | 160 | 67. |
| Dibenzofuran | ND | | ug/kg | 160 | 15. |
| 2-Methylnaphthalene | ND | | ug/kg | 190 | 20. |
| 1,2,4,5-Tetrachlorobenzene | ND | | ug/kg | 160 | 17. |
| Acetophenone | ND | | ug/kg | 160 | 20. |
| n-Nitrosodimethylamine | ND | | ug/kg | 320 | 31. |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 97 | 31. |
| p-Chloro-m-cresol | ND | | ug/kg | 160 | 24. |
| 2-Chlorophenol | ND | | ug/kg | 160 | 19. |
| 2,4-Dichlorophenol | ND | | ug/kg | 140 | 26. |
| 2,4-Dimethylphenol | ND | | ug/kg | 160 | 53. |
| 2-Nitrophenol | ND | | ug/kg | 350 | 61. |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2121742
**Report Date:** 04/30/21

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 04/30/21 09:02
Analyst: IM

Extraction Method: EPA 3546
Extraction Date: 04/29/21 18:56

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1492525-1 | | | | | |
| 4-Nitrophenol | ND | | ug/kg | 230 | 66. |
| 2,4-Dinitrophenol | ND | | ug/kg | 780 | 75. |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 420 | 78. |
| Pentachlorophenol | ND | | ug/kg | 130 | 36. |
| Phenol | ND | | ug/kg | 160 | 24. |
| 2-Methylphenol | ND | | ug/kg | 160 | 25. |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 230 | 25. |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 160 | 31. |
| Benzoic Acid | ND | | ug/kg | 520 | 160 |
| Benzyl Alcohol | ND | | ug/kg | 160 | 49. |
| Carbazole | ND | | ug/kg | 160 | 16. |
| Atrazine | ND | | ug/kg | 130 | 57. |
| Benzaldehyde | ND | | ug/kg | 210 | 44. |
| Caprolactam | ND | | ug/kg | 160 | 49. |
| 2,3,4,6-Tetrachlorophenol | ND | | ug/kg | 160 | 33. |
| 1,4-Dioxane | ND | | ug/kg | 24 | 7.4 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 80 | | 25-120 |
| Phenol-d6 | 78 | | 10-120 |
| Nitrobenzene-d5 | 79 | | 23-120 |
| 2-Fluorobiphenyl | 79 | | 30-120 |
| 2,4,6-Tribromophenol | 92 | | 10-136 |
| 4-Terphenyl-d14 | 85 | | 18-120 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2121742
**Report Date:** 04/30/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1492525-2 WG1492525-3 | | | | | | | | |
| Acenaphthene | 71 | | 72 | | 31-137 | 1 | | 50 |
| Benzidine | 38 | | 35 | | 10-66 | 8 | | 50 |
| 1,2,4-Trichlorobenzene | 66 | | 73 | | 38-107 | 10 | | 50 |
| Hexachlorobenzene | 74 | | 74 | | 40-140 | 0 | | 50 |
| Bis(2-chloroethyl)ether | 61 | | 69 | | 40-140 | 12 | | 50 |
| 2-Chloronaphthalene | 67 | | 69 | | 40-140 | 3 | | 50 |
| 3,3'-Dichlorobenzidine | 71 | | 65 | | 40-140 | 9 | | 50 |
| 2,4-Dinitrotoluene | 80 | | 79 | | 40-132 | 1 | | 50 |
| 2,6-Dinitrotoluene | 85 | | 84 | | 40-140 | 1 | | 50 |
| Azobenzene | 70 | | 69 | | 40-140 | 1 | | 50 |
| Fluoranthene | 74 | | 71 | | 40-140 | 4 | | 50 |
| 4-Chlorophenyl phenyl ether | 74 | | 72 | | 40-140 | 3 | | 50 |
| 4-Bromophenyl phenyl ether | 75 | | 72 | | 40-140 | 4 | | 50 |
| Bis(2-chloroisopropyl)ether | 55 | | 61 | | 40-140 | 10 | | 50 |
| Bis(2-chloroethoxy)methane | 65 | | 68 | | 40-117 | 5 | | 50 |
| Hexachlorobutadiene | 61 | | 67 | | 40-140 | 9 | | 50 |
| Hexachlorocyclopentadiene | 67 | | 73 | | 40-140 | 9 | | 50 |
| Hexachloroethane | 61 | | 70 | | 40-140 | 14 | | 50 |
| Isophorone | 64 | | 66 | | 40-140 | 3 | | 50 |
| Naphthalene | 62 | | 67 | | 40-140 | 8 | | 50 |
| Nitrobenzene | 68 | | 74 | | 40-140 | 8 | | 50 |
| NDPA/DPA | 74 | | 73 | | 36-157 | 1 | | 50 |
| n-Nitrosodi-n-propylamine | 65 | | 68 | | 32-121 | 5 | | 50 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2121742

**Report Date:** 04/30/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1492525-2 WG1492525-3 | | | | | | | | |
| Bis(2-ethylhexyl)phthalate | 80 | | 78 | | 40-140 | 3 | | 50 |
| Butyl benzyl phthalate | 83 | | 81 | | 40-140 | 2 | | 50 |
| Di-n-butylphthalate | 77 | | 76 | | 40-140 | 1 | | 50 |
| Di-n-octylphthalate | 80 | | 78 | | 40-140 | 3 | | 50 |
| Diethyl phthalate | 73 | | 73 | | 40-140 | 0 | | 50 |
| Dimethyl phthalate | 74 | | 74 | | 40-140 | 0 | | 50 |
| Benzo(a)anthracene | 72 | | 70 | | 40-140 | 3 | | 50 |
| Benzo(a)pyrene | 74 | | 71 | | 40-140 | 4 | | 50 |
| Benzo(b)fluoranthene | 76 | | 69 | | 40-140 | 10 | | 50 |
| Benzo(k)fluoranthene | 70 | | 73 | | 40-140 | 4 | | 50 |
| Chrysene | 71 | | 70 | | 40-140 | 1 | | 50 |
| Acenaphthylene | 68 | | 68 | | 40-140 | 0 | | 50 |
| Anthracene | 75 | | 74 | | 40-140 | 1 | | 50 |
| Benzo(ghi)perylene | 75 | | 75 | | 40-140 | 0 | | 50 |
| Fluorene | 73 | | 72 | | 40-140 | 1 | | 50 |
| Phenanthrene | 73 | | 72 | | 40-140 | 1 | | 50 |
| Dibenzo(a,h)anthracene | 76 | | 75 | | 40-140 | 1 | | 50 |
| Indeno(1,2,3-cd)pyrene | 75 | | 75 | | 40-140 | 0 | | 50 |
| Pyrene | 74 | | 73 | | 35-142 | 1 | | 50 |
| Biphenyl | 69 | | 70 | | 37-127 | 1 | | 50 |
| 4-Chloroaniline | 54 | | 50 | | 40-140 | 8 | | 50 |
| 2-Nitroaniline | 88 | | 87 | | 47-134 | 1 | | 50 |
| 3-Nitroaniline | 75 | | 72 | | 26-129 | 4 | | 50 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2121742

**Report Date:** 04/30/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1492525-2 WG1492525-3 | | | | | | | | |
| 4-Nitroaniline | 77 | | 76 | | 41-125 | 1 | | 50 |
| Dibenzofuran | 72 | | 72 | | 40-140 | 0 | | 50 |
| 2-Methylnaphthalene | 64 | | 68 | | 40-140 | 6 | | 50 |
| 1,2,4,5-Tetrachlorobenzene | 65 | | 70 | | 40-117 | 7 | | 50 |
| Acetophenone | 64 | | 69 | | 14-144 | 8 | | 50 |
| n-Nitrosodimethylamine | 55 | | 63 | | 22-100 | 14 | | 50 |
| 2,4,6-Trichlorophenol | 79 | | 80 | | 30-130 | 1 | | 50 |
| p-Chloro-m-cresol | 77 | | 76 | | 26-103 | 1 | | 50 |
| 2-Chlorophenol | 68 | | 76 | | 25-102 | 11 | | 50 |
| 2,4-Dichlorophenol | 79 | | 84 | | 30-130 | 6 | | 50 |
| 2,4-Dimethylphenol | 76 | | 78 | | 30-130 | 3 | | 50 |
| 2-Nitrophenol | 92 | | 99 | | 30-130 | 7 | | 50 |
| 4-Nitrophenol | 80 | | 81 | | 11-114 | 1 | | 50 |
| 2,4-Dinitrophenol | 86 | | 90 | | 4-130 | 5 | | 50 |
| 4,6-Dinitro-o-cresol | 94 | | 98 | | 10-130 | 4 | | 50 |
| Pentachlorophenol | 79 | | 81 | | 17-109 | 3 | | 50 |
| Phenol | 68 | | 73 | | 26-90 | 7 | | 50 |
| 2-Methylphenol | 72 | | 79 | | 30-130. | 9 | | 50 |
| 3-Methylphenol/4-Methylphenol | 75 | | 78 | | 30-130 | 4 | | 50 |
| 2,4,5-Trichlorophenol | 81 | | 81 | | 30-130 | 0 | | 50 |
| Benzoic Acid | 44 | | 52 | | 10-110 | 17 | | 50 |
| Benzyl Alcohol | 70 | | 74 | | 40-140 | 6 | | 50 |
| Carbazole | 73 | | 72 | | 54-128 | 1 | | 50 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2121742

**Report Date:** 04/30/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1492525-2 WG1492525-3 | | | | | | | | |
| Atrazine | 80 | | 81 | | 40-140 | 1 | | 50 |
| Benzaldehyde | 61 | | 68 | | 40-140 | 11 | | 50 |
| Caprolactam | 79 | | 78 | | 15-130 | 1 | | 50 |
| 2,3,4,6-Tetrachlorophenol | 82 | | 82 | | 40-140 | 0 | | 50 |
| 1,4-Dioxane | 49 | | 56 | | 40-140 | 13 | | 50 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| 2-Fluorophenol | 66 | | 74 | | 25-120 |
| Phenol-d6 | 69 | | 75 | | 10-120 |
| Nitrobenzene-d5 | 69 | | 75 | | 23-120 |
| 2-Fluorobiphenyl | 69 | | 71 | | 30-120 |
| 2,4,6-Tribromophenol | 88 | | 88 | | 10-136 |
| 4-Terphenyl-d14 | 77 | | 76 | | 18-120 |

# PETROLEUM HYDROCARBONS

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2121742
**Project Number:** 135173-002
**Report Date:** 04/30/21

## SAMPLE RESULTS

Lab ID: L2121742-01
Client ID: WC-20210428
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 04/28/21 11:15
Date Received: 04/28/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 103,NJDEP EPH
Analytical Date: 04/29/21 13:43
Analyst: MEO
Percent Solids: 91%

Extraction Method: EPA 3546
Extraction Date: 04/29/21 03:22

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab | | | | | | |
| Total EPH | ND | | mg/kg | 26.1 | 26.1 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Chloro-Octadecane | 65 | | 40-140 |
| o-Terphenyl | 64 | | 40-140 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2121742
**Report Date:** 04/30/21

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 103,NJDEP EPH
Analytical Date: 04/29/21 07:45
Analyst: MEO

Extraction Method: EPA 3546
Extraction Date: 04/28/21 14:35

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab for sample(s): 01 Batch: WG1491943-1 | | | | | |
| Total EPH | ND | | mg/kg | 23.9 | 23.9 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Chloro-Octadecane | 57 | | 40-140 |
| o-Terphenyl | 56 | | 40-140 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2121742

**Report Date:** 04/30/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab Associated sample(s): 01 Batch: WG1491943-2 WG1491943-3 | | | | | | | | |
| Total EPH | 69 | | 71 | | 40-140 | 3 | | 25 |
| Nonane (C9) | 55 | | 56 | | 40-140 | 2 | | 25 |
| Decane (C10) | 54 | | 56 | | 40-140 | 4 | | 25 |
| Dodecane (C12) | 55 | | 56 | | 40-140 | 2 | | 25 |
| Tetradecane (C14) | 56 | | 56 | | 40-140 | 0 | | 25 |
| Hexadecane (C16) | 60 | | 63 | | 40-140 | 5 | | 25 |
| Octadecane (C18) | 63 | | 67 | | 40-140 | 6 | | 25 |
| Eicosane (C20) | 64 | | 68 | | 40-140 | 6 | | 25 |
| Heneicosane (C21) | 63 | | 67 | | 40-140 | 6 | | 25 |
| Docosane (C22) | 64 | | 67 | | 40-140 | 5 | | 25 |
| Tetracosane (C24) | 63 | | 67 | | 40-140 | 6 | | 25 |
| Hexacosane (C26) | 64 | | 67 | | 40-140 | 5 | | 25 |
| Octacosane (C28) | 66 | | 69 | | 40-140 | 4 | | 25 |
| Triacontane (C30) | 63 | | 67 | | 40-140 | 6 | | 25 |
| Dotriacontane (C32) | 65 | | 68 | | 40-140 | 5 | | 25 |
| Tetratriacontane (C34) | 62 | | 64 | | 40-140 | 3 | | 25 |
| Hexatriacontane (C36) | 63 | | 64 | | 40-140 | 2 | | 25 |
| Octatriacontane (C38) | 62 | | 62 | | 40-140 | 0 | | 25 |
| Tetracontane (C40) | 62 | | 59 | | 40-140 | 5 | | 25 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2121742
**Report Date:** 04/30/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab Associated sample(s): 01 Batch: WG1491943-2 WG1491943-3 | | | | | | | | |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| Chloro-Octadecane | 62 | | 66 | | 40-140 |
| o-Terphenyl | 62 | | 65 | | 40-140 |

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2121742

**Report Date:** 04/30/21

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1491943-4 QC Sample: L2119384-01 Client ID: MS Sample | | | | | | | | | | | | |
| Total EPH | 273 | 274 | 515 | 88 | | - | - | | 40-140 | - | | 50 |
| Nonane (C9) | ND | 7.62 | 4.86 | 64 | | - | - | | 40-140 | - | | 50 |
| Decane (C10) | ND | 7.62 | 4.86 | 64 | | - | - | | 40-140 | - | | 50 |
| Dodecane (C12) | ND | 7.62 | 5.30 | 70 | | - | - | | 40-140 | - | | 50 |
| Tetradecane (C14) | ND | 7.62 | 5.45 | 72 | | - | - | | 40-140 | - | | 50 |
| Hexadecane (C16) | ND | 7.62 | 5.87 | 77 | | - | - | | 40-140 | - | | 50 |
| Octadecane (C18) | ND | 7.62 | 5.64 | 74 | | - | - | | 40-140 | - | | 50 |
| Eicosane (C20) | ND | 7.62 | 5.31 | 70 | | - | - | | 40-140 | - | | 50 |
| Heneicosane (C21) | ND | 7.62 | 5.18 | 68 | | - | - | | 40-140 | - | | 50 |
| Docosane (C22) | ND | 7.62 | 5.86 | 77 | | - | - | | 40-140 | - | | 50 |
| Tetracosane (C24) | ND | 7.62 | 5.16 | 68 | | - | - | | 40-140 | - | | 50 |
| Hexacosane (C26) | ND | 7.62 | 5.35 | 70 | | - | - | | 40-140 | - | | 50 |
| Octacosane (C28) | ND | 7.62 | 5.84 | 77 | | - | - | | 40-140 | - | | 50 |
| Triacontane (C30) | ND | 7.62 | 5.70 | 75 | | - | - | | 40-140 | - | | 50 |
| Dotriacontane (C32) | ND | 7.62 | 5.33 | 70 | | - | - | | 40-140 | - | | 50 |
| Tetratriacontane (C34) | ND | 7.62 | 5.08 | 67 | | - | - | | 40-140 | - | | 50 |
| Hexatriacontane (C36) | ND | 7.62 | 5.56 | 73 | | - | - | | 40-140 | - | | 50 |
| Octatriacontane (C38) | ND | 7.62 | 4.86 | 64 | | - | - | | 40-140 | - | | 50 |
| Tetracontane (C40) | ND | 7.62 | 4.95 | 65 | | - | - | | 40-140 | - | | 50 |

| Surrogate | MS % Recovery | MS Qualifier | MSD % Recovery | MSD Qualifier | Acceptance Criteria |
|---|---|---|---|---|---|
| Chloro-Octadecane | 71 | | | | 40-140 |

# Matrix Spike Analysis

***Batch Quality Control***

***Project Name:*** 310 GRAND CONCOURSE

***Project Number:*** 135173-002

***Lab Number:*** L2121742

***Report Date:*** 04/30/21

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab MS Sample | Associated sample(s): 01 | | | | | QC Batch ID: WG1491943-4 | | | QC Sample: L2119384-01 | | | Client ID: |

| Surrogate | MS % Recovery | MS Qualifier | MSD % Recovery | MSD Qualifier | Acceptance Criteria |
|---|---|---|---|---|---|
| o-Terphenyl | 65 | | | | 40-140 |

# Lab Duplicate Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2121742
**Report Date:** 04/30/21

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1491943-5 QC Sample: L2119384-01 Client ID: DUP Sample | | | | | | |
| Total EPH | 273 | 281 | mg/kg | 3 | | 50 |

| Surrogate | %Recovery | Qualifier | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|---|---|
| Chloro-Octadecane | 70 | | 72 | | 40-140 |
| o-Terphenyl | 67 | | 68 | | 40-140 |

# PCBS

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2121742
**Report Date:** 04/30/21

## SAMPLE RESULTS

Lab ID: L2121742-01
Client ID: WC-20210428
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 04/28/21 11:15
Date Received: 04/28/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 04/30/21 14:42
Analyst: JM
Percent Solids: 91%

Extraction Method: EPA 3546
Extraction Date: 04/29/21 21:41
Cleanup Method: EPA 3665A
Cleanup Date: 04/30/21
Cleanup Method: EPA 3660B
Cleanup Date: 04/30/21

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Polychlorinated Biphenyls by GC - Westborough Lab** | | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 35.3 | 3.13 | 1 | A |
| Aroclor 1221 | ND | | ug/kg | 35.3 | 3.54 | 1 | A |
| Aroclor 1232 | ND | | ug/kg | 35.3 | 7.48 | 1 | A |
| Aroclor 1242 | ND | | ug/kg | 35.3 | 4.76 | 1 | A |
| Aroclor 1248 | ND | | ug/kg | 35.3 | 5.29 | 1 | A |
| Aroclor 1254 | ND | | ug/kg | 35.3 | 3.86 | 1 | A |
| Aroclor 1260 | ND | | ug/kg | 35.3 | 6.52 | 1 | A |
| Aroclor 1262 | ND | | ug/kg | 35.3 | 4.48 | 1 | A |
| Aroclor 1268 | ND | | ug/kg | 35.3 | 3.66 | 1 | A |
| PCBs, Total | ND | | ug/kg | 35.3 | 3.13 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 75 | | 30-150 | A |
| Decachlorobiphenyl | 61 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 81 | | 30-150 | B |
| Decachlorobiphenyl | 68 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2121742
**Report Date:** 04/30/21

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 04/30/21 13:05
Analyst: JM

Extraction Method: EPA 3546
Extraction Date: 04/29/21 21:41
Cleanup Method: EPA 3665A
Cleanup Date: 04/30/21
Cleanup Method: EPA 3660B
Cleanup Date: 04/30/21

| Parameter | Result | Qualifier | Units | RL | MDL | Column |
|---|---|---|---|---|---|---|
| Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG1492580-1 | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 32.3 | 2.87 | A |
| Aroclor 1221 | ND | | ug/kg | 32.3 | 3.24 | A |
| Aroclor 1232 | ND | | ug/kg | 32.3 | 6.85 | A |
| Aroclor 1242 | ND | | ug/kg | 32.3 | 4.36 | A |
| Aroclor 1248 | ND | | ug/kg | 32.3 | 4.85 | A |
| Aroclor 1254 | ND | | ug/kg | 32.3 | 3.54 | A |
| Aroclor 1260 | ND | | ug/kg | 32.3 | 5.97 | A |
| Aroclor 1262 | ND | | ug/kg | 32.3 | 4.10 | A |
| Aroclor 1268 | ND | | ug/kg | 32.3 | 3.35 | A |
| PCBs, Total | ND | | ug/kg | 32.3 | 2.87 | A |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 90 | | 30-150 | A |
| Decachlorobiphenyl | 72 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 98 | | 30-150 | B |
| Decachlorobiphenyl | 81 | | 30-150 | B |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2121742

**Report Date:** 04/30/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits | Column |
|---|---|---|---|---|---|---|---|---|---|
| Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG1492580-2 WG1492580-3 | | | | | | | | | |
| Aroclor 1016 | 80 | | 85 | | 40-140 | 6 | | 50 | A |
| Aroclor 1260 | 74 | | 79 | | 40-140 | 7 | | 50 | A |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria | Column |
|---|---|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 78 | | 81 | | 30-150 | A |
| Decachlorobiphenyl | 60 | | 64 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 83 | | 86 | | 30-150 | B |
| Decachlorobiphenyl | 64 | | 66 | | 30-150 | B |

# PESTICIDES

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2121742
**Report Date:** 04/30/21

## SAMPLE RESULTS

Lab ID: L2121742-01
Client ID: WC-20210428
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 04/28/21 11:15
Date Received: 04/28/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 04/30/21 14:40
Analyst: JWL
Percent Solids: 91%

Extraction Method: EPA 3546
Extraction Date: 04/29/21 21:32
Cleanup Method: EPA 3620B
Cleanup Date: 04/30/21

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Organochlorine Pesticides by GC - Westborough Lab** | | | | | | | |
| Delta-BHC | ND | | ug/kg | 1.70 | 0.334 | 1 | B |
| Lindane | ND | | ug/kg | 0.711 | 0.318 | 1 | B |
| Alpha-BHC | ND | | ug/kg | 0.711 | 0.202 | 1 | B |
| Beta-BHC | ND | | ug/kg | 1.70 | 0.647 | 1 | B |
| Heptachlor | ND | | ug/kg | 0.853 | 0.382 | 1 | B |
| Aldrin | ND | | ug/kg | 1.70 | 0.600 | 1 | B |
| Heptachlor epoxide | ND | | ug/kg | 3.20 | 0.959 | 1 | B |
| Endrin | ND | | ug/kg | 0.711 | 0.291 | 1 | B |
| Endrin aldehyde | ND | | ug/kg | 2.13 | 0.746 | 1 | B |
| Endrin ketone | ND | | ug/kg | 1.70 | 0.439 | 1 | B |
| Dieldrin | ND | | ug/kg | 1.06 | 0.533 | 1 | B |
| 4,4'-DDE | ND | | ug/kg | 1.70 | 0.394 | 1 | B |
| 4,4'-DDD | ND | | ug/kg | 1.70 | 0.608 | 1 | B |
| 4,4'-DDT | ND | | ug/kg | 3.20 | 1.37 | 1 | B |
| Endosulfan I | ND | | ug/kg | 1.70 | 0.403 | 1 | B |
| Endosulfan II | ND | | ug/kg | 1.70 | 0.570 | 1 | B |
| Endosulfan sulfate | ND | | ug/kg | 0.711 | 0.338 | 1 | B |
| Methoxychlor | ND | | ug/kg | 3.20 | 0.995 | 1 | B |
| Toxaphene | ND | | ug/kg | 32.0 | 8.95 | 1 | B |
| cis-Chlordane | ND | | ug/kg | 2.13 | 0.594 | 1 | B |
| trans-Chlordane | ND | | ug/kg | 2.13 | 0.563 | 1 | B |
| Chlordane | ND | | ug/kg | 14.2 | 5.65 | 1 | B |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2121742

**Project Number:** 135173-002 **Report Date:** 04/30/21

## SAMPLE RESULTS

Lab ID: L2121742-01 Date Collected: 04/28/21 11:15

Client ID: WC-20210428 Date Received: 04/28/21

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab | | | | | | | |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 41 | | 30-150 | A |
| Decachlorobiphenyl | 30 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 76 | | 30-150 | B |
| Decachlorobiphenyl | 70 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2121742
**Report Date:** 04/30/21

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 04/30/21 14:07
Analyst: JWL

Extraction Method: EPA 3546
Extraction Date: 04/29/21 21:32
Cleanup Method: EPA 3620B
Cleanup Date: 04/30/21

| Parameter | Result | Qualifier | Units | RL | MDL | Column |
|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01 Batch: WG1492554-1 | | | | | | |
| Delta-BHC | ND | | ug/kg | 1.50 | 0.294 | A |
| Lindane | ND | | ug/kg | 0.626 | 0.280 | A |
| Alpha-BHC | ND | | ug/kg | 0.626 | 0.178 | A |
| Beta-BHC | ND | | ug/kg | 1.50 | 0.570 | A |
| Heptachlor | ND | | ug/kg | 0.752 | 0.337 | A |
| Aldrin | ND | | ug/kg | 1.50 | 0.529 | A |
| Heptachlor epoxide | ND | | ug/kg | 2.82 | 0.846 | A |
| Endrin | ND | | ug/kg | 0.626 | 0.257 | A |
| Endrin aldehyde | ND | | ug/kg | 1.88 | 0.658 | A |
| Endrin ketone | ND | | ug/kg | 1.50 | 0.387 | A |
| Dieldrin | ND | | ug/kg | 0.940 | 0.470 | A |
| 4,4'-DDE | ND | | ug/kg | 1.50 | 0.348 | A |
| 4,4'-DDD | ND | | ug/kg | 1.50 | 0.536 | A |
| 4,4'-DDT | ND | | ug/kg | 2.82 | 1.21 | A |
| Endosulfan I | ND | | ug/kg | 1.50 | 0.355 | A |
| Endosulfan II | ND | | ug/kg | 1.50 | 0.502 | A |
| Endosulfan sulfate | ND | | ug/kg | 0.626 | 0.298 | A |
| Methoxychlor | ND | | ug/kg | 2.82 | 0.877 | A |
| Toxaphene | ND | | ug/kg | 28.2 | 7.89 | A |
| cis-Chlordane | ND | | ug/kg | 1.88 | 0.524 | A |
| trans-Chlordane | ND | | ug/kg | 1.88 | 0.496 | A |
| Chlordane | ND | | ug/kg | 12.5 | 4.98 | A |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2121742
**Report Date:** 04/30/21

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 04/30/21 14:07
Analyst: JWL

Extraction Method: EPA 3546
Extraction Date: 04/29/21 21:32
Cleanup Method: EPA 3620B
Cleanup Date: 04/30/21

| Parameter | Result | Qualifier | Units | RL | MDL | Column |
|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01 Batch: WG1492554-1 | | | | | | |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 64 | | 30-150 | A |
| Decachlorobiphenyl | 54 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 67 | | 30-150 | B |
| Decachlorobiphenyl | 64 | | 30-150 | B |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2121742

**Report Date:** 04/30/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits | Column |
|---|---|---|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01 Batch: WG1492554-2 WG1492554-3 | | | | | | | | | |
| Delta-BHC | 82 | | 77 | | 30-150 | 6 | | 30 | A |
| Lindane | 81 | | 76 | | 30-150 | 6 | | 30 | A |
| Alpha-BHC | 84 | | 82 | | 30-150 | 2 | | 30 | A |
| Beta-BHC | 86 | | 73 | | 30-150 | 16 | | 30 | A |
| Heptachlor | 83 | | 78 | | 30-150 | 6 | | 30 | A |
| Aldrin | 78 | | 82 | | 30-150 | 5 | | 30 | A |
| Heptachlor epoxide | 70 | | 78 | | 30-150 | 11 | | 30 | A |
| Endrin | 78 | | 74 | | 30-150 | 5 | | 30 | A |
| Endrin aldehyde | 67 | | 64 | | 30-150 | 5 | | 30 | A |
| Endrin ketone | 67 | | 66 | | 30-150 | 2 | | 30 | A |
| Dieldrin | 83 | | 80 | | 30-150 | 4 | | 30 | A |
| 4,4'-DDE | 78 | | 77 | | 30-150 | 1 | | 30 | A |
| 4,4'-DDD | 86 | | 79 | | 30-150 | 8 | | 30 | A |
| 4,4'-DDT | 84 | | 79 | | 30-150 | 6 | | 30 | A |
| Endosulfan I | 75 | | 75 | | 30-150 | 0 | | 30 | A |
| Endosulfan II | 77 | | 72 | | 30-150 | 7 | | 30 | A |
| Endosulfan sulfate | 62 | | 60 | | 30-150 | 3 | | 30 | A |
| Methoxychlor | 72 | | 69 | | 30-150 | 4 | | 30 | A |
| cis-Chlordane | 80 | | 79 | | 30-150 | 1 | | 30 | A |
| trans-Chlordane | 79 | | 84 | | 30-150 | 6 | | 30 | A |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2121742

**Report Date:** 04/30/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01 Batch: WG1492554-2 WG1492554-3 | | | | | | | | |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria | Column |
|---|---|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 74 | | 71 | | 30-150 | A |
| Decachlorobiphenyl | 61 | | 62 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 75 | | 74 | | 30-150 | B |
| Decachlorobiphenyl | 70 | | 68 | | 30-150 | B |

# METALS

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2121742
**Project Number:** 135173-002
**Report Date:** 04/30/21

## SAMPLE RESULTS

Lab ID: L2121742-01
Client ID: WC-20210428
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 04/28/21 11:15
Date Received: 04/28/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 91%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Aluminum, Total | 9050 | | mg/kg | 8.72 | 2.36 | 2 | 04/29/21 07:55 | 04/29/21 12:11 | EPA 3050B | 1,6010D | GD |
| Antimony, Total | 0.724 | J | mg/kg | 4.36 | 0.332 | 2 | 04/29/21 07:55 | 04/29/21 12:11 | EPA 3050B | 1,6010D | GD |
| Arsenic, Total | 1.26 | | mg/kg | 0.872 | 0.181 | 2 | 04/29/21 07:55 | 04/29/21 12:11 | EPA 3050B | 1,6010D | GD |
| Barium, Total | 98.7 | | mg/kg | 0.872 | 0.152 | 2 | 04/29/21 07:55 | 04/29/21 12:11 | EPA 3050B | 1,6010D | GD |
| Beryllium, Total | 0.488 | | mg/kg | 0.436 | 0.029 | 2 | 04/29/21 07:55 | 04/29/21 12:11 | EPA 3050B | 1,6010D | GD |
| Cadmium, Total | 1.91 | | mg/kg | 0.872 | 0.086 | 2 | 04/29/21 07:55 | 04/29/21 12:11 | EPA 3050B | 1,6010D | GD |
| Calcium, Total | 54700 | | mg/kg | 43.6 | 15.3 | 10 | 04/29/21 07:55 | 04/29/21 14:03 | EPA 3050B | 1,6010D | GD |
| Chromium, Total | 16.5 | | mg/kg | 0.872 | 0.084 | 2 | 04/29/21 07:55 | 04/29/21 12:11 | EPA 3050B | 1,6010D | GD |
| Cobalt, Total | 8.06 | | mg/kg | 1.74 | 0.145 | 2 | 04/29/21 07:55 | 04/29/21 12:11 | EPA 3050B | 1,6010D | GD |
| Copper, Total | 67.7 | | mg/kg | 0.872 | 0.225 | 2 | 04/29/21 07:55 | 04/29/21 12:11 | EPA 3050B | 1,6010D | GD |
| Iron, Total | 14500 | | mg/kg | 4.36 | 0.788 | 2 | 04/29/21 07:55 | 04/29/21 12:11 | EPA 3050B | 1,6010D | GD |
| Lead, Total | 256 | | mg/kg | 4.36 | 0.234 | 2 | 04/29/21 07:55 | 04/29/21 12:11 | EPA 3050B | 1,6010D | GD |
| Magnesium, Total | 14300 | | mg/kg | 8.72 | 1.34 | 2 | 04/29/21 07:55 | 04/29/21 12:11 | EPA 3050B | 1,6010D | GD |
| Manganese, Total | 288 | | mg/kg | 0.872 | 0.139 | 2 | 04/29/21 07:55 | 04/29/21 12:11 | EPA 3050B | 1,6010D | GD |
| Mercury, Total | 0.353 | | mg/kg | 0.069 | 0.045 | 1 | 04/29/21 08:30 | 04/29/21 13:18 | EPA 7471B | 1,7471B | OU |
| Nickel, Total | 17.0 | | mg/kg | 2.18 | 0.211 | 2 | 04/29/21 07:55 | 04/29/21 12:11 | EPA 3050B | 1,6010D | GD |
| Potassium, Total | 1810 | | mg/kg | 218 | 12.6 | 2 | 04/29/21 07:55 | 04/29/21 12:11 | EPA 3050B | 1,6010D | GD |
| Selenium, Total | ND | | mg/kg | 1.74 | 0.225 | 2 | 04/29/21 07:55 | 04/29/21 12:11 | EPA 3050B | 1,6010D | GD |
| Silver, Total | ND | | mg/kg | 0.872 | 0.247 | 2 | 04/29/21 07:55 | 04/29/21 12:11 | EPA 3050B | 1,6010D | GD |
| Sodium, Total | 281 | | mg/kg | 174 | 2.75 | 2 | 04/29/21 07:55 | 04/29/21 12:11 | EPA 3050B | 1,6010D | GD |
| Thallium, Total | ND | | mg/kg | 1.74 | 0.275 | 2 | 04/29/21 07:55 | 04/29/21 12:11 | EPA 3050B | 1,6010D | GD |
| Vanadium, Total | 20.5 | | mg/kg | 0.872 | 0.177 | 2 | 04/29/21 07:55 | 04/29/21 12:11 | EPA 3050B | 1,6010D | GD |
| Zinc, Total | 180 | | mg/kg | 4.36 | 0.256 | 2 | 04/29/21 07:55 | 04/29/21 12:11 | EPA 3050B | 1,6010D | GD |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2121742
**Report Date:** 04/30/21

# Method Blank Analysis
# Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1490903-1 | | | | | | | | | | |
| Mercury, Total | ND | | mg/kg | 0.083 | 0.054 | 1 | 04/29/21 08:30 | 04/29/21 12:45 | 1,7471B | OU |

**Prep Information**

Digestion Method: EPA 7471B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1492158-1 | | | | | | | | | | |
| Aluminum, Total | ND | | mg/kg | 4.00 | 1.08 | 1 | 04/29/21 07:55 | 04/29/21 12:01 | 1,6010D | GD |
| Antimony, Total | ND | | mg/kg | 2.00 | 0.152 | 1 | 04/29/21 07:55 | 04/29/21 12:01 | 1,6010D | GD |
| Arsenic, Total | ND | | mg/kg | 0.400 | 0.083 | 1 | 04/29/21 07:55 | 04/29/21 12:01 | 1,6010D | GD |
| Barium, Total | ND | | mg/kg | 0.400 | 0.070 | 1 | 04/29/21 07:55 | 04/29/21 12:01 | 1,6010D | GD |
| Beryllium, Total | ND | | mg/kg | 0.200 | 0.013 | 1 | 04/29/21 07:55 | 04/29/21 12:01 | 1,6010D | GD |
| Cadmium, Total | ND | | mg/kg | 0.400 | 0.039 | 1 | 04/29/21 07:55 | 04/29/21 12:01 | 1,6010D | GD |
| Calcium, Total | 3.09 | J | mg/kg | 4.00 | 1.40 | 1 | 04/29/21 07:55 | 04/29/21 12:01 | 1,6010D | GD |
| Chromium, Total | ND | | mg/kg | 0.400 | 0.038 | 1 | 04/29/21 07:55 | 04/29/21 12:01 | 1,6010D | GD |
| Cobalt, Total | ND | | mg/kg | 0.800 | 0.066 | 1 | 04/29/21 07:55 | 04/29/21 12:01 | 1,6010D | GD |
| Copper, Total | ND | | mg/kg | 0.400 | 0.103 | 1 | 04/29/21 07:55 | 04/29/21 12:01 | 1,6010D | GD |
| Iron, Total | 0.392 | J | mg/kg | 2.00 | 0.361 | 1 | 04/29/21 07:55 | 04/29/21 12:01 | 1,6010D | GD |
| Lead, Total | ND | | mg/kg | 2.00 | 0.107 | 1 | 04/29/21 07:55 | 04/29/21 12:01 | 1,6010D | GD |
| Magnesium, Total | ND | | mg/kg | 4.00 | 0.616 | 1 | 04/29/21 07:55 | 04/29/21 12:01 | 1,6010D | GD |
| Manganese, Total | ND | | mg/kg | 0.400 | 0.064 | 1 | 04/29/21 07:55 | 04/29/21 12:01 | 1,6010D | GD |
| Nickel, Total | ND | | mg/kg | 1.00 | 0.097 | 1 | 04/29/21 07:55 | 04/29/21 12:01 | 1,6010D | GD |
| Potassium, Total | ND | | mg/kg | 100 | 5.76 | 1 | 04/29/21 07:55 | 04/29/21 12:01 | 1,6010D | GD |
| Selenium, Total | ND | | mg/kg | 0.800 | 0.103 | 1 | 04/29/21 07:55 | 04/29/21 12:01 | 1,6010D | GD |
| Silver, Total | ND | | mg/kg | 0.400 | 0.113 | 1 | 04/29/21 07:55 | 04/29/21 12:01 | 1,6010D | GD |
| Sodium, Total | 1.76 | J | mg/kg | 80.0 | 1.26 | 1 | 04/29/21 07:55 | 04/29/21 12:01 | 1,6010D | GD |
| Thallium, Total | ND | | mg/kg | 0.800 | 0.126 | 1 | 04/29/21 07:55 | 04/29/21 12:01 | 1,6010D | GD |
| Vanadium, Total | ND | | mg/kg | 0.400 | 0.081 | 1 | 04/29/21 07:55 | 04/29/21 12:01 | 1,6010D | GD |
| Zinc, Total | ND | | mg/kg | 2.00 | 0.117 | 1 | 04/29/21 07:55 | 04/29/21 12:01 | 1,6010D | GD |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2121742
**Report Date:** 04/30/21

# Method Blank Analysis
# Batch Quality Control

**Prep Information**

Digestion Method: EPA 3050B

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2121742

**Report Date:** 04/30/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1490903-2 SRM Lot Number: D109-540 | | | | | | | | |
| Mercury, Total | 104 | | - | | 60-140 | - | | |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2121742

**Report Date:** 04/30/21

| Parameter | LCS %Recovery | LCSD %Recovery | %Recovery Limits | RPD | RPD Limits |
|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1492158-2 SRM Lot Number: D109-540 | | | | | |
| Aluminum, Total | 80 | - | 50-150 | - | |
| Antimony, Total | 165 | - | 19-250 | - | |
| Arsenic, Total | 111 | - | 70-130 | - | |
| Barium, Total | 97 | - | 75-125 | - | |
| Beryllium, Total | 102 | - | 75-125 | - | |
| Cadmium, Total | 105 | - | 75-125 | - | |
| Calcium, Total | 104 | - | 73-128 | - | |
| Chromium, Total | 98 | - | 70-130 | - | |
| Cobalt, Total | 103 | - | 75-125 | - | |
| Copper, Total | 98 | - | 75-125 | - | |
| Iron, Total | 93 | - | 35-165 | - | |
| Lead, Total | 105 | - | 72-128 | - | |
| Magnesium, Total | 91 | - | 62-138 | - | |
| Manganese, Total | 100 | - | 74-126 | - | |
| Nickel, Total | 104 | - | 70-130 | - | |
| Potassium, Total | 95 | - | 59-141 | - | |
| Selenium, Total | 108 | - | 68-132 | - | |
| Silver, Total | 105 | - | 68-131 | - | |
| Sodium, Total | 94 | - | 35-165 | - | |
| Thallium, Total | 100 | - | 68-131 | - | |
| Vanadium, Total | 88 | - | 59-141 | - | |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2121742

**Report Date:** 04/30/21

| Parameter | LCS %Recovery | LCSD %Recovery | %Recovery Limits | RPD | RPD Limits |
|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1492158-2 SRM Lot Number: D109-540 | | | | | |
| Zinc, Total | 105 | - | 70-130 | - | |

# Matrix Spike Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2121742
**Report Date:** 04/30/21

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1490903-3 QC Sample: L2121743-01 Client ID: MS Sample | | | | | | | | | | | | |
| Mercury, Total | ND | 0.152 | 0.172 | 113 | | - | - | | 80-120 | - | | 20 |

# Matrix Spike Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2121742
**Report Date:** 04/30/21

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | | MSD Found | MSD %Recovery | Recovery Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1492158-3 QC Sample: L2121743-01 Client ID: MS Sample | | | | | | | | | | |
| Aluminum, Total | 3020 | 187 | 3850 | **444** | Q | - | - | 75-125 | - | 20 |
| Antimony, Total | 0.685J | 46.8 | 36.5 | 78 | | - | - | 75-125 | - | 20 |
| Arsenic, Total | 1.05 | 11.2 | 8.85 | **69** | Q | - | - | 75-125 | - | 20 |
| Barium, Total | 6.88 | 187 | 142 | **72** | Q | - | - | 75-125 | - | 20 |
| Beryllium, Total | 4.16 | 4.68 | 7.85 | 79 | | - | - | 75-125 | - | 20 |
| Cadmium, Total | 0.875J | 4.77 | 4.56 | 96 | | - | - | 75-125 | - | 20 |
| Calcium, Total | 372 | 935 | 1020 | **69** | Q | - | - | 75-125 | - | 20 |
| Chromium, Total | 11.2 | 18.7 | 31.8 | 110 | | - | - | 75-125 | - | 20 |
| Cobalt, Total | 9.28 | 46.8 | 42.5 | **71** | Q | - | - | 75-125 | - | 20 |
| Copper, Total | 6.88 | 23.4 | 25.3 | 79 | | - | - | 75-125 | - | 20 |
| Iron, Total | 29800 | 93.5 | 29200 | **0** | Q | - | - | 75-125 | - | 20 |
| Lead, Total | 30.8 | 47.7 | 69.4 | 81 | | - | - | 75-125 | - | 20 |
| Magnesium, Total | 137 | 935 | 779 | **69** | Q | - | - | 75-125 | - | 20 |
| Manganese, Total | 405 | 46.8 | 268 | **0** | Q | - | - | 75-125 | - | 20 |
| Nickel, Total | 27.8 | 46.8 | 61.8 | **73** | Q | - | - | 75-125 | - | 20 |
| Potassium, Total | 41.5J | 935 | 766 | 82 | | - | - | 75-125 | - | 20 |
| Selenium, Total | ND | 11.2 | 8.41 | 75 | | - | - | 75-125 | - | 20 |
| Silver, Total | ND | 28.1 | 20.7 | **74** | Q | - | - | 75-125 | - | 20 |
| Sodium, Total | 12.6J | 935 | 723 | 77 | | - | - | 75-125 | - | 20 |
| Thallium, Total | ND | 11.2 | 7.74 | **69** | Q | - | - | 75-125 | - | 20 |
| Vanadium, Total | 28.7 | 46.8 | 63.0 | **73** | Q | - | - | 75-125 | - | 20 |

# Matrix Spike Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2121742
**Report Date:** 04/30/21

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | | MSD Found | MSD %Recovery | Recovery Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1492158-3 QC Sample: L2121743-01 Client ID: MS Sample | | | | | | | | | | |
| Zinc, Total | 409 | 46.8 | 416 | **15** | Q | - | - | 75-125 | - | 20 |

# Lab Duplicate Analysis

***Batch Quality Control***

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

***Lab Number:*** L2121742

***Report Date:*** 04/30/21

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1490903-4 QC Sample: L2121743-01 Client ID: DUP Sample | | | | | | |
| Mercury, Total | ND | ND | mg/kg | NC | | 20 |

# Lab Duplicate Analysis
*Batch Quality Control*

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

***Lab Number:*** L2121742
***Report Date:*** 04/30/21

| Parameter | Native Sample | Duplicate Sample | Units | RPD | | RPD Limits |
|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1492158-4 QC Sample: L2121743-01 Client ID: DUP Sample | | | | | | |
| Aluminum, Total | 3020 | 2760 | mg/kg | 9 | | 20 |
| Antimony, Total | 0.685J | 0.608J | mg/kg | NC | | 20 |
| Arsenic, Total | 1.05 | ND | mg/kg | NC | | 20 |
| Barium, Total | 6.88 | 6.35 | mg/kg | 8 | | 20 |
| Beryllium, Total | 4.16 | 3.80 | mg/kg | 9 | | 20 |
| Cadmium, Total | 0.875J | 0.783J | mg/kg | NC | | 20 |
| Calcium, Total | 372 | 326 | mg/kg | 13 | | 20 |
| Chromium, Total | 11.2 | 12.0 | mg/kg | 7 | | 20 |
| Cobalt, Total | 9.28 | 8.00 | mg/kg | 15 | | 20 |
| Copper, Total | 6.88 | 6.63 | mg/kg | 4 | | 20 |
| Iron, Total | 29800 | 26900 | mg/kg | 10 | | 20 |
| Lead, Total | 30.8 | 29.2 | mg/kg | 5 | | 20 |
| Magnesium, Total | 137 | 155 | mg/kg | 12 | | 20 |
| Manganese, Total | 405 | 248 | mg/kg | **48** | Q | 20 |
| Nickel, Total | 27.8 | 25.8 | mg/kg | 7 | | 20 |
| Potassium, Total | 41.5J | 42.2J | mg/kg | NC | | 20 |
| Selenium, Total | ND | ND | mg/kg | NC | | 20 |
| Silver, Total | ND | ND | mg/kg | NC | | 20 |
| Sodium, Total | 12.6J | 11.6J | mg/kg | NC | | 20 |

# Lab Duplicate Analysis

***Batch Quality Control***

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

***Lab Number:*** L2121742

***Report Date:*** 04/30/21

| Parameter | Native Sample | Duplicate Sample | Units | RPD | RPD Limits |
|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1492158-4 QC Sample: L2121743-01 Client ID: DUP Sample | | | | | |
| Thallium, Total | ND | ND | mg/kg | NC | 20 |
| Vanadium, Total | 28.7 | 26.4 | mg/kg | 8 | 20 |
| Zinc, Total | 409 | 371 | mg/kg | 10 | 20 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

# Lab Serial Dilution Analysis
**Batch Quality Control**

**Lab Number:** L2121742
**Report Date:** 04/30/21

| Parameter | Native Sample | Serial Dilution | Units | % D | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1492158-6 QC Sample: L2121743-01 Client ID: DUP Sample | | | | | | |
| Vanadium, Total | 28.7 | 35.8 | mg/kg | **25** | Q | 20 |

# INORGANICS
# &
# MISCELLANEOUS

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2121742
**Report Date:** 04/30/21

## SAMPLE RESULTS

Lab ID: L2121742-01
Client ID: WC-20210428
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 04/28/21 11:15
Date Received: 04/28/21
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 90.9 | | % | 0.100 | NA | 1 | - | 04/29/21 06:31 | 121,2540G | PR |
| Paint Filter Liquid | NEGATIVE | | - | 0 | NA | 1 | - | 04/29/21 15:23 | 1,9095B | AS |

# Lab Duplicate Analysis

***Batch Quality Control***

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

***Lab Number:*** L2121742

***Report Date:*** 04/30/21

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1492157-1 QC Sample: L2121919-01 Client ID: DUP Sample | | | | | | |
| Solids, Total | 93.4 | 94.0 | % | 1 | | 20 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2121742
**Report Date:** 04/30/21

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

### Cooler Information

| Cooler | Custody Seal |
|---|---|
| A | Absent |

### Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2121742-01A | Vial MeOH preserved | A | NA | | 3.3 | Y | Absent | | NYTCL-8260H(14),NYTCL-8260HLW(14) |
| L2121742-01B | Vial water preserved | A | NA | | 3.3 | Y | Absent | 29-APR-21 02:30 | NYTCL-8260H(14),NYTCL-8260HLW(14) |
| L2121742-01C | Vial water preserved | A | NA | | 3.3 | Y | Absent | 29-APR-21 02:30 | NYTCL-8260H(14),NYTCL-8260HLW(14) |
| L2121742-01D | Plastic 2oz unpreserved for TS | A | NA | | 3.3 | Y | Absent | | TS(7) |
| L2121742-01E | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.3 | Y | Absent | | BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),CR-TI(180),TL-TI(180),AL-TI(180),NI-TI(180),PB-TI(180),CU-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),MG-TI(180),FE-TI(180),HG-T(28),MN-TI(180),CD-TI(180),K-TI(180),NA-TI(180),CA-TI(180) |
| L2121742-01F | Glass 500ml/16oz unpreserved | A | NA | | 3.3 | Y | Absent | | NYTCL-8270(14),NJEPH-TPH-CAT2(14),NYTCL-8081(14),PAINTF(),NYTCL-8082(14) |



*Values in parentheses indicate holding time in days

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2121742 |
| **Project Number:** | 135173-002 | **Report Date:** | 04/30/21 |

## GLOSSARY

***Acronyms***

| | |
|---|---|
| DL | - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EMPC | - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration. |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LOD | - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| LOQ | - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)<br><br>Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NDPA/DPA | - N-Nitrosodiphenylamine/Diphenylamine. |
| NI | - Not Ignitable. |
| NP | - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil. |
| NR | - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |
| STLP | - Semi-dynamic Tank Leaching Procedure per EPA Method 1315. |
| TEF | - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD. |
| TEQ | - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values. |
| TIC | - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations. |

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2121742 |
| **Project Number:** | 135173-002 | **Report Date:** | 04/30/21 |

***Footnotes***

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

***Terms***

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

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. (Note: 'PFAS, Total (6)' is applicable to MassDEP DW compliance analysis only.). If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

***Data Qualifiers***

**A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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

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

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

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

**F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

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

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

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

**J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

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

**ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2121742 |
| **Project Number:** | 135173-002 | **Report Date:** | 04/30/21 |

***Data Qualifiers***

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

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

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

**R** - Analytical results are from sample re-analysis.

**RE** - Analytical results are from sample re-extraction.

**S** - Analytical results are from modified screening analysis.

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2121742 |
| **Project Number:** | 135173-002 | **Report Date:** | 04/30/21 |

## REFERENCES


1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

103 Analysis of Extractable Petroleum Hydrocarbon Compounds (EPH) in Aqueous and Soil/Sediment/Sludge Matrices. New Jersey Department of Environmental Protection, Site Remediation Program, (Version 1.1), Document # NJDEP EPH 10/08, Revision 3, August 2010.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.


## LIMITATION OF LIABILITIES

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

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

# Certification Information

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

**Westborough Facility**
**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene
**EPA 625/625.1:** alpha-Terpineol
**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
**EPA 8270D/8270E:** NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
**SM4500**: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

**Mansfield Facility**
**SM 2540D:** TSS
**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
**Biological Tissue Matrix:** EPA 3050B

**The following analytes are included in our Massachusetts DEP Scope of Accreditation**

**Westborough Facility:**

***Drinking Water***
**EPA 300.0**: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
**EPA 332**: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
**Microbiology**: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

***Non-Potable Water***
**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
**EPA 624.1**: Volatile Halocarbons & Aromatics,
**EPA 608.3**: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
**EPA 625.1**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
**Microbiology**: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

**Mansfield Facility:**

***Drinking Water***
**EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
**EPA 522, EPA 537.1.**

***Non-Potable Water***
**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
**EPA 245.1** Hg.
**SM2340B**

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

# NEW YORK CHAIN OF CUSTODY

ALPHA

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

**Service Centers**
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 4/29/21

ALPHA Job #: L2121742

## Client Information
Client: Haley & Aldrich of New York
Address: 237 West 35th Street
New York, NY 10123
Phone:
Fax:
Email: MConlon@haleyaldrich.com

## Project Information
Project Name: 310 Grand Concourse
Project Location: 310 Grand Concourse, Bronx, NY
Project # 135173-002
(Use Project name as Project #) ☐
Project Manager: Mari Cate Conlon
ALPHAQuote #:

## Turn-Around Time
Standard ☐ Due Date:
Rush (only if pre approved) ☒ # of Days: 2

## Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☒ Other PDF + excel

## Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☒ NY Restricted Use ☐ Other
☒ NY Unrestricted Use
☐ NYC Sewer Discharge

## Billing Information
☒ Same as Client Info
PO #

## Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☒ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

**Other project specific requirements/comments:**

**Please specify Metals or TAL**

## ANALYSIS

**Sample Filtration**
☐ Done
☐ Lab to do
***Preservation***
☐ Lab to do
***(Please Specify below)***

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection Date | Collection Time | Sample Matrix | Sampler's Initials | TCL VOCs-8260C | NYTAL SVOCs-8270D | TCL Pesticides-8081B | New Jersey EPH Method (10/08) | Paint filter test | TCL PCBs-8082A | TAL Metals-total 6010D | Total solids-SM2540 | Sample Specific Comments | Total Bottles |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 21742-01 | NC-20210428 | 4/28/21 | 1115 | S | ZS | X | X | X | X | X | X | X | X | | 6 |
| | | | | | | | | | | | | | | | |
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Preservative Code:
A = None
B = HCl
C = $HNO_3$
D = $H_2SO_4$
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

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

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Container Type | V | A | A | A | A | A | A | A | |
| Preservative | F | A | A | A | A | A | A | A | |

| Relinquished By: | Date/Time | Received By: | Date/Time |
|---|---|---|---|
| Mark Zimmel | 4/28/21 1135 | [illegible] (AAL) | 4/29/21 1135 |
| [illegible] (AAL) | 4/28/21 1830 | [illegible] | 4/29/21 0005 |
| [illegible] | 4/29/21 0010 | [illegible] | 4/29/21 0010 |

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

# ANALYTICAL REPORT

| | |
|---|---|
| Lab Number: | L2133713 |
| Client: | Haley & Aldrich<br>237 West 35th Street<br>16th Floor<br>New York, NY 10123 |
| ATTN: | Mari Cate Conlon |
| Phone: | (347) 271-1521 |
| Project Name: | 310 GRAND CONCOURSE |
| Project Number: | 135173-002 |
| Report Date: | 06/25/21 |

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

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2133713
**Report Date:** 06/25/21

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|---|---|---|---|---|---|
| L2133713-01 | WC1-20210622 | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 06/22/21 09:30 | 06/22/21 |
| L2133713-02 | WC2-20210622 | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 06/22/21 09:35 | 06/22/21 |

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2133713 |
| **Project Number:** | 135173-002 | **Report Date:** | 06/25/21 |

## Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

Please contact Project Management at 800-624-9220 with any questions.

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2133713 |
| **Project Number:** | 135173-002 | **Report Date:** | 06/25/21 |

**Case Narrative (continued)**

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Total Metals

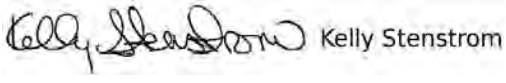
The WG1516192-3 MS recoveries for aluminum (0%), calcium (1400%), iron (0%), and manganese (0%), performed on L2133713-01, do not apply because the sample concentrations are greater than four times the spike amounts added.

The WG1516192-3 MS recoveries, performed on L2133713-01, are outside the acceptance criteria for copper (65%) and zinc (23%). A post digestion spike was performed and was within acceptance criteria.

The WG1516193-3 MS recovery, performed on L2133713-01, is outside the acceptance criteria for mercury (62%). A post digestion spike was performed and was within acceptance criteria.

The WG1516192-4 Laboratory Duplicate RPD for calcium (21%), performed on L2133713-01, is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

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

Authorized Signature:  Kelly Stenstrom

Title: Technical Director/Representative Date: 06/25/21

# ORGANICS

# VOLATILES

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2133713

**Project Number:** 135173-002 **Report Date:** 06/25/21

## SAMPLE RESULTS

Lab ID: L2133713-01 Date Collected: 06/22/21 09:30

Client ID: WC1-20210622 Date Received: 06/22/21

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Analytical Method: 1,8260C

Analytical Date: 06/23/21 21:18

Analyst: JC

Percent Solids: 92%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/kg | 4.7 | 2.1 | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 0.93 | 0.14 | 1 |
| Chloroform | ND | | ug/kg | 1.4 | 0.13 | 1 |
| Carbon tetrachloride | ND | | ug/kg | 0.93 | 0.21 | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 0.93 | 0.12 | 1 |
| Dibromochloromethane | ND | | ug/kg | 0.93 | 0.13 | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 0.93 | 0.25 | 1 |
| Tetrachloroethene | ND | | ug/kg | 0.47 | 0.18 | 1 |
| Chlorobenzene | ND | | ug/kg | 0.47 | 0.12 | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 3.7 | 0.65 | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 0.93 | 0.24 | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 0.47 | 0.16 | 1 |
| Bromodichloromethane | ND | | ug/kg | 0.47 | 0.10 | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 0.93 | 0.26 | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 0.47 | 0.15 | 1 |
| 1,3-Dichloropropene, Total | ND | | ug/kg | 0.47 | 0.15 | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 0.47 | 0.15 | 1 |
| Bromoform | ND | | ug/kg | 3.7 | 0.23 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 0.47 | 0.16 | 1 |
| Benzene | ND | | ug/kg | 0.47 | 0.16 | 1 |
| Toluene | ND | | ug/kg | 0.93 | 0.51 | 1 |
| Ethylbenzene | ND | | ug/kg | 0.93 | 0.13 | 1 |
| Chloromethane | ND | | ug/kg | 3.7 | 0.87 | 1 |
| Bromomethane | ND | | ug/kg | 1.9 | 0.54 | 1 |
| Vinyl chloride | ND | | ug/kg | 0.93 | 0.31 | 1 |
| Chloroethane | ND | | ug/kg | 1.9 | 0.42 | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 0.93 | 0.22 | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 1.4 | 0.13 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2133713

**Project Number:** 135173-002 **Report Date:** 06/25/21

## SAMPLE RESULTS

Lab ID: L2133713-01 Date Collected: 06/22/21 09:30

Client ID: WC1-20210622 Date Received: 06/22/21

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Trichloroethene | ND | | ug/kg | 0.47 | 0.13 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 1.9 | 0.13 | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 1.9 | 0.14 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 1.9 | 0.16 | 1 |
| Methyl tert butyl ether | ND | | ug/kg | 1.9 | 0.19 | 1 |
| p/m-Xylene | ND | | ug/kg | 1.9 | 0.52 | 1 |
| o-Xylene | ND | | ug/kg | 0.93 | 0.27 | 1 |
| Xylenes, Total | ND | | ug/kg | 0.93 | 0.27 | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 0.93 | 0.16 | 1 |
| 1,2-Dichloroethene, Total | ND | | ug/kg | 0.93 | 0.13 | 1 |
| Dibromomethane | ND | | ug/kg | 1.9 | 0.22 | 1 |
| Styrene | ND | | ug/kg | 0.93 | 0.18 | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 9.3 | 0.85 | 1 |
| Acetone | ND | | ug/kg | 9.3 | 4.5 | 1 |
| Carbon disulfide | ND | | ug/kg | 9.3 | 4.2 | 1 |
| 2-Butanone | ND | | ug/kg | 9.3 | 2.1 | 1 |
| Vinyl acetate | ND | | ug/kg | 9.3 | 2.0 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 9.3 | 1.2 | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 1.9 | 0.12 | 1 |
| 2-Hexanone | ND | | ug/kg | 9.3 | 1.1 | 1 |
| Bromochloromethane | ND | | ug/kg | 1.9 | 0.19 | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 1.9 | 0.19 | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 0.93 | 0.26 | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 1.9 | 0.16 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 0.47 | 0.12 | 1 |
| Bromobenzene | ND | | ug/kg | 1.9 | 0.14 | 1 |
| n-Butylbenzene | ND | | ug/kg | 0.93 | 0.16 | 1 |
| sec-Butylbenzene | ND | | ug/kg | 0.93 | 0.14 | 1 |
| tert-Butylbenzene | ND | | ug/kg | 1.9 | 0.11 | 1 |
| o-Chlorotoluene | ND | | ug/kg | 1.9 | 0.18 | 1 |
| p-Chlorotoluene | ND | | ug/kg | 1.9 | 0.10 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 2.8 | 0.93 | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 3.7 | 0.16 | 1 |
| Isopropylbenzene | ND | | ug/kg | 0.93 | 0.10 | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 0.93 | 0.10 | 1 |
| Naphthalene | ND | | ug/kg | 3.7 | 0.61 | 1 |
| Acrylonitrile | ND | | ug/kg | 3.7 | 1.1 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2133713

**Project Number:** 135173-002 **Report Date:** 06/25/21

## SAMPLE RESULTS

Lab ID: L2133713-01 Date Collected: 06/22/21 09:30

Client ID: WC1-20210622 Date Received: 06/22/21

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab | | | | | | |
| n-Propylbenzene | ND | | ug/kg | 0.93 | 0.16 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 1.9 | 0.30 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 1.9 | 0.25 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 1.9 | 0.18 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 1.9 | 0.31 | 1 |
| 1,4-Dioxane | ND | | ug/kg | 75 | 33. | 1 |
| p-Diethylbenzene | ND | | ug/kg | 1.9 | 0.16 | 1 |
| p-Ethyltoluene | ND | | ug/kg | 1.9 | 0.36 | 1 |
| 1,2,4,5-Tetramethylbenzene | ND | | ug/kg | 1.9 | 0.18 | 1 |
| Ethyl ether | ND | | ug/kg | 1.9 | 0.32 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 4.7 | 1.3 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 113 | | 70-130 |
| Toluene-d8 | 92 | | 70-130 |
| 4-Bromofluorobenzene | 93 | | 70-130 |
| Dibromofluoromethane | 118 | | 70-130 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2133713
**Report Date:** 06/25/21

## SAMPLE RESULTS

Lab ID: L2133713-02
Client ID: WC2-20210622
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 06/22/21 09:35
Date Received: 06/22/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 06/23/21 21:44
Analyst: JC
Percent Solids: 93%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/kg | 4.4 | 2.0 | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 0.88 | 0.13 | 1 |
| Chloroform | ND | | ug/kg | 1.3 | 0.12 | 1 |
| Carbon tetrachloride | ND | | ug/kg | 0.88 | 0.20 | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 0.88 | 0.11 | 1 |
| Dibromochloromethane | ND | | ug/kg | 0.88 | 0.12 | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 0.88 | 0.23 | 1 |
| Tetrachloroethene | ND | | ug/kg | 0.44 | 0.17 | 1 |
| Chlorobenzene | ND | | ug/kg | 0.44 | 0.11 | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 3.5 | 0.61 | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 0.88 | 0.22 | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 0.44 | 0.15 | 1 |
| Bromodichloromethane | ND | | ug/kg | 0.44 | 0.10 | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 0.88 | 0.24 | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 0.44 | 0.14 | 1 |
| 1,3-Dichloropropene, Total | ND | | ug/kg | 0.44 | 0.14 | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 0.44 | 0.14 | 1 |
| Bromoform | ND | | ug/kg | 3.5 | 0.22 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 0.44 | 0.14 | 1 |
| Benzene | ND | | ug/kg | 0.44 | 0.14 | 1 |
| Toluene | ND | | ug/kg | 0.88 | 0.48 | 1 |
| Ethylbenzene | ND | | ug/kg | 0.88 | 0.12 | 1 |
| Chloromethane | ND | | ug/kg | 3.5 | 0.82 | 1 |
| Bromomethane | ND | | ug/kg | 1.8 | 0.51 | 1 |
| Vinyl chloride | ND | | ug/kg | 0.88 | 0.29 | 1 |
| Chloroethane | ND | | ug/kg | 1.8 | 0.40 | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 0.88 | 0.21 | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 1.3 | 0.12 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2133713

**Project Number:** 135173-002 **Report Date:** 06/25/21

## SAMPLE RESULTS

Lab ID: L2133713-02 Date Collected: 06/22/21 09:35

Client ID: WC2-20210622 Date Received: 06/22/21

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Trichloroethene | ND | | ug/kg | 0.44 | 0.12 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 1.8 | 0.13 | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 1.8 | 0.13 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 1.8 | 0.15 | 1 |
| Methyl tert butyl ether | ND | | ug/kg | 1.8 | 0.18 | 1 |
| p/m-Xylene | ND | | ug/kg | 1.8 | 0.49 | 1 |
| o-Xylene | ND | | ug/kg | 0.88 | 0.25 | 1 |
| Xylenes, Total | ND | | ug/kg | 0.88 | 0.25 | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 0.88 | 0.15 | 1 |
| 1,2-Dichloroethene, Total | ND | | ug/kg | 0.88 | 0.12 | 1 |
| Dibromomethane | ND | | ug/kg | 1.8 | 0.21 | 1 |
| Styrene | ND | | ug/kg | 0.88 | 0.17 | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 8.8 | 0.80 | 1 |
| Acetone | ND | | ug/kg | 8.8 | 4.2 | 1 |
| Carbon disulfide | ND | | ug/kg | 8.8 | 4.0 | 1 |
| 2-Butanone | ND | | ug/kg | 8.8 | 1.9 | 1 |
| Vinyl acetate | ND | | ug/kg | 8.8 | 1.9 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 8.8 | 1.1 | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 1.8 | 0.11 | 1 |
| 2-Hexanone | ND | | ug/kg | 8.8 | 1.0 | 1 |
| Bromochloromethane | ND | | ug/kg | 1.8 | 0.18 | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 1.8 | 0.18 | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 0.88 | 0.24 | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 1.8 | 0.15 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 0.44 | 0.12 | 1 |
| Bromobenzene | ND | | ug/kg | 1.8 | 0.13 | 1 |
| n-Butylbenzene | ND | | ug/kg | 0.88 | 0.15 | 1 |
| sec-Butylbenzene | ND | | ug/kg | 0.88 | 0.13 | 1 |
| tert-Butylbenzene | ND | | ug/kg | 1.8 | 0.10 | 1 |
| o-Chlorotoluene | ND | | ug/kg | 1.8 | 0.17 | 1 |
| p-Chlorotoluene | ND | | ug/kg | 1.8 | 0.10 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 2.6 | 0.87 | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 3.5 | 0.15 | 1 |
| Isopropylbenzene | ND | | ug/kg | 0.88 | 0.10 | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 0.88 | 0.10 | 1 |
| Naphthalene | ND | | ug/kg | 3.5 | 0.57 | 1 |
| Acrylonitrile | ND | | ug/kg | 3.5 | 1.0 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2133713

**Project Number:** 135173-002 **Report Date:** 06/25/21

## SAMPLE RESULTS

Lab ID: L2133713-02 Date Collected: 06/22/21 09:35

Client ID: WC2-20210622 Date Received: 06/22/21

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab | | | | | | |
| n-Propylbenzene | ND | | ug/kg | 0.88 | 0.15 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 1.8 | 0.28 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 1.8 | 0.24 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 1.8 | 0.17 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 1.8 | 0.29 | 1 |
| 1,4-Dioxane | ND | | ug/kg | 70 | 31. | 1 |
| p-Diethylbenzene | ND | | ug/kg | 1.8 | 0.16 | 1 |
| p-Ethyltoluene | ND | | ug/kg | 1.8 | 0.34 | 1 |
| 1,2,4,5-Tetramethylbenzene | ND | | ug/kg | 1.8 | 0.17 | 1 |
| Ethyl ether | ND | | ug/kg | 1.8 | 0.30 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 4.4 | 1.2 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 111 | | 70-130 |
| Toluene-d8 | 92 | | 70-130 |
| 4-Bromofluorobenzene | 93 | | 70-130 |
| Dibromofluoromethane | 114 | | 70-130 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2133713

**Project Number:** 135173-002 **Report Date:** 06/25/21

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/23/21 19:13
Analyst: AJK

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-02 Batch: WG1516438-5 | | | | | |
| Methylene chloride | ND | | ug/kg | 5.0 | 2.3 |
| 1,1-Dichloroethane | ND | | ug/kg | 1.0 | 0.14 |
| Chloroform | ND | | ug/kg | 1.5 | 0.14 |
| Carbon tetrachloride | ND | | ug/kg | 1.0 | 0.23 |
| 1,2-Dichloropropane | ND | | ug/kg | 1.0 | 0.12 |
| Dibromochloromethane | ND | | ug/kg | 1.0 | 0.14 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 1.0 | 0.27 |
| Tetrachloroethene | ND | | ug/kg | 0.50 | 0.20 |
| Chlorobenzene | ND | | ug/kg | 0.50 | 0.13 |
| Trichlorofluoromethane | ND | | ug/kg | 4.0 | 0.70 |
| 1,2-Dichloroethane | ND | | ug/kg | 1.0 | 0.26 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 0.50 | 0.17 |
| Bromodichloromethane | ND | | ug/kg | 0.50 | 0.11 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 1.0 | 0.27 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 0.50 | 0.16 |
| 1,3-Dichloropropene, Total | ND | | ug/kg | 0.50 | 0.16 |
| 1,1-Dichloropropene | ND | | ug/kg | 0.50 | 0.16 |
| Bromoform | ND | | ug/kg | 4.0 | 0.25 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 0.50 | 0.17 |
| Benzene | ND | | ug/kg | 0.50 | 0.17 |
| Toluene | ND | | ug/kg | 1.0 | 0.54 |
| Ethylbenzene | ND | | ug/kg | 1.0 | 0.14 |
| Chloromethane | ND | | ug/kg | 4.0 | 0.93 |
| Bromomethane | ND | | ug/kg | 2.0 | 0.58 |
| Vinyl chloride | ND | | ug/kg | 1.0 | 0.34 |
| Chloroethane | ND | | ug/kg | 2.0 | 0.45 |
| 1,1-Dichloroethene | ND | | ug/kg | 1.0 | 0.24 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 1.5 | 0.14 |
| Trichloroethene | ND | | ug/kg | 0.50 | 0.14 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2133713

**Project Number:** 135173-002 **Report Date:** 06/25/21

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/23/21 19:13
Analyst: AJK

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-02 Batch: WG1516438-5 | | | | | |
| 1,2-Dichlorobenzene | ND | | ug/kg | 2.0 | 0.14 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 2.0 | 0.15 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 2.0 | 0.17 |
| Methyl tert butyl ether | ND | | ug/kg | 2.0 | 0.20 |
| p/m-Xylene | ND | | ug/kg | 2.0 | 0.56 |
| o-Xylene | ND | | ug/kg | 1.0 | 0.29 |
| Xylenes, Total | ND | | ug/kg | 1.0 | 0.29 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 1.0 | 0.18 |
| 1,2-Dichloroethene, Total | ND | | ug/kg | 1.0 | 0.14 |
| Dibromomethane | ND | | ug/kg | 2.0 | 0.24 |
| Styrene | ND | | ug/kg | 1.0 | 0.20 |
| Dichlorodifluoromethane | ND | | ug/kg | 10 | 0.92 |
| Acetone | ND | | ug/kg | 10 | 4.8 |
| Carbon disulfide | ND | | ug/kg | 10 | 4.6 |
| 2-Butanone | ND | | ug/kg | 10 | 2.2 |
| Vinyl acetate | ND | | ug/kg | 10 | 2.2 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 10 | 1.3 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 2.0 | 0.13 |
| 2-Hexanone | ND | | ug/kg | 10 | 1.2 |
| Bromochloromethane | ND | | ug/kg | 2.0 | 0.20 |
| 2,2-Dichloropropane | ND | | ug/kg | 2.0 | 0.20 |
| 1,2-Dibromoethane | ND | | ug/kg | 1.0 | 0.28 |
| 1,3-Dichloropropane | ND | | ug/kg | 2.0 | 0.17 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 0.50 | 0.13 |
| Bromobenzene | ND | | ug/kg | 2.0 | 0.14 |
| n-Butylbenzene | ND | | ug/kg | 1.0 | 0.17 |
| sec-Butylbenzene | ND | | ug/kg | 1.0 | 0.15 |
| tert-Butylbenzene | ND | | ug/kg | 2.0 | 0.12 |
| o-Chlorotoluene | ND | | ug/kg | 2.0 | 0.19 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2133713
**Report Date:** 06/25/21

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/23/21 19:13
Analyst: AJK

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-02 Batch: WG1516438-5 | | | | | |
| p-Chlorotoluene | ND | | ug/kg | 2.0 | 0.11 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 3.0 | 1.0 |
| Hexachlorobutadiene | ND | | ug/kg | 4.0 | 0.17 |
| Isopropylbenzene | ND | | ug/kg | 1.0 | 0.11 |
| p-Isopropyltoluene | ND | | ug/kg | 1.0 | 0.11 |
| Naphthalene | ND | | ug/kg | 4.0 | 0.65 |
| Acrylonitrile | ND | | ug/kg | 4.0 | 1.2 |
| n-Propylbenzene | ND | | ug/kg | 1.0 | 0.17 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 2.0 | 0.32 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 2.0 | 0.27 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 2.0 | 0.19 |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 2.0 | 0.33 |
| 1,4-Dioxane | ND | | ug/kg | 80 | 35. |
| p-Diethylbenzene | ND | | ug/kg | 2.0 | 0.18 |
| p-Ethyltoluene | ND | | ug/kg | 2.0 | 0.38 |
| 1,2,4,5-Tetramethylbenzene | ND | | ug/kg | 2.0 | 0.19 |
| Ethyl ether | ND | | ug/kg | 2.0 | 0.34 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 5.0 | 1.4 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 108 | | 70-130 |
| Toluene-d8 | 92 | | 70-130 |
| 4-Bromofluorobenzene | 94 | | 70-130 |
| Dibromofluoromethane | 107 | | 70-130 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2133713
**Report Date:** 06/25/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-02 Batch: WG1516438-3 WG1516438-4 | | | | | | | | |
| Methylene chloride | 98 | | 98 | | 70-130 | 0 | | 30 |
| 1,1-Dichloroethane | 103 | | 101 | | 70-130 | 2 | | 30 |
| Chloroform | 100 | | 99 | | 70-130 | 1 | | 30 |
| Carbon tetrachloride | 112 | | 112 | | 70-130 | 0 | | 30 |
| 1,2-Dichloropropane | 100 | | 100 | | 70-130 | 0 | | 30 |
| Dibromochloromethane | 93 | | 97 | | 70-130 | 4 | | 30 |
| 1,1,2-Trichloroethane | 90 | | 93 | | 70-130 | 3 | | 30 |
| Tetrachloroethene | 108 | | 106 | | 70-130 | 2 | | 30 |
| Chlorobenzene | 94 | | 93 | | 70-130 | 1 | | 30 |
| Trichlorofluoromethane | 115 | | 112 | | 70-139 | 3 | | 30 |
| 1,2-Dichloroethane | 97 | | 101 | | 70-130 | 4 | | 30 |
| 1,1,1-Trichloroethane | 110 | | 108 | | 70-130 | 2 | | 30 |
| Bromodichloromethane | 98 | | 101 | | 70-130 | 3 | | 30 |
| trans-1,3-Dichloropropene | 98 | | 100 | | 70-130 | 2 | | 30 |
| cis-1,3-Dichloropropene | 101 | | 103 | | 70-130 | 2 | | 30 |
| 1,1-Dichloropropene | 109 | | 108 | | 70-130 | 1 | | 30 |
| Bromoform | 89 | | 96 | | 70-130 | 8 | | 30 |
| 1,1,2,2-Tetrachloroethane | 80 | | 85 | | 70-130 | 6 | | 30 |
| Benzene | 99 | | 98 | | 70-130 | 1 | | 30 |
| Toluene | 97 | | 94 | | 70-130 | 3 | | 30 |
| Ethylbenzene | 99 | | 97 | | 70-130 | 2 | | 30 |
| Chloromethane | 90 | | 86 | | 52-130 | 5 | | 30 |
| Bromomethane | 130 | | 124 | | 57-147 | 5 | | 30 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2133713
**Report Date:** 06/25/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-02 Batch: WG1516438-3 WG1516438-4 | | | | | | | | |
| Vinyl chloride | 98 | | 95 | | 67-130 | 3 | | 30 |
| Chloroethane | 103 | | 101 | | 50-151 | 2 | | 30 |
| 1,1-Dichloroethene | 106 | | 104 | | 65-135 | 2 | | 30 |
| trans-1,2-Dichloroethene | 106 | | 103 | | 70-130 | 3 | | 30 |
| Trichloroethene | 107 | | 106 | | 70-130 | 1 | | 30 |
| 1,2-Dichlorobenzene | 93 | | 92 | | 70-130 | 1 | | 30 |
| 1,3-Dichlorobenzene | 95 | | 93 | | 70-130 | 2 | | 30 |
| 1,4-Dichlorobenzene | 94 | | 92 | | 70-130 | 2 | | 30 |
| Methyl tert butyl ether | 103 | | 109 | | 66-130 | 6 | | 30 |
| p/m-Xylene | 96 | | 94 | | 70-130 | 2 | | 30 |
| o-Xylene | 93 | | 92 | | 70-130 | 1 | | 30 |
| cis-1,2-Dichloroethene | 98 | | 98 | | 70-130 | 0 | | 30 |
| Dibromomethane | 96 | | 101 | | 70-130 | 5 | | 30 |
| Styrene | 91 | | 90 | | 70-130 | 1 | | 30 |
| Dichlorodifluoromethane | 90 | | 88 | | 30-146 | 2 | | 30 |
| Acetone | 98 | | 112 | | 54-140 | 13 | | 30 |
| Carbon disulfide | 99 | | 96 | | 59-130 | 3 | | 30 |
| 2-Butanone | 94 | | 108 | | 70-130 | 14 | | 30 |
| Vinyl acetate | 81 | | 82 | | 70-130 | 1 | | 30 |
| 4-Methyl-2-pentanone | 85 | | 95 | | 70-130 | 11 | | 30 |
| 1,2,3-Trichloropropane | 81 | | 88 | | 68-130 | 8 | | 30 |
| 2-Hexanone | 77 | | 86 | | 70-130 | 11 | | 30 |
| Bromochloromethane | 100 | | 101 | | 70-130 | 1 | | 30 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2133713
**Report Date:** 06/25/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-02 Batch: WG1516438-3 WG1516438-4 | | | | | | | | |
| 2,2-Dichloropropane | 107 | | 105 | | 70-130 | 2 | | 30 |
| 1,2-Dibromoethane | 95 | | 100 | | 70-130 | 5 | | 30 |
| 1,3-Dichloropropane | 92 | | 95 | | 69-130 | 3 | | 30 |
| 1,1,1,2-Tetrachloroethane | 98 | | 97 | | 70-130 | 1 | | 30 |
| Bromobenzene | 95 | | 94 | | 70-130 | 1 | | 30 |
| n-Butylbenzene | 101 | | 99 | | 70-130 | 2 | | 30 |
| sec-Butylbenzene | 100 | | 98 | | 70-130 | 2 | | 30 |
| tert-Butylbenzene | 99 | | 98 | | 70-130 | 1 | | 30 |
| o-Chlorotoluene | 96 | | 93 | | 70-130 | 3 | | 30 |
| p-Chlorotoluene | 94 | | 93 | | 70-130 | 1 | | 30 |
| 1,2-Dibromo-3-chloropropane | 80 | | 90 | | 68-130 | 12 | | 30 |
| Hexachlorobutadiene | 110 | | 107 | | 67-130 | 3 | | 30 |
| Isopropylbenzene | 100 | | 98 | | 70-130 | 2 | | 30 |
| p-Isopropyltoluene | 102 | | 99 | | 70-130 | 3 | | 30 |
| Naphthalene | 83 | | 87 | | 70-130 | 5 | | 30 |
| Acrylonitrile | 103 | | 113 | | 70-130 | 9 | | 30 |
| n-Propylbenzene | 99 | | 97 | | 70-130 | 2 | | 30 |
| 1,2,3-Trichlorobenzene | 92 | | 92 | | 70-130 | 0 | | 30 |
| 1,2,4-Trichlorobenzene | 96 | | 95 | | 70-130 | 1 | | 30 |
| 1,3,5-Trimethylbenzene | 97 | | 96 | | 70-130 | 1 | | 30 |
| 1,2,4-Trimethylbenzene | 96 | | 94 | | 70-130 | 2 | | 30 |
| 1,4-Dioxane | 114 | | 131 | | 65-136 | 14 | | 30 |
| p-Diethylbenzene | 101 | | 99 | | 70-130 | 2 | | 30 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2133713
**Report Date:** 06/25/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-02 Batch: WG1516438-3 WG1516438-4 | | | | | | | | |
| p-Ethyltoluene | 100 | | 97 | | 70-130 | 3 | | 30 |
| 1,2,4,5-Tetramethylbenzene | 98 | | 96 | | 70-130 | 2 | | 30 |
| Ethyl ether | 102 | | 106 | | 67-130 | 4 | | 30 |
| trans-1,4-Dichloro-2-butene | 98 | | 108 | | 70-130 | 10 | | 30 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | | 100 | | 70-130 |
| Toluene-d8 | 96 | | 95 | | 70-130 |
| 4-Bromofluorobenzene | 97 | | 97 | | 70-130 |
| Dibromofluoromethane | 99 | | 100 | | 70-130 |

# SEMIVOLATILES

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2133713
**Report Date:** 06/25/21

## SAMPLE RESULTS

Lab ID: L2133713-01
Client ID: WC1-20210622
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 06/22/21 09:30
Date Received: 06/22/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 06/24/21 04:44
Analyst: WR
Percent Solids: 92%

Extraction Method: EPA 3546
Extraction Date: 06/23/21 04:41

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Acenaphthene | 54 | J | ug/kg | 140 | 18. | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 180 | 20. | 1 |
| Hexachlorobenzene | ND | | ug/kg | 100 | 20. | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 160 | 24. | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 180 | 17. | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 180 | 32. | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 180 | 30. | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 180 | 31. | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 180 | 47. | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 180 | 35. | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 180 | 30. | 1 |
| Fluoranthene | 350 | | ug/kg | 100 | 20. | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 180 | 19. | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 180 | 27. | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 210 | 30. | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 190 | 18. | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 180 | 26. | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 500 | 160 | 1 |
| Hexachloroethane | ND | | ug/kg | 140 | 28. | 1 |
| Isophorone | ND | | ug/kg | 160 | 23. | 1 |
| Naphthalene | ND | | ug/kg | 180 | 21. | 1 |
| Nitrobenzene | ND | | ug/kg | 160 | 26. | 1 |
| NDPA/DPA | ND | | ug/kg | 140 | 20. | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 180 | 27. | 1 |
| Bis(2-ethylhexyl)phthalate | ND | | ug/kg | 180 | 61. | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 180 | 44. | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 180 | 33. | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 180 | 60. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2133713

**Project Number:** 135173-002 **Report Date:** 06/25/21

## SAMPLE RESULTS

Lab ID: L2133713-01 Date Collected: 06/22/21 09:30

Client ID: WC1-20210622 Date Received: 06/22/21

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Diethyl phthalate | ND | | ug/kg | 180 | 16. | 1 |
| Dimethyl phthalate | ND | | ug/kg | 180 | 37. | 1 |
| Benzo(a)anthracene | 200 | | ug/kg | 100 | 20. | 1 |
| Benzo(a)pyrene | 160 | | ug/kg | 140 | 43. | 1 |
| Benzo(b)fluoranthene | 200 | | ug/kg | 100 | 30. | 1 |
| Benzo(k)fluoranthene | 71 | J | ug/kg | 100 | 28. | 1 |
| Chrysene | 160 | | ug/kg | 100 | 18. | 1 |
| Acenaphthylene | ND | | ug/kg | 140 | 27. | 1 |
| Anthracene | 80 | J | ug/kg | 100 | 34. | 1 |
| Benzo(ghi)perylene | 100 | J | ug/kg | 140 | 21. | 1 |
| Fluorene | 45 | J | ug/kg | 180 | 17. | 1 |
| Phenanthrene | 290 | | ug/kg | 100 | 21. | 1 |
| Dibenzo(a,h)anthracene | 27 | J | ug/kg | 100 | 20. | 1 |
| Indeno(1,2,3-cd)pyrene | 110 | J | ug/kg | 140 | 24. | 1 |
| Pyrene | 300 | | ug/kg | 100 | 17. | 1 |
| Biphenyl | ND | | ug/kg | 400 | 41. | 1 |
| 4-Chloroaniline | ND | | ug/kg | 180 | 32. | 1 |
| 2-Nitroaniline | ND | | ug/kg | 180 | 34. | 1 |
| 3-Nitroaniline | ND | | ug/kg | 180 | 33. | 1 |
| 4-Nitroaniline | ND | | ug/kg | 180 | 73. | 1 |
| Dibenzofuran | 31 | J | ug/kg | 180 | 16. | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 210 | 21. | 1 |
| 1,2,4,5-Tetrachlorobenzene | ND | | ug/kg | 180 | 18. | 1 |
| Acetophenone | ND | | ug/kg | 180 | 22. | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 100 | 33. | 1 |
| p-Chloro-m-cresol | ND | | ug/kg | 180 | 26. | 1 |
| 2-Chlorophenol | ND | | ug/kg | 180 | 21. | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 160 | 28. | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 180 | 58. | 1 |
| 2-Nitrophenol | ND | | ug/kg | 380 | 66. | 1 |
| 4-Nitrophenol | ND | | ug/kg | 240 | 72. | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 840 | 82. | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 460 | 84. | 1 |
| Pentachlorophenol | ND | | ug/kg | 140 | 39. | 1 |
| Phenol | ND | | ug/kg | 180 | 26. | 1 |
| 2-Methylphenol | ND | | ug/kg | 180 | 27. | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 250 | 27. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2133713

**Project Number:** 135173-002 **Report Date:** 06/25/21

## SAMPLE RESULTS

Lab ID: L2133713-01 Date Collected: 06/22/21 09:30

Client ID: WC1-20210622 Date Received: 06/22/21

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 180 | 34. | 1 |
| Benzoic Acid | ND | | ug/kg | 570 | 180 | 1 |
| Benzyl Alcohol | ND | | ug/kg | 180 | 54. | 1 |
| Carbazole | 36 | J | ug/kg | 180 | 17. | 1 |
| 1,4-Dioxane | ND | | ug/kg | 26 | 8.1 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 76 | | 25-120 |
| Phenol-d6 | 70 | | 10-120 |
| Nitrobenzene-d5 | 76 | | 23-120 |
| 2-Fluorobiphenyl | 65 | | 30-120 |
| 2,4,6-Tribromophenol | 65 | | 10-136 |
| 4-Terphenyl-d14 | 56 | | 18-120 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2133713
**Report Date:** 06/25/21

## SAMPLE RESULTS

Lab ID: L2133713-02
Client ID: WC2-20210622
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 06/22/21 09:35
Date Received: 06/22/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 06/24/21 03:34
Analyst: WR
Percent Solids: 93%

Extraction Method: EPA 3546
Extraction Date: 06/23/21 04:41

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Acenaphthene | ND | | ug/kg | 140 | 18. | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 180 | 20. | 1 |
| Hexachlorobenzene | ND | | ug/kg | 100 | 20. | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 160 | 24. | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 180 | 17. | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 180 | 32. | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 180 | 30. | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 180 | 31. | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 180 | 47. | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 180 | 35. | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 180 | 30. | 1 |
| Fluoranthene | 110 | | ug/kg | 100 | 20. | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 180 | 19. | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 180 | 27. | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 210 | 30. | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 190 | 18. | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 180 | 26. | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 500 | 160 | 1 |
| Hexachloroethane | ND | | ug/kg | 140 | 28. | 1 |
| Isophorone | ND | | ug/kg | 160 | 23. | 1 |
| Naphthalene | ND | | ug/kg | 180 | 21. | 1 |
| Nitrobenzene | ND | | ug/kg | 160 | 26. | 1 |
| NDPA/DPA | ND | | ug/kg | 140 | 20. | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 180 | 27. | 1 |
| Bis(2-ethylhexyl)phthalate | ND | | ug/kg | 180 | 61. | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 180 | 44. | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 180 | 33. | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 180 | 60. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2133713

**Project Number:** 135173-002 **Report Date:** 06/25/21

## SAMPLE RESULTS

Lab ID: L2133713-02 Date Collected: 06/22/21 09:35

Client ID: WC2-20210622 Date Received: 06/22/21

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Diethyl phthalate | ND | | ug/kg | 180 | 16. | 1 |
| Dimethyl phthalate | ND | | ug/kg | 180 | 37. | 1 |
| Benzo(a)anthracene | 64 | J | ug/kg | 100 | 20. | 1 |
| Benzo(a)pyrene | 51 | J | ug/kg | 140 | 43. | 1 |
| Benzo(b)fluoranthene | 69 | J | ug/kg | 100 | 30. | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 100 | 28. | 1 |
| Chrysene | 60 | J | ug/kg | 100 | 18. | 1 |
| Acenaphthylene | ND | | ug/kg | 140 | 27. | 1 |
| Anthracene | ND | | ug/kg | 100 | 34. | 1 |
| Benzo(ghi)perylene | 34 | J | ug/kg | 140 | 21. | 1 |
| Fluorene | ND | | ug/kg | 180 | 17. | 1 |
| Phenanthrene | 68 | J | ug/kg | 100 | 21. | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 100 | 20. | 1 |
| Indeno(1,2,3-cd)pyrene | 37 | J | ug/kg | 140 | 24. | 1 |
| Pyrene | 94 | J | ug/kg | 100 | 17. | 1 |
| Biphenyl | ND | | ug/kg | 400 | 41. | 1 |
| 4-Chloroaniline | ND | | ug/kg | 180 | 32. | 1 |
| 2-Nitroaniline | ND | | ug/kg | 180 | 34. | 1 |
| 3-Nitroaniline | ND | | ug/kg | 180 | 33. | 1 |
| 4-Nitroaniline | ND | | ug/kg | 180 | 73. | 1 |
| Dibenzofuran | ND | | ug/kg | 180 | 17. | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 210 | 21. | 1 |
| 1,2,4,5-Tetrachlorobenzene | ND | | ug/kg | 180 | 18. | 1 |
| Acetophenone | ND | | ug/kg | 180 | 22. | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 100 | 33. | 1 |
| p-Chloro-m-cresol | ND | | ug/kg | 180 | 26. | 1 |
| 2-Chlorophenol | ND | | ug/kg | 180 | 21. | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 160 | 28. | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 180 | 58. | 1 |
| 2-Nitrophenol | ND | | ug/kg | 380 | 66. | 1 |
| 4-Nitrophenol | ND | | ug/kg | 250 | 72. | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 840 | 82. | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 460 | 84. | 1 |
| Pentachlorophenol | ND | | ug/kg | 140 | 39. | 1 |
| Phenol | ND | | ug/kg | 180 | 26. | 1 |
| 2-Methylphenol | ND | | ug/kg | 180 | 27. | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 250 | 28. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2133713

**Project Number:** 135173-002 **Report Date:** 06/25/21

## SAMPLE RESULTS

Lab ID: L2133713-02 Date Collected: 06/22/21 09:35

Client ID: WC2-20210622 Date Received: 06/22/21

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 180 | 34. | 1 |
| Benzoic Acid | ND | | ug/kg | 570 | 180 | 1 |
| Benzyl Alcohol | ND | | ug/kg | 180 | 54. | 1 |
| Carbazole | ND | | ug/kg | 180 | 17. | 1 |
| 1,4-Dioxane | ND | | ug/kg | 26 | 8.1 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 70 | | 25-120 |
| Phenol-d6 | 69 | | 10-120 |
| Nitrobenzene-d5 | 77 | | 23-120 |
| 2-Fluorobiphenyl | 64 | | 30-120 |
| 2,4,6-Tribromophenol | 54 | | 10-136 |
| 4-Terphenyl-d14 | 55 | | 18-120 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2133713
**Report Date:** 06/25/21

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 06/23/21 17:27
Analyst: JRW

Extraction Method: EPA 3546
Extraction Date: 06/22/21 21:59

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1515671-1 | | | | | |
| Acenaphthene | ND | | ug/kg | 130 | 17. |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 160 | 19. |
| Hexachlorobenzene | ND | | ug/kg | 99 | 18. |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 150 | 22. |
| 2-Chloronaphthalene | ND | | ug/kg | 160 | 16. |
| 1,2-Dichlorobenzene | ND | | ug/kg | 160 | 30. |
| 1,3-Dichlorobenzene | ND | | ug/kg | 160 | 28. |
| 1,4-Dichlorobenzene | ND | | ug/kg | 160 | 29. |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 160 | 44. |
| 2,4-Dinitrotoluene | ND | | ug/kg | 160 | 33. |
| 2,6-Dinitrotoluene | ND | | ug/kg | 160 | 28. |
| Fluoranthene | ND | | ug/kg | 99 | 19. |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 160 | 18. |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 160 | 25. |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 200 | 28. |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 180 | 16. |
| Hexachlorobutadiene | ND | | ug/kg | 160 | 24. |
| Hexachlorocyclopentadiene | ND | | ug/kg | 470 | 150 |
| Hexachloroethane | ND | | ug/kg | 130 | 27. |
| Isophorone | ND | | ug/kg | 150 | 21. |
| Naphthalene | ND | | ug/kg | 160 | 20. |
| Nitrobenzene | ND | | ug/kg | 150 | 24. |
| NDPA/DPA | ND | | ug/kg | 130 | 19. |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 160 | 25. |
| Bis(2-ethylhexyl)phthalate | ND | | ug/kg | 160 | 57. |
| Butyl benzyl phthalate | ND | | ug/kg | 160 | 41. |
| Di-n-butylphthalate | ND | | ug/kg | 160 | 31. |
| Di-n-octylphthalate | ND | | ug/kg | 160 | 56. |
| Diethyl phthalate | ND | | ug/kg | 160 | 15. |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2133713
**Report Date:** 06/25/21

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 06/23/21 17:27
Analyst: JRW

Extraction Method: EPA 3546
Extraction Date: 06/22/21 21:59

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1515671-1 | | | | | |
| Dimethyl phthalate | ND | | ug/kg | 160 | 34. |
| Benzo(a)anthracene | ND | | ug/kg | 99 | 18. |
| Benzo(a)pyrene | ND | | ug/kg | 130 | 40. |
| Benzo(b)fluoranthene | ND | | ug/kg | 99 | 28. |
| Benzo(k)fluoranthene | ND | | ug/kg | 99 | 26. |
| Chrysene | ND | | ug/kg | 99 | 17. |
| Acenaphthylene | ND | | ug/kg | 130 | 25. |
| Anthracene | ND | | ug/kg | 99 | 32. |
| Benzo(ghi)perylene | ND | | ug/kg | 130 | 19. |
| Fluorene | ND | | ug/kg | 160 | 16. |
| Phenanthrene | ND | | ug/kg | 99 | 20. |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 99 | 19. |
| Indeno(1,2,3-cd)pyrene | ND | | ug/kg | 130 | 23. |
| Pyrene | ND | | ug/kg | 99 | 16. |
| Biphenyl | ND | | ug/kg | 370 | 38. |
| 4-Chloroaniline | ND | | ug/kg | 160 | 30. |
| 2-Nitroaniline | ND | | ug/kg | 160 | 32. |
| 3-Nitroaniline | ND | | ug/kg | 160 | 31. |
| 4-Nitroaniline | ND | | ug/kg | 160 | 68. |
| Dibenzofuran | ND | | ug/kg | 160 | 16. |
| 2-Methylnaphthalene | ND | | ug/kg | 200 | 20. |
| 1,2,4,5-Tetrachlorobenzene | ND | | ug/kg | 160 | 17. |
| Acetophenone | ND | | ug/kg | 160 | 20. |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 99 | 31. |
| p-Chloro-m-cresol | ND | | ug/kg | 160 | 24. |
| 2-Chlorophenol | ND | | ug/kg | 160 | 19. |
| 2,4-Dichlorophenol | ND | | ug/kg | 150 | 26. |
| 2,4-Dimethylphenol | ND | | ug/kg | 160 | 54. |
| 2-Nitrophenol | ND | | ug/kg | 360 | 62. |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2133713
**Report Date:** 06/25/21

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 06/23/21 17:27
Analyst: JRW

Extraction Method: EPA 3546
Extraction Date: 06/22/21 21:59

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1515671-1 | | | | | |
| 4-Nitrophenol | ND | | ug/kg | 230 | 67. |
| 2,4-Dinitrophenol | ND | | ug/kg | 790 | 77. |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 430 | 79. |
| Pentachlorophenol | ND | | ug/kg | 130 | 36. |
| Phenol | ND | | ug/kg | 160 | 25. |
| 2-Methylphenol | ND | | ug/kg | 160 | 25. |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 240 | 26. |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 160 | 32. |
| Benzoic Acid | ND | | ug/kg | 530 | 170 |
| Benzyl Alcohol | ND | | ug/kg | 160 | 50. |
| Carbazole | ND | | ug/kg | 160 | 16. |
| 1,4-Dioxane | ND | | ug/kg | 25 | 7.6 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 70 | | 25-120 |
| Phenol-d6 | 71 | | 10-120 |
| Nitrobenzene-d5 | 79 | | 23-120 |
| 2-Fluorobiphenyl | 69 | | 30-120 |
| 2,4,6-Tribromophenol | 76 | | 10-136 |
| 4-Terphenyl-d14 | 70 | | 18-120 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2133713

**Report Date:** 06/25/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1515671-2 WG1515671-3 | | | | | | | | |
| Acenaphthene | 86 | | 88 | | 31-137 | 2 | | 50 |
| 1,2,4-Trichlorobenzene | 84 | | 87 | | 38-107 | 4 | | 50 |
| Hexachlorobenzene | 90 | | 94 | | 40-140 | 4 | | 50 |
| Bis(2-chloroethyl)ether | 79 | | 84 | | 40-140 | 6 | | 50 |
| 2-Chloronaphthalene | 86 | | 89 | | 40-140 | 3 | | 50 |
| 1,2-Dichlorobenzene | 77 | | 80 | | 40-140 | 4 | | 50 |
| 1,3-Dichlorobenzene | 74 | | 77 | | 40-140 | 4 | | 50 |
| 1,4-Dichlorobenzene | 74 | | 79 | | 28-104 | 7 | | 50 |
| 3,3'-Dichlorobenzidine | 81 | | 81 | | 40-140 | 0 | | 50 |
| 2,4-Dinitrotoluene | 101 | | 104 | | 40-132 | 3 | | 50 |
| 2,6-Dinitrotoluene | 91 | | 95 | | 40-140 | 4 | | 50 |
| Fluoranthene | 86 | | 90 | | 40-140 | 5 | | 50 |
| 4-Chlorophenyl phenyl ether | 87 | | 89 | | 40-140 | 2 | | 50 |
| 4-Bromophenyl phenyl ether | 88 | | 90 | | 40-140 | 2 | | 50 |
| Bis(2-chloroisopropyl)ether | 119 | | 127 | | 40-140 | 7 | | 50 |
| Bis(2-chloroethoxy)methane | 91 | | 94 | | 40-117 | 3 | | 50 |
| Hexachlorobutadiene | 77 | | 82 | | 40-140 | 6 | | 50 |
| Hexachlorocyclopentadiene | 57 | | 59 | | 40-140 | 3 | | 50 |
| Hexachloroethane | 85 | | 89 | | 40-140 | 5 | | 50 |
| Isophorone | 106 | | 110 | | 40-140 | 4 | | 50 |
| Naphthalene | 78 | | 82 | | 40-140 | 5 | | 50 |
| Nitrobenzene | 104 | | 104 | | 40-140 | 0 | | 50 |
| NDPA/DPA | 90 | | 94 | | 36-157 | 4 | | 50 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2133713
**Report Date:** 06/25/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1515671-2 WG1515671-3 | | | | | | | | |
| n-Nitrosodi-n-propylamine | 106 | | 110 | | 32-121 | 4 | | 50 |
| Bis(2-ethylhexyl)phthalate | 118 | | 122 | | 40-140 | 3 | | 50 |
| Butyl benzyl phthalate | 104 | | 110 | | 40-140 | 6 | | 50 |
| Di-n-butylphthalate | 106 | | 110 | | 40-140 | 4 | | 50 |
| Di-n-octylphthalate | 105 | | 109 | | 40-140 | 4 | | 50 |
| Diethyl phthalate | 100 | | 102 | | 40-140 | 2 | | 50 |
| Dimethyl phthalate | 97 | | 101 | | 40-140 | 4 | | 50 |
| Benzo(a)anthracene | 90 | | 93 | | 40-140 | 3 | | 50 |
| Benzo(a)pyrene | 92 | | 95 | | 40-140 | 3 | | 50 |
| Benzo(b)fluoranthene | 93 | | 93 | | 40-140 | 0 | | 50 |
| Benzo(k)fluoranthene | 88 | | 91 | | 40-140 | 3 | | 50 |
| Chrysene | 88 | | 92 | | 40-140 | 4 | | 50 |
| Acenaphthylene | 89 | | 93 | | 40-140 | 4 | | 50 |
| Anthracene | 88 | | 91 | | 40-140 | 3 | | 50 |
| Benzo(ghi)perylene | 90 | | 91 | | 40-140 | 1 | | 50 |
| Fluorene | 86 | | 88 | | 40-140 | 2 | | 50 |
| Phenanthrene | 86 | | 88 | | 40-140 | 2 | | 50 |
| Dibenzo(a,h)anthracene | 88 | | 92 | | 40-140 | 4 | | 50 |
| Indeno(1,2,3-cd)pyrene | 91 | | 93 | | 40-140 | 2 | | 50 |
| Pyrene | 85 | | 88 | | 35-142 | 3 | | 50 |
| Biphenyl | 81 | | 85 | | 37-127 | 5 | | 50 |
| 4-Chloroaniline | 102 | | 109 | | 40-140 | 7 | | 50 |
| 2-Nitroaniline | 107 | | 108 | | 47-134 | 1 | | 50 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2133713

**Report Date:** 06/25/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1515671-2 WG1515671-3 | | | | | | | | |
| 3-Nitroaniline | 80 | | 80 | | 26-129 | 0 | | 50 |
| 4-Nitroaniline | 94 | | 97 | | 41-125 | 3 | | 50 |
| Dibenzofuran | 87 | | 89 | | 40-140 | 2 | | 50 |
| 2-Methylnaphthalene | 82 | | 86 | | 40-140 | 5 | | 50 |
| 1,2,4,5-Tetrachlorobenzene | 75 | | 79 | | 40-117 | 5 | | 50 |
| Acetophenone | 90 | | 94 | | 14-144 | 4 | | 50 |
| 2,4,6-Trichlorophenol | 90 | | 95 | | 30-130 | 5 | | 50 |
| p-Chloro-m-cresol | 100 | | **104** | Q | 26-103 | 4 | | 50 |
| 2-Chlorophenol | 83 | | 88 | | 25-102 | 6 | | 50 |
| 2,4-Dichlorophenol | 98 | | 102 | | 30-130 | 4 | | 50 |
| 2,4-Dimethylphenol | 104 | | 106 | | 30-130 | 2 | | 50 |
| 2-Nitrophenol | 99 | | 101 | | 30-130 | 2 | | 50 |
| 4-Nitrophenol | 114 | | **121** | Q | 11-114 | 6 | | 50 |
| 2,4-Dinitrophenol | 72 | | 76 | | 4-130 | 5 | | 50 |
| 4,6-Dinitro-o-cresol | 82 | | 88 | | 10-130 | 7 | | 50 |
| Pentachlorophenol | 81 | | 85 | | 17-109 | 5 | | 50 |
| Phenol | 83 | | 86 | | 26-90 | 4 | | 50 |
| 2-Methylphenol | 94 | | 99 | | 30-130. | 5 | | 50 |
| 3-Methylphenol/4-Methylphenol | 106 | | 109 | | 30-130 | 3 | | 50 |
| 2,4,5-Trichlorophenol | 95 | | 97 | | 30-130 | 2 | | 50 |
| Benzoic Acid | 52 | | 57 | | 10-110 | 9 | | 50 |
| Benzyl Alcohol | 100 | | 106 | | 40-140 | 6 | | 50 |
| Carbazole | 88 | | 92 | | 54-128 | 4 | | 50 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2133713

**Report Date:** 06/25/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1515671-2 WG1515671-3 | | | | | | | | |
| 1,4-Dioxane | 58 | | 59 | | 40-140 | 2 | | 50 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| 2-Fluorophenol | 75 | | 79 | | 25-120 |
| Phenol-d6 | 85 | | 87 | | 10-120 |
| Nitrobenzene-d5 | 95 | | 97 | | 23-120 |
| 2-Fluorobiphenyl | 81 | | 82 | | 30-120 |
| 2,4,6-Tribromophenol | 89 | | 90 | | 10-136 |
| 4-Terphenyl-d14 | 77 | | 80 | | 18-120 |

# PETROLEUM HYDROCARBONS

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2133713
**Project Number:** 135173-002
**Report Date:** 06/25/21

## SAMPLE RESULTS

Lab ID: L2133713-01
Client ID: WC1-20210622
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 06/22/21 09:30
Date Received: 06/22/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 103,NJDEP EPH
Analytical Date: 06/25/21 11:39
Analyst: MEO
Percent Solids: 92%

Extraction Method: EPA 3546
Extraction Date: 06/24/21 16:22

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab | | | | | | |
| Total EPH | 27.5 | | mg/kg | 24.7 | 24.7 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Chloro-Octadecane | 77 | | 40-140 |
| o-Terphenyl | 77 | | 40-140 |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2133713
**Project Number:** 135173-002
**Report Date:** 06/25/21

## SAMPLE RESULTS

Lab ID: L2133713-02
Client ID: WC2-20210622
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 06/22/21 09:35
Date Received: 06/22/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 103,NJDEP EPH
Analytical Date: 06/25/21 13:09
Analyst: MEO
Percent Solids: 93%

Extraction Method: EPA 3546
Extraction Date: 06/24/21 16:22

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab | | | | | | |
| Total EPH | ND | | mg/kg | 25.3 | 25.3 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Chloro-Octadecane | 79 | | 40-140 |
| o-Terphenyl | 77 | | 40-140 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2133713
**Report Date:** 06/25/21

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 103,NJDEP EPH
Analytical Date: 06/25/21 11:08
Analyst: MEO

Extraction Method: EPA 3546
Extraction Date: 06/24/21 16:22

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab for sample(s): 01-02 Batch: WG1516656-1 | | | | | |
| Total EPH | ND | | mg/kg | 23.4 | 23.4 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| Chloro-Octadecane | 72 | | 40-140 |
| o-Terphenyl | 72 | | 40-140 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2133713

**Report Date:** 06/25/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab Associated sample(s): 01-02 Batch: WG1516656-2 WG1516656-3 | | | | | | | | |
| Total EPH | 88 | | 88 | | 40-140 | 0 | | 25 |
| Nonane (C9) | 75 | | 75 | | 40-140 | 0 | | 25 |
| Decane (C10) | 81 | | 82 | | 40-140 | 1 | | 25 |
| Dodecane (C12) | 77 | | 78 | | 40-140 | 1 | | 25 |
| Tetradecane (C14) | 76 | | 77 | | 40-140 | 1 | | 25 |
| Hexadecane (C16) | 78 | | 80 | | 40-140 | 3 | | 25 |
| Octadecane (C18) | 78 | | 79 | | 40-140 | 1 | | 25 |
| Eicosane (C20) | 79 | | 80 | | 40-140 | 1 | | 25 |
| Heneicosane (C21) | 78 | | 80 | | 40-140 | 3 | | 25 |
| Docosane (C22) | 78 | | 80 | | 40-140 | 3 | | 25 |
| Tetracosane (C24) | 78 | | 80 | | 40-140 | 3 | | 25 |
| Hexacosane (C26) | 78 | | 80 | | 40-140 | 3 | | 25 |
| Octacosane (C28) | 78 | | 80 | | 40-140 | 3 | | 25 |
| Triacontane (C30) | 78 | | 81 | | 40-140 | 4 | | 25 |
| Dotriacontane (C32) | 80 | | 83 | | 40-140 | 4 | | 25 |
| Tetratriacontane (C34) | 78 | | 79 | | 40-140 | 1 | | 25 |
| Hexatriacontane (C36) | 80 | | 80 | | 40-140 | 0 | | 25 |
| Octatriacontane (C38) | 81 | | 81 | | 40-140 | 0 | | 25 |
| Tetracontane (C40) | 82 | | 80 | | 40-140 | 2 | | 25 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2133713

**Report Date:** 06/25/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab Associated sample(s): 01-02 Batch: WG1516656-2 WG1516656-3 | | | | | | | | |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| Chloro-Octadecane | 76 | | 76 | | 40-140 |
| o-Terphenyl | 75 | | 76 | | 40-140 |

# Matrix Spike Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2133713
**Report Date:** 06/25/21

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1516656-4 QC Sample: L2133713-01 Client ID: WC1-20210622 | | | | | | | | | | | | |
| Total EPH | 27.5 | 249 | 222 | 78 | | - | - | | 40-140 | - | | 50 |
| Nonane (C9) | ND | 6.92 | 4.83 | 70 | | - | - | | 40-140 | - | | 50 |
| Decane (C10) | ND | 6.92 | 4.98 | 72 | | - | - | | 40-140 | - | | 50 |
| Dodecane (C12) | ND | 6.92 | 4.78 | 69 | | - | - | | 40-140 | - | | 50 |
| Tetradecane (C14) | ND | 6.92 | 4.60 | 66 | | - | - | | 40-140 | - | | 50 |
| Hexadecane (C16) | ND | 6.92 | 4.84 | 70 | | - | - | | 40-140 | - | | 50 |
| Octadecane (C18) | ND | 6.92 | 5.46 | 79 | | - | - | | 40-140 | - | | 50 |
| Eicosane (C20) | ND | 6.92 | 5.08 | 73 | | - | - | | 40-140 | - | | 50 |
| Heneicosane (C21) | ND | 6.92 | 5.07 | 73 | | - | - | | 40-140 | - | | 50 |
| Docosane (C22) | ND | 6.92 | 5.08 | 73 | | - | - | | 40-140 | - | | 50 |
| Tetracosane (C24) | ND | 6.92 | 5.06 | 73 | | - | - | | 40-140 | - | | 50 |
| Hexacosane (C26) | ND | 6.92 | 5.09 | 74 | | - | - | | 40-140 | - | | 50 |
| Octacosane (C28) | ND | 6.92 | 5.08 | 73 | | - | - | | 40-140 | - | | 50 |
| Triacontane (C30) | ND | 6.92 | 5.16 | 75 | | - | - | | 40-140 | - | | 50 |
| Dotriacontane (C32) | ND | 6.92 | 5.18 | 75 | | - | - | | 40-140 | - | | 50 |
| Tetratriacontane (C34) | ND | 6.92 | 5.01 | 72 | | - | - | | 40-140 | - | | 50 |
| Hexatriacontane (C36) | ND | 6.92 | 5.18 | 75 | | - | - | | 40-140 | - | | 50 |
| Octatriacontane (C38) | ND | 6.92 | 5.14 | 74 | | - | - | | 40-140 | - | | 50 |
| Tetracontane (C40) | ND | 6.92 | 5.16 | 75 | | - | - | | 40-140 | - | | 50 |

| Surrogate | MS % Recovery | MS Qualifier | MSD % Recovery | MSD Qualifier | Acceptance Criteria |
|---|---|---|---|---|---|
| Chloro-Octadecane | 70 | | | | 40-140 |

# Matrix Spike Analysis

***Batch Quality Control***

***Project Name:*** 310 GRAND CONCOURSE

***Project Number:*** 135173-002

***Lab Number:*** L2133713

***Report Date:*** 06/25/21

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1516656-4 QC Sample: L2133713-01 Client ID: WC1-20210622 | | | | | | | | | | | | |

| Surrogate | MS % Recovery | MS Qualifier | MSD % Recovery | MSD Qualifier | Acceptance Criteria |
|---|---|---|---|---|---|
| o-Terphenyl | 68 | | | | 40-140 |

# Lab Duplicate Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2133713
**Report Date:** 06/25/21

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| NJ Extractable Petroleum Hydrocarbons (Total) - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1516656-5 QC Sample: L2133713-01 Client ID: WC1-20210622 | | | | | | |
| Total EPH | 27.5 | 30.1 | mg/kg | 9 | | 50 |

| Surrogate | %Recovery | Qualifier | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|---|---|
| Chloro-Octadecane | 77 | | 75 | | 40-140 |
| o-Terphenyl | 77 | | 74 | | 40-140 |

# PCBS

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2133713
**Report Date:** 06/25/21

## SAMPLE RESULTS

Lab ID: L2133713-01
Client ID: WC1-20210622
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 06/22/21 09:30
Date Received: 06/22/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 06/23/21 22:26
Analyst: AWS
Percent Solids: 92%

Extraction Method: EPA 3546
Extraction Date: 06/23/21 05:22
Cleanup Method: EPA 3665A
Cleanup Date: 06/23/21
Cleanup Method: EPA 3660B
Cleanup Date: 06/23/21

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Polychlorinated Biphenyls by GC - Westborough Lab** | | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 34.3 | 3.05 | 1 | A |
| Aroclor 1221 | ND | | ug/kg | 34.3 | 3.44 | 1 | A |
| Aroclor 1232 | ND | | ug/kg | 34.3 | 7.28 | 1 | A |
| Aroclor 1242 | ND | | ug/kg | 34.3 | 4.62 | 1 | A |
| Aroclor 1248 | ND | | ug/kg | 34.3 | 5.15 | 1 | A |
| Aroclor 1254 | ND | | ug/kg | 34.3 | 3.75 | 1 | A |
| Aroclor 1260 | 6.89 | J | ug/kg | 34.3 | 6.34 | 1 | A |
| Aroclor 1262 | ND | | ug/kg | 34.3 | 4.36 | 1 | A |
| Aroclor 1268 | ND | | ug/kg | 34.3 | 3.56 | 1 | A |
| PCBs, Total | 6.89 | J | ug/kg | 34.3 | 3.05 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 56 | | 30-150 | A |
| Decachlorobiphenyl | 49 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 62 | | 30-150 | B |
| Decachlorobiphenyl | 58 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2133713
**Report Date:** 06/25/21

## SAMPLE RESULTS

Lab ID: L2133713-02
Client ID: WC2-20210622
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 06/22/21 09:35
Date Received: 06/22/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 06/23/21 22:33
Analyst: AWS
Percent Solids: 93%

Extraction Method: EPA 3546
Extraction Date: 06/23/21 05:22
Cleanup Method: EPA 3665A
Cleanup Date: 06/23/21
Cleanup Method: EPA 3660B
Cleanup Date: 06/23/21

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Polychlorinated Biphenyls by GC - Westborough Lab** | | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 34.3 | 3.05 | 1 | A |
| Aroclor 1221 | ND | | ug/kg | 34.3 | 3.44 | 1 | A |
| Aroclor 1232 | ND | | ug/kg | 34.3 | 7.28 | 1 | A |
| Aroclor 1242 | ND | | ug/kg | 34.3 | 4.63 | 1 | A |
| Aroclor 1248 | ND | | ug/kg | 34.3 | 5.15 | 1 | A |
| Aroclor 1254 | ND | | ug/kg | 34.3 | 3.76 | 1 | A |
| Aroclor 1260 | ND | | ug/kg | 34.3 | 6.34 | 1 | A |
| Aroclor 1262 | ND | | ug/kg | 34.3 | 4.36 | 1 | A |
| Aroclor 1268 | ND | | ug/kg | 34.3 | 3.56 | 1 | A |
| PCBs, Total | ND | | ug/kg | 34.3 | 3.05 | 1 | A |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 60 | | 30-150 | A |
| Decachlorobiphenyl | 51 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 63 | | 30-150 | B |
| Decachlorobiphenyl | 59 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2133713
**Report Date:** 06/25/21

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 06/23/21 22:40
Analyst: AWS

Extraction Method: EPA 3546
Extraction Date: 06/23/21 03:27
Cleanup Method: EPA 3665A
Cleanup Date: 06/23/21
Cleanup Method: EPA 3660B
Cleanup Date: 06/23/21

| Parameter | Result | Qualifier | Units | RL | MDL | Column |
|---|---|---|---|---|---|---|
| Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-02 Batch: WG1515709-1 | | | | | | |
| Aroclor 1016 | ND | | ug/kg | 31.8 | 2.82 | A |
| Aroclor 1221 | ND | | ug/kg | 31.8 | 3.19 | A |
| Aroclor 1232 | ND | | ug/kg | 31.8 | 6.74 | A |
| Aroclor 1242 | ND | | ug/kg | 31.8 | 4.29 | A |
| Aroclor 1248 | ND | | ug/kg | 31.8 | 4.77 | A |
| Aroclor 1254 | ND | | ug/kg | 31.8 | 3.48 | A |
| Aroclor 1260 | ND | | ug/kg | 31.8 | 5.88 | A |
| Aroclor 1262 | ND | | ug/kg | 31.8 | 4.04 | A |
| Aroclor 1268 | ND | | ug/kg | 31.8 | 3.30 | A |
| PCBs, Total | ND | | ug/kg | 31.8 | 2.82 | A |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 76 | | 30-150 | A |
| Decachlorobiphenyl | 67 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 81 | | 30-150 | B |
| Decachlorobiphenyl | 75 | | 30-150 | B |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2133713

**Report Date:** 06/25/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits | Column |
|---|---|---|---|---|---|---|---|---|---|
| Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-02 Batch: WG1515709-2 WG1515709-3 | | | | | | | | | |
| Aroclor 1016 | 80 | | 76 | | 40-140 | 5 | | 50 | A |
| Aroclor 1260 | 75 | | 71 | | 40-140 | 5 | | 50 | A |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria | Column |
|---|---|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 73 | | 69 | | 30-150 | A |
| Decachlorobiphenyl | 69 | | 60 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 79 | | 73 | | 30-150 | B |
| Decachlorobiphenyl | 75 | | 71 | | 30-150 | B |

# PESTICIDES

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2133713
**Report Date:** 06/25/21

## SAMPLE RESULTS

Lab ID: L2133713-01
Client ID: WC1-20210622
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 06/22/21 09:30
Date Received: 06/22/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 06/25/21 11:50
Analyst: SDC
Percent Solids: 92%

Extraction Method: EPA 3546
Extraction Date: 06/23/21 05:09
Cleanup Method: EPA 3620B
Cleanup Date: 06/24/21

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Organochlorine Pesticides by GC - Westborough Lab** | | | | | | | |
| Delta-BHC | ND | | ug/kg | 1.71 | 0.335 | 1 | A |
| Lindane | ND | | ug/kg | 0.712 | 0.318 | 1 | A |
| Alpha-BHC | ND | | ug/kg | 0.712 | 0.202 | 1 | A |
| Beta-BHC | ND | | ug/kg | 1.71 | 0.648 | 1 | A |
| Heptachlor | ND | | ug/kg | 0.855 | 0.383 | 1 | A |
| Aldrin | ND | | ug/kg | 1.71 | 0.602 | 1 | A |
| Heptachlor epoxide | ND | | ug/kg | 3.21 | 0.962 | 1 | A |
| Endrin | ND | | ug/kg | 0.712 | 0.292 | 1 | A |
| Endrin aldehyde | ND | | ug/kg | 2.14 | 0.748 | 1 | A |
| Endrin ketone | ND | | ug/kg | 1.71 | 0.440 | 1 | A |
| Dieldrin | ND | | ug/kg | 1.07 | 0.534 | 1 | A |
| 4,4'-DDE | ND | | ug/kg | 1.71 | 0.395 | 1 | A |
| 4,4'-DDD | ND | | ug/kg | 1.71 | 0.610 | 1 | A |
| 4,4'-DDT | ND | | ug/kg | 3.21 | 1.38 | 1 | A |
| Endosulfan I | ND | | ug/kg | 1.71 | 0.404 | 1 | A |
| Endosulfan II | ND | | ug/kg | 1.71 | 0.571 | 1 | A |
| Endosulfan sulfate | ND | | ug/kg | 0.712 | 0.339 | 1 | A |
| Methoxychlor | ND | | ug/kg | 3.21 | 0.997 | 1 | A |
| Toxaphene | ND | | ug/kg | 32.1 | 8.98 | 1 | A |
| cis-Chlordane | ND | | ug/kg | 2.14 | 0.596 | 1 | A |
| trans-Chlordane | ND | | ug/kg | 2.14 | 0.564 | 1 | A |
| Chlordane | ND | | ug/kg | 14.2 | 5.66 | 1 | A |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2133713

**Project Number:** 135173-002 **Report Date:** 06/25/21

## SAMPLE RESULTS

Lab ID: L2133713-01 Date Collected: 06/22/21 09:30

Client ID: WC1-20210622 Date Received: 06/22/21

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab | | | | | | | |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 78 | | 30-150 | A |
| Decachlorobiphenyl | 65 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 73 | | 30-150 | B |
| Decachlorobiphenyl | 65 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2133713
**Report Date:** 06/25/21

## SAMPLE RESULTS

Lab ID: L2133713-02
Client ID: WC2-20210622
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 06/22/21 09:35
Date Received: 06/22/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 06/25/21 12:01
Analyst: SDC
Percent Solids: 93%

Extraction Method: EPA 3546
Extraction Date: 06/23/21 05:09
Cleanup Method: EPA 3620B
Cleanup Date: 06/24/21

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| **Organochlorine Pesticides by GC - Westborough Lab** | | | | | | | |
| Delta-BHC | ND | | ug/kg | 1.65 | 0.323 | 1 | A |
| Lindane | ND | | ug/kg | 0.688 | 0.308 | 1 | A |
| Alpha-BHC | ND | | ug/kg | 0.688 | 0.195 | 1 | A |
| Beta-BHC | ND | | ug/kg | 1.65 | 0.626 | 1 | A |
| Heptachlor | ND | | ug/kg | 0.826 | 0.370 | 1 | A |
| Aldrin | ND | | ug/kg | 1.65 | 0.581 | 1 | A |
| Heptachlor epoxide | ND | | ug/kg | 3.10 | 0.929 | 1 | A |
| Endrin | ND | | ug/kg | 0.688 | 0.282 | 1 | A |
| Endrin aldehyde | ND | | ug/kg | 2.06 | 0.722 | 1 | A |
| Endrin ketone | ND | | ug/kg | 1.65 | 0.425 | 1 | A |
| Dieldrin | ND | | ug/kg | 1.03 | 0.516 | 1 | A |
| 4,4'-DDE | ND | | ug/kg | 1.65 | 0.382 | 1 | A |
| 4,4'-DDD | ND | | ug/kg | 1.65 | 0.589 | 1 | A |
| 4,4'-DDT | ND | | ug/kg | 3.10 | 1.33 | 1 | B |
| Endosulfan I | ND | | ug/kg | 1.65 | 0.390 | 1 | A |
| Endosulfan II | ND | | ug/kg | 1.65 | 0.552 | 1 | A |
| Endosulfan sulfate | ND | | ug/kg | 0.688 | 0.328 | 1 | A |
| Methoxychlor | ND | | ug/kg | 3.10 | 0.963 | 1 | A |
| Toxaphene | ND | | ug/kg | 31.0 | 8.67 | 1 | A |
| cis-Chlordane | ND | | ug/kg | 2.06 | 0.575 | 1 | A |
| trans-Chlordane | ND | | ug/kg | 2.06 | 0.545 | 1 | A |
| Chlordane | ND | | ug/kg | 13.8 | 5.47 | 1 | A |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2133713

**Project Number:** 135173-002 **Report Date:** 06/25/21

## SAMPLE RESULTS

Lab ID: L2133713-02 Date Collected: 06/22/21 09:35

Client ID: WC2-20210622 Date Received: 06/22/21

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Column |
|---|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab | | | | | | | |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 81 | | 30-150 | A |
| Decachlorobiphenyl | 64 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 72 | | 30-150 | B |
| Decachlorobiphenyl | 57 | | 30-150 | B |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2133713
**Report Date:** 06/25/21

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 06/25/21 11:19
Analyst: SDC

Extraction Method: EPA 3546
Extraction Date: 06/23/21 03:18
Cleanup Method: EPA 3620B
Cleanup Date: 06/24/21

| Parameter | Result | Qualifier | Units | RL | MDL | Column |
|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-02 Batch: WG1515707-1 | | | | | | |
| Delta-BHC | ND | | ug/kg | 1.54 | 0.302 | A |
| Lindane | ND | | ug/kg | 0.642 | 0.287 | A |
| Alpha-BHC | ND | | ug/kg | 0.642 | 0.182 | A |
| Beta-BHC | ND | | ug/kg | 1.54 | 0.584 | A |
| Heptachlor | ND | | ug/kg | 0.771 | 0.346 | A |
| Aldrin | ND | | ug/kg | 1.54 | 0.543 | A |
| Heptachlor epoxide | ND | | ug/kg | 2.89 | 0.867 | A |
| Endrin | ND | | ug/kg | 0.642 | 0.263 | A |
| Endrin aldehyde | ND | | ug/kg | 1.93 | 0.674 | A |
| Endrin ketone | ND | | ug/kg | 1.54 | 0.397 | A |
| Dieldrin | ND | | ug/kg | 0.963 | 0.482 | A |
| 4,4'-DDE | ND | | ug/kg | 1.54 | 0.356 | A |
| 4,4'-DDD | ND | | ug/kg | 1.54 | 0.550 | A |
| 4,4'-DDT | ND | | ug/kg | 2.89 | 1.24 | A |
| Endosulfan I | ND | | ug/kg | 1.54 | 0.364 | A |
| Endosulfan II | ND | | ug/kg | 1.54 | 0.515 | A |
| Endosulfan sulfate | ND | | ug/kg | 0.642 | 0.306 | A |
| Methoxychlor | ND | | ug/kg | 2.89 | 0.899 | A |
| Toxaphene | ND | | ug/kg | 28.9 | 8.09 | A |
| cis-Chlordane | ND | | ug/kg | 1.93 | 0.537 | A |
| trans-Chlordane | ND | | ug/kg | 1.93 | 0.509 | A |
| Chlordane | ND | | ug/kg | 12.8 | 5.10 | A |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2133713
**Report Date:** 06/25/21

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 06/25/21 11:19
Analyst: SDC

Extraction Method: EPA 3546
Extraction Date: 06/23/21 03:18
Cleanup Method: EPA 3620B
Cleanup Date: 06/24/21

| Parameter | Result | Qualifier | Units | RL | MDL | Column |
|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-02 Batch: WG1515707-1 | | | | | | |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria | Column |
|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 77 | | 30-150 | A |
| Decachlorobiphenyl | 65 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 75 | | 30-150 | B |
| Decachlorobiphenyl | 64 | | 30-150 | B |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2133713
**Report Date:** 06/25/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits | Column |
|---|---|---|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-02 Batch: WG1515707-2 WG1515707-3 | | | | | | | | | |
| Delta-BHC | 86 | | 104 | | 30-150 | 19 | | 30 | A |
| Lindane | 84 | | 103 | | 30-150 | 20 | | 30 | A |
| Alpha-BHC | 85 | | 105 | | 30-150 | 21 | | 30 | A |
| Beta-BHC | 78 | | 100 | | 30-150 | 25 | | 30 | A |
| Heptachlor | 81 | | 101 | | 30-150 | 22 | | 30 | A |
| Aldrin | 84 | | 104 | | 30-150 | 21 | | 30 | A |
| Heptachlor epoxide | 79 | | 98 | | 30-150 | 21 | | 30 | A |
| Endrin | 83 | | 101 | | 30-150 | 20 | | 30 | A |
| Endrin aldehyde | 66 | | 80 | | 30-150 | 19 | | 30 | A |
| Endrin ketone | 83 | | 99 | | 30-150 | 18 | | 30 | A |
| Dieldrin | 85 | | 108 | | 30-150 | 24 | | 30 | A |
| 4,4'-DDE | 82 | | 104 | | 30-150 | 24 | | 30 | A |
| 4,4'-DDD | 92 | | 114 | | 30-150 | 21 | | 30 | A |
| 4,4'-DDT | 90 | | 114 | | 30-150 | 24 | | 30 | A |
| Endosulfan I | 77 | | 97 | | 30-150 | 23 | | 30 | A |
| Endosulfan II | 84 | | 102 | | 30-150 | 19 | | 30 | A |
| Endosulfan sulfate | 70 | | 89 | | 30-150 | 24 | | 30 | A |
| Methoxychlor | 88 | | 111 | | 30-150 | 23 | | 30 | A |
| cis-Chlordane | 73 | | 90 | | 30-150 | 21 | | 30 | A |
| trans-Chlordane | 70 | | 88 | | 30-150 | 23 | | 30 | A |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2133713

**Report Date:** 06/25/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-02 Batch: WG1515707-2 WG1515707-3 | | | | | | | | |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria | Column |
|---|---|---|---|---|---|---|
| 2,4,5,6-Tetrachloro-m-xylene | 78 | | 91 | | 30-150 | A |
| Decachlorobiphenyl | 62 | | 76 | | 30-150 | A |
| 2,4,5,6-Tetrachloro-m-xylene | 71 | | 88 | | 30-150 | B |
| Decachlorobiphenyl | 61 | | 76 | | 30-150 | B |

# METALS

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2133713
**Project Number:** 135173-002
**Report Date:** 06/25/21

## SAMPLE RESULTS

Lab ID: L2133713-01
Client ID: WC1-20210622
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 06/22/21 09:30
Date Received: 06/22/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 92%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Aluminum, Total | 10000 | | mg/kg | 100 | 16. | 10 | 06/23/21 20:30 | 06/25/21 10:57 | EPA 3050B | 1,6020B | CD |
| Antimony, Total | 0.26 | J | mg/kg | 1.7 | 0.14 | 10 | 06/23/21 20:30 | 06/25/21 10:57 | EPA 3050B | 1,6020B | CD |
| Arsenic, Total | 2.2 | | mg/kg | 0.53 | 0.07 | 10 | 06/23/21 20:30 | 06/25/21 10:57 | EPA 3050B | 1,6020B | CD |
| Barium, Total | 81 | | mg/kg | 3.2 | 0.22 | 10 | 06/23/21 20:30 | 06/25/21 10:57 | EPA 3050B | 1,6020B | CD |
| Beryllium, Total | 0.63 | | mg/kg | 0.32 | 0.09 | 10 | 06/23/21 20:30 | 06/25/21 10:57 | EPA 3050B | 1,6020B | CD |
| Cadmium, Total | 0.21 | | mg/kg | 0.21 | 0.03 | 10 | 06/23/21 20:30 | 06/25/21 10:57 | EPA 3050B | 1,6020B | CD |
| Calcium, Total | 30000 | | mg/kg | 530 | 64. | 10 | 06/23/21 20:30 | 06/25/21 10:57 | EPA 3050B | 1,6020B | CD |
| Chromium, Total | 21 | | mg/kg | 2.1 | 0.50 | 10 | 06/23/21 20:30 | 06/25/21 10:57 | EPA 3050B | 1,6020B | CD |
| Cobalt, Total | 12 | | mg/kg | 0.53 | 0.06 | 10 | 06/23/21 20:30 | 06/25/21 10:57 | EPA 3050B | 1,6020B | CD |
| Copper, Total | 39 | | mg/kg | 2.1 | 0.20 | 10 | 06/23/21 20:30 | 06/25/21 10:57 | EPA 3050B | 1,6020B | CD |
| Iron, Total | 26000 | | mg/kg | 210 | 22. | 10 | 06/23/21 20:30 | 06/25/21 10:57 | EPA 3050B | 1,6020B | CD |
| Lead, Total | 71 | | mg/kg | 0.63 | 0.15 | 10 | 06/23/21 20:30 | 06/25/21 10:57 | EPA 3050B | 1,6020B | CD |
| Magnesium, Total | 15000 | | mg/kg | 100 | 13. | 10 | 06/23/21 20:30 | 06/25/21 10:57 | EPA 3050B | 1,6020B | CD |
| Manganese, Total | 580 | | mg/kg | 2.1 | 0.47 | 10 | 06/23/21 20:30 | 06/25/21 10:57 | EPA 3050B | 1,6020B | CD |
| Mercury, Total | 0.196 | | mg/kg | 0.075 | 0.049 | 1 | 06/23/21 21:15 | 06/25/21 09:42 | EPA 7471B | 1,7471B | NB |
| Nickel, Total | 26 | | mg/kg | 1.0 | 0.28 | 10 | 06/23/21 20:30 | 06/25/21 10:57 | EPA 3050B | 1,6020B | CD |
| Potassium, Total | 1700 | | mg/kg | 100 | 17. | 10 | 06/23/21 20:30 | 06/25/21 10:57 | EPA 3050B | 1,6020B | CD |
| Selenium, Total | 1.0 | J | mg/kg | 2.1 | 0.80 | 10 | 06/23/21 20:30 | 06/25/21 10:57 | EPA 3050B | 1,6020B | CD |
| Silver, Total | 0.12 | J | mg/kg | 0.53 | 0.05 | 10 | 06/23/21 20:30 | 06/25/21 10:57 | EPA 3050B | 1,6020B | CD |
| Sodium, Total | 160 | | mg/kg | 160 | 12. | 10 | 06/23/21 20:30 | 06/25/21 10:57 | EPA 3050B | 1,6020B | CD |
| Thallium, Total | 0.39 | J | mg/kg | 0.42 | 0.05 | 10 | 06/23/21 20:30 | 06/25/21 10:57 | EPA 3050B | 1,6020B | CD |
| Vanadium, Total | 27 | | mg/kg | 1.0 | 0.40 | 10 | 06/23/21 20:30 | 06/25/21 10:57 | EPA 3050B | 1,6020B | CD |
| Zinc, Total | 140 | | mg/kg | 10 | 2.8 | 10 | 06/23/21 20:30 | 06/25/21 10:57 | EPA 3050B | 1,6020B | CD |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2133713
**Project Number:** 135173-002
**Report Date:** 06/25/21

## SAMPLE RESULTS

Lab ID: L2133713-02
Client ID: WC2-20210622
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 06/22/21 09:35
Date Received: 06/22/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 93%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Aluminum, Total | 7500 | | mg/kg | 100 | 16. | 10 | 06/23/21 20:30 | 06/25/21 11:11 | EPA 3050B | 1,6020B | CD |
| Antimony, Total | ND | | mg/kg | 1.7 | 0.14 | 10 | 06/23/21 20:30 | 06/25/21 11:11 | EPA 3050B | 1,6020B | CD |
| Arsenic, Total | 1.6 | | mg/kg | 0.53 | 0.07 | 10 | 06/23/21 20:30 | 06/25/21 11:11 | EPA 3050B | 1,6020B | CD |
| Barium, Total | 61 | | mg/kg | 3.2 | 0.22 | 10 | 06/23/21 20:30 | 06/25/21 11:11 | EPA 3050B | 1,6020B | CD |
| Beryllium, Total | 0.52 | | mg/kg | 0.32 | 0.09 | 10 | 06/23/21 20:30 | 06/25/21 11:11 | EPA 3050B | 1,6020B | CD |
| Cadmium, Total | 0.17 | J | mg/kg | 0.21 | 0.03 | 10 | 06/23/21 20:30 | 06/25/21 11:11 | EPA 3050B | 1,6020B | CD |
| Calcium, Total | 41000 | | mg/kg | 530 | 64. | 10 | 06/23/21 20:30 | 06/25/21 11:11 | EPA 3050B | 1,6020B | CD |
| Chromium, Total | 16 | | mg/kg | 2.1 | 0.50 | 10 | 06/23/21 20:30 | 06/25/21 11:11 | EPA 3050B | 1,6020B | CD |
| Cobalt, Total | 8.6 | | mg/kg | 0.53 | 0.06 | 10 | 06/23/21 20:30 | 06/25/21 11:11 | EPA 3050B | 1,6020B | CD |
| Copper, Total | 24 | | mg/kg | 2.1 | 0.20 | 10 | 06/23/21 20:30 | 06/25/21 11:11 | EPA 3050B | 1,6020B | CD |
| Iron, Total | 18000 | | mg/kg | 210 | 22. | 10 | 06/23/21 20:30 | 06/25/21 11:11 | EPA 3050B | 1,6020B | CD |
| Lead, Total | 32 | | mg/kg | 0.64 | 0.15 | 10 | 06/23/21 20:30 | 06/25/21 11:11 | EPA 3050B | 1,6020B | CD |
| Magnesium, Total | 15000 | | mg/kg | 100 | 13. | 10 | 06/23/21 20:30 | 06/25/21 11:11 | EPA 3050B | 1,6020B | CD |
| Manganese, Total | 470 | | mg/kg | 2.1 | 0.47 | 10 | 06/23/21 20:30 | 06/25/21 11:11 | EPA 3050B | 1,6020B | CD |
| Mercury, Total | 0.064 | J | mg/kg | 0.073 | 0.048 | 1 | 06/23/21 21:15 | 06/25/21 09:55 | EPA 7471B | 1,7471B | NB |
| Nickel, Total | 18 | | mg/kg | 1.0 | 0.28 | 10 | 06/23/21 20:30 | 06/25/21 11:11 | EPA 3050B | 1,6020B | CD |
| Potassium, Total | 1800 | | mg/kg | 100 | 17. | 10 | 06/23/21 20:30 | 06/25/21 11:11 | EPA 3050B | 1,6020B | CD |
| Selenium, Total | 1.0 | J | mg/kg | 2.1 | 0.80 | 10 | 06/23/21 20:30 | 06/25/21 11:11 | EPA 3050B | 1,6020B | CD |
| Silver, Total | 0.12 | J | mg/kg | 0.53 | 0.05 | 10 | 06/23/21 20:30 | 06/25/21 11:11 | EPA 3050B | 1,6020B | CD |
| Sodium, Total | 170 | | mg/kg | 160 | 12. | 10 | 06/23/21 20:30 | 06/25/21 11:11 | EPA 3050B | 1,6020B | CD |
| Thallium, Total | 0.24 | J | mg/kg | 0.42 | 0.06 | 10 | 06/23/21 20:30 | 06/25/21 11:11 | EPA 3050B | 1,6020B | CD |
| Vanadium, Total | 22 | | mg/kg | 1.0 | 0.40 | 10 | 06/23/21 20:30 | 06/25/21 11:11 | EPA 3050B | 1,6020B | CD |
| Zinc, Total | 86 | | mg/kg | 10 | 2.8 | 10 | 06/23/21 20:30 | 06/25/21 11:11 | EPA 3050B | 1,6020B | CD |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2133713

**Project Number:** 135173-002 **Report Date:** 06/25/21

# Method Blank Analysis
# Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1516192-1 | | | | | | | | | | |
| Aluminum, Total | ND | | mg/kg | 100 | 15. | 10 | 06/23/21 20:30 | 06/25/21 10:33 | 1,6020B | CD |
| Antimony, Total | ND | | mg/kg | 1.6 | 0.14 | 10 | 06/23/21 20:30 | 06/25/21 10:33 | 1,6020B | CD |
| Arsenic, Total | ND | | mg/kg | 0.50 | 0.07 | 10 | 06/23/21 20:30 | 06/25/21 10:33 | 1,6020B | CD |
| Barium, Total | ND | | mg/kg | 3.0 | 0.21 | 10 | 06/23/21 20:30 | 06/25/21 10:33 | 1,6020B | CD |
| Beryllium, Total | ND | | mg/kg | 0.30 | 0.09 | 10 | 06/23/21 20:30 | 06/25/21 10:33 | 1,6020B | CD |
| Cadmium, Total | ND | | mg/kg | 0.20 | 0.03 | 10 | 06/23/21 20:30 | 06/25/21 10:33 | 1,6020B | CD |
| Calcium, Total | ND | | mg/kg | 500 | 61. | 10 | 06/23/21 20:30 | 06/25/21 10:33 | 1,6020B | CD |
| Chromium, Total | ND | | mg/kg | 2.0 | 0.47 | 10 | 06/23/21 20:30 | 06/25/21 10:33 | 1,6020B | CD |
| Cobalt, Total | ND | | mg/kg | 0.50 | 0.05 | 10 | 06/23/21 20:30 | 06/25/21 10:33 | 1,6020B | CD |
| Copper, Total | ND | | mg/kg | 2.0 | 0.19 | 10 | 06/23/21 20:30 | 06/25/21 10:33 | 1,6020B | CD |
| Iron, Total | ND | | mg/kg | 200 | 21. | 10 | 06/23/21 20:30 | 06/25/21 10:33 | 1,6020B | CD |
| Lead, Total | ND | | mg/kg | 0.60 | 0.15 | 10 | 06/23/21 20:30 | 06/25/21 10:33 | 1,6020B | CD |
| Magnesium, Total | ND | | mg/kg | 100 | 12. | 10 | 06/23/21 20:30 | 06/25/21 10:33 | 1,6020B | CD |
| Manganese, Total | ND | | mg/kg | 2.0 | 0.44 | 10 | 06/23/21 20:30 | 06/25/21 10:33 | 1,6020B | CD |
| Nickel, Total | ND | | mg/kg | 1.0 | 0.27 | 10 | 06/23/21 20:30 | 06/25/21 10:33 | 1,6020B | CD |
| Potassium, Total | ND | | mg/kg | 100 | 16. | 10 | 06/23/21 20:30 | 06/25/21 10:33 | 1,6020B | CD |
| Selenium, Total | ND | | mg/kg | 2.0 | 0.76 | 10 | 06/23/21 20:30 | 06/25/21 10:33 | 1,6020B | CD |
| Silver, Total | ND | | mg/kg | 0.50 | 0.05 | 10 | 06/23/21 20:30 | 06/25/21 10:33 | 1,6020B | CD |
| Sodium, Total | ND | | mg/kg | 150 | 12. | 10 | 06/23/21 20:30 | 06/25/21 10:33 | 1,6020B | CD |
| Thallium, Total | ND | | mg/kg | 0.40 | 0.05 | 10 | 06/23/21 20:30 | 06/25/21 10:33 | 1,6020B | CD |
| Vanadium, Total | ND | | mg/kg | 1.0 | 0.38 | 10 | 06/23/21 20:30 | 06/25/21 10:33 | 1,6020B | CD |
| Zinc, Total | ND | | mg/kg | 10 | 2.6 | 10 | 06/23/21 20:30 | 06/25/21 10:33 | 1,6020B | CD |

**Prep Information**

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1516193-1 | | | | | | | | | | |
| Mercury, Total | ND | | mg/kg | 0.083 | 0.054 | 1 | 06/23/21 21:15 | 06/25/21 09:35 | 1,7471B | NB |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2133713
**Report Date:** 06/25/21

# Method Blank Analysis
# Batch Quality Control

**Prep Information**

Digestion Method: EPA 7471B

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2133713

**Report Date:** 06/25/21

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1516192-2 SRM Lot Number: D109-540 | | | | | | | | |
| Aluminum, Total | 86 | | - | | 50-150 | - | | 20 |
| Antimony, Total | 157 | | - | | 19-250 | - | | 20 |
| Arsenic, Total | 109 | | - | | 70-130 | - | | 20 |
| Barium, Total | 105 | | - | | 75-125 | - | | 20 |
| Beryllium, Total | 106 | | - | | 75-125 | - | | 20 |
| Cadmium, Total | 109 | | - | | 75-125 | - | | 20 |
| Calcium, Total | 103 | | - | | 73-128 | - | | 20 |
| Chromium, Total | 104 | | - | | 70-130 | - | | 20 |
| Cobalt, Total | 107 | | - | | 75-125 | - | | 20 |
| Copper, Total | 106 | | - | | 75-125 | - | | 20 |
| Iron, Total | 113 | | - | | 35-165 | - | | 20 |
| Lead, Total | 108 | | - | | 72-128 | - | | 20 |
| Magnesium, Total | 99 | | - | | 62-138 | - | | 20 |
| Manganese, Total | 104 | | - | | 74-126 | - | | 20 |
| Nickel, Total | 104 | | - | | 70-130 | - | | 20 |
| Potassium, Total | 94 | | - | | 59-141 | - | | 20 |
| Selenium, Total | 108 | | - | | 68-132 | - | | 20 |
| Silver, Total | 116 | | - | | 68-131 | - | | 20 |
| Sodium, Total | 95 | | - | | 35-165 | - | | 20 |
| Thallium, Total | 125 | | - | | 68-131 | - | | 20 |
| Vanadium, Total | 109 | | - | | 59-141 | - | | 20 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2133713

**Report Date:** 06/25/21

| Parameter | LCS %Recovery | LCSD %Recovery | %Recovery Limits | RPD | RPD Limits |
|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1516192-2 SRM Lot Number: D109-540 | | | | | |
| Zinc, Total | 108 | - | 70-130 | - | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1516193-2 SRM Lot Number: D109-540 | | | | | |
| Mercury, Total | 89 | - | 60-140 | - | |

# Matrix Spike Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2133713
**Report Date:** 06/25/21

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1516192-3 QC Sample: L2133713-01 Client ID: WC1-20210622 | | | | | | | | | | | | |
| Aluminum, Total | 10000 | 1710 | 9500 | **0** | Q | - | - | | 75-125 | - | | 20 |
| Antimony, Total | 0.26J | 42.8 | 38 | 89 | | - | - | | 75-125 | - | | 20 |
| Arsenic, Total | 2.2 | 10.3 | 12 | 95 | | - | - | | 75-125 | - | | 20 |
| Barium, Total | 81 | 171 | 260 | 105 | | - | - | | 75-125 | - | | 20 |
| Beryllium, Total | 0.63 | 4.28 | 5.1 | 104 | | - | - | | 75-125 | - | | 20 |
| Cadmium, Total | 0.21 | 4.36 | 5.0 | 114 | | - | - | | 75-125 | - | | 20 |
| Calcium, Total | 30000 | 856 | 42000 | **1400** | Q | - | - | | 75-125 | - | | 20 |
| Chromium, Total | 21 | 17.1 | 36 | 88 | | - | - | | 75-125 | - | | 20 |
| Cobalt, Total | 12 | 42.8 | 50 | 89 | | - | - | | 75-125 | - | | 20 |
| Copper, Total | 39 | 21.4 | 53 | **65** | Q | - | - | | 75-125 | - | | 20 |
| Iron, Total | 26000 | 856 | 22000 | **0** | Q | - | - | | 75-125 | - | | 20 |
| Lead, Total | 71 | 43.6 | 120 | 112 | | - | - | | 75-125 | - | | 20 |
| Magnesium, Total | 15000 | 856 | 16000 | 117 | | - | - | | 75-125 | - | | 20 |
| Manganese, Total | 580 | 42.8 | 520 | **0** | Q | - | - | | 75-125 | - | | 20 |
| Nickel, Total | 26 | 42.8 | 60 | 79 | | - | - | | 75-125 | - | | 20 |
| Potassium, Total | 1700 | 856 | 2600 | 105 | | - | - | | 75-125 | - | | 20 |
| Selenium, Total | 1.0J | 10.3 | 10 | 97 | | - | - | | 75-125 | - | | 20 |
| Silver, Total | 0.12J | 25.7 | 26 | 101 | | - | - | | 75-125 | - | | 20 |
| Sodium, Total | 160 | 856 | 1000 | 117 | | - | - | | 75-125 | - | | 20 |
| Thallium, Total | 0.39J | 10.3 | 11 | 107 | | - | - | | 75-125 | - | | 20 |
| Vanadium, Total | 27 | 42.8 | 69 | 98 | | - | - | | 75-125 | - | | 20 |

# Matrix Spike Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2133713
**Report Date:** 06/25/21

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | | MSD Found | MSD %Recovery | Recovery Limits | RPD | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1516192-3 QC Sample: L2133713-01 Client ID: WC1-20210622 | | | | | | | | | | |
| Zinc, Total | 140 | 42.8 | 150 | **23** | Q | - | - | 75-125 | - | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1516193-3 QC Sample: L2133713-01 Client ID: WC1-20210622 | | | | | | | | | | |
| Mercury, Total | 0.196 | 0.144 | 0.285 | **62** | Q | - | - | 80-120 | - | 20 |

# Lab Duplicate Analysis
## *Batch Quality Control*

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

***Lab Number:*** L2133713
***Report Date:*** 06/25/21

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1516192-4 QC Sample: L2133713-01 Client ID: WC1-20210622 | | | | | | |
| Aluminum, Total | 10000 | 9300 | mg/kg | 7 | | 20 |
| Antimony, Total | 0.26J | 0.41J | mg/kg | NC | | 20 |
| Arsenic, Total | 2.2 | 2.0 | mg/kg | 10 | | 20 |
| Barium, Total | 81 | 81 | mg/kg | 0 | | 20 |
| Beryllium, Total | 0.63 | 0.57 | mg/kg | 10 | | 20 |
| Cadmium, Total | 0.21 | 0.23 | mg/kg | 9 | | 20 |
| Calcium, Total | 30000 | 37000 | mg/kg | **21** | Q | 20 |
| Chromium, Total | 21 | 21 | mg/kg | 0 | | 20 |
| Cobalt, Total | 12 | 12 | mg/kg | 0 | | 20 |
| Copper, Total | 39 | 38 | mg/kg | 3 | | 20 |
| Iron, Total | 26000 | 25000 | mg/kg | 4 | | 20 |
| Lead, Total | 71 | 64 | mg/kg | 10 | | 20 |
| Magnesium, Total | 15000 | 17000 | mg/kg | 13 | | 20 |
| Manganese, Total | 580 | 590 | mg/kg | 2 | | 20 |
| Nickel, Total | 26 | 24 | mg/kg | 8 | | 20 |
| Potassium, Total | 1700 | 1900 | mg/kg | 11 | | 20 |
| Selenium, Total | 1.0J | 0.88J | mg/kg | NC | | 20 |
| Silver, Total | 0.12J | 0.14J | mg/kg | NC | | 20 |
| Sodium, Total | 160 | 170 | mg/kg | 6 | | 20 |

# Lab Duplicate Analysis
*Batch Quality Control*

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

***Lab Number:*** L2133713
***Report Date:*** 06/25/21

| Parameter | Native Sample | Duplicate Sample | Units | RPD | RPD Limits |
|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1516192-4 QC Sample: L2133713-01 Client ID: WC1-20210622 | | | | | |
| Thallium, Total | 0.39J | 0.68 | mg/kg | NC | 20 |
| Vanadium, Total | 27 | 26 | mg/kg | 4 | 20 |
| Zinc, Total | 140 | 140 | mg/kg | 0 | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1516193-4 QC Sample: L2133713-01 Client ID: WC1-20210622 | | | | | |
| Mercury, Total | 0.196 | 0.175 | mg/kg | 11 | 20 |

# INORGANICS
# &
# MISCELLANEOUS

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2133713
**Report Date:** 06/25/21

## SAMPLE RESULTS

Lab ID: L2133713-01
Client ID: WC1-20210622
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 06/22/21 09:30
Date Received: 06/22/21
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 92.1 | | % | 0.100 | NA | 1 | - | 06/23/21 06:22 | 121,2540G | RI |
| Paint Filter Liquid | NEGATIVE | | - | 0 | NA | 1 | - | 06/22/21 19:17 | 1,9095B | AS |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2133713
**Report Date:** 06/25/21

## SAMPLE RESULTS

Lab ID: L2133713-02
Client ID: WC2-20210622
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 06/22/21 09:35
Date Received: 06/22/21
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 93.4 | | % | 0.100 | NA | 1 | - | 06/23/21 06:22 | 121,2540G | RI |
| Paint Filter Liquid | NEGATIVE | | - | 0 | NA | 1 | - | 06/22/21 19:17 | 1,9095B | AS |

# Lab Duplicate Analysis

***Batch Quality Control***

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

***Lab Number:*** L2133713

***Report Date:*** 06/25/21

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1515749-1 QC Sample: L2133733-01 Client ID: DUP Sample | | | | | | |
| Solids, Total | 86.2 | 86.7 | % | 1 | | 20 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2133713
**Report Date:** 06/25/21

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

### Cooler Information

| Cooler | Custody Seal |
|---|---|
| A | Absent |

### Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2133713-01A | Vial MeOH preserved | A | NA | | 2.8 | Y | Absent | | NYTCL-8260HLW(14) |
| L2133713-01B | Vial water preserved | A | NA | | 2.8 | Y | Absent | 23-JUN-21 02:00 | NYTCL-8260HLW(14) |
| L2133713-01C | Vial water preserved | A | NA | | 2.8 | Y | Absent | 23-JUN-21 02:00 | NYTCL-8260HLW(14) |
| L2133713-01D | Plastic 120ml unpreserved | A | NA | | 2.8 | Y | Absent | | TL-6020T(180),BA-6020T(180),SE-6020T(180),FE-6020T(180),K-6020T(180),NI-6020T(180),CA-6020T(180),CR-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),V-6020T(180),AS-6020T(180),SB-6020T(180),MG-6020T(180),AG-6020T(180),AL-6020T(180),HG-T(28),CD-6020T(180),CO-6020T(180) |
| L2133713-01E | Glass 250ml/8oz unpreserved | A | NA | | 2.8 | Y | Absent | | NYTCL-8270(14),NJEPH-TPH-CAT1(14),TS(7),NYTCL-8081(14),PAINTF(),NYTCL-8082(365) |
| L2133713-01F | Glass 500ml/16oz unpreserved | A | NA | | 2.8 | Y | Absent | | NYTCL-8270(14),NJEPH-TPH-CAT1(14),TS(7),NYTCL-8081(14),PAINTF(),NYTCL-8082(365) |
| L2133713-02A | Vial MeOH preserved | A | NA | | 2.8 | Y | Absent | | NYTCL-8260HLW(14) |
| L2133713-02B | Vial water preserved | A | NA | | 2.8 | Y | Absent | 23-JUN-21 02:00 | NYTCL-8260HLW(14) |
| L2133713-02C | Vial water preserved | A | NA | | 2.8 | Y | Absent | 23-JUN-21 02:00 | NYTCL-8260HLW(14) |
| L2133713-02D | Plastic 120ml unpreserved | A | NA | | 2.8 | Y | Absent | | TL-6020T(180),FE-6020T(180),BA-6020T(180),SE-6020T(180),K-6020T(180),NI-6020T(180),CA-6020T(180),CR-6020T(180),NA-6020T(180),CU-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),V-6020T(180),AS-6020T(180),SB-6020T(180),MG-6020T(180),HG-T(28),AG-6020T(180),CD-6020T(180),AL-6020T(180),CO-6020T(180) |
| L2133713-02E | Glass 250ml/8oz unpreserved | A | NA | | 2.8 | Y | Absent | | NYTCL-8270(14),NJEPH-TPH-CAT1(14),TS(7),PAINTF(),NYTCL-8081(14),NYTCL-8082(365) |



*Values in parentheses indicate holding time in days

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2133713
**Report Date:** 06/25/21

***Container Information***

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2133713-02F | Glass 250ml/8oz unpreserved | A | NA | | 2.8 | Y | Absent | | NYTCL-8270(14),NJEPH-TPH-CAT1(14),TS(7),PAINTF(),NYTCL-8081(14),NYTCL-8082(365) |
| L2133713-02G | Glass 250ml/8oz unpreserved | A | NA | | 2.8 | Y | Absent | | NYTCL-8270(14),NJEPH-TPH-CAT1(14),TS(7),PAINTF(),NYTCL-8081(14),NYTCL-8082(365) |



*Values in parentheses indicate holding time in days

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2133713 |
| **Project Number:** | 135173-002 | **Report Date:** | 06/25/21 |

## GLOSSARY

***Acronyms***

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

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

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

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

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

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

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

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

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

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

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

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

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

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

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

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2133713 |
| **Project Number:** | 135173-002 | **Report Date:** | 06/25/21 |

***Footnotes***

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

***Terms***

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

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

***Data Qualifiers***

**A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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

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

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

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

**F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

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

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

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

**J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

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

**ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2133713 |
| **Project Number:** | 135173-002 | **Report Date:** | 06/25/21 |

***Data Qualifiers***

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

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

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

**R** - Analytical results are from sample re-analysis.

**RE** - Analytical results are from sample re-extraction.

**S** - Analytical results are from modified screening analysis.

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2133713 |
| **Project Number:** | 135173-002 | **Report Date:** | 06/25/21 |

## REFERENCES


1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

103 Analysis of Extractable Petroleum Hydrocarbon Compounds (EPH) in Aqueous and Soil/Sediment/Sludge Matrices. New Jersey Department of Environmental Protection, Site Remediation Program, (Version 1.1), Document # NJDEP EPH 10/08, Revision 3, August 2010.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.


## LIMITATION OF LIABILITIES

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

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

# Certification Information

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

**Westborough Facility**
**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene
**EPA 625/625.1:** alpha-Terpineol
**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
**EPA 8270D/8270E:** NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
**SM4500**: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

**Mansfield Facility**
**SM 2540D:** TSS
**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
**Biological Tissue Matrix:** EPA 3050B

**The following analytes are included in our Massachusetts DEP Scope of Accreditation**

**Westborough Facility:**

***Drinking Water***
**EPA 300.0**: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
**EPA 332**: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
**Microbiology**: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

***Non-Potable Water***
**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
**EPA 624.1**: Volatile Halocarbons & Aromatics,
**EPA 608.3**: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
**EPA 625.1**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
**Microbiology**: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

**Mansfield Facility:**

***Drinking Water***
**EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
**EPA 522, EPA 537.1.**

***Non-Potable Water***
**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
**EPA 245.1** Hg.
**SM2340B**

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

ALPHA

# NEW YORK CHAIN OF CUSTODY

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 6/22/21

ALPHA Job #: L2133713

## Client Information

Client: Haley & Aldrich of New York
Address: 237 West 35th Street, Floor 16, New York, NY 10123
Phone:
Fax:
Email: MConlon@haleyaldrich.com

## Project Information

Project Name: 310 Grand Concourse
Project Location: 310 Grand Concourse, Bronx, NY
Project #: 135173-002
(Use Project name as Project #)
Project Manager: Mari Cafe Conlon
ALPHAQuote #:

## Turn-Around Time

Standard
Rush (only if pre approved)
Due Date:
# of Days: 3

## Deliverables

- ASP-A
- ASP-B
- EQuIS (1 File)
- EQuIS (4 File)
- Other: PDF + Excel

## Billing Information

- Same as Client Info

PO #

## Regulatory Requirement

- NY TOGS
- NY Part 375
- AWQ Standards
- NY CP-51
- NY Restricted Use
- Other
- NY Unrestricted Use
- NYC Sewer Discharge

## Disposal Site Information

Please identify below location of applicable disposal facilities.

Disposal Facility:
- NJ
- NY
- Other:

These samples have been previously analyzed by Alpha

**Other project specific requirements/comments:**

**Please specify Metals or TAL.**

## ANALYSIS

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection Date | Collection Time | Sample Matrix | Sampler's Initials | TCL VOCs - 8260C | NYTCL SVOCs - 8270D | TCL Pesticides - 8081B | New Jersey EPH Method | Paint Filter Test | TCL PCBs - 6081A | TAL Metals - Total 6010D | Total Solids - SM2540 | Sample Specific Comments | Total Bottle |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 33713-01 | WC1-20210622 | 6/22/21 | 0930 | S | ZS | X | X | X | X | X | X | X | X | | 6 |
| -02 | WC2-20210622 | 6/22/21 | 0935 | S | ZS | X | X | X | X | X | X | X | X | | 7 |
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### Sample Filtration

- Done
- Lab to do

**Preservation**
- Lab to do

*(Please Specify below)*

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Container Type | V | A | A | A | A | A | A | P | |
| Preservative | F | A | A | A | A | A | A | A | |

Preservative Code:
A = None
B = HCl
C = $HNO_3$
D = $H_2SO_4$
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

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

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

| Relinquished By: | Date/Time | Received By: | Date/Time |
|---|---|---|---|
| Mark Sigmond | 6/22/21 | | 6/22/21 1500 |
| Fedex Ground | 6/22/21 1400 | Paul Maggella | 6/22/21 1650 |
| Paul Maggella | 6/22/21 2150 | | 6/24/21 2150 |

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

# ANALYTICAL REPORT

| | |
|---|---|
| Lab Number: | L2040044 |
| Client: | Haley & Aldrich<br>237 West 35th Street<br>16th Floor<br>New York, NY 10123 |
| ATTN: | Mari Conlon |
| Phone: | (347) 271-1521 |
| Project Name: | 310 GRAND CONCOURSE |
| Project Number: | 135173-002 |
| Report Date: | 09/30/20 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2040044
**Report Date:** 09/30/20

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|---|---|---|---|---|---|
| L2040044-01 | PD-1 | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 09/23/20 13:35 | 09/23/20 |
| L2040044-02 | PD-2 | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 09/23/20 14:08 | 09/23/20 |
| L2040044-03 | PD-3 | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 09/23/20 11:36 | 09/23/20 |

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2040044 |
| **Project Number:** | 135173-002 | **Report Date:** | 09/30/20 |

## Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

Please contact Project Management at 800-624-9220 with any questions.

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2040044 |
| **Project Number:** | 135173-002 | **Report Date:** | 09/30/20 |

**Case Narrative (continued)**

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

The WG1415317-5 Method Blank, associated with L2040044-01 through -03, has a concentration above the reporting limit for bromomethane. Since the samples were non-detect to the RL for this target analyte, no further actions were taken. The results of the original analysis are reported.

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

Authorized Signature: Cristin Walker

Title: Technical Director/Representative Date: 09/30/20

# ORGANICS

# VOLATILES

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040044
**Report Date:** 09/30/20

## SAMPLE RESULTS

Lab ID: L2040044-01
Client ID: PD-1
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 09/23/20 13:35
Date Received: 09/23/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 09/27/20 14:35
Analyst: JC
Percent Solids: 88%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/kg | 5.6 | 2.6 | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 1.1 | 0.16 | 1 |
| Chloroform | ND | | ug/kg | 1.7 | 0.16 | 1 |
| Carbon tetrachloride | ND | | ug/kg | 1.1 | 0.26 | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 1.1 | 0.14 | 1 |
| Dibromochloromethane | ND | | ug/kg | 1.1 | 0.16 | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 1.1 | 0.30 | 1 |
| Tetrachloroethene | ND | | ug/kg | 0.56 | 0.22 | 1 |
| Chlorobenzene | ND | | ug/kg | 0.56 | 0.14 | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 4.5 | 0.78 | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 1.1 | 0.29 | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 0.56 | 0.19 | 1 |
| Bromodichloromethane | ND | | ug/kg | 0.56 | 0.12 | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 1.1 | 0.30 | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 0.56 | 0.18 | 1 |
| 1,3-Dichloropropene, Total | ND | | ug/kg | 0.56 | 0.18 | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 0.56 | 0.18 | 1 |
| Bromoform | ND | | ug/kg | 4.5 | 0.28 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 0.56 | 0.18 | 1 |
| Benzene | ND | | ug/kg | 0.56 | 0.18 | 1 |
| Toluene | ND | | ug/kg | 1.1 | 0.61 | 1 |
| Ethylbenzene | ND | | ug/kg | 1.1 | 0.16 | 1 |
| Chloromethane | ND | | ug/kg | 4.5 | 1.0 | 1 |
| Bromomethane | ND | | ug/kg | 2.2 | 0.65 | 1 |
| Vinyl chloride | ND | | ug/kg | 1.1 | 0.37 | 1 |
| Chloroethane | ND | | ug/kg | 2.2 | 0.50 | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 1.1 | 0.27 | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 1.7 | 0.15 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040044

**Project Number:** 135173-002 **Report Date:** 09/30/20

## SAMPLE RESULTS

Lab ID: L2040044-01 Date Collected: 09/23/20 13:35

Client ID: PD-1 Date Received: 09/23/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Trichloroethene | ND | | ug/kg | 0.56 | 0.15 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 2.2 | 0.16 | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 2.2 | 0.16 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 2.2 | 0.19 | 1 |
| Methyl tert butyl ether | ND | | ug/kg | 2.2 | 0.22 | 1 |
| p/m-Xylene | ND | | ug/kg | 2.2 | 0.63 | 1 |
| o-Xylene | ND | | ug/kg | 1.1 | 0.32 | 1 |
| Xylenes, Total | ND | | ug/kg | 1.1 | 0.32 | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 1.1 | 0.20 | 1 |
| 1,2-Dichloroethene, Total | ND | | ug/kg | 1.1 | 0.15 | 1 |
| Dibromomethane | ND | | ug/kg | 2.2 | 0.27 | 1 |
| Styrene | ND | | ug/kg | 1.1 | 0.22 | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 11 | 1.0 | 1 |
| Acetone | ND | | ug/kg | 11 | 5.4 | 1 |
| Carbon disulfide | ND | | ug/kg | 11 | 5.1 | 1 |
| 2-Butanone | ND | | ug/kg | 11 | 2.5 | 1 |
| Vinyl acetate | ND | | ug/kg | 11 | 2.4 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 11 | 1.4 | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 2.2 | 0.14 | 1 |
| 2-Hexanone | ND | | ug/kg | 11 | 1.3 | 1 |
| Bromochloromethane | ND | | ug/kg | 2.2 | 0.23 | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 2.2 | 0.23 | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 1.1 | 0.31 | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 2.2 | 0.19 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 0.56 | 0.15 | 1 |
| Bromobenzene | ND | | ug/kg | 2.2 | 0.16 | 1 |
| n-Butylbenzene | ND | | ug/kg | 1.1 | 0.19 | 1 |
| sec-Butylbenzene | ND | | ug/kg | 1.1 | 0.16 | 1 |
| tert-Butylbenzene | ND | | ug/kg | 2.2 | 0.13 | 1 |
| o-Chlorotoluene | ND | | ug/kg | 2.2 | 0.21 | 1 |
| p-Chlorotoluene | ND | | ug/kg | 2.2 | 0.12 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 3.4 | 1.1 | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 4.5 | 0.19 | 1 |
| Isopropylbenzene | ND | | ug/kg | 1.1 | 0.12 | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 1.1 | 0.12 | 1 |
| Naphthalene | ND | | ug/kg | 4.5 | 0.73 | 1 |
| Acrylonitrile | ND | | ug/kg | 4.5 | 1.3 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040044

**Project Number:** 135173-002 **Report Date:** 09/30/20

## SAMPLE RESULTS

Lab ID: L2040044-01 Date Collected: 09/23/20 13:35

Client ID: PD-1 Date Received: 09/23/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| n-Propylbenzene | ND | | ug/kg | 1.1 | 0.19 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 2.2 | 0.36 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 2.2 | 0.30 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 2.2 | 0.22 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 2.2 | 0.37 | 1 |
| 1,4-Dioxane | ND | | ug/kg | 90 | 39. | 1 |
| p-Diethylbenzene | ND | | ug/kg | 2.2 | 0.20 | 1 |
| p-Ethyltoluene | ND | | ug/kg | 2.2 | 0.43 | 1 |
| 1,2,4,5-Tetramethylbenzene | ND | | ug/kg | 2.2 | 0.21 | 1 |
| Ethyl ether | ND | | ug/kg | 2.2 | 0.38 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 5.6 | 1.6 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 92 | | 70-130 |
| Toluene-d8 | 87 | | 70-130 |
| 4-Bromofluorobenzene | 89 | | 70-130 |
| Dibromofluoromethane | 101 | | 70-130 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040044

**Project Number:** 135173-002 **Report Date:** 09/30/20

## SAMPLE RESULTS

Lab ID: L2040044-02 Date Collected: 09/23/20 14:08
Client ID: PD-2 Date Received: 09/23/20
Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 09/27/20 15:00
Analyst: JC
Percent Solids: 89%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/kg | 4.8 | 2.2 | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 0.97 | 0.14 | 1 |
| Chloroform | ND | | ug/kg | 1.4 | 0.14 | 1 |
| Carbon tetrachloride | ND | | ug/kg | 0.97 | 0.22 | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 0.97 | 0.12 | 1 |
| Dibromochloromethane | ND | | ug/kg | 0.97 | 0.14 | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 0.97 | 0.26 | 1 |
| Tetrachloroethene | ND | | ug/kg | 0.48 | 0.19 | 1 |
| Chlorobenzene | ND | | ug/kg | 0.48 | 0.12 | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 3.9 | 0.67 | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 0.97 | 0.25 | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 0.48 | 0.16 | 1 |
| Bromodichloromethane | ND | | ug/kg | 0.48 | 0.10 | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 0.97 | 0.26 | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 0.48 | 0.15 | 1 |
| 1,3-Dichloropropene, Total | ND | | ug/kg | 0.48 | 0.15 | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 0.48 | 0.15 | 1 |
| Bromoform | ND | | ug/kg | 3.9 | 0.24 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 0.48 | 0.16 | 1 |
| Benzene | ND | | ug/kg | 0.48 | 0.16 | 1 |
| Toluene | ND | | ug/kg | 0.97 | 0.53 | 1 |
| Ethylbenzene | ND | | ug/kg | 0.97 | 0.14 | 1 |
| Chloromethane | ND | | ug/kg | 3.9 | 0.90 | 1 |
| Bromomethane | ND | | ug/kg | 1.9 | 0.56 | 1 |
| Vinyl chloride | ND | | ug/kg | 0.97 | 0.32 | 1 |
| Chloroethane | ND | | ug/kg | 1.9 | 0.44 | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 0.97 | 0.23 | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 1.4 | 0.13 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040044

**Project Number:** 135173-002 **Report Date:** 09/30/20

## SAMPLE RESULTS

Lab ID: L2040044-02 Date Collected: 09/23/20 14:08

Client ID: PD-2 Date Received: 09/23/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Trichloroethene | ND | | ug/kg | 0.48 | 0.13 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 1.9 | 0.14 | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 1.9 | 0.14 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 1.9 | 0.16 | 1 |
| Methyl tert butyl ether | ND | | ug/kg | 1.9 | 0.19 | 1 |
| p/m-Xylene | ND | | ug/kg | 1.9 | 0.54 | 1 |
| o-Xylene | ND | | ug/kg | 0.97 | 0.28 | 1 |
| Xylenes, Total | ND | | ug/kg | 0.97 | 0.28 | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 0.97 | 0.17 | 1 |
| 1,2-Dichloroethene, Total | ND | | ug/kg | 0.97 | 0.13 | 1 |
| Dibromomethane | ND | | ug/kg | 1.9 | 0.23 | 1 |
| Styrene | ND | | ug/kg | 0.97 | 0.19 | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 9.7 | 0.89 | 1 |
| Acetone | ND | | ug/kg | 9.7 | 4.7 | 1 |
| Carbon disulfide | ND | | ug/kg | 9.7 | 4.4 | 1 |
| 2-Butanone | ND | | ug/kg | 9.7 | 2.2 | 1 |
| Vinyl acetate | ND | | ug/kg | 9.7 | 2.1 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 9.7 | 1.2 | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 1.9 | 0.12 | 1 |
| 2-Hexanone | ND | | ug/kg | 9.7 | 1.1 | 1 |
| Bromochloromethane | ND | | ug/kg | 1.9 | 0.20 | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 1.9 | 0.20 | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 0.97 | 0.27 | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 1.9 | 0.16 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 0.48 | 0.13 | 1 |
| Bromobenzene | ND | | ug/kg | 1.9 | 0.14 | 1 |
| n-Butylbenzene | ND | | ug/kg | 0.97 | 0.16 | 1 |
| sec-Butylbenzene | ND | | ug/kg | 0.97 | 0.14 | 1 |
| tert-Butylbenzene | ND | | ug/kg | 1.9 | 0.11 | 1 |
| o-Chlorotoluene | ND | | ug/kg | 1.9 | 0.18 | 1 |
| p-Chlorotoluene | ND | | ug/kg | 1.9 | 0.10 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 2.9 | 0.97 | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 3.9 | 0.16 | 1 |
| Isopropylbenzene | ND | | ug/kg | 0.97 | 0.10 | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 0.97 | 0.10 | 1 |
| Naphthalene | ND | | ug/kg | 3.9 | 0.63 | 1 |
| Acrylonitrile | ND | | ug/kg | 3.9 | 1.1 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040044

**Project Number:** 135173-002 **Report Date:** 09/30/20

## SAMPLE RESULTS

Lab ID: L2040044-02 Date Collected: 09/23/20 14:08

Client ID: PD-2 Date Received: 09/23/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| n-Propylbenzene | ND | | ug/kg | 0.97 | 0.16 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 1.9 | 0.31 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 1.9 | 0.26 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 1.9 | 0.19 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 1.9 | 0.32 | 1 |
| 1,4-Dioxane | ND | | ug/kg | 78 | 34. | 1 |
| p-Diethylbenzene | ND | | ug/kg | 1.9 | 0.17 | 1 |
| p-Ethyltoluene | ND | | ug/kg | 1.9 | 0.37 | 1 |
| 1,2,4,5-Tetramethylbenzene | ND | | ug/kg | 1.9 | 0.18 | 1 |
| Ethyl ether | ND | | ug/kg | 1.9 | 0.33 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 4.8 | 1.4 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 93 | | 70-130 |
| Toluene-d8 | 87 | | 70-130 |
| 4-Bromofluorobenzene | 90 | | 70-130 |
| Dibromofluoromethane | 100 | | 70-130 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040044

**Project Number:** 135173-002 **Report Date:** 09/30/20

## SAMPLE RESULTS

Lab ID: L2040044-03 Date Collected: 09/23/20 11:36

Client ID: PD-3 Date Received: 09/23/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Analytical Method: 1,8260C

Analytical Date: 09/27/20 15:25

Analyst: JC

Percent Solids: 84%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Methylene chloride | ND | | ug/kg | 5.8 | 2.7 | 1 |
| 1,1-Dichloroethane | ND | | ug/kg | 1.2 | 0.17 | 1 |
| Chloroform | ND | | ug/kg | 1.8 | 0.16 | 1 |
| Carbon tetrachloride | ND | | ug/kg | 1.2 | 0.27 | 1 |
| 1,2-Dichloropropane | ND | | ug/kg | 1.2 | 0.15 | 1 |
| Dibromochloromethane | ND | | ug/kg | 1.2 | 0.16 | 1 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 1.2 | 0.31 | 1 |
| Tetrachloroethene | 1.0 | | ug/kg | 0.58 | 0.23 | 1 |
| Chlorobenzene | ND | | ug/kg | 0.58 | 0.15 | 1 |
| Trichlorofluoromethane | ND | | ug/kg | 4.7 | 0.81 | 1 |
| 1,2-Dichloroethane | ND | | ug/kg | 1.2 | 0.30 | 1 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 0.58 | 0.20 | 1 |
| Bromodichloromethane | ND | | ug/kg | 0.58 | 0.13 | 1 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 1.2 | 0.32 | 1 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 0.58 | 0.18 | 1 |
| 1,3-Dichloropropene, Total | ND | | ug/kg | 0.58 | 0.18 | 1 |
| 1,1-Dichloropropene | ND | | ug/kg | 0.58 | 0.19 | 1 |
| Bromoform | ND | | ug/kg | 4.7 | 0.29 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 0.58 | 0.19 | 1 |
| Benzene | ND | | ug/kg | 0.58 | 0.19 | 1 |
| Toluene | ND | | ug/kg | 1.2 | 0.64 | 1 |
| Ethylbenzene | ND | | ug/kg | 1.2 | 0.16 | 1 |
| Chloromethane | ND | | ug/kg | 4.7 | 1.1 | 1 |
| Bromomethane | ND | | ug/kg | 2.3 | 0.68 | 1 |
| Vinyl chloride | ND | | ug/kg | 1.2 | 0.39 | 1 |
| Chloroethane | ND | | ug/kg | 2.3 | 0.53 | 1 |
| 1,1-Dichloroethene | ND | | ug/kg | 1.2 | 0.28 | 1 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 1.8 | 0.16 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040044

**Project Number:** 135173-002 **Report Date:** 09/30/20

## SAMPLE RESULTS

Lab ID: L2040044-03 Date Collected: 09/23/20 11:36

Client ID: PD-3 Date Received: 09/23/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| Trichloroethene | ND | | ug/kg | 0.58 | 0.16 | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 2.3 | 0.17 | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 2.3 | 0.17 | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 2.3 | 0.20 | 1 |
| Methyl tert butyl ether | ND | | ug/kg | 2.3 | 0.24 | 1 |
| p/m-Xylene | ND | | ug/kg | 2.3 | 0.66 | 1 |
| o-Xylene | ND | | ug/kg | 1.2 | 0.34 | 1 |
| Xylenes, Total | ND | | ug/kg | 1.2 | 0.34 | 1 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 1.2 | 0.20 | 1 |
| 1,2-Dichloroethene, Total | ND | | ug/kg | 1.2 | 0.16 | 1 |
| Dibromomethane | ND | | ug/kg | 2.3 | 0.28 | 1 |
| Styrene | ND | | ug/kg | 1.2 | 0.23 | 1 |
| Dichlorodifluoromethane | ND | | ug/kg | 12 | 1.1 | 1 |
| Acetone | ND | | ug/kg | 12 | 5.6 | 1 |
| Carbon disulfide | ND | | ug/kg | 12 | 5.3 | 1 |
| 2-Butanone | ND | | ug/kg | 12 | 2.6 | 1 |
| Vinyl acetate | ND | | ug/kg | 12 | 2.5 | 1 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 12 | 1.5 | 1 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 2.3 | 0.15 | 1 |
| 2-Hexanone | ND | | ug/kg | 12 | 1.4 | 1 |
| Bromochloromethane | ND | | ug/kg | 2.3 | 0.24 | 1 |
| 2,2-Dichloropropane | ND | | ug/kg | 2.3 | 0.24 | 1 |
| 1,2-Dibromoethane | ND | | ug/kg | 1.2 | 0.33 | 1 |
| 1,3-Dichloropropane | ND | | ug/kg | 2.3 | 0.20 | 1 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 0.58 | 0.15 | 1 |
| Bromobenzene | ND | | ug/kg | 2.3 | 0.17 | 1 |
| n-Butylbenzene | ND | | ug/kg | 1.2 | 0.20 | 1 |
| sec-Butylbenzene | ND | | ug/kg | 1.2 | 0.17 | 1 |
| tert-Butylbenzene | ND | | ug/kg | 2.3 | 0.14 | 1 |
| o-Chlorotoluene | ND | | ug/kg | 2.3 | 0.22 | 1 |
| p-Chlorotoluene | ND | | ug/kg | 2.3 | 0.13 | 1 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 3.5 | 1.2 | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 4.7 | 0.20 | 1 |
| Isopropylbenzene | ND | | ug/kg | 1.2 | 0.13 | 1 |
| p-Isopropyltoluene | ND | | ug/kg | 1.2 | 0.13 | 1 |
| Naphthalene | ND | | ug/kg | 4.7 | 0.76 | 1 |
| Acrylonitrile | ND | | ug/kg | 4.7 | 1.3 | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040044

**Project Number:** 135173-002 **Report Date:** 09/30/20

## SAMPLE RESULTS

Lab ID: L2040044-03 Date Collected: 09/23/20 11:36

Client ID: PD-3 Date Received: 09/23/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Volatile Organics by EPA 5035 Low - Westborough Lab** | | | | | | |
| n-Propylbenzene | ND | | ug/kg | 1.2 | 0.20 | 1 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 2.3 | 0.38 | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 2.3 | 0.32 | 1 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 2.3 | 0.23 | 1 |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 2.3 | 0.39 | 1 |
| 1,4-Dioxane | ND | | ug/kg | 94 | 41. | 1 |
| p-Diethylbenzene | ND | | ug/kg | 2.3 | 0.21 | 1 |
| p-Ethyltoluene | ND | | ug/kg | 2.3 | 0.45 | 1 |
| 1,2,4,5-Tetramethylbenzene | ND | | ug/kg | 2.3 | 0.22 | 1 |
| Ethyl ether | ND | | ug/kg | 2.3 | 0.40 | 1 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 5.8 | 1.7 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 94 | | 70-130 |
| Toluene-d8 | 90 | | 70-130 |
| 4-Bromofluorobenzene | 91 | | 70-130 |
| Dibromofluoromethane | 99 | | 70-130 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040044

**Project Number:** 135173-002 **Report Date:** 09/30/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 09/27/20 09:35
Analyst: AD

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-03 Batch: WG1415317-5 | | | | | |
| Methylene chloride | ND | | ug/kg | 5.0 | 2.3 |
| 1,1-Dichloroethane | ND | | ug/kg | 1.0 | 0.14 |
| Chloroform | ND | | ug/kg | 1.5 | 0.14 |
| Carbon tetrachloride | ND | | ug/kg | 1.0 | 0.23 |
| 1,2-Dichloropropane | ND | | ug/kg | 1.0 | 0.12 |
| Dibromochloromethane | ND | | ug/kg | 1.0 | 0.14 |
| 1,1,2-Trichloroethane | ND | | ug/kg | 1.0 | 0.27 |
| Tetrachloroethene | ND | | ug/kg | 0.50 | 0.20 |
| Chlorobenzene | ND | | ug/kg | 0.50 | 0.13 |
| Trichlorofluoromethane | ND | | ug/kg | 4.0 | 0.70 |
| 1,2-Dichloroethane | ND | | ug/kg | 1.0 | 0.26 |
| 1,1,1-Trichloroethane | ND | | ug/kg | 0.50 | 0.17 |
| Bromodichloromethane | ND | | ug/kg | 0.50 | 0.11 |
| trans-1,3-Dichloropropene | ND | | ug/kg | 1.0 | 0.27 |
| cis-1,3-Dichloropropene | ND | | ug/kg | 0.50 | 0.16 |
| 1,3-Dichloropropene, Total | ND | | ug/kg | 0.50 | 0.16 |
| 1,1-Dichloropropene | ND | | ug/kg | 0.50 | 0.16 |
| Bromoform | ND | | ug/kg | 4.0 | 0.25 |
| 1,1,2,2-Tetrachloroethane | ND | | ug/kg | 0.50 | 0.17 |
| Benzene | ND | | ug/kg | 0.50 | 0.17 |
| Toluene | ND | | ug/kg | 1.0 | 0.54 |
| Ethylbenzene | ND | | ug/kg | 1.0 | 0.14 |
| Chloromethane | ND | | ug/kg | 4.0 | 0.93 |
| Bromomethane | 4.5 | | ug/kg | 2.0 | 0.58 |
| Vinyl chloride | ND | | ug/kg | 1.0 | 0.34 |
| Chloroethane | ND | | ug/kg | 2.0 | 0.45 |
| 1,1-Dichloroethene | ND | | ug/kg | 1.0 | 0.24 |
| trans-1,2-Dichloroethene | ND | | ug/kg | 1.5 | 0.14 |
| Trichloroethene | ND | | ug/kg | 0.50 | 0.14 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040044

**Project Number:** 135173-002 **Report Date:** 09/30/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 09/27/20 09:35
Analyst: AD

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-03 Batch: WG1415317-5 | | | | | |
| 1,2-Dichlorobenzene | ND | | ug/kg | 2.0 | 0.14 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 2.0 | 0.15 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 2.0 | 0.17 |
| Methyl tert butyl ether | ND | | ug/kg | 2.0 | 0.20 |
| p/m-Xylene | ND | | ug/kg | 2.0 | 0.56 |
| o-Xylene | ND | | ug/kg | 1.0 | 0.29 |
| Xylenes, Total | ND | | ug/kg | 1.0 | 0.29 |
| cis-1,2-Dichloroethene | ND | | ug/kg | 1.0 | 0.18 |
| 1,2-Dichloroethene, Total | ND | | ug/kg | 1.0 | 0.14 |
| Dibromomethane | ND | | ug/kg | 2.0 | 0.24 |
| Styrene | ND | | ug/kg | 1.0 | 0.20 |
| Dichlorodifluoromethane | ND | | ug/kg | 10 | 0.92 |
| Acetone | ND | | ug/kg | 10 | 4.8 |
| Carbon disulfide | ND | | ug/kg | 10 | 4.6 |
| 2-Butanone | ND | | ug/kg | 10 | 2.2 |
| Vinyl acetate | ND | | ug/kg | 10 | 2.2 |
| 4-Methyl-2-pentanone | ND | | ug/kg | 10 | 1.3 |
| 1,2,3-Trichloropropane | ND | | ug/kg | 2.0 | 0.13 |
| 2-Hexanone | ND | | ug/kg | 10 | 1.2 |
| Bromochloromethane | ND | | ug/kg | 2.0 | 0.20 |
| 2,2-Dichloropropane | ND | | ug/kg | 2.0 | 0.20 |
| 1,2-Dibromoethane | ND | | ug/kg | 1.0 | 0.28 |
| 1,3-Dichloropropane | ND | | ug/kg | 2.0 | 0.17 |
| 1,1,1,2-Tetrachloroethane | ND | | ug/kg | 0.50 | 0.13 |
| Bromobenzene | ND | | ug/kg | 2.0 | 0.14 |
| n-Butylbenzene | ND | | ug/kg | 1.0 | 0.17 |
| sec-Butylbenzene | ND | | ug/kg | 1.0 | 0.15 |
| tert-Butylbenzene | ND | | ug/kg | 2.0 | 0.12 |
| o-Chlorotoluene | ND | | ug/kg | 2.0 | 0.19 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040044
**Report Date:** 09/30/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 09/27/20 09:35
Analyst: AD

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-03 Batch: WG1415317-5 | | | | | |
| p-Chlorotoluene | ND | | ug/kg | 2.0 | 0.11 |
| 1,2-Dibromo-3-chloropropane | ND | | ug/kg | 3.0 | 1.0 |
| Hexachlorobutadiene | ND | | ug/kg | 4.0 | 0.17 |
| Isopropylbenzene | ND | | ug/kg | 1.0 | 0.11 |
| p-Isopropyltoluene | ND | | ug/kg | 1.0 | 0.11 |
| Naphthalene | ND | | ug/kg | 4.0 | 0.65 |
| Acrylonitrile | ND | | ug/kg | 4.0 | 1.2 |
| n-Propylbenzene | ND | | ug/kg | 1.0 | 0.17 |
| 1,2,3-Trichlorobenzene | ND | | ug/kg | 2.0 | 0.32 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 2.0 | 0.27 |
| 1,3,5-Trimethylbenzene | ND | | ug/kg | 2.0 | 0.19 |
| 1,2,4-Trimethylbenzene | ND | | ug/kg | 2.0 | 0.33 |
| 1,4-Dioxane | ND | | ug/kg | 80 | 35. |
| p-Diethylbenzene | ND | | ug/kg | 2.0 | 0.18 |
| p-Ethyltoluene | ND | | ug/kg | 2.0 | 0.38 |
| 1,2,4,5-Tetramethylbenzene | ND | | ug/kg | 2.0 | 0.19 |
| Ethyl ether | ND | | ug/kg | 2.0 | 0.34 |
| trans-1,4-Dichloro-2-butene | ND | | ug/kg | 5.0 | 1.4 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 1,2-Dichloroethane-d4 | 90 | | 70-130 |
| Toluene-d8 | 89 | | 70-130 |
| 4-Bromofluorobenzene | 87 | | 70-130 |
| Dibromofluoromethane | 94 | | 70-130 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040044
**Report Date:** 09/30/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-03 Batch: WG1415317-3 WG1415317-4 | | | | | | | | |
| Methylene chloride | 96 | | 101 | | 70-130 | 5 | | 30 |
| 1,1-Dichloroethane | 100 | | 105 | | 70-130 | 5 | | 30 |
| Chloroform | 99 | | 104 | | 70-130 | 5 | | 30 |
| Carbon tetrachloride | 108 | | 114 | | 70-130 | 5 | | 30 |
| 1,2-Dichloropropane | 102 | | 107 | | 70-130 | 5 | | 30 |
| Dibromochloromethane | 95 | | 97 | | 70-130 | 2 | | 30 |
| 1,1,2-Trichloroethane | 89 | | 90 | | 70-130 | 1 | | 30 |
| Tetrachloroethene | 99 | | 101 | | 70-130 | 2 | | 30 |
| Chlorobenzene | 94 | | 97 | | 70-130 | 3 | | 30 |
| Trichlorofluoromethane | 118 | | 127 | | 70-139 | 7 | | 30 |
| 1,2-Dichloroethane | 100 | | 102 | | 70-130 | 2 | | 30 |
| 1,1,1-Trichloroethane | 102 | | 106 | | 70-130 | 4 | | 30 |
| Bromodichloromethane | 99 | | 104 | | 70-130 | 5 | | 30 |
| trans-1,3-Dichloropropene | 83 | | 87 | | 70-130 | 5 | | 30 |
| cis-1,3-Dichloropropene | 99 | | 103 | | 70-130 | 4 | | 30 |
| 1,1-Dichloropropene | 107 | | 111 | | 70-130 | 4 | | 30 |
| Bromoform | 86 | | 88 | | 70-130 | 2 | | 30 |
| 1,1,2,2-Tetrachloroethane | 91 | | 91 | | 70-130 | 0 | | 30 |
| Benzene | 106 | | 110 | | 70-130 | 4 | | 30 |
| Toluene | 93 | | 97 | | 70-130 | 4 | | 30 |
| Ethylbenzene | 92 | | 96 | | 70-130 | 4 | | 30 |
| Chloromethane | 98 | | 101 | | 52-130 | 3 | | 30 |
| Bromomethane | 126 | | 128 | | 57-147 | 2 | | 30 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040044

**Report Date:** 09/30/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-03 Batch: WG1415317-3 WG1415317-4 | | | | | | | | |
| Vinyl chloride | 120 | | 128 | | 67-130 | 6 | | 30 |
| Chloroethane | 135 | | 144 | | 50-151 | 6 | | 30 |
| 1,1-Dichloroethene | 106 | | 112 | | 65-135 | 6 | | 30 |
| trans-1,2-Dichloroethene | 114 | | 120 | | 70-130 | 5 | | 30 |
| Trichloroethene | 103 | | 109 | | 70-130 | 6 | | 30 |
| 1,2-Dichlorobenzene | 89 | | 95 | | 70-130 | 7 | | 30 |
| 1,3-Dichlorobenzene | 93 | | 96 | | 70-130 | 3 | | 30 |
| 1,4-Dichlorobenzene | 92 | | 95 | | 70-130 | 3 | | 30 |
| Methyl tert butyl ether | 99 | | 102 | | 66-130 | 3 | | 30 |
| p/m-Xylene | 95 | | 98 | | 70-130 | 3 | | 30 |
| o-Xylene | 92 | | 96 | | 70-130 | 4 | | 30 |
| cis-1,2-Dichloroethene | 99 | | 104 | | 70-130 | 5 | | 30 |
| Dibromomethane | 102 | | 105 | | 70-130 | 3 | | 30 |
| Styrene | 92 | | 95 | | 70-130 | 3 | | 30 |
| Dichlorodifluoromethane | 90 | | 93 | | 30-146 | 3 | | 30 |
| Acetone | 102 | | 99 | | 54-140 | 3 | | 30 |
| Carbon disulfide | 93 | | 96 | | 59-130 | 3 | | 30 |
| 2-Butanone | 97 | | 93 | | 70-130 | 4 | | 30 |
| Vinyl acetate | 94 | | 94 | | 70-130 | 0 | | 30 |
| 4-Methyl-2-pentanone | 86 | | 87 | | 70-130 | 1 | | 30 |
| 1,2,3-Trichloropropane | 89 | | 89 | | 68-130 | 0 | | 30 |
| 2-Hexanone | 80 | | 77 | | 70-130 | 4 | | 30 |
| Bromochloromethane | 108 | | 110 | | 70-130 | 2 | | 30 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040044

**Report Date:** 09/30/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-03 Batch: WG1415317-3 WG1415317-4 | | | | | | | | |
| 2,2-Dichloropropane | 101 | | 106 | | 70-130 | 5 | | 30 |
| 1,2-Dibromoethane | 93 | | 94 | | 70-130 | 1 | | 30 |
| 1,3-Dichloropropane | 90 | | 92 | | 69-130 | 2 | | 30 |
| 1,1,1,2-Tetrachloroethane | 91 | | 96 | | 70-130 | 5 | | 30 |
| Bromobenzene | 89 | | 93 | | 70-130 | 4 | | 30 |
| n-Butylbenzene | 86 | | 90 | | 70-130 | 5 | | 30 |
| sec-Butylbenzene | 96 | | 100 | | 70-130 | 4 | | 30 |
| tert-Butylbenzene | 89 | | 94 | | 70-130 | 5 | | 30 |
| o-Chlorotoluene | 88 | | 92 | | 70-130 | 4 | | 30 |
| p-Chlorotoluene | 87 | | 90 | | 70-130 | 3 | | 30 |
| 1,2-Dibromo-3-chloropropane | 88 | | 84 | | 68-130 | 5 | | 30 |
| Hexachlorobutadiene | 98 | | 98 | | 67-130 | 0 | | 30 |
| Isopropylbenzene | 87 | | 93 | | 70-130 | 7 | | 30 |
| p-Isopropyltoluene | 91 | | 94 | | 70-130 | 3 | | 30 |
| Naphthalene | 99 | | 94 | | 70-130 | 5 | | 30 |
| Acrylonitrile | 102 | | 99 | | 70-130 | 3 | | 30 |
| n-Propylbenzene | 89 | | 93 | | 70-130 | 4 | | 30 |
| 1,2,3-Trichlorobenzene | 99 | | 98 | | 70-130 | 1 | | 30 |
| 1,2,4-Trichlorobenzene | 97 | | 93 | | 70-130 | 4 | | 30 |
| 1,3,5-Trimethylbenzene | 88 | | 92 | | 70-130 | 4 | | 30 |
| 1,2,4-Trimethylbenzene | 86 | | 89 | | 70-130 | 3 | | 30 |
| 1,4-Dioxane | 114 | | 106 | | 65-136 | 7 | | 30 |
| p-Diethylbenzene | 92 | | 97 | | 70-130 | 5 | | 30 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2040044
**Report Date:** 09/30/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-03 Batch: WG1415317-3 WG1415317-4 | | | | | | | | |
| p-Ethyltoluene | 94 | | 98 | | 70-130 | 4 | | 30 |
| 1,2,4,5-Tetramethylbenzene | 96 | | 94 | | 70-130 | 2 | | 30 |
| Ethyl ether | 106 | | 106 | | 67-130 | 0 | | 30 |
| trans-1,4-Dichloro-2-butene | 87 | | 87 | | 70-130 | 0 | | 30 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 92 | | 91 | | 70-130 |
| Toluene-d8 | 89 | | 89 | | 70-130 |
| 4-Bromofluorobenzene | 92 | | 90 | | 70-130 |
| Dibromofluoromethane | 95 | | 99 | | 70-130 |

# SEMIVOLATILES

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040044
**Report Date:** 09/30/20

## SAMPLE RESULTS

Lab ID: L2040044-01
Client ID: PD-1
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/23/20 13:35
Date Received: 09/23/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/27/20 04:02
Analyst: IM
Percent Solids: 88%

Extraction Method: EPA 3546
Extraction Date: 09/26/20 04:39

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Acenaphthene | ND | | ug/kg | 150 | 19. | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 190 | 22. | 1 |
| Hexachlorobenzene | ND | | ug/kg | 110 | 21. | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 170 | 26. | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 190 | 19. | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 190 | 34. | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 190 | 32. | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 190 | 33. | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 190 | 50. | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 190 | 38. | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 190 | 32. | 1 |
| Fluoranthene | ND | | ug/kg | 110 | 22. | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 190 | 20. | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 190 | 29. | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 220 | 32. | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 200 | 19. | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 190 | 28. | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 540 | 170 | 1 |
| Hexachloroethane | ND | | ug/kg | 150 | 30. | 1 |
| Isophorone | ND | | ug/kg | 170 | 24. | 1 |
| Naphthalene | ND | | ug/kg | 190 | 23. | 1 |
| Nitrobenzene | ND | | ug/kg | 170 | 28. | 1 |
| NDPA/DPA | ND | | ug/kg | 150 | 21. | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 190 | 29. | 1 |
| Bis(2-ethylhexyl)phthalate | ND | | ug/kg | 190 | 65. | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 190 | 47. | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 190 | 36. | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 190 | 64. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040044

**Project Number:** 135173-002 **Report Date:** 09/30/20

## SAMPLE RESULTS

Lab ID: L2040044-01 Date Collected: 09/23/20 13:35

Client ID: PD-1 Date Received: 09/23/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Diethyl phthalate | ND | | ug/kg | 190 | 17. | 1 |
| Dimethyl phthalate | ND | | ug/kg | 190 | 39. | 1 |
| Benzo(a)anthracene | ND | | ug/kg | 110 | 21. | 1 |
| Benzo(a)pyrene | ND | | ug/kg | 150 | 46. | 1 |
| Benzo(b)fluoranthene | ND | | ug/kg | 110 | 32. | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 110 | 30. | 1 |
| Chrysene | ND | | ug/kg | 110 | 20. | 1 |
| Acenaphthylene | ND | | ug/kg | 150 | 29. | 1 |
| Anthracene | ND | | ug/kg | 110 | 37. | 1 |
| Benzo(ghi)perylene | ND | | ug/kg | 150 | 22. | 1 |
| Fluorene | ND | | ug/kg | 190 | 18. | 1 |
| Phenanthrene | ND | | ug/kg | 110 | 23. | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 110 | 22. | 1 |
| Indeno(1,2,3-cd)pyrene | ND | | ug/kg | 150 | 26. | 1 |
| Pyrene | ND | | ug/kg | 110 | 19. | 1 |
| Biphenyl | ND | | ug/kg | 430 | 44. | 1 |
| 4-Chloroaniline | ND | | ug/kg | 190 | 34. | 1 |
| 2-Nitroaniline | ND | | ug/kg | 190 | 36. | 1 |
| 3-Nitroaniline | ND | | ug/kg | 190 | 35. | 1 |
| 4-Nitroaniline | ND | | ug/kg | 190 | 78. | 1 |
| Dibenzofuran | ND | | ug/kg | 190 | 18. | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 220 | 23. | 1 |
| 1,2,4,5-Tetrachlorobenzene | ND | | ug/kg | 190 | 20. | 1 |
| Acetophenone | ND | | ug/kg | 190 | 23. | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 110 | 36. | 1 |
| p-Chloro-m-cresol | ND | | ug/kg | 190 | 28. | 1 |
| 2-Chlorophenol | ND | | ug/kg | 190 | 22. | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 170 | 30. | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 190 | 62. | 1 |
| 2-Nitrophenol | ND | | ug/kg | 410 | 71. | 1 |
| 4-Nitrophenol | ND | | ug/kg | 260 | 77. | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 900 | 88. | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 490 | 90. | 1 |
| Pentachlorophenol | ND | | ug/kg | 150 | 41. | 1 |
| Phenol | ND | | ug/kg | 190 | 28. | 1 |
| 2-Methylphenol | ND | | ug/kg | 190 | 29. | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 270 | 29. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040044

**Project Number:** 135173-002 **Report Date:** 09/30/20

## SAMPLE RESULTS

Lab ID: L2040044-01 Date Collected: 09/23/20 13:35

Client ID: PD-1 Date Received: 09/23/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 190 | 36. | 1 |
| Benzoic Acid | ND | | ug/kg | 610 | 190 | 1 |
| Benzyl Alcohol | ND | | ug/kg | 190 | 58. | 1 |
| Carbazole | ND | | ug/kg | 190 | 18. | 1 |
| 1,4-Dioxane | ND | | ug/kg | 28 | 8.6 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 107 | | 25-120 |
| Phenol-d6 | 101 | | 10-120 |
| Nitrobenzene-d5 | 100 | | 23-120 |
| 2-Fluorobiphenyl | 101 | | 30-120 |
| 2,4,6-Tribromophenol | 119 | | 10-136 |
| 4-Terphenyl-d14 | 107 | | 18-120 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040044
**Report Date:** 09/30/20

## SAMPLE RESULTS

Lab ID: L2040044-02
Client ID: PD-2
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/23/20 14:08
Date Received: 09/23/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/27/20 04:24
Analyst: IM
Percent Solids: 89%

Extraction Method: EPA 3546
Extraction Date: 09/26/20 04:39

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Acenaphthene | ND | | ug/kg | 150 | 19. | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 190 | 21. | 1 |
| Hexachlorobenzene | ND | | ug/kg | 110 | 21. | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 170 | 25. | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 190 | 18. | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 190 | 33. | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 190 | 32. | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 190 | 32. | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 190 | 50. | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 190 | 37. | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 190 | 32. | 1 |
| Fluoranthene | ND | | ug/kg | 110 | 21. | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 190 | 20. | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 190 | 28. | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 220 | 32. | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 200 | 19. | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 190 | 27. | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 530 | 170 | 1 |
| Hexachloroethane | ND | | ug/kg | 150 | 30. | 1 |
| Isophorone | ND | | ug/kg | 170 | 24. | 1 |
| Naphthalene | ND | | ug/kg | 190 | 23. | 1 |
| Nitrobenzene | ND | | ug/kg | 170 | 28. | 1 |
| NDPA/DPA | ND | | ug/kg | 150 | 21. | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 190 | 29. | 1 |
| Bis(2-ethylhexyl)phthalate | ND | | ug/kg | 190 | 64. | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 190 | 47. | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 190 | 35. | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 190 | 63. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040044

**Project Number:** 135173-002 **Report Date:** 09/30/20

## SAMPLE RESULTS

Lab ID: L2040044-02 Date Collected: 09/23/20 14:08

Client ID: PD-2 Date Received: 09/23/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Diethyl phthalate | ND | | ug/kg | 190 | 17. | 1 |
| Dimethyl phthalate | ND | | ug/kg | 190 | 39. | 1 |
| Benzo(a)anthracene | ND | | ug/kg | 110 | 21. | 1 |
| Benzo(a)pyrene | ND | | ug/kg | 150 | 45. | 1 |
| Benzo(b)fluoranthene | ND | | ug/kg | 110 | 31. | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 110 | 30. | 1 |
| Chrysene | ND | | ug/kg | 110 | 19. | 1 |
| Acenaphthylene | ND | | ug/kg | 150 | 29. | 1 |
| Anthracene | ND | | ug/kg | 110 | 36. | 1 |
| Benzo(ghi)perylene | ND | | ug/kg | 150 | 22. | 1 |
| Fluorene | ND | | ug/kg | 190 | 18. | 1 |
| Phenanthrene | ND | | ug/kg | 110 | 23. | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 110 | 22. | 1 |
| Indeno(1,2,3-cd)pyrene | ND | | ug/kg | 150 | 26. | 1 |
| Pyrene | ND | | ug/kg | 110 | 18. | 1 |
| Biphenyl | ND | | ug/kg | 420 | 43. | 1 |
| 4-Chloroaniline | ND | | ug/kg | 190 | 34. | 1 |
| 2-Nitroaniline | ND | | ug/kg | 190 | 36. | 1 |
| 3-Nitroaniline | ND | | ug/kg | 190 | 35. | 1 |
| 4-Nitroaniline | ND | | ug/kg | 190 | 77. | 1 |
| Dibenzofuran | ND | | ug/kg | 190 | 18. | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 220 | 22. | 1 |
| 1,2,4,5-Tetrachlorobenzene | ND | | ug/kg | 190 | 19. | 1 |
| Acetophenone | ND | | ug/kg | 190 | 23. | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 110 | 35. | 1 |
| p-Chloro-m-cresol | ND | | ug/kg | 190 | 28. | 1 |
| 2-Chlorophenol | ND | | ug/kg | 190 | 22. | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 170 | 30. | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 190 | 62. | 1 |
| 2-Nitrophenol | ND | | ug/kg | 400 | 70. | 1 |
| 4-Nitrophenol | ND | | ug/kg | 260 | 76. | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 900 | 87. | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 480 | 90. | 1 |
| Pentachlorophenol | ND | | ug/kg | 150 | 41. | 1 |
| Phenol | ND | | ug/kg | 190 | 28. | 1 |
| 2-Methylphenol | ND | | ug/kg | 190 | 29. | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 270 | 29. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040044

**Project Number:** 135173-002 **Report Date:** 09/30/20

## SAMPLE RESULTS

Lab ID: L2040044-02 Date Collected: 09/23/20 14:08

Client ID: PD-2 Date Received: 09/23/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 190 | 36. | 1 |
| Benzoic Acid | ND | | ug/kg | 600 | 190 | 1 |
| Benzyl Alcohol | ND | | ug/kg | 190 | 57. | 1 |
| Carbazole | ND | | ug/kg | 190 | 18. | 1 |
| 1,4-Dioxane | ND | | ug/kg | 28 | 8.6 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 104 | | 25-120 |
| Phenol-d6 | 99 | | 10-120 |
| Nitrobenzene-d5 | 97 | | 23-120 |
| 2-Fluorobiphenyl | 90 | | 30-120 |
| 2,4,6-Tribromophenol | 112 | | 10-136 |
| 4-Terphenyl-d14 | 87 | | 18-120 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040044
**Report Date:** 09/30/20

## SAMPLE RESULTS

Lab ID: L2040044-03
Client ID: PD-3
Sample Location: 310 GRAND CONCOURSE, BRONX, NY

Date Collected: 09/23/20 11:36
Date Received: 09/23/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 09/29/20 16:17
Analyst: IM
Percent Solids: 84%

Extraction Method: EPA 3546
Extraction Date: 09/26/20 04:39

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Acenaphthene | ND | | ug/kg | 160 | 20. | 1 |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 190 | 22. | 1 |
| Hexachlorobenzene | ND | | ug/kg | 120 | 22. | 1 |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 170 | 26. | 1 |
| 2-Chloronaphthalene | ND | | ug/kg | 190 | 19. | 1 |
| 1,2-Dichlorobenzene | ND | | ug/kg | 190 | 35. | 1 |
| 1,3-Dichlorobenzene | ND | | ug/kg | 190 | 33. | 1 |
| 1,4-Dichlorobenzene | ND | | ug/kg | 190 | 34. | 1 |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 190 | 52. | 1 |
| 2,4-Dinitrotoluene | ND | | ug/kg | 190 | 39. | 1 |
| 2,6-Dinitrotoluene | ND | | ug/kg | 190 | 33. | 1 |
| Fluoranthene | ND | | ug/kg | 120 | 22. | 1 |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 190 | 21. | 1 |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 190 | 30. | 1 |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 230 | 33. | 1 |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 210 | 19. | 1 |
| Hexachlorobutadiene | ND | | ug/kg | 190 | 28. | 1 |
| Hexachlorocyclopentadiene | ND | | ug/kg | 560 | 180 | 1 |
| Hexachloroethane | ND | | ug/kg | 160 | 31. | 1 |
| Isophorone | ND | | ug/kg | 170 | 25. | 1 |
| Naphthalene | ND | | ug/kg | 190 | 24. | 1 |
| Nitrobenzene | ND | | ug/kg | 170 | 29. | 1 |
| NDPA/DPA | ND | | ug/kg | 160 | 22. | 1 |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 190 | 30. | 1 |
| Bis(2-ethylhexyl)phthalate | ND | | ug/kg | 190 | 67. | 1 |
| Butyl benzyl phthalate | ND | | ug/kg | 190 | 49. | 1 |
| Di-n-butylphthalate | ND | | ug/kg | 190 | 37. | 1 |
| Di-n-octylphthalate | ND | | ug/kg | 190 | 66. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040044

**Project Number:** 135173-002 **Report Date:** 09/30/20

## SAMPLE RESULTS

Lab ID: L2040044-03 Date Collected: 09/23/20 11:36

Client ID: PD-3 Date Received: 09/23/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| Diethyl phthalate | ND | | ug/kg | 190 | 18. | 1 |
| Dimethyl phthalate | ND | | ug/kg | 190 | 41. | 1 |
| Benzo(a)anthracene | ND | | ug/kg | 120 | 22. | 1 |
| Benzo(a)pyrene | ND | | ug/kg | 160 | 47. | 1 |
| Benzo(b)fluoranthene | ND | | ug/kg | 120 | 33. | 1 |
| Benzo(k)fluoranthene | ND | | ug/kg | 120 | 31. | 1 |
| Chrysene | ND | | ug/kg | 120 | 20. | 1 |
| Acenaphthylene | ND | | ug/kg | 160 | 30. | 1 |
| Anthracene | ND | | ug/kg | 120 | 38. | 1 |
| Benzo(ghi)perylene | 100 | J | ug/kg | 160 | 23. | 1 |
| Fluorene | ND | | ug/kg | 190 | 19. | 1 |
| Phenanthrene | ND | | ug/kg | 120 | 24. | 1 |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 120 | 22. | 1 |
| Indeno(1,2,3-cd)pyrene | ND | | ug/kg | 160 | 27. | 1 |
| Pyrene | ND | | ug/kg | 120 | 19. | 1 |
| Biphenyl | ND | | ug/kg | 440 | 45. | 1 |
| 4-Chloroaniline | ND | | ug/kg | 190 | 35. | 1 |
| 2-Nitroaniline | ND | | ug/kg | 190 | 37. | 1 |
| 3-Nitroaniline | ND | | ug/kg | 190 | 37. | 1 |
| 4-Nitroaniline | ND | | ug/kg | 190 | 80. | 1 |
| Dibenzofuran | ND | | ug/kg | 190 | 18. | 1 |
| 2-Methylnaphthalene | ND | | ug/kg | 230 | 23. | 1 |
| 1,2,4,5-Tetrachlorobenzene | ND | | ug/kg | 190 | 20. | 1 |
| Acetophenone | ND | | ug/kg | 190 | 24. | 1 |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 120 | 37. | 1 |
| p-Chloro-m-cresol | ND | | ug/kg | 190 | 29. | 1 |
| 2-Chlorophenol | ND | | ug/kg | 190 | 23. | 1 |
| 2,4-Dichlorophenol | ND | | ug/kg | 170 | 31. | 1 |
| 2,4-Dimethylphenol | ND | | ug/kg | 190 | 64. | 1 |
| 2-Nitrophenol | ND | | ug/kg | 420 | 73. | 1 |
| 4-Nitrophenol | ND | | ug/kg | 270 | 79. | 1 |
| 2,4-Dinitrophenol | ND | | ug/kg | 930 | 90. | 1 |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 500 | 93. | 1 |
| Pentachlorophenol | ND | | ug/kg | 160 | 43. | 1 |
| Phenol | ND | | ug/kg | 190 | 29. | 1 |
| 2-Methylphenol | ND | | ug/kg | 190 | 30. | 1 |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 280 | 30. | 1 |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2040044

**Project Number:** 135173-002 **Report Date:** 09/30/20

## SAMPLE RESULTS

Lab ID: L2040044-03 Date Collected: 09/23/20 11:36

Client ID: PD-3 Date Received: 09/23/20

Sample Location: 310 GRAND CONCOURSE, BRONX, NY Field Prep: Not Specified

Sample Depth:

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor |
|---|---|---|---|---|---|---|
| **Semivolatile Organics by GC/MS - Westborough Lab** | | | | | | |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 190 | 37. | 1 |
| Benzoic Acid | ND | | ug/kg | 630 | 200 | 1 |
| Benzyl Alcohol | ND | | ug/kg | 190 | 59. | 1 |
| Carbazole | ND | | ug/kg | 190 | 19. | 1 |
| 1,4-Dioxane | ND | | ug/kg | 29 | 8.9 | 1 |

| Surrogate | % Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 72 | | 25-120 |
| Phenol-d6 | 74 | | 10-120 |
| Nitrobenzene-d5 | 80 | | 23-120 |
| 2-Fluorobiphenyl | 56 | | 30-120 |
| 2,4,6-Tribromophenol | 57 | | 10-136 |
| 4-Terphenyl-d14 | 46 | | 18-120 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040044
**Report Date:** 09/30/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 09/29/20 12:07
Analyst: IM

Extraction Method: EPA 3546
Extraction Date: 09/26/20 04:39

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1414855-1 | | | | | |
| Acenaphthene | ND | | ug/kg | 130 | 17. |
| 1,2,4-Trichlorobenzene | ND | | ug/kg | 160 | 19. |
| Hexachlorobenzene | ND | | ug/kg | 98 | 18. |
| Bis(2-chloroethyl)ether | ND | | ug/kg | 150 | 22. |
| 2-Chloronaphthalene | ND | | ug/kg | 160 | 16. |
| 1,2-Dichlorobenzene | ND | | ug/kg | 160 | 29. |
| 1,3-Dichlorobenzene | ND | | ug/kg | 160 | 28. |
| 1,4-Dichlorobenzene | ND | | ug/kg | 160 | 28. |
| 3,3'-Dichlorobenzidine | ND | | ug/kg | 160 | 43. |
| 2,4-Dinitrotoluene | ND | | ug/kg | 160 | 33. |
| 2,6-Dinitrotoluene | ND | | ug/kg | 160 | 28. |
| Fluoranthene | ND | | ug/kg | 98 | 19. |
| 4-Chlorophenyl phenyl ether | ND | | ug/kg | 160 | 17. |
| 4-Bromophenyl phenyl ether | ND | | ug/kg | 160 | 25. |
| Bis(2-chloroisopropyl)ether | ND | | ug/kg | 200 | 28. |
| Bis(2-chloroethoxy)methane | ND | | ug/kg | 180 | 16. |
| Hexachlorobutadiene | ND | | ug/kg | 160 | 24. |
| Hexachlorocyclopentadiene | ND | | ug/kg | 470 | 150 |
| Hexachloroethane | ND | | ug/kg | 130 | 26. |
| Isophorone | ND | | ug/kg | 150 | 21. |
| Naphthalene | ND | | ug/kg | 160 | 20. |
| Nitrobenzene | ND | | ug/kg | 150 | 24. |
| NDPA/DPA | ND | | ug/kg | 130 | 18. |
| n-Nitrosodi-n-propylamine | ND | | ug/kg | 160 | 25. |
| Bis(2-ethylhexyl)phthalate | ND | | ug/kg | 160 | 56. |
| Butyl benzyl phthalate | ND | | ug/kg | 160 | 41. |
| Di-n-butylphthalate | ND | | ug/kg | 160 | 31. |
| Di-n-octylphthalate | ND | | ug/kg | 160 | 56. |
| Diethyl phthalate | ND | | ug/kg | 160 | 15. |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040044
**Report Date:** 09/30/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 09/29/20 12:07
Analyst: IM

Extraction Method: EPA 3546
Extraction Date: 09/26/20 04:39

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1414855-1 | | | | | |
| Dimethyl phthalate | ND | | ug/kg | 160 | 34. |
| Benzo(a)anthracene | ND | | ug/kg | 98 | 18. |
| Benzo(a)pyrene | ND | | ug/kg | 130 | 40. |
| Benzo(b)fluoranthene | ND | | ug/kg | 98 | 27. |
| Benzo(k)fluoranthene | ND | | ug/kg | 98 | 26. |
| Chrysene | ND | | ug/kg | 98 | 17. |
| Acenaphthylene | ND | | ug/kg | 130 | 25. |
| Anthracene | ND | | ug/kg | 98 | 32. |
| Benzo(ghi)perylene | ND | | ug/kg | 130 | 19. |
| Fluorene | ND | | ug/kg | 160 | 16. |
| Phenanthrene | ND | | ug/kg | 98 | 20. |
| Dibenzo(a,h)anthracene | ND | | ug/kg | 98 | 19. |
| Indeno(1,2,3-cd)pyrene | ND | | ug/kg | 130 | 23. |
| Pyrene | ND | | ug/kg | 98 | 16. |
| Biphenyl | ND | | ug/kg | 370 | 38. |
| 4-Chloroaniline | ND | | ug/kg | 160 | 30. |
| 2-Nitroaniline | ND | | ug/kg | 160 | 31. |
| 3-Nitroaniline | ND | | ug/kg | 160 | 31. |
| 4-Nitroaniline | ND | | ug/kg | 160 | 68. |
| Dibenzofuran | ND | | ug/kg | 160 | 15. |
| 2-Methylnaphthalene | ND | | ug/kg | 200 | 20. |
| 1,2,4,5-Tetrachlorobenzene | ND | | ug/kg | 160 | 17. |
| Acetophenone | ND | | ug/kg | 160 | 20. |
| 2,4,6-Trichlorophenol | ND | | ug/kg | 98 | 31. |
| p-Chloro-m-cresol | ND | | ug/kg | 160 | 24. |
| 2-Chlorophenol | ND | | ug/kg | 160 | 19. |
| 2,4-Dichlorophenol | ND | | ug/kg | 150 | 26. |
| 2,4-Dimethylphenol | ND | | ug/kg | 160 | 54. |
| 2-Nitrophenol | ND | | ug/kg | 350 | 61. |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040044
**Report Date:** 09/30/20

# Method Blank Analysis
## Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 09/29/20 12:07
Analyst: IM

Extraction Method: EPA 3546
Extraction Date: 09/26/20 04:39

| Parameter | Result | Qualifier | Units | RL | MDL |
|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1414855-1 | | | | | |
| 4-Nitrophenol | ND | | ug/kg | 230 | 67. |
| 2,4-Dinitrophenol | ND | | ug/kg | 780 | 76. |
| 4,6-Dinitro-o-cresol | ND | | ug/kg | 420 | 78. |
| Pentachlorophenol | ND | | ug/kg | 130 | 36. |
| Phenol | ND | | ug/kg | 160 | 25. |
| 2-Methylphenol | ND | | ug/kg | 160 | 25. |
| 3-Methylphenol/4-Methylphenol | ND | | ug/kg | 240 | 26. |
| 2,4,5-Trichlorophenol | ND | | ug/kg | 160 | 31. |
| Benzoic Acid | ND | | ug/kg | 530 | 160 |
| Benzyl Alcohol | ND | | ug/kg | 160 | 50. |
| Carbazole | ND | | ug/kg | 160 | 16. |
| 1,4-Dioxane | ND | | ug/kg | 24 | 7.5 |

| Surrogate | %Recovery | Qualifier | Acceptance Criteria |
|---|---|---|---|
| 2-Fluorophenol | 64 | | 25-120 |
| Phenol-d6 | 68 | | 10-120 |
| Nitrobenzene-d5 | 69 | | 23-120 |
| 2-Fluorobiphenyl | 58 | | 30-120 |
| 2,4,6-Tribromophenol | 53 | | 10-136 |
| 4-Terphenyl-d14 | 63 | | 18-120 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040044
**Report Date:** 09/30/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1414855-2 WG1414855-3 | | | | | | | | |
| Acenaphthene | 64 | | 63 | | 31-137 | 2 | | 50 |
| 1,2,4-Trichlorobenzene | 61 | | 60 | | 38-107 | 2 | | 50 |
| Hexachlorobenzene | 59 | | 57 | | 40-140 | 3 | | 50 |
| Bis(2-chloroethyl)ether | 69 | | 67 | | 40-140 | 3 | | 50 |
| 2-Chloronaphthalene | 62 | | 62 | | 40-140 | 0 | | 50 |
| 1,2-Dichlorobenzene | 59 | | 60 | | 40-140 | 2 | | 50 |
| 1,3-Dichlorobenzene | 58 | | 59 | | 40-140 | 2 | | 50 |
| 1,4-Dichlorobenzene | 59 | | 58 | | 28-104 | 2 | | 50 |
| 3,3'-Dichlorobenzidine | 60 | | 58 | | 40-140 | 3 | | 50 |
| 2,4-Dinitrotoluene | 66 | | 64 | | 40-132 | 3 | | 50 |
| 2,6-Dinitrotoluene | 69 | | 70 | | 40-140 | 1 | | 50 |
| Fluoranthene | 66 | | 63 | | 40-140 | 5 | | 50 |
| 4-Chlorophenyl phenyl ether | 61 | | 59 | | 40-140 | 3 | | 50 |
| 4-Bromophenyl phenyl ether | 59 | | 57 | | 40-140 | 3 | | 50 |
| Bis(2-chloroisopropyl)ether | 84 | | 83 | | 40-140 | 1 | | 50 |
| Bis(2-chloroethoxy)methane | 73 | | 71 | | 40-117 | 3 | | 50 |
| Hexachlorobutadiene | 58 | | 59 | | 40-140 | 2 | | 50 |
| Hexachlorocyclopentadiene | 41 | | 40 | | 40-140 | 2 | | 50 |
| Hexachloroethane | 65 | | 65 | | 40-140 | 0 | | 50 |
| Isophorone | 79 | | 77 | | 40-140 | 3 | | 50 |
| Naphthalene | 61 | | 62 | | 40-140 | 2 | | 50 |
| Nitrobenzene | 77 | | 74 | | 40-140 | 4 | | 50 |
| NDPA/DPA | 64 | | 61 | | 36-157 | 5 | | 50 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040044
**Report Date:** 09/30/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1414855-2 WG1414855-3 | | | | | | | | |
| n-Nitrosodi-n-propylamine | 78 | | 75 | | 32-121 | 4 | | 50 |
| Bis(2-ethylhexyl)phthalate | 85 | | 82 | | 40-140 | 4 | | 50 |
| Butyl benzyl phthalate | 77 | | 74 | | 40-140 | 4 | | 50 |
| Di-n-butylphthalate | 73 | | 72 | | 40-140 | 1 | | 50 |
| Di-n-octylphthalate | 81 | | 80 | | 40-140 | 1 | | 50 |
| Diethyl phthalate | 68 | | 66 | | 40-140 | 3 | | 50 |
| Dimethyl phthalate | 68 | | 66 | | 40-140 | 3 | | 50 |
| Benzo(a)anthracene | 63 | | 62 | | 40-140 | 2 | | 50 |
| Benzo(a)pyrene | 70 | | 69 | | 40-140 | 1 | | 50 |
| Benzo(b)fluoranthene | 64 | | 66 | | 40-140 | 3 | | 50 |
| Benzo(k)fluoranthene | 70 | | 70 | | 40-140 | 0 | | 50 |
| Chrysene | 70 | | 71 | | 40-140 | 1 | | 50 |
| Acenaphthylene | 71 | | 70 | | 40-140 | 1 | | 50 |
| Anthracene | 69 | | 66 | | 40-140 | 4 | | 50 |
| Benzo(ghi)perylene | 68 | | 64 | | 40-140 | 6 | | 50 |
| Fluorene | 63 | | 62 | | 40-140 | 2 | | 50 |
| Phenanthrene | 64 | | 62 | | 40-140 | 3 | | 50 |
| Dibenzo(a,h)anthracene | 67 | | 66 | | 40-140 | 2 | | 50 |
| Indeno(1,2,3-cd)pyrene | 59 | | 57 | | 40-140 | 3 | | 50 |
| Pyrene | 67 | | 64 | | 35-142 | 5 | | 50 |
| Biphenyl | 63 | | 62 | | 37-127 | 2 | | 50 |
| 4-Chloroaniline | 73 | | 78 | | 40-140 | 7 | | 50 |
| 2-Nitroaniline | 77 | | 75 | | 47-134 | 3 | | 50 |

# Lab Control Sample Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040044
**Report Date:** 09/30/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1414855-2 WG1414855-3 | | | | | | | | |
| 3-Nitroaniline | 68 | | 65 | | 26-129 | 5 | | 50 |
| 4-Nitroaniline | 66 | | 62 | | 41-125 | 6 | | 50 |
| Dibenzofuran | 61 | | 59 | | 40-140 | 3 | | 50 |
| 2-Methylnaphthalene | 62 | | 62 | | 40-140 | 0 | | 50 |
| 1,2,4,5-Tetrachlorobenzene | 59 | | 58 | | 40-117 | 2 | | 50 |
| Acetophenone | 70 | | 68 | | 14-144 | 3 | | 50 |
| 2,4,6-Trichlorophenol | 68 | | 64 | | 30-130 | 6 | | 50 |
| p-Chloro-m-cresol | 76 | | 75 | | 26-103 | 1 | | 50 |
| 2-Chlorophenol | 68 | | 68 | | 25-102 | 0 | | 50 |
| 2,4-Dichlorophenol | 72 | | 70 | | 30-130 | 3 | | 50 |
| 2,4-Dimethylphenol | 86 | | 82 | | 30-130 | 5 | | 50 |
| 2-Nitrophenol | 78 | | 77 | | 30-130 | 1 | | 50 |
| 4-Nitrophenol | 83 | | 79 | | 11-114 | 5 | | 50 |
| 2,4-Dinitrophenol | 68 | | 63 | | 4-130 | 8 | | 50 |
| 4,6-Dinitro-o-cresol | 74 | | 70 | | 10-130 | 6 | | 50 |
| Pentachlorophenol | 54 | | 52 | | 17-109 | 4 | | 50 |
| Phenol | 68 | | 67 | | 26-90 | 1 | | 50 |
| 2-Methylphenol | 75 | | 73 | | 30-130. | 3 | | 50 |
| 3-Methylphenol/4-Methylphenol | 83 | | 80 | | 30-130 | 4 | | 50 |
| 2,4,5-Trichlorophenol | 68 | | 66 | | 30-130 | 3 | | 50 |
| Benzoic Acid | 44 | | 46 | | 10-110 | 4 | | 50 |
| Benzyl Alcohol | 81 | | 79 | | 40-140 | 3 | | 50 |
| Carbazole | 67 | | 65 | | 54-128 | 3 | | 50 |

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2040044

**Report Date:** 09/30/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1414855-2 WG1414855-3 | | | | | | | | |
| 1,4-Dioxane | 54 | | 57 | | 40-140 | 5 | | 50 |

| Surrogate | LCS %Recovery | Qual | LCSD %Recovery | Qual | Acceptance Criteria |
|---|---|---|---|---|---|
| 2-Fluorophenol | 71 | | 69 | | 25-120 |
| Phenol-d6 | 76 | | 72 | | 10-120 |
| Nitrobenzene-d5 | 80 | | 80 | | 23-120 |
| 2-Fluorobiphenyl | 65 | | 64 | | 30-120 |
| 2,4,6-Tribromophenol | 59 | | 58 | | 10-136 |
| 4-Terphenyl-d14 | 63 | | 62 | | 18-120 |

# INORGANICS
# &
# MISCELLANEOUS

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040044
**Report Date:** 09/30/20

## SAMPLE RESULTS

Lab ID: L2040044-01
Client ID: PD-1
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 09/23/20 13:35
Date Received: 09/23/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 87.8 | | % | 0.100 | NA | 1 | - | 09/24/20 10:18 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040044
**Report Date:** 09/30/20

## SAMPLE RESULTS

Lab ID: L2040044-02
Client ID: PD-2
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil

Date Collected: 09/23/20 14:08
Date Received: 09/23/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 88.5 | | % | 0.100 | NA | 1 | - | 09/24/20 10:18 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2040044
**Report Date:** 09/30/20

## SAMPLE RESULTS

Lab ID: L2040044-03
Client ID: PD-3
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil

Date Collected: 09/23/20 11:36
Date Received: 09/23/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 84.0 | | % | 0.100 | NA | 1 | - | 09/24/20 10:18 | 121,2540G | RI |

# Lab Duplicate Analysis

***Batch Quality Control***

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

***Lab Number:*** L2040044

***Report Date:*** 09/30/20

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1414027-1 QC Sample: L2039553-08 Client ID: DUP Sample | | | | | | |
| Solids, Total | 89.1 | 90.6 | % | 2 | | 20 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2040044
**Report Date:** 09/30/20

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

### Cooler Information

| Cooler | Custody Seal |
|---|---|
| A | Absent |

### Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2040044-01A | Vial MeOH preserved | A | NA | | 3.7 | Y | Absent | | NYTCL-8260HLW(14) |
| L2040044-01B | Vial water preserved | A | NA | | 3.7 | Y | Absent | 24-SEP-20 08:40 | NYTCL-8260HLW(14) |
| L2040044-01C | Vial water preserved | A | NA | | 3.7 | Y | Absent | 24-SEP-20 08:40 | NYTCL-8260HLW(14) |
| L2040044-01D | Plastic 2oz unpreserved for TS | A | NA | | 3.7 | Y | Absent | | TS(7) |
| L2040044-01E | Glass 120ml/4oz unpreserved | A | NA | | 3.7 | Y | Absent | | NYTCL-8270(14) |
| L2040044-02A | Vial MeOH preserved | A | NA | | 3.7 | Y | Absent | | NYTCL-8260HLW(14) |
| L2040044-02B | Vial water preserved | A | NA | | 3.7 | Y | Absent | 24-SEP-20 08:40 | NYTCL-8260HLW(14) |
| L2040044-02C | Vial water preserved | A | NA | | 3.7 | Y | Absent | 24-SEP-20 08:40 | NYTCL-8260HLW(14) |
| L2040044-02D | Plastic 2oz unpreserved for TS | A | NA | | 3.7 | Y | Absent | | TS(7) |
| L2040044-02E | Glass 120ml/4oz unpreserved | A | NA | | 3.7 | Y | Absent | | NYTCL-8270(14) |
| L2040044-03A | Vial MeOH preserved | A | NA | | 3.7 | Y | Absent | | NYTCL-8260HLW(14) |
| L2040044-03B | Vial water preserved | A | NA | | 3.7 | Y | Absent | 24-SEP-20 08:40 | NYTCL-8260HLW(14) |
| L2040044-03C | Vial water preserved | A | NA | | 3.7 | Y | Absent | 24-SEP-20 08:40 | NYTCL-8260HLW(14) |
| L2040044-03D | Plastic 2oz unpreserved for TS | A | NA | | 3.7 | Y | Absent | | TS(7) |
| L2040044-03E | Glass 120ml/4oz unpreserved | A | NA | | 3.7 | Y | Absent | | NYTCL-8270(14) |



*Values in parentheses indicate holding time in days

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2040044 |
| **Project Number:** | 135173-002 | **Report Date:** | 09/30/20 |

## GLOSSARY

***Acronyms***

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

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

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

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

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

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

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

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

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

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

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

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

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

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

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

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2040044 |
| **Project Number:** | 135173-002 | **Report Date:** | 09/30/20 |

***Footnotes***

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

***Terms***

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

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

***Data Qualifiers***

**A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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

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

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

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

**F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

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

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

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

**J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

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

**ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

**NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2040044 |
| **Project Number:** | 135173-002 | **Report Date:** | 09/30/20 |

***Data Qualifiers***

the identification is based on a mass spectral library search.

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

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

**R** - Analytical results are from sample re-analysis.

**RE** - Analytical results are from sample re-extraction.

**S** - Analytical results are from modified screening analysis.

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2040044 |
| **Project Number:** | 135173-002 | **Report Date:** | 09/30/20 |

## REFERENCES


1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.


## LIMITATION OF LIABILITIES

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

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

# Certification Information

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

**Westborough Facility**
**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene
**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
**EPA 8270D:** NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
**SM4500**: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

**Mansfield Facility**
**SM 2540D:** TSS
**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
**EPA TO-12** Non-methane organics
**EPA 3C** Fixed gases
**Biological Tissue Matrix:** EPA 3050B

**The following analytes are included in our Massachusetts DEP Scope of Accreditation**

**Westborough Facility:**

***Drinking Water***
**EPA 300.0**: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
**EPA 332**: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
**Microbiology**: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

***Non-Potable Water***
**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
**EPA 624.1**: Volatile Halocarbons & Aromatics,
**EPA 608.3**: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
**EPA 625.1**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
**Microbiology**: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

**Mansfield Facility:**

***Drinking Water***
**EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
**EPA 522.**

***Non-Potable Water***
**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
**EPA 200.8:** Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
**EPA 245.1** Hg.
**SM2340B**

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

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

# NEW YORK CHAIN OF CUSTODY

**Service Centers**
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 9/24/20

ALPHA Job #: L2040044

## Client Information
Client: Haley & Aldrich of NY
Address: 237 West 35th Street
New York, NY 10123
Phone:
Fax:
Email: MConlon@haleyaldrich.com

## Project Information
Project Name: 310 Grand Concourse
Project Location: 310 Grand Concourse, Bronx, NY
Project # 135173-002
(Use Project name as Project #) ☐
Project Manager: M. Conlon
ALPHAQuote #:

## Turn-Around Time
Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

## Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☑ Other PDF & Excel

## Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☑ NY Restricted Use ☐ Other
☑ NY Unrestricted Use
☐ NYC Sewer Discharge

## Billing Information
☑ Same as Client Info
PO #

## Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

**Other project specific requirements/comments:**

**Please specify Metals or TAL.**

## ANALYSIS
VOCs 8260 | SVOCs 8270

**Sample Filtration**
☐ Done
☐ Lab to do
*Preservation*
☐ Lab to do
*(Please Specify below)*

Total Bottles

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection Date | Collection Time | Sample Matrix | Sampler's Initials | VOCs 8260 | SVOCs 8270 | Sample Specific Comments |
|---|---|---|---|---|---|---|---|---|
| 404044-01 | PD-1 | 9-23-20 | 1335 | S | ZS | X | X | |
| -02 | PD-2 | 9-23-20 | 1408 | S | ZS | X | X | |
| -03 | PD-3 | 9-23-20 | 1136 | S | ZS | X | X | |

Container Type: V A
Preservative: F A

Preservative Code:
A = None
B = HCl
C = $HNO_3$
D = $H_2SO_4$
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

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

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

| Relinquished By: | Date/Time | Received By: | Date/Time |
|---|---|---|---|
| Mark Zimmel | 9-23-20 1432 | Dave | 9/23/20 1432 |
| Dave | 9/23/20 1903 | | 9/23/20 2000 |
| | 9/24/20 0020 | | 9/24/20 00:20 |

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

# ANALYTICAL REPORT

| | |
|---|---|
| Lab Number: | L2045640 |
| Client: | Haley & Aldrich<br>237 West 35th Street<br>16th Floor<br>New York, NY 10123 |
| ATTN: | Mari Conlon |
| Phone: | (347) 271-1521 |
| Project Name: | 310 GRAND CONCOURSE |
| Project Number: | 135173 |
| Report Date: | 11/04/20 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173

**Lab Number:** L2045640
**Report Date:** 11/04/20

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|---|---|---|---|---|---|
| L2045640-01 | LD-A (0-2') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 10/21/20 07:25 | 10/21/20 |
| L2045640-02 | LD-A (5') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 10/21/20 07:29 | 10/21/20 |
| L2045640-03 | LD-A1 (0-2') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 10/21/20 07:38 | 10/21/20 |
| L2045640-04 | LD-A2 (0-2') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 10/21/20 07:38 | 10/21/20 |
| L2045640-05 | LD-A3 (0-2') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 10/21/20 07:35 | 10/21/20 |
| L2045640-06 | LD-C-B1 (2-3') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 10/21/20 08:15 | 10/21/20 |
| L2045640-07 | LD-C-B1 (5') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 10/21/20 08:16 | 10/21/20 |
| L2045640-08 | LD-C-B2 (2-3') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 10/21/20 08:01 | 10/21/20 |
| L2045640-09 | LD-C-B2 (5') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 10/21/20 08:04 | 10/21/20 |
| L2045640-10 | LD-C-B3 (2-3') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 10/21/20 08:10 | 10/21/20 |
| L2045640-11 | LD-C-B3 (5') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 10/21/20 08:12 | 10/21/20 |
| L2045640-12 | LD-C1 (0-2') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 10/21/20 08:32 | 10/21/20 |
| L2045640-13 | LD-C2 (0-2') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 10/21/20 08:45 | 10/21/20 |
| L2045640-14 | LD-C3 (0-2') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 10/21/20 08:59 | 10/21/20 |
| L2045640-15 | LD-C4 (0-2') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 10/21/20 09:29 | 10/21/20 |
| L2045640-16 | LD-C4 (5') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 10/21/20 09:30 | 10/21/20 |
| L2045640-17 | LD-C4-A (0-2') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 10/21/20 09:37 | 10/21/20 |
| L2045640-18 | LD-C4-B (0-2') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 10/21/20 09:40 | 10/21/20 |
| L2045640-19 | LD-F-B (2-3') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 10/21/20 09:57 | 10/21/20 |
| L2045640-20 | LD-F-B (5') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 10/21/20 09:59 | 10/21/20 |
| L2045640-21 | LD-F1 (0-2') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 10/21/20 10:12 | 10/21/20 |
| L2045640-22 | LD-F2 (0-2') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 10/21/20 10:02 | 10/21/20 |
| L2045640-23 | LD-F3 (0-2') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 10/21/20 10:09 | 10/21/20 |

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2045640 |
| **Project Number:** | 135173 | **Report Date:** | 11/04/20 |

## Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

Please contact Project Management at 800-624-9220 with any questions.

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2045640 |
| **Project Number:** | 135173 | **Report Date:** | 11/04/20 |

**Case Narrative (continued)**

Report Submission

November 04, 2020: This final report includes the results of all requested analyses.

October 28, 2020: This is a preliminary report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Total Metals

The WG1425804-3 MS recovery for lead (527%), performed on L2045640-01 (LD-A (0-2') ), does not apply because the sample concentration is greater than four times the spike amount added.

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

Authorized Signature: Melissa Sturgis Melissa Sturgis

Title: Technical Director/Representative Date: 11/04/20

# METALS

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-01
Client ID: LD-A (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 07:25
Date Received: 10/21/20
Field Prep: Not Specified
Sample Depth:
TCLP/SPLP Ext. Date: 10/23/20 05:10
Matrix: Soil
Percent Solids: 84%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 0.676 | | mg/l | 0.500 | 0.027 | 1 | 10/27/20 09:02 | 10/27/20 21:45 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-01
Client ID: LD-A (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 07:25
Date Received: 10/21/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 84%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 1740 | | mg/kg | 2.22 | 0.119 | 1 | 10/26/20 23:00 | 10/27/20 21:08 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-02
Client ID: LD-A (5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Percent Solids: 84%

Date Collected: 10/21/20 07:29
Date Received: 10/21/20
Field Prep: Not Specified
TCLP/SPLP Ext. Date: 10/23/20 05:10

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 10/27/20 09:02 | 10/27/20 22:08 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-02
Client ID: LD-A (5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 07:29
Date Received: 10/21/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 84%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 16.2 | | mg/kg | 2.30 | 0.124 | 1 | 10/26/20 23:00 | 10/27/20 21:30 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-06
Client ID: LD-C-B1 (2-3')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Percent Solids: 85%

Date Collected: 10/21/20 08:15
Date Received: 10/21/20
Field Prep: Not Specified
TCLP/SPLP Ext. Date: 10/23/20 05:10

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 4.02 | | mg/l | 0.500 | 0.027 | 1 | 10/27/20 09:02 | 10/27/20 22:13 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-06
Client ID: LD-C-B1 (2-3')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 08:15
Date Received: 10/21/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 85%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 1060 | | mg/kg | 2.26 | 0.121 | 1 | 10/26/20 23:00 | 10/27/20 21:34 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-07
Client ID: LD-C-B1 (5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 08:16
Date Received: 10/21/20
Field Prep: Not Specified
Sample Depth:
TCLP/SPLP Ext. Date: 10/23/20 05:10
Matrix: Soil
Percent Solids: 92%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 10/27/20 09:02 | 10/27/20 22:17 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-07
Client ID: LD-C-B1 (5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 08:16
Date Received: 10/21/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 92%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 159 | | mg/kg | 2.07 | 0.111 | 1 | 10/26/20 23:00 | 10/27/20 21:38 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-08
Client ID: LD-C-B2 (2-3')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Percent Solids: 89%

Date Collected: 10/21/20 08:01
Date Received: 10/21/20
Field Prep: Not Specified
TCLP/SPLP Ext. Date: 10/23/20 05:10

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 10/27/20 09:02 | 10/28/20 00:45 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-08
Client ID: LD-C-B2 (2-3')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 08:01
Date Received: 10/21/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 89%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 83.7 | | mg/kg | 2.12 | 0.114 | 1 | 10/26/20 23:00 | 10/27/20 21:51 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-09
Client ID: LD-C-B2 (5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 08:04
Date Received: 10/21/20
Field Prep: Not Specified
Sample Depth:
TCLP/SPLP Ext. Date: 10/23/20 05:10
Matrix: Soil
Percent Solids: 94%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 10/27/20 09:02 | 10/28/20 00:50 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-09
Client ID: LD-C-B2 (5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 08:04
Date Received: 10/21/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 94%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 27.4 | | mg/kg | 2.07 | 0.111 | 1 | 10/26/20 23:00 | 10/27/20 21:56 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-10
Client ID: LD-C-B3 (2-3')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Percent Solids: 84%

Date Collected: 10/21/20 08:10
Date Received: 10/21/20
Field Prep: Not Specified
TCLP/SPLP Ext. Date: 10/23/20 05:10

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 0.090 | J | mg/l | 0.500 | 0.027 | 1 | 10/27/20 09:02 | 10/28/20 01:31 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-10
Client ID: LD-C-B3 (2-3')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 08:10
Date Received: 10/21/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 84%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 45.1 | | mg/kg | 2.26 | 0.121 | 1 | 10/26/20 23:00 | 10/27/20 22:00 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-11
Client ID: LD-C-B3 (5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 08:12
Date Received: 10/21/20
Field Prep: Not Specified
Sample Depth:
TCLP/SPLP Ext. Date: 10/23/20 05:10
Matrix: Soil
Percent Solids: 89%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 10/27/20 09:02 | 10/28/20 01:36 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-11
Client ID: LD-C-B3 (5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 08:12
Date Received: 10/21/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 89%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 26.0 | | mg/kg | 2.18 | 0.117 | 1 | 10/26/20 23:00 | 10/27/20 22:04 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-12
Client ID: LD-C1 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Percent Solids: 80%

Date Collected: 10/21/20 08:32
Date Received: 10/21/20
Field Prep: Not Specified
TCLP/SPLP Ext. Date: 10/23/20 05:10

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 1.66 | | mg/l | 0.500 | 0.027 | 1 | 10/27/20 09:02 | 10/28/20 01:41 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-12
Client ID: LD-C1 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 08:32
Date Received: 10/21/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 80%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 446 | | mg/kg | 2.43 | 0.130 | 1 | 10/26/20 23:00 | 10/27/20 22:08 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-13
Client ID: LD-C2 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Percent Solids: 94%

Date Collected: 10/21/20 08:45
Date Received: 10/21/20
Field Prep: Not Specified
TCLP/SPLP Ext. Date: 10/23/20 05:10

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 0.439 | J | mg/l | 0.500 | 0.027 | 1 | 10/27/20 09:02 | 10/28/20 01:45 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-13
Client ID: LD-C2 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 08:45
Date Received: 10/21/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 94%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 1780 | | mg/kg | 2.04 | 0.110 | 1 | 10/26/20 23:00 | 10/27/20 22:13 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-14
Client ID: LD-C3 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Percent Solids: 88%

Date Collected: 10/21/20 08:59
Date Received: 10/21/20
Field Prep: Not Specified
TCLP/SPLP Ext. Date: 10/23/20 05:10

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 2.83 | | mg/l | 0.500 | 0.027 | 1 | 10/26/20 21:00 | 10/27/20 20:16 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-14
Client ID: LD-C3 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 08:59
Date Received: 10/21/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 88%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 612 | | mg/kg | 2.22 | 0.119 | 1 | 10/26/20 23:00 | 10/27/20 22:17 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-15
Client ID: LD-C4 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 09:29
Date Received: 10/21/20
Field Prep: Not Specified
Sample Depth:
TCLP/SPLP Ext. Date: 10/23/20 05:10
Matrix: Soil
Percent Solids: 91%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 0.361 | J | mg/l | 0.500 | 0.027 | 1 | 10/27/20 09:02 | 10/28/20 02:00 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-15
Client ID: LD-C4 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 09:29
Date Received: 10/21/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 91%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 403 | | mg/kg | 2.07 | 0.111 | 1 | 10/26/20 23:00 | 10/27/20 22:22 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-16
Client ID: LD-C4 (5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Percent Solids: 86%

Date Collected: 10/21/20 09:30
Date Received: 10/21/20
Field Prep: Not Specified
TCLP/SPLP Ext. Date: 10/23/20 05:10

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 0.293 | J | mg/l | 0.500 | 0.027 | 1 | 10/27/20 09:34 | 10/28/20 02:05 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-16
Client ID: LD-C4 (5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 09:30
Date Received: 10/21/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 86%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 1290 | | mg/kg | 2.24 | 0.120 | 1 | 10/26/20 23:00 | 10/27/20 22:26 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-18
Client ID: LD-C4-B (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 09:40
Date Received: 10/21/20
Field Prep: Not Specified
Sample Depth:
TCLP/SPLP Ext. Date: 10/23/20 05:10
Matrix: Soil
Percent Solids: 86%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 0.116 | J | mg/l | 0.500 | 0.027 | 1 | 10/27/20 09:34 | 10/28/20 02:09 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-18
Client ID: LD-C4-B (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 09:40
Date Received: 10/21/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 86%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 383 | | mg/kg | 2.20 | 0.118 | 1 | 10/26/20 23:00 | 10/27/20 22:31 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-19
Client ID: LD-F-B (2-3')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 09:57
Date Received: 10/21/20
Field Prep: Not Specified
Sample Depth:
TCLP/SPLP Ext. Date: 10/23/20 05:10
Matrix: Soil
Percent Solids: 95%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 10/27/20 09:34 | 10/28/20 02:14 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-19
Client ID: LD-F-B (2-3')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 09:57
Date Received: 10/21/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 95%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 24.2 | | mg/kg | 2.02 | 0.108 | 1 | 10/26/20 23:00 | 10/27/20 23:53 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-20
Client ID: LD-F-B (5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 09:59
Date Received: 10/21/20
Field Prep: Not Specified
Sample Depth:
TCLP/SPLP Ext. Date: 10/23/20 05:10
Matrix: Soil
Percent Solids: 91%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 10/27/20 09:34 | 10/28/20 02:19 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-20
Client ID: LD-F-B (5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 09:59
Date Received: 10/21/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 91%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 12.0 | | mg/kg | 2.15 | 0.115 | 1 | 10/26/20 23:00 | 10/27/20 23:57 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-21
Client ID: LD-F1 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 10:12
Date Received: 10/21/20
Field Prep: Not Specified
Sample Depth:
TCLP/SPLP Ext. Date: 10/23/20 05:10
Matrix: Soil
Percent Solids: 87%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 0.121 | J | mg/l | 0.500 | 0.027 | 1 | 10/27/20 09:34 | 10/28/20 02:24 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-21
Client ID: LD-F1 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 10:12
Date Received: 10/21/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 87%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 85.0 | | mg/kg | 2.21 | 0.118 | 1 | 10/26/20 23:00 | 10/28/20 00:02 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-22
Client ID: LD-F2 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Percent Solids: 87%

Date Collected: 10/21/20 10:02
Date Received: 10/21/20
Field Prep: Not Specified
TCLP/SPLP Ext. Date: 10/23/20 05:10

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 0.221 | J | mg/l | 0.500 | 0.027 | 1 | 10/27/20 09:34 | 10/28/20 02:28 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-22
Client ID: LD-F2 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 10:02
Date Received: 10/21/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 87%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 54.7 | | mg/kg | 2.26 | 0.121 | 1 | 10/26/20 23:00 | 10/28/20 00:06 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-23
Client ID: LD-F3 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 10:09
Date Received: 10/21/20
Field Prep: Not Specified
Sample Depth:
TCLP/SPLP Ext. Date: 10/23/20 05:10
Matrix: Soil
Percent Solids: 90%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 1.17 | | mg/l | 0.500 | 0.027 | 1 | 10/26/20 21:00 | 10/27/20 20:21 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2045640
**Project Number:** 135173
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-23
Client ID: LD-F3 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 10:09
Date Received: 10/21/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 90%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 60.0 | | mg/kg | 2.13 | 0.114 | 1 | 10/26/20 23:00 | 10/28/20 00:10 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2045640

**Project Number:** 135173 **Report Date:** 11/04/20

# Method Blank Analysis
# Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab for sample(s): 01-02,06-16,18-23 Batch: WG1425804-1 | | | | | | | | | | |
| Lead, Total | ND | | mg/kg | 2.00 | 0.107 | 1 | 10/26/20 23:00 | 10/27/20 21:00 | 1,6010D | BV |

**Prep Information**

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 14,23 Batch: WG1426642-1 | | | | | | | | | | |
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 10/26/20 21:00 | 10/27/20 13:49 | 1,6010D | GD |

**Prep Information**

Digestion Method: EPA 3015

TCLP/SPLP Extraction Date: 10/22/20 22:35

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 01-02,06-13,15-16,18-22 Batch: WG1426748-1 | | | | | | | | | | |
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 10/27/20 09:02 | 10/27/20 21:36 | 1,6010D | BV |

**Prep Information**

Digestion Method: EPA 3015

TCLP/SPLP Extraction Date: 10/23/20 05:10

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173

**Lab Number:** L2045640

**Report Date:** 11/04/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01-02,06-16,18-23 Batch: WG1425804-2 SRM Lot Number: D109-540 | | | | | | | | |
| Lead, Total | 85 | | - | | 72-128 | - | | |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 14,23 Batch: WG1426642-2 | | | | | | | | |
| Lead, TCLP | 92 | | - | | 75-125 | - | | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01-02,06-13,15-16,18-22 Batch: WG1426748-2 | | | | | | | | |
| Lead, TCLP | 100 | | - | | 75-125 | - | | 20 |

# Matrix Spike Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173

**Lab Number:** L2045640
**Report Date:** 11/04/20

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01-02,06-16,18-23 QC Batch ID: WG1425804-3 QC Sample: L2045640-01 Client ID: LD-A (0-2') | | | | | | | | | | | | |
| Lead, Total | 1740 | 45.6 | 1980 | **527** | Q | - | - | | 75-125 | - | | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 14,23 QC Batch ID: WG1426642-3 QC Sample: L2045136-01 Client ID: MS Sample | | | | | | | | | | | | |
| Lead, TCLP | ND | 5.1 | 4.51 | 88 | | - | - | | 75-125 | - | | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01-02,06-13,15-16,18-22 QC Batch ID: WG1426748-3 QC Sample: L2045640-01 Client ID: LD-A (0-2') | | | | | | | | | | | | |
| Lead, TCLP | 0.676 | 5.1 | 5.76 | 100 | | - | - | | 75-125 | - | | 20 |

# Lab Duplicate Analysis
*Batch Quality Control*

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173

***Lab Number:*** L2045640
***Report Date:*** 11/04/20

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01-02,06-16,18-23 QC Batch ID: WG1425804-4 QC Sample: L2045640-01 Client ID: LD-A (0-2') | | | | | | |
| Lead, Total | 1740 | 1930 | mg/kg | 10 | | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 14,23 QC Batch ID: WG1426642-4 QC Sample: L2045136-01 Client ID: DUP Sample | | | | | | |
| Lead, TCLP | ND | ND | mg/l | NC | | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01-02,06-13,15-16,18-22 QC Batch ID: WG1426748-4 QC Sample: L2045640-01 Client ID: LD-A (0-2') | | | | | | |
| Lead, TCLP | 0.676 | 0.647 | mg/l | 4 | | 20 |

# INORGANICS
# &
# MISCELLANEOUS

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173
**Lab Number:** L2045640
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-01
Client ID: LD-A (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 10/21/20 07:25
Date Received: 10/21/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 84.4 | | % | 0.100 | NA | 1 | - | 10/22/20 13:10 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173
**Lab Number:** L2045640
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-02
Client ID: LD-A (5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 10/21/20 07:29
Date Received: 10/21/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 83.7 | | % | 0.100 | NA | 1 | - | 10/22/20 13:10 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173
**Lab Number:** L2045640
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-06
Client ID: LD-C-B1 (2-3')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 10/21/20 08:15
Date Received: 10/21/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| General Chemistry - Westborough Lab | | | | | | | | | | |
| Solids, Total | 85.3 | | % | 0.100 | NA | 1 | - | 10/22/20 13:10 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173
**Lab Number:** L2045640
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-07
Client ID: LD-C-B1 (5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 10/21/20 08:16
Date Received: 10/21/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 91.7 | | % | 0.100 | NA | 1 | - | 10/22/20 13:10 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173
**Lab Number:** L2045640
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-08
Client ID: LD-C-B2 (2-3')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil

Date Collected: 10/21/20 08:01
Date Received: 10/21/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 89.4 | | % | 0.100 | NA | 1 | - | 10/22/20 13:10 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173
**Lab Number:** L2045640
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-09
Client ID: LD-C-B2 (5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 10/21/20 08:04
Date Received: 10/21/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 93.8 | | % | 0.100 | NA | 1 | - | 10/22/20 13:10 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173
**Lab Number:** L2045640
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-10
Client ID: LD-C-B3 (2-3')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 10/21/20 08:10
Date Received: 10/21/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 84.4 | | % | 0.100 | NA | 1 | - | 10/22/20 13:10 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173
**Lab Number:** L2045640
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-11
Client ID: LD-C-B3 (5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 10/21/20 08:12
Date Received: 10/21/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 88.6 | | % | 0.100 | NA | 1 | - | 10/22/20 13:10 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173
**Lab Number:** L2045640
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-12
Client ID: LD-C1 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 10/21/20 08:32
Date Received: 10/21/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 79.8 | | % | 0.100 | NA | 1 | - | 10/22/20 13:10 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173
**Lab Number:** L2045640
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-13
Client ID: LD-C2 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 10/21/20 08:45
Date Received: 10/21/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 93.7 | | % | 0.100 | NA | 1 | - | 10/22/20 13:10 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173
**Lab Number:** L2045640
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-14
Client ID: LD-C3 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 10/21/20 08:59
Date Received: 10/21/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 88.4 | | % | 0.100 | NA | 1 | - | 10/22/20 13:10 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173
**Lab Number:** L2045640
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-15
Client ID: LD-C4 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 10/21/20 09:29
Date Received: 10/21/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 91.4 | | % | 0.100 | NA | 1 | - | 10/22/20 13:10 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173
**Lab Number:** L2045640
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-16
Client ID: LD-C4 (5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 10/21/20 09:30
Date Received: 10/21/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 86.4 | | % | 0.100 | NA | 1 | - | 10/22/20 13:10 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173
**Lab Number:** L2045640
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-18
Client ID: LD-C4-B (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 10/21/20 09:40
Date Received: 10/21/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 86.3 | | % | 0.100 | NA | 1 | - | 10/22/20 13:10 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173
**Lab Number:** L2045640
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-19
Client ID: LD-F-B (2-3')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 10/21/20 09:57
Date Received: 10/21/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 95.4 | | % | 0.100 | NA | 1 | - | 10/22/20 13:10 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173
**Lab Number:** L2045640
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-20
Client ID: LD-F-B (5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 10/21/20 09:59
Date Received: 10/21/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 90.9 | | % | 0.100 | NA | 1 | - | 10/22/20 13:10 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173
**Lab Number:** L2045640
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-21
Client ID: LD-F1 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 10/21/20 10:12
Date Received: 10/21/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 86.9 | | % | 0.100 | NA | 1 | - | 10/22/20 13:10 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173
**Lab Number:** L2045640
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-22
Client ID: LD-F2 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 10/21/20 10:02
Date Received: 10/21/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 87.1 | | % | 0.100 | NA | 1 | - | 10/22/20 13:10 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173
**Lab Number:** L2045640
**Report Date:** 11/04/20

## SAMPLE RESULTS

Lab ID: L2045640-23
Client ID: LD-F3 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 10/21/20 10:09
Date Received: 10/21/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 90.3 | | % | 0.100 | NA | 1 | - | 10/22/20 13:10 | 121,2540G | RI |

# Lab Duplicate Analysis

***Batch Quality Control***

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173

***Lab Number:*** L2045640

***Report Date:*** 11/04/20

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| General Chemistry - Westborough Lab Associated sample(s): 01-02,06-16,18-23 QC Batch ID: WG1425188-1 QC Sample: L2045640-01 Client ID: LD-A (0-2') | | | | | | |
| Solids, Total | 84.4 | 84.6 | % | 0 | | 20 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173

**Lab Number:** L2045640
**Report Date:** 11/04/20

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

### Cooler Information

| Cooler | Custody Seal |
|---|---|
| A | Absent |

### Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2045640-01A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.0 | Y | Absent | | PB-TI(180) |
| L2045640-01B | Glass 250ml/8oz unpreserved | A | NA | | 2.0 | Y | Absent | | TS(7) |
| L2045640-01X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 2.0 | Y | Absent | | PB-CI(180) |
| L2045640-01X9 | Tumble Vessel | A | NA | | 2.0 | Y | Absent | | - |
| L2045640-02A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.0 | Y | Absent | | PB-TI(180) |
| L2045640-02B | Glass 250ml/8oz unpreserved | A | NA | | 2.0 | Y | Absent | | TS(7) |
| L2045640-02X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 2.0 | Y | Absent | | PB-CI(180) |
| L2045640-02X9 | Tumble Vessel | A | NA | | 2.0 | Y | Absent | | - |
| L2045640-03A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.0 | Y | Absent | | HOLD-METAL(180) |
| L2045640-03B | Glass 250ml/8oz unpreserved | A | NA | | 2.0 | Y | Absent | | HOLD-CONTINGENCY(14),HOLD-WETCHEM() |
| L2045640-04A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.0 | Y | Absent | | HOLD-METAL(180) |
| L2045640-04B | Glass 250ml/8oz unpreserved | A | NA | | 2.0 | Y | Absent | | HOLD-CONTINGENCY(14),HOLD-WETCHEM() |
| L2045640-05A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.0 | Y | Absent | | HOLD-METAL(180) |
| L2045640-05B | Glass 250ml/8oz unpreserved | A | NA | | 2.0 | Y | Absent | | HOLD-CONTINGENCY(14),HOLD-WETCHEM() |
| L2045640-06A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.0 | Y | Absent | | PB-TI(180) |
| L2045640-06B | Glass 250ml/8oz unpreserved | A | NA | | 2.0 | Y | Absent | | TS(7) |
| L2045640-06X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 2.0 | Y | Absent | | PB-CI(180) |
| L2045640-06X9 | Tumble Vessel | A | NA | | 2.0 | Y | Absent | | - |
| L2045640-07A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.0 | Y | Absent | | PB-TI(180) |
| L2045640-07B | Glass 250ml/8oz unpreserved | A | NA | | 2.0 | Y | Absent | | TS(7) |
| L2045640-07X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 2.0 | Y | Absent | | PB-CI(180) |
| L2045640-07X9 | Tumble Vessel | A | NA | | 2.0 | Y | Absent | | - |
| L2045640-08A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.0 | Y | Absent | | PB-TI(180) |



*Values in parentheses indicate holding time in days

## Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2045640-08B | Glass 250ml/8oz unpreserved | A | NA | | 2.0 | Y | Absent | | TS(7) |
| L2045640-08X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 2.0 | Y | Absent | | PB-CI(180) |
| L2045640-08X9 | Tumble Vessel | A | NA | | 2.0 | Y | Absent | | - |
| L2045640-09A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.0 | Y | Absent | | PB-TI(180) |
| L2045640-09B | Glass 250ml/8oz unpreserved | A | NA | | 2.0 | Y | Absent | | TS(7) |
| L2045640-09X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 2.0 | Y | Absent | | PB-CI(180) |
| L2045640-09X9 | Tumble Vessel | A | NA | | 2.0 | Y | Absent | | - |
| L2045640-10A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.0 | Y | Absent | | PB-TI(180) |
| L2045640-10B | Glass 250ml/8oz unpreserved | A | NA | | 2.0 | Y | Absent | | TS(7) |
| L2045640-10X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 2.0 | Y | Absent | | PB-CI(180) |
| L2045640-10X9 | Tumble Vessel | A | NA | | 2.0 | Y | Absent | | - |
| L2045640-11A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.0 | Y | Absent | | PB-TI(180) |
| L2045640-11B | Glass 250ml/8oz unpreserved | A | NA | | 2.0 | Y | Absent | | TS(7) |
| L2045640-11X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 2.0 | Y | Absent | | PB-CI(180) |
| L2045640-11X9 | Tumble Vessel | A | NA | | 2.0 | Y | Absent | | - |
| L2045640-12A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.0 | Y | Absent | | PB-TI(180) |
| L2045640-12B | Glass 250ml/8oz unpreserved | A | NA | | 2.0 | Y | Absent | | TS(7) |
| L2045640-12X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 2.0 | Y | Absent | | PB-CI(180) |
| L2045640-12X9 | Tumble Vessel | A | NA | | 2.0 | Y | Absent | | - |
| L2045640-13A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.0 | Y | Absent | | PB-TI(180) |
| L2045640-13B | Glass 250ml/8oz unpreserved | A | NA | | 2.0 | Y | Absent | | TS(7) |
| L2045640-13X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 2.0 | Y | Absent | | PB-CI(180) |
| L2045640-13X9 | Tumble Vessel | A | NA | | 2.0 | Y | Absent | | - |
| L2045640-14A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.0 | Y | Absent | | PB-TI(180) |
| L2045640-14B | Glass 250ml/8oz unpreserved | A | NA | | 2.0 | Y | Absent | | TS(7) |
| L2045640-14X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 2.0 | Y | Absent | | PB-CI(180) |
| L2045640-14X9 | Tumble Vessel | A | NA | | 2.0 | Y | Absent | | - |
| L2045640-15A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.0 | Y | Absent | | PB-TI(180) |



*Values in parentheses indicate holding time in days

## Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2045640-15B | Glass 250ml/8oz unpreserved | A | NA | | 2.0 | Y | Absent | | TS(7) |
| L2045640-15X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 2.0 | Y | Absent | | PB-CI(180) |
| L2045640-15X9 | Tumble Vessel | A | NA | | 2.0 | Y | Absent | | - |
| L2045640-16A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.0 | Y | Absent | | PB-TI(180) |
| L2045640-16B | Glass 250ml/8oz unpreserved | A | NA | | 2.0 | Y | Absent | | TS(7) |
| L2045640-16X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 2.0 | Y | Absent | | PB-CI(180) |
| L2045640-16X9 | Tumble Vessel | A | NA | | 2.0 | Y | Absent | | - |
| L2045640-17A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.0 | Y | Absent | | HOLD-METAL(180) |
| L2045640-17B | Glass 250ml/8oz unpreserved | A | NA | | 2.0 | Y | Absent | | HOLD-CONTINGENCY(14),HOLD-WETCHEM() |
| L2045640-18A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.0 | Y | Absent | | PB-TI(180) |
| L2045640-18B | Glass 250ml/8oz unpreserved | A | NA | | 2.0 | Y | Absent | | TS(7) |
| L2045640-18X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 2.0 | Y | Absent | | PB-CI(180) |
| L2045640-18X9 | Tumble Vessel | A | NA | | 2.0 | Y | Absent | | - |
| L2045640-19A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.0 | Y | Absent | | PB-TI(180) |
| L2045640-19B | Glass 250ml/8oz unpreserved | A | NA | | 2.0 | Y | Absent | | TS(7) |
| L2045640-19X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 2.0 | Y | Absent | | PB-CI(180) |
| L2045640-19X9 | Tumble Vessel | A | NA | | 2.0 | Y | Absent | | - |
| L2045640-20A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.0 | Y | Absent | | PB-TI(180) |
| L2045640-20B | Glass 250ml/8oz unpreserved | A | NA | | 2.0 | Y | Absent | | TS(7) |
| L2045640-20X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 2.0 | Y | Absent | | PB-CI(180) |
| L2045640-20X9 | Tumble Vessel | A | NA | | 2.0 | Y | Absent | | - |
| L2045640-21A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.0 | Y | Absent | | PB-TI(180) |
| L2045640-21B | Glass 250ml/8oz unpreserved | A | NA | | 2.0 | Y | Absent | | TS(7) |
| L2045640-21X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 2.0 | Y | Absent | | PB-CI(180) |
| L2045640-21X9 | Tumble Vessel | A | NA | | 2.0 | Y | Absent | | - |
| L2045640-22A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.0 | Y | Absent | | PB-TI(180) |
| L2045640-22B | Glass 250ml/8oz unpreserved | A | NA | | 2.0 | Y | Absent | | TS(7) |
| L2045640-22X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 2.0 | Y | Absent | | PB-CI(180) |



*Values in parentheses indicate holding time in days

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173

**Lab Number:** L2045640
**Report Date:** 11/04/20

### Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2045640-22X9 | Tumble Vessel | A | NA | | 2.0 | Y | Absent | | - |
| L2045640-23A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.0 | Y | Absent | | PB-TI(180) |
| L2045640-23B | Glass 250ml/8oz unpreserved | A | NA | | 2.0 | Y | Absent | | TS(7) |
| L2045640-23X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 2.0 | Y | Absent | | PB-CI(180) |
| L2045640-23X9 | Tumble Vessel | A | NA | | 2.0 | Y | Absent | | - |



*Values in parentheses indicate holding time in days

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2045640 |
| **Project Number:** | 135173 | **Report Date:** | 11/04/20 |

## GLOSSARY

***Acronyms***

| | |
|---|---|
| DL | - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EMPC | - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration. |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LOD | - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| LOQ | - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)<br><br>Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NDPA/DPA | - N-Nitrosodiphenylamine/Diphenylamine. |
| NI | - Not Ignitable. |
| NP | - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil. |
| NR | - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |
| STLP | - Semi-dynamic Tank Leaching Procedure per EPA Method 1315. |
| TEF | - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD. |
| TEQ | - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values. |
| TIC | - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations. |

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2045640 |
| **Project Number:** | 135173 | **Report Date:** | 11/04/20 |

***Footnotes***

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

***Terms***

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

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

***Data Qualifiers***

**A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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

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

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

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

**F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

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

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

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

**J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

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

**ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

**NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2045640 |
| **Project Number:** | 135173 | **Report Date:** | 11/04/20 |

***Data Qualifiers***

the identification is based on a mass spectral library search.

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

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

**R** - Analytical results are from sample re-analysis.

**RE** - Analytical results are from sample re-extraction.

**S** - Analytical results are from modified screening analysis.

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2045640 |
| **Project Number:** | 135173 | **Report Date:** | 11/04/20 |

## REFERENCES


1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.


## LIMITATION OF LIABILITIES

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

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

# Certification Information

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

**Westborough Facility**
**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene
**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
**EPA 8270D:** NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
**SM4500**: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

**Mansfield Facility**
**SM 2540D:** TSS
**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
**EPA TO-12** Non-methane organics
**EPA 3C** Fixed gases
**Biological Tissue Matrix:** EPA 3050B

**The following analytes are included in our Massachusetts DEP Scope of Accreditation**

**Westborough Facility:**

***Drinking Water***
**EPA 300.0**: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
**EPA 332**: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
**Microbiology**: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

***Non-Potable Water***
**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
**EPA 624.1**: Volatile Halocarbons & Aromatics,
**EPA 608.3**: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
**EPA 625.1**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
**Microbiology**: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

**Mansfield Facility:**

***Drinking Water***
**EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
**EPA 522.**

***Non-Potable Water***
**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
**EPA 200.8:** Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
**EPA 245.1** Hg.
**SM2340B**

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

ALPHA

# NEW YORK CHAIN OF CUSTODY

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

**Service Centers**
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 3

Date Rec'd in Lab: 10/21/20

ALPHA Job #: L2045640

**Project Information**
Project Name: 310 Grand Concourse
Project Location: 310 Grand Concourse, Bronx, NY
Project # 135173
(Use Project name as Project #) ☐
Project Manager: Mari Conlon
ALPHAQuote #:

**Turn-Around Time**
Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

**Client Information**
Client: Holey & Aldrich of NY
Address: 237 West 35th Street, Floor 16, New York, NY
Phone:
Fax:
Email: MConlon@haleyaldrich.com

**Deliverables**
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☑ Other PDF + Excel

**Regulatory Requirement**
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☑ NY Restricted Use ☐ Other
☑ NY Unrestricted Use
☐ NYC Sewer Discharge

**Billing Information**
☑ Same as Client Info
PO #

**Disposal Site Information**
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

**Other project specific requirements/comments:**

**Please specify Metals or TAL.**

**ANALYSIS**

**Sample Filtration**
☐ Done
☐ Lab to do
*Preservation*
☐ Lab to do
*(Please Specify below)*

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection Date | Collection Time | Sample Matrix | Sampler's Initials | Total Lead | TCLP Lead | Sample Specific Comments | Total Bottle |
|---|---|---|---|---|---|---|---|---|---|
| L2045640-01 | LD-A (0-2') | 10-21-20 | 0725 | S | ZS | X | X | | 2 |
| -02 | LD-A (5') | 10-21-20 | 0729 | S | ZS | X | X | | 2 |
| -03 | LD-A1 (0-2') | 10-21-20 | 0738 | S | ZS | X | X | PLACE ON HOLD | 2 |
| -04 | LD-A2 (0-2') | 10-21-20 | 0738 | S | ZS | X | X | PLACE ON HOLD | 2 |
| -05 | LD-A3 (0-2') | 10-21-20 | 0735 | S | ZS | X | X | PLACE ON HOLD | 2 |
| -06 | LD-C-B1 (2-3') | 10-21-20 | 0815 | S | ZS | X | X | | 2 |
| -07 | LD-C-B1 (5') | 10-21-20 | 0816 | S | ZS | X | X | | 2 |
| -08 | LD-C-B2 (2-3') | 10-21-20 | 0801 | S | ZS | X | X | | 2 |
| -09 | LD-C-B2 (5') | 10-21-20 | 0804 | S | ZS | X | X | | 2 |
| -10 | LD-C-B3 (2-3') | 10-21-20 | 0810 | S | ZS | X | X | | 2 |

| | | |
|---|---|---|
| Container Type | A | A |
| Preservative | A | A |

Preservative Code:
A = None
B = HCl
C = $HNO_3$
D = $H_2SO_4$
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

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

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

| Relinquished By: | Date/Time | Received By: | Date/Time |
|---|---|---|---|
| Mark Samuel | 10-21-20 1515 | [illegible] (AM) | 10/21/20 1515 |
| [illegible] (AM) | 10/21/20 1630 | [illegible] | 10/21/20 1645 |
| [illegible] | 10/21/20 2145 | [illegible] | 10/21/20 2145 |

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ALPHA

# NEW YORK CHAIN OF CUSTODY

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 2 of 3

Date Rec'd in Lab: 10/21/20

ALPHA Job #: L2045640

**Client Information**
Client: Haley & Aldrich of NY
Address: 237 West 35th Street, Floor 16, New York, NY 10123
Phone:
Fax:
Email: MConlon@haleyaldrich.com

**Project Information**
Project Name: 310 Grand Concourse
Project Location: 310 Grand Concourse, Bronx, NY
Project # 135173
(Use Project name as Project #) ☐
Project Manager: Mari Conlon
ALPHAQuote #:

**Turn-Around Time**
Standard ☑ Due Date:
Rush (only if pre approved) ☐ # of Days:

**Deliverables**
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☑ Other PDF+Excel

**Regulatory Requirement**
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☑ NY Restricted Use ☐ Other
☑ NY Unrestricted Use
☐ NYC Sewer Discharge

**Billing Information**
☑ Same as Client Info
PO #

**Disposal Site Information**
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

**Other project specific requirements/comments:**

**Please specify Metals or TAL.**

**ANALYSIS**

**Sample Filtration**
☐ Done
☐ Lab to do
**Preservation**
☐ Lab to do
*(Please Specify below)*

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection Date | Collection Time | Sample Matrix | Sampler's Initials | Total Lead | TCLP Lead | Sample Specific Comments | Total # Bottles |
|---|---|---|---|---|---|---|---|---|---|
| 45640-11 | LD-C-B3 (5') | 10-21-20 | 0812 | S | ZS | X | X | | 2 |
| -12 | LD-C1 (0-2') | 10-21-20 | 0832 | S | ZS | X | X | | 2 |
| -13 | LD-C2 (0-2') | 10-21-20 | 0845 | S | ZS | X | X | | 2 |
| -14 | LD-C3 (0-2') | 10-21-20 | 0859 | S | ZS | X | X | | 2 |
| -15 | LD-C4 (0-2') | 10-21-20 | 0929 | S | ZS | X | X | | 2 |
| -16 | LD-C4 (5') | 10-21-20 | 0930 | S | ZS | X | X | | 2 |
| -17 | LD-C4-A (0-2') | 10-21-20 | 0937 | S | ZS | X | X | PLACE ON HOLD | 2 |
| -18 | LD-C4-B (0-2') | 10-21-20 | 0940 | S | ZS | X | X | | 2 |
| -19 | LD-F-B (2-3') | 10-21-20 | 0957 | S | ZS | X | X | | 2 |
| -20 | LD-F-B (5') | 10-21-20 | 0959 | S | ZS | X | X | | 2 |

| | | |
|---|---|---|
| Container Type | A | A |
| Preservative | A | A |

Preservative Code:
A = None
B = HCl
C = $HNO_3$
D = $H_2SO_4$
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

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

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

| Relinquished By: | Date/Time | Received By: | Date/Time |
|---|---|---|---|
| Mark Jimmel | 10-21-20 / 1515 | [illegible] (AAL) | 10/21/20 1515 |
| [illegible] (AAL) | 10/21/20 1630 | [illegible] | 10/21/20 1640 |
| [illegible] | 10/21/20 2145 | [illegible] | 10/21/20 2145 |

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

# NEW YORK CHAIN OF CUSTODY

**Service Centers**
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 3 of 3

Date Rec'd in Lab: 10/21/20

ALPHA Job #: L2045640

**Client Information**
Client: Haley & Aldrich of NY
Address: 237 West 35th Street Floor 16, New York, NY 10123
Phone:
Fax:
Email: MConlon@haleyaldrich.com

**Project Information**
Project Name: 310 Grand Concourse
Project Location: 310 Grand Concourse, Bronx, NY
Project # 135173
(Use Project name as Project #) ☐
Project Manager: Mari Conlon
ALPHAQuote #:

**Turn-Around Time**
Standard ☐ Due Date:
Rush (only if pre approved) ☐ # of Days:

**Deliverables**
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☑ Other PDF + Excel

**Regulatory Requirement**
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☑ NY Restricted Use ☐ Other
☑ NY Unrestricted Use
☐ NYC Sewer Discharge

**Billing Information**
☑ Same as Client Info
PO #

**Disposal Site Information**
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

**Other project specific requirements/comments:**

**Please specify Metals or TAL.**

**ANALYSIS**

**Sample Filtration**
☐ Done
☐ Lab to do
**Preservation**
☐ Lab to do
*(Please Specify below)*

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection Date | Collection Time | Sample Matrix | Sampler's Initials | Total Lead | TCLP Lead | Sample Specific Comments | Total # Bottles |
|---|---|---|---|---|---|---|---|---|---|
| 45640-21 | LD-F1 (0-2') | 10-21-20 | 1012 | S | ZS | X | X | | 2 |
| -22 | LD-F2 (0-2') | 10-21-20 | 1002 | S | ZS | X | X | | 2 |
| -23 | LD-F3 (0-2') | 10-21-20 | 1009 | S | ZS | X | X | | 2 |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Container Type: A A
Preservative: A A

Preservative Code
A = None
B = HCl
C = $HNO_3$
D = $H_2SO_4$
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

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

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

| Relinquished By: | Date/Time | Received By: | Date/Time |
|---|---|---|---|
| Mark Zimmel | 10-21-20 1515 | [illegible] | 10/21/20 1515 |
| [illegible] | 10/21/20 1630 | [illegible] | 10/21/20 1640 |
| [illegible] | 10/21/20 2145 | [illegible] | 10/21/20 2145 |

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONSTITUTIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

# ANALYTICAL REPORT

| | |
|---|---|
| Lab Number: | L2048058 |
| Client: | Haley & Aldrich<br>237 West 35th Street<br>16th Floor<br>New York, NY 10123 |
| ATTN: | Mari Conlon |
| Phone: | (347) 271-1521 |
| Project Name: | 310 GRAND CONCOURSE |
| Project Number: | 135173 |
| Report Date: | 11/05/20 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173

**Lab Number:** L2048058
**Report Date:** 11/05/20

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|---|---|---|---|---|---|
| L2048058-01 | LD-F1 (2-5') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 10/21/20 10:17 | 11/03/20 |
| L2048058-02 | LD-F2 (2-5') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 10/21/20 10:07 | 11/03/20 |
| L2048058-03 | LD-F3 (2-5') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 10/21/20 10:14 | 11/03/20 |
| L2048058-04 | LD-C3 (2-5') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 10/21/20 09:04 | 11/03/20 |

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2048058 |
| **Project Number:** | 135173 | **Report Date:** | 11/05/20 |

## Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

Please contact Project Management at 800-624-9220 with any questions.

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2048058 |
| **Project Number:** | 135173 | **Report Date:** | 11/05/20 |

**Case Narrative (continued)**

Report Submission

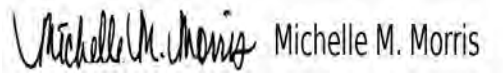
All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

The collection times were obtained from the container labels.

The Client IDs were specified by the client.

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

Authorized Signature:  Michelle M. Morris

Title: Technical Director/Representative Date: 11/05/20

# METALS

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048058
**Project Number:** 135173
**Report Date:** 11/05/20

## SAMPLE RESULTS

Lab ID: L2048058-01
Client ID: LD-F1 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Percent Solids: 87%

Date Collected: 10/21/20 10:17
Date Received: 11/03/20
Field Prep: Not Specified
TCLP/SPLP Ext. Date: 11/04/20 06:02

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 0.940 | | mg/l | 0.500 | 0.027 | 1 | 11/05/20 09:20 | 11/05/20 10:51 | EPA 3015 | 1,6010D | GD |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048058
**Project Number:** 135173
**Report Date:** 11/05/20

## SAMPLE RESULTS

Lab ID: L2048058-01
Client ID: LD-F1 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 10:17
Date Received: 11/03/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 87%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 116 | | mg/kg | 2.21 | 0.118 | 1 | 11/04/20 07:40 | 11/05/20 01:48 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048058
**Project Number:** 135173
**Report Date:** 11/05/20

## SAMPLE RESULTS

Lab ID: L2048058-02
Client ID: LD-F2 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 10:07
Date Received: 11/03/20
Field Prep: Not Specified
Sample Depth:
TCLP/SPLP Ext. Date: 11/04/20 06:02
Matrix: Soil
Percent Solids: 88%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 0.170 | J | mg/l | 0.500 | 0.027 | 1 | 11/05/20 09:20 | 11/05/20 11:08 | EPA 3015 | 1,6010D | GD |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048058
**Project Number:** 135173
**Report Date:** 11/05/20

## SAMPLE RESULTS

Lab ID: L2048058-02
Client ID: LD-F2 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 10:07
Date Received: 11/03/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 88%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 35.2 | | mg/kg | 2.15 | 0.115 | 1 | 11/04/20 07:40 | 11/05/20 01:53 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048058
**Project Number:** 135173
**Report Date:** 11/05/20

## SAMPLE RESULTS

Lab ID: L2048058-03
Client ID: LD-F3 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Percent Solids: 90%

Date Collected: 10/21/20 10:14
Date Received: 11/03/20
Field Prep: Not Specified
TCLP/SPLP Ext. Date: 11/04/20 06:02

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 0.181 | J | mg/l | 0.500 | 0.027 | 1 | 11/05/20 09:20 | 11/05/20 11:12 | EPA 3015 | 1,6010D | GD |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048058
**Project Number:** 135173
**Report Date:** 11/05/20

## SAMPLE RESULTS

Lab ID: L2048058-03
Client ID: LD-F3 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 10:14
Date Received: 11/03/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 90%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 193 | | mg/kg | 2.20 | 0.118 | 1 | 11/04/20 07:40 | 11/05/20 01:59 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048058
**Project Number:** 135173
**Report Date:** 11/05/20

## SAMPLE RESULTS

Lab ID: L2048058-04
Client ID: LD-C3 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 09:04
Date Received: 11/03/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 92%
TCLP/SPLP Ext. Date: 11/04/20 06:02

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 0.664 | | mg/l | 0.500 | 0.027 | 1 | 11/05/20 09:20 | 11/05/20 11:17 | EPA 3015 | 1,6010D | GD |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048058
**Project Number:** 135173
**Report Date:** 11/05/20

## SAMPLE RESULTS

Lab ID: L2048058-04
Client ID: LD-C3 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 10/21/20 09:04
Date Received: 11/03/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 92%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 593 | | mg/kg | 2.09 | 0.112 | 1 | 11/04/20 07:40 | 11/05/20 02:04 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2048058

**Project Number:** 135173 **Report Date:** 11/05/20

# Method Blank Analysis
# Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab for sample(s): 01-04 Batch: WG1430124-1 | | | | | | | | | | |
| Lead, Total | ND | | mg/kg | 2.00 | 0.107 | 1 | 11/04/20 07:40 | 11/04/20 11:47 | 1,6010D | GD |

**Prep Information**

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 01-04 Batch: WG1430682-1 | | | | | | | | | | |
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 11/05/20 09:20 | 11/05/20 10:42 | 1,6010D | GD |

**Prep Information**

Digestion Method: EPA 3015

TCLP/SPLP Extraction Date: 11/02/20 05:06

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173

**Lab Number:** L2048058

**Report Date:** 11/05/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01-04 Batch: WG1430124-2 SRM Lot Number: D109-540 | | | | | | | | |
| Lead, Total | 85 | | - | | 72-128 | - | | |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01-04 Batch: WG1430682-2 | | | | | | | | |
| Lead, TCLP | 100 | | - | | 75-125 | - | | 20 |

# Matrix Spike Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173

**Lab Number:** L2048058
**Report Date:** 11/05/20

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1430124-3 QC Sample: L2048004-01 Client ID: MS Sample | | | | | | | | | | | | |
| Lead, Total | 80.9 | 45.5 | 77.6 | **0** | Q | - | - | | 75-125 | - | | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1430682-3 QC Sample: L2048058-01 Client ID: LD-F1 (2-5') | | | | | | | | | | | | |
| Lead, TCLP | 0.940 | 5.1 | 5.95 | 98 | | - | - | | 75-125 | - | | 20 |

# Lab Duplicate Analysis

***Batch Quality Control***

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173

***Lab Number:*** L2048058

***Report Date:*** 11/05/20

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1430124-4 QC Sample: L2048004-01 Client ID: DUP Sample | | | | | | |
| Lead, Total | 80.9 | 38.1 | mg/kg | **72** | Q | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1430682-4 QC Sample: L2048058-01 Client ID: LD-F1 (2-5') | | | | | | |
| Lead, TCLP | 0.940 | 0.923 | mg/l | 2 | | 20 |

# INORGANICS
# &
# MISCELLANEOUS

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173
**Lab Number:** L2048058
**Report Date:** 11/05/20

## SAMPLE RESULTS

Lab ID: L2048058-01
Client ID: LD-F1 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 10/21/20 10:17
Date Received: 11/03/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 87.3 | | % | 0.100 | NA | 1 | - | 11/04/20 05:36 | 121,2540G | PR |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173
**Lab Number:** L2048058
**Report Date:** 11/05/20

## SAMPLE RESULTS

Lab ID: L2048058-02
Client ID: LD-F2 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 10/21/20 10:07
Date Received: 11/03/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 87.5 | | % | 0.100 | NA | 1 | - | 11/04/20 05:36 | 121,2540G | PR |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173
**Lab Number:** L2048058
**Report Date:** 11/05/20

## SAMPLE RESULTS

Lab ID: L2048058-03
Client ID: LD-F3 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 10/21/20 10:14
Date Received: 11/03/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 89.6 | | % | 0.100 | NA | 1 | - | 11/04/20 05:36 | 121,2540G | PR |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173
**Lab Number:** L2048058
**Report Date:** 11/05/20

## SAMPLE RESULTS

Lab ID: L2048058-04
Client ID: LD-C3 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 10/21/20 09:04
Date Received: 11/03/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 92.0 | | % | 0.100 | NA | 1 | - | 11/04/20 05:36 | 121,2540G | PR |

# Lab Duplicate Analysis

***Batch Quality Control***

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173

***Lab Number:*** L2048058

***Report Date:*** 11/05/20

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1430115-1 QC Sample: L2048198-01 Client ID: DUP Sample | | | | | | |
| Solids, Total | 90.8 | 90.2 | % | 1 | | 20 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173

**Lab Number:** L2048058
**Report Date:** 11/05/20

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

### Cooler Information

| Cooler | Custody Seal |
|---|---|
| A | Absent |

### Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2048058-01A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.1 | Y | Absent | | PB-TI(180) |
| L2048058-01B | Glass 250ml/8oz unpreserved | A | NA | | 2.1 | Y | Absent | | TS(7) |
| L2048058-01C9 | Tumble Vessel | A | NA | | 2.1 | Y | Absent | | - |
| L2048058-01X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 2.1 | Y | Absent | | PB-CI(180) |
| L2048058-02A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.1 | Y | Absent | | PB-TI(180) |
| L2048058-02B | Glass 250ml/8oz unpreserved | A | NA | | 2.1 | Y | Absent | | TS(7) |
| L2048058-02C9 | Tumble Vessel | A | NA | | 2.1 | Y | Absent | | - |
| L2048058-02X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 2.1 | Y | Absent | | PB-CI(180) |
| L2048058-03A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.1 | Y | Absent | | PB-TI(180) |
| L2048058-03B | Glass 250ml/8oz unpreserved | A | NA | | 2.1 | Y | Absent | | TS(7) |
| L2048058-03C9 | Tumble Vessel | A | NA | | 2.1 | Y | Absent | | - |
| L2048058-03X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 2.1 | Y | Absent | | PB-CI(180) |
| L2048058-04A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 2.1 | Y | Absent | | PB-TI(180) |
| L2048058-04B | Glass 250ml/8oz unpreserved | A | NA | | 2.1 | Y | Absent | | TS(7) |
| L2048058-04C9 | Tumble Vessel | A | NA | | 2.1 | Y | Absent | | - |
| L2048058-04X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 2.1 | Y | Absent | | PB-CI(180) |



*Values in parentheses indicate holding time in days

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2048058 |
| **Project Number:** | 135173 | **Report Date:** | 11/05/20 |

## GLOSSARY

***Acronyms***

| | |
|---|---|
| DL | - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| EDL | - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME). |
| EMPC | - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration. |
| EPA | - Environmental Protection Agency. |
| LCS | - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LCSD | - Laboratory Control Sample Duplicate: Refer to LCS. |
| LFB | - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes. |
| LOD | - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| LOQ | - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)<br><br>Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) |
| MDL | - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| MS | - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values. |
| MSD | - Matrix Spike Sample Duplicate: Refer to MS. |
| NA | - Not Applicable. |
| NC | - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. |
| NDPA/DPA | - N-Nitrosodiphenylamine/Diphenylamine. |
| NI | - Not Ignitable. |
| NP | - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil. |
| NR | - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests. |
| RL | - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable. |
| RPD | - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report. |
| SRM | - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples. |
| STLP | - Semi-dynamic Tank Leaching Procedure per EPA Method 1315. |
| TEF | - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD. |
| TEQ | - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values. |
| TIC | - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations. |

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2048058 |
| **Project Number:** | 135173 | **Report Date:** | 11/05/20 |

***Footnotes***

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

***Terms***

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

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

***Data Qualifiers***

**A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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

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

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

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

**F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

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

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

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

**J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

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

**ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

**NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2048058 |
| **Project Number:** | 135173 | **Report Date:** | 11/05/20 |

***Data Qualifiers***

the identification is based on a mass spectral library search.

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

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

**R** - Analytical results are from sample re-analysis.

**RE** - Analytical results are from sample re-extraction.

**S** - Analytical results are from modified screening analysis.

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2048058 |
| **Project Number:** | 135173 | **Report Date:** | 11/05/20 |

## REFERENCES


1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.


## LIMITATION OF LIABILITIES

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

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

# Certification Information

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

**Westborough Facility**
**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene
**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
**EPA 8270D:** NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
**SM4500**: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

**Mansfield Facility**
**SM 2540D:** TSS
**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
**EPA TO-12** Non-methane organics
**EPA 3C** Fixed gases
**Biological Tissue Matrix:** EPA 3050B

**The following analytes are included in our Massachusetts DEP Scope of Accreditation**

**Westborough Facility:**

***Drinking Water***
**EPA 300.0**: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
**EPA 332**: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
**Microbiology**: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

***Non-Potable Water***
**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
**EPA 624.1**: Volatile Halocarbons & Aromatics,
**EPA 608.3**: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
**EPA 625.1**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
**Microbiology**: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

**Mansfield Facility:**

***Drinking Water***
**EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
**EPA 522.**

***Non-Potable Water***
**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
**EPA 200.8:** Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
**EPA 245.1** Hg.
**SM2340B**

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

# NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

**Service Centers**
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd In Lab: 11/4/20

ALPHA Job #: L2048058

**Client Information**
Client: Haley & Aldrich of NY
Address: 237 West 35th Street, Floor 10, New York, NY 10123
Phone:
Fax:
Email: MConlon@haleyaldrich.com

**Project Information**
Project Name: 310 Grand Concourse
Project Location: 310 Grand Concourse, Bronx, NY
Project #: 135173
(Use Project name as Project #)
Project Manager: Mari Conlon
ALPHAQuote #:

**Turn-Around Time**
Standard ☐ Due Date:
Rush (only if pre approved) ☑ # of Days: 2 days

**Deliverables**
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☑ Other PDF + Excel

**Billing Information**
☑ Same as Client Info
PO #

**Regulatory Requirement**
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☑ NY Restricted Use ☐ Other
☑ NY Unrestricted Use
☐ NYC Sewer Discharge

**Disposal Site Information**
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

**Other project specific requirements/comments:**

**Please specify Metals or TAL.**

**ANALYSIS**

**Sample Filtration**
☐ Done
☐ Lab to do
*Preservation*
☐ Lab to do
*(Please Specify below)*

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection Date | Collection Time | Sample Matrix | Sampler's Initials | Total Lead | TCLP Lead | Sample Specific Comments | Total # Bottles |
|---|---|---|---|---|---|---|---|---|---|
| 48058-01 | LD-F1 (3-5') | 10-21-20 | | S | ZS | X | X | | 2 |
| -02 | LD-F2 (3-5') | 10-21-20 | | S | ZS | X | X | | 2 |
| -03 | LD-F3 (3-5') | 10-21-20 | | S | ZS | X | X | | 2 |
| -04 | LD-C3 (3-5') | 10-21-20 | | S | ZS | X | X | | 2 |

| | | |
|---|---|---|
| Container Type | A | A |
| Preservative | A | A |

Preservative Code:
A = None
B = HCl
C = $HNO_3$
D = $H_2SO_4$
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

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

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

| Relinquished By: | Date/Time | Received By: | Date/Time |
|---|---|---|---|
| Mark Jeremiah | 11/3/20 1230 | [illegible] (AAL) | 11/3/20 1230 |
| [illegible] (AAL) | 11/3/20 1850 | [illegible] | 11/3/20 2000 |
| [illegible] | 11/4/20 0005 | [illegible] | 11/4/20 00:05 |

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

# ANALYTICAL REPORT

| | |
|---|---|
| Lab Number: | L2049405 |
| Client: | Haley & Aldrich<br>237 West 35th Street<br>16th Floor<br>New York, NY 10123 |
| ATTN: | Mari Conlon |
| Phone: | (347) 271-1521 |
| Project Name: | 310 GRAND CONCOURSE |
| Project Number: | 135173-002 |
| Report Date: | 11/11/20 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2049405
**Report Date:** 11/11/20

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|---|---|---|---|---|---|
| L2049405-01 | LD-B7-A (0-2') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/04/20 12:00 | 11/09/20 |
| L2049405-02 | LD-B7-A (2-5') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/04/20 12:05 | 11/09/20 |

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2049405 |
| **Project Number:** | 135173-002 | **Report Date:** | 11/11/20 |

## Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

Please contact Project Management at 800-624-9220 with any questions.

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2049405 |
| **Project Number:** | 135173-002 | **Report Date:** | 11/11/20 |

**Case Narrative (continued)**

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Total Metals

The WG1432616-4 Laboratory Duplicate RPD for lead (24%), performed on L2049405-01 (LD-B7-A (0-2')), is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

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

Authorized Signature: Caitlin Walukevich

Title: Technical Director/Representative Date: 11/11/20

# METALS

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2049405
**Project Number:** 135173-002
**Report Date:** 11/11/20

## SAMPLE RESULTS

Lab ID: L2049405-01
Client ID: LD-B7-A (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 12:00
Date Received: 11/09/20
Field Prep: Not Specified
Sample Depth:
Matrix: Soil
Percent Solids: 87%
TCLP/SPLP Ext. Date: 11/10/20 05:00

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 0.050 | J | mg/l | 0.500 | 0.027 | 1 | 11/11/20 10:23 | 11/11/20 13:02 | EPA 3015 | 1,6010D | PS |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2049405
**Project Number:** 135173-002
**Report Date:** 11/11/20

## SAMPLE RESULTS

Lab ID: L2049405-01
Client ID: LD-B7-A (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 12:00
Date Received: 11/09/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 87%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 9.62 | | mg/kg | 2.24 | 0.120 | 1 | 11/10/20 17:28 | 11/10/20 22:06 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2049405
**Project Number:** 135173-002
**Report Date:** 11/11/20

## SAMPLE RESULTS

Lab ID: L2049405-02
Client ID: LD-B7-A (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 12:05
Date Received: 11/09/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 91%
TCLP/SPLP Ext. Date: 11/10/20 05:00

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 11/11/20 10:23 | 11/11/20 13:06 | EPA 3015 | 1,6010D | PS |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2049405
**Project Number:** 135173-002
**Report Date:** 11/11/20

## SAMPLE RESULTS

Lab ID: L2049405-02
Client ID: LD-B7-A (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 12:05
Date Received: 11/09/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 91%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 5.63 | | mg/kg | 2.12 | 0.113 | 1 | 11/10/20 17:28 | 11/10/20 23:11 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2049405
**Report Date:** 11/11/20

# Method Blank Analysis
# Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1432616-1 | | | | | | | | | | |
| Lead, Total | ND | | mg/kg | 2.00 | 0.107 | 1 | 11/10/20 17:28 | 11/10/20 21:57 | 1,6010D | BV |

**Prep Information**

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 01-02 Batch: WG1432986-1 | | | | | | | | | | |
| Lead, TCLP | 0.039 | J | mg/l | 0.500 | 0.027 | 1 | 11/11/20 10:23 | 11/11/20 11:48 | 1,6010D | PS |

**Prep Information**

Digestion Method: EPA 3015
TCLP/SPLP Extraction Date: 11/09/20 05:20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2049405

**Report Date:** 11/11/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1432616-2 SRM Lot Number: D109-540 | | | | | | | | |
| Lead, Total | 101 | | - | | 72-128 | - | | |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01-02 Batch: WG1432986-2 | | | | | | | | |
| Lead, TCLP | 101 | | - | | 75-125 | - | | 20 |

# Matrix Spike Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2049405
**Report Date:** 11/11/20

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1432616-3 QC Sample: L2049405-01 Client ID: LD-B7-A (0-2') | | | | | | | | | | | | |
| Lead, Total | 9.62 | 45.3 | 45.4 | 79 | | - | - | | 75-125 | - | | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1432986-3 QC Sample: L2048416-25 Client ID: MS Sample | | | | | | | | | | | | |
| Lead, TCLP | 0.237J | 5.1 | 5.31 | 104 | | - | - | | 75-125 | - | | 20 |

# Lab Duplicate Analysis
*Batch Quality Control*

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

***Lab Number:*** L2049405
***Report Date:*** 11/11/20

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1432616-4 QC Sample: L2049405-01 Client ID: LD-B7-A (0-2') | | | | | | |
| Lead, Total | 9.62 | 12.2 | mg/kg | **24** | Q | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1432986-4 QC Sample: L2048416-25 Client ID: DUP Sample | | | | | | |
| Lead, TCLP | 0.237J | 0.230J | mg/l | NC | | 20 |

# INORGANICS
# &
# MISCELLANEOUS

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2049405
**Report Date:** 11/11/20

## SAMPLE RESULTS

Lab ID: L2049405-01
Client ID: LD-B7-A (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil

Date Collected: 11/04/20 12:00
Date Received: 11/09/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 86.6 | | % | 0.100 | NA | 1 | - | 11/10/20 06:56 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2049405
**Report Date:** 11/11/20

## SAMPLE RESULTS

Lab ID: L2049405-02
Client ID: LD-B7-A (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil

Date Collected: 11/04/20 12:05
Date Received: 11/09/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 91.1 | | % | 0.100 | NA | 1 | - | 11/10/20 06:56 | 121,2540G | RI |

# Lab Duplicate Analysis

***Batch Quality Control***

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

***Lab Number:*** L2049405

***Report Date:*** 11/11/20

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1432392-1 QC Sample: L2049043-02 Client ID: DUP Sample | | | | | | |
| Solids, Total | 59.4 | 63.8 | % | 7 | | 20 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2049405
**Report Date:** 11/11/20

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

### Cooler Information

| Cooler | Custody Seal |
|---|---|
| A | Absent |

### Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2049405-01A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.2 | Y | Absent | | PB-TI(180) |
| L2049405-01B | Glass 250ml/8oz unpreserved | A | NA | | 3.2 | Y | Absent | | TS(7) |
| L2049405-01X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 3.2 | Y | Absent | | PB-CI(180) |
| L2049405-01X9 | Tumble Vessel | A | NA | | 3.2 | Y | Absent | | - |
| L2049405-02A | Glass 60ml unpreserved split | A | NA | | 3.2 | Y | Absent | | PB-TI(180) |
| L2049405-02B | Glass 500ml/16oz unpreserved | A | NA | | 3.2 | Y | Absent | | TS(7) |
| L2049405-02X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 3.2 | Y | Absent | | PB-CI(180) |
| L2049405-02X9 | Tumble Vessel | A | NA | | 3.2 | Y | Absent | | - |



*Values in parentheses indicate holding time in days

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2049405 |
| **Project Number:** | 135173-002 | **Report Date:** | 11/11/20 |

## GLOSSARY

***Acronyms***

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

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

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

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

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

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

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

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

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

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

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

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

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

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

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

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2049405 |
| **Project Number:** | 135173-002 | **Report Date:** | 11/11/20 |

***Footnotes***

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

***Terms***

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

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

***Data Qualifiers***

**A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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

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

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

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

**F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

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

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

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

**J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

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

**ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

**NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2049405 |
| **Project Number:** | 135173-002 | **Report Date:** | 11/11/20 |

***Data Qualifiers***

the identification is based on a mass spectral library search.

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

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

**R** - Analytical results are from sample re-analysis.

**RE** - Analytical results are from sample re-extraction.

**S** - Analytical results are from modified screening analysis.

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2049405 |
| **Project Number:** | 135173-002 | **Report Date:** | 11/11/20 |

## REFERENCES


1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.


## LIMITATION OF LIABILITIES

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

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

# Certification Information

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

**Westborough Facility**
**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene
**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
**EPA 8270D:** NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
**SM4500**: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

**Mansfield Facility**
**SM 2540D:** TSS
**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
**EPA TO-12** Non-methane organics
**EPA 3C** Fixed gases
**Biological Tissue Matrix:** EPA 3050B

**The following analytes are included in our Massachusetts DEP Scope of Accreditation**

**Westborough Facility:**

***Drinking Water***
**EPA 300.0**: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
**EPA 332**: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
**Microbiology**: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

***Non-Potable Water***
**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
**EPA 624.1**: Volatile Halocarbons & Aromatics,
**EPA 608.3**: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
**EPA 625.1**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
**Microbiology**: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

**Mansfield Facility:**

***Drinking Water***
**EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
**EPA 522.**

***Non-Potable Water***
**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
**EPA 200.8:** Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
**EPA 245.1** Hg.
**SM2340B**

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

ALPHA

# NEW YORK CHAIN OF CUSTODY

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

**Service Centers**
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of

Date Rec'd in Lab: 11/9/20

ALPHA Job #: L 2049405

**Project Information**
Project Name: 310 Grand Concourse
Project Location: 310 Grand Concourse, Bronx, NY
Project # 135173-002
(Use Project name as Project #) ☐
Project Manager: Mari Conlon
ALPHAQuote #:

**Client Information**
Client: Holey + Aldrich
Address: 237 W 35th St
16th Floor, NY, NY
Phone: 646-277-5688
Fax:
Email: mconlon@haleyaldrich.com

**Turn-Around Time**
Standard ☐ Due Date:
Rush (only if pre approved) ☒ # of Days: 2

**Deliverables**
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☒ Other pdf + excel

**Regulatory Requirement**
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☒ Other EPA TCLP
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

**Billing Information**
☒ Same as Client Info
PO #

**Disposal Site Information**
Please identify below location of applicable disposal facilities.
Disposal Facility:
☒ NJ ☐ NY
☐ Other

These samples have been previously analyzed by Alpha ☐

**Other project specific requirements/comments:**
Rush 2 day

**Please specify Metals or TAL.**

**ANALYSIS**

*Sample Filtration*
☐ Done
☐ Lab to do
*Preservation*
☐ Lab to do
*(Please Specify below)*

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection Date | Collection Time | Sample Matrix | Sampler's Initials | Total Lead | TCLP Lead | | | | | | | Sample Specific Comments | Total Bottle |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ~~Total Lead~~ | | | | | | | | | | | | | | |
| | ~~TCLP Lead~~ | | | | | | | | | | | | | | |
| 49405-01 | LD-B7-A(0-2) | 11/4/20 | 1200 | ~~ZS~~ S | ZS | X | X | | | | | | | | 2 |
| -02 | LD-B7-A(2-5) | 11/4/20 | 1205 | S | ZS | X | X | | | | | | | | 1 |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

Preservative Code:
A = None
B = HCl
C = $HNO_3$
D = $H_2SO_4$
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

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

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

| | | |
|---|---|---|
| Container Type | A | A |
| Preservative | A | A |

| Relinquished By: | Date/Time | Received By: | Date/Time |
|---|---|---|---|
| M Conlon | 11/9/20 1735 | AAC | 11-9-20 1735 |
| | 11-9-20 1845 | AAC | 11/9/20 20:15 |
| AAC | 11/9/20 23:30 | | 11/9/20 23:30 |

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

# ANALYTICAL REPORT

| | |
|---|---|
| Lab Number: | L2048416 |
| Client: | Haley & Aldrich<br>237 West 35th Street<br>16th Floor<br>New York, NY 10123 |
| ATTN: | Mari Cate Conlon |
| Phone: | (347) 271-1521 |
| Project Name: | 310 GRAND CONCOURSE |
| Project Number: | 135173-002 |
| Report Date: | 11/18/20 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2048416
**Report Date:** 11/18/20

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|---|---|---|---|---|---|
| L2048416-01 | LD-B1 (0-2') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/04/20 08:14 | 11/04/20 |
| L2048416-02 | LD-B1 (2-5') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/04/20 08:16 | 11/04/20 |
| L2048416-03 | LD-B2 (0-2') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/04/20 08:28 | 11/04/20 |
| L2048416-04 | LD-B2 (2-5') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/04/20 08:31 | 11/04/20 |
| L2048416-05 | LD-B3 (0-2') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/04/20 08:35 | 11/04/20 |
| L2048416-06 | LD-B3 (2-5') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/04/20 08:38 | 11/04/20 |
| L2048416-07 | LD-B4 (0-2') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/04/20 08:51 | 11/04/20 |
| L2048416-08 | LD-B4 (2-5') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/04/20 08:55 | 11/04/20 |
| L2048416-09 | LD-B5 (0-2') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/04/20 09:00 | 11/04/20 |
| L2048416-10 | LD-B5 (2-5') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/04/20 09:03 | 11/04/20 |
| L2048416-11 | LD-B6 (0-2') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/04/20 09:09 | 11/04/20 |
| L2048416-12 | LD-B6 (2-5') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/04/20 09:12 | 11/04/20 |
| L2048416-13 | LD-B7 (0-2') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/04/20 10:37 | 11/04/20 |
| L2048416-14 | LD-B7 (2-5') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/04/20 10:41 | 11/04/20 |
| L2048416-15 | LD-B1-A (0-2') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/04/20 10:00 | 11/04/20 |
| L2048416-16 | LD-B1-A (2-5') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/04/20 10:03 | 11/04/20 |
| L2048416-17 | LD-B2-A (0-2') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/04/20 10:12 | 11/04/20 |
| L2048416-18 | LD-B2-A (2-5') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/04/20 10:15 | 11/04/20 |
| L2048416-19 | LD-B3-A (0-2') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/04/20 10:24 | 11/04/20 |
| L2048416-20 | LD-B3-A (2-5') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/04/20 10:27 | 11/04/20 |
| L2048416-21 | LD-B4-A (0-2') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/04/20 09:26 | 11/04/20 |
| L2048416-22 | LD-B4-A (2-5') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/04/20 09:30 | 11/04/20 |
| L2048416-23 | LD-B5-A (0-2') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/04/20 09:35 | 11/04/20 |
| L2048416-24 | LD-B5-A (2-5') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/04/20 09:40 | 11/04/20 |

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|---|---|---|---|---|---|
| L2048416-25 | LD-B6-A (0-2') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/04/20 09:45 | 11/04/20 |
| L2048416-26 | LD-B6-A (2-5') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/04/20 09:49 | 11/04/20 |

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2048416 |
| **Project Number:** | 135173-002 | **Report Date:** | 11/18/20 |

## Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

Please contact Project Management at 800-624-9220 with any questions.

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2048416 |
| **Project Number:** | 135173-002 | **Report Date:** | 11/18/20 |

**Case Narrative (continued)**

Report Submission

November 18, 2020: This final report includes the results of all requested analyses.

November 11, 2020: This preliminary report includes the results of the Total and TCLP Metals analyses performed on L2048416-25 and -26 (LD-B6-A (0-2') and LD-B6-A (2-5')).

November 09, 2020: This is a preliminary report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Total Metals

The WG1432548-3 MS recovery for lead (40%), performed on L2048416-25 (LD-B6-A (0-2')), does not apply because the sample concentration is greater than four times the spike amount added.

The WG1432548-4 Laboratory Duplicate RPD for lead (40%), performed on L2048416-25 (LD-B6-A (0-2')), is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

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

Authorized Signature: Melissa Sturgis Melissa Sturgis

Title: Technical Director/Representative Date: 11/18/20

# METALS

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048416
**Project Number:** 135173-002
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-01
Client ID: LD-B1 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 08:14
Date Received: 11/04/20
Field Prep: Not Specified
Sample Depth:
Matrix: Soil
Percent Solids: 89%
TCLP/SPLP Ext. Date: 11/05/20 06:46

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 0.408 | J | mg/l | 0.500 | 0.027 | 1 | 11/06/20 14:22 | 11/06/20 21:17 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048416
**Project Number:** 135173-002
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-01
Client ID: LD-B1 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 08:14
Date Received: 11/04/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 89%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 687 | | mg/kg | 2.16 | 0.116 | 1 | 11/06/20 07:35 | 11/07/20 00:26 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048416
**Project Number:** 135173-002
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-02
Client ID: LD-B1 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Percent Solids: 84%

Date Collected: 11/04/20 08:16
Date Received: 11/04/20
Field Prep: Not Specified
TCLP/SPLP Ext. Date: 11/05/20 06:46

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 0.063 | J | mg/l | 0.500 | 0.027 | 1 | 11/06/20 14:22 | 11/06/20 22:10 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048416
**Project Number:** 135173-002
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-02
Client ID: LD-B1 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 08:16
Date Received: 11/04/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 84%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 203 | | mg/kg | 2.33 | 0.125 | 1 | 11/06/20 07:35 | 11/07/20 00:31 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048416
**Project Number:** 135173-002
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-03
Client ID: LD-B2 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 08:28
Date Received: 11/04/20
Field Prep: Not Specified
Sample Depth:
TCLP/SPLP Ext. Date: 11/05/20 06:46
Matrix: Soil
Percent Solids: 87%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 0.250 | J | mg/l | 0.500 | 0.027 | 1 | 11/06/20 14:22 | 11/06/20 22:14 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048416
**Project Number:** 135173-002
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-03
Client ID: LD-B2 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 08:28
Date Received: 11/04/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 87%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 979 | | mg/kg | 2.24 | 0.120 | 1 | 11/06/20 07:35 | 11/07/20 00:35 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048416
**Project Number:** 135173-002
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-04
Client ID: LD-B2 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 08:31
Date Received: 11/04/20
Field Prep: Not Specified
Sample Depth:
TCLP/SPLP Ext. Date: 11/05/20 06:46
Matrix: Soil
Percent Solids: 83%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 0.136 | J | mg/l | 0.500 | 0.027 | 1 | 11/06/20 14:50 | 11/06/20 22:19 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048416
**Project Number:** 135173-002
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-04
Client ID: LD-B2 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 08:31
Date Received: 11/04/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 83%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 157 | | mg/kg | 2.34 | 0.126 | 1 | 11/06/20 07:35 | 11/07/20 00:40 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048416
**Project Number:** 135173-002
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-05
Client ID: LD-B3 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 08:35
Date Received: 11/04/20
Field Prep: Not Specified
Sample Depth:
TCLP/SPLP Ext. Date: 11/05/20 06:46
Matrix: Soil
Percent Solids: 89%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 1.35 | | mg/l | 0.500 | 0.027 | 1 | 11/06/20 14:50 | 11/06/20 22:23 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048416
**Project Number:** 135173-002
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-05
Client ID: LD-B3 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 08:35
Date Received: 11/04/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 89%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 95.9 | | mg/kg | 2.17 | 0.116 | 1 | 11/06/20 07:35 | 11/07/20 00:45 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048416
**Project Number:** 135173-002
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-06
Client ID: LD-B3 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 08:38
Date Received: 11/04/20
Field Prep: Not Specified
Sample Depth:
TCLP/SPLP Ext. Date: 11/05/20 06:46
Matrix: Soil
Percent Solids: 87%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 0.456 | J | mg/l | 0.500 | 0.027 | 1 | 11/06/20 14:50 | 11/06/20 22:27 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2048416
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-06
Client ID: LD-B3 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 08:38
Date Received: 11/04/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 87%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 30.4 | | mg/kg | 2.16 | 0.116 | 1 | 11/06/20 07:35 | 11/07/20 01:21 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048416
**Project Number:** 135173-002
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-07
Client ID: LD-B4 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 08:51
Date Received: 11/04/20
Field Prep: Not Specified
Sample Depth:
Matrix: Soil
Percent Solids: 85%
TCLP/SPLP Ext. Date: 11/05/20 06:46

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 3.29 | | mg/l | 0.500 | 0.027 | 1 | 11/07/20 05:55 | 11/07/20 08:47 | EPA 3015 | 1,6010D | GD |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048416
**Project Number:** 135173-002
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-07
Client ID: LD-B4 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 08:51
Date Received: 11/04/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 85%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 142 | | mg/kg | 2.28 | 0.122 | 1 | 11/06/20 07:35 | 11/07/20 01:26 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048416
**Project Number:** 135173-002
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-08
Client ID: LD-B4 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 08:55
Date Received: 11/04/20
Field Prep: Not Specified
Sample Depth:
TCLP/SPLP Ext. Date: 11/05/20 06:46
Matrix: Soil
Percent Solids: 84%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 2.20 | | mg/l | 0.500 | 0.027 | 1 | 11/07/20 05:55 | 11/07/20 08:34 | EPA 3015 | 1,6010D | GD |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048416
**Project Number:** 135173-002
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-08
Client ID: LD-B4 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 08:55
Date Received: 11/04/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 84%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 374 | | mg/kg | 2.32 | 0.125 | 1 | 11/06/20 07:35 | 11/07/20 01:31 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048416
**Project Number:** 135173-002
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-09
Client ID: LD-B5 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 09:00
Date Received: 11/04/20
Field Prep: Not Specified
Sample Depth:
Matrix: Soil
Percent Solids: 88%
TCLP/SPLP Ext. Date: 11/05/20 06:46

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 0.189 | J | mg/l | 0.500 | 0.027 | 1 | 11/06/20 14:50 | 11/06/20 22:41 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048416
**Project Number:** 135173-002
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-09
Client ID: LD-B5 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 09:00
Date Received: 11/04/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 88%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 142 | | mg/kg | 2.16 | 0.116 | 1 | 11/06/20 07:35 | 11/07/20 01:36 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048416
**Project Number:** 135173-002
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-10
Client ID: LD-B5 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 09:03
Date Received: 11/04/20
Field Prep: Not Specified
Sample Depth:
TCLP/SPLP Ext. Date: 11/05/20 06:46
Matrix: Soil
Percent Solids: 86%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 2.50 | | mg/l | 0.500 | 0.027 | 1 | 11/07/20 05:55 | 11/07/20 08:38 | EPA 3015 | 1,6010D | GD |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048416
**Project Number:** 135173-002
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-10
Client ID: LD-B5 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 09:03
Date Received: 11/04/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 86%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 1510 | | mg/kg | 2.28 | 0.122 | 1 | 11/06/20 07:35 | 11/07/20 01:40 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048416
**Project Number:** 135173-002
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-11
Client ID: LD-B6 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 09:09
Date Received: 11/04/20
Field Prep: Not Specified
Sample Depth:
TCLP/SPLP Ext. Date: 11/05/20 06:46
Matrix: Soil
Percent Solids: 88%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 5.20 | | mg/l | 0.500 | 0.027 | 1 | 11/06/20 14:50 | 11/06/20 22:45 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048416
**Project Number:** 135173-002
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-11
Client ID: LD-B6 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 09:09
Date Received: 11/04/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 88%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 663 | | mg/kg | 2.20 | 0.118 | 1 | 11/06/20 07:35 | 11/07/20 01:45 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048416
**Project Number:** 135173-002
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-12
Client ID: LD-B6 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 09:12
Date Received: 11/04/20
Field Prep: Not Specified
Sample Depth:
TCLP/SPLP Ext. Date: 11/05/20 06:46
Matrix: Soil
Percent Solids: 84%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 5.11 | | mg/l | 0.500 | 0.027 | 1 | 11/06/20 14:50 | 11/06/20 22:49 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048416
**Project Number:** 135173-002
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-12
Client ID: LD-B6 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 09:12
Date Received: 11/04/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 84%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 328 | | mg/kg | 2.34 | 0.126 | 1 | 11/06/20 07:35 | 11/07/20 01:50 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048416
**Project Number:** 135173-002
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-13
Client ID: LD-B7 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 10:37
Date Received: 11/04/20
Field Prep: Not Specified
Sample Depth:
TCLP/SPLP Ext. Date: 11/05/20 06:46
Matrix: Soil
Percent Solids: 87%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 6.38 | | mg/l | 0.500 | 0.027 | 1 | 11/07/20 05:55 | 11/07/20 08:43 | EPA 3015 | 1,6010D | GD |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048416
**Project Number:** 135173-002
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-13
Client ID: LD-B7 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 10:37
Date Received: 11/04/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 87%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 161 | | mg/kg | 2.26 | 0.121 | 1 | 11/06/20 07:35 | 11/07/20 01:55 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048416
**Project Number:** 135173-002
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-14
Client ID: LD-B7 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 10:41
Date Received: 11/04/20
Field Prep: Not Specified
Sample Depth:
Matrix: Soil
Percent Solids: 83%
TCLP/SPLP Ext. Date: 11/05/20 06:46

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 5.73 | | mg/l | 0.500 | 0.027 | 1 | 11/06/20 14:50 | 11/06/20 22:54 | EPA 3015 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048416
**Project Number:** 135173-002
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-14
Client ID: LD-B7 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 10:41
Date Received: 11/04/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 83%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 398 | | mg/kg | 2.34 | 0.126 | 1 | 11/06/20 07:35 | 11/07/20 02:00 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048416
**Project Number:** 135173-002
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-25
Client ID: LD-B6-A (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 09:45
Date Received: 11/04/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 87%
TCLP/SPLP Ext. Date: 11/09/20 22:27

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 0.237 | J | mg/l | 0.500 | 0.027 | 1 | 11/11/20 10:23 | 11/11/20 11:57 | EPA 3015 | 1,6010D | PS |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048416
**Project Number:** 135173-002
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-25
Client ID: LD-B6-A (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 09:45
Date Received: 11/04/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 87%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 268 | | mg/kg | 2.19 | 0.117 | 1 | 11/10/20 14:30 | 11/10/20 20:46 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048416
**Project Number:** 135173-002
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-26
Client ID: LD-B6-A (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 09:49
Date Received: 11/04/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 82%
TCLP/SPLP Ext. Date: 11/09/20 22:27

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 6.99 | | mg/l | 0.500 | 0.027 | 1 | 11/11/20 10:23 | 11/11/20 12:18 | EPA 3015 | 1,6010D | PS |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2048416
**Project Number:** 135173-002
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-26
Client ID: LD-B6-A (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/04/20 09:49
Date Received: 11/04/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 82%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 1570 | | mg/kg | 2.40 | 0.129 | 1 | 11/10/20 14:30 | 11/11/20 00:16 | EPA 3050B | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2048416

**Project Number:** 135173-002 **Report Date:** 11/18/20

# Method Blank Analysis
# Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab for sample(s): 01-14 Batch: WG1430923-1 | | | | | | | | | | |
| Lead, Total | ND | | mg/kg | 2.00 | 0.107 | 1 | 11/06/20 07:35 | 11/06/20 11:57 | 1,6010D | GD |

**Prep Information**

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 01-06,09,11-12,14 Batch: WG1431263-1 | | | | | | | | | | |
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 11/06/20 14:22 | 11/06/20 20:55 | 1,6010D | BV |

**Prep Information**

Digestion Method: EPA 3015

TCLP/SPLP Extraction Date: 11/05/20 06:46

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 07-08,10,13 Batch: WG1431269-1 | | | | | | | | | | |
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 11/07/20 05:55 | 11/07/20 08:24 | 1,6010D | GD |

**Prep Information**

Digestion Method: EPA 3015

TCLP/SPLP Extraction Date: 11/04/20 22:12

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab for sample(s): 25-26 Batch: WG1432548-1 | | | | | | | | | | |
| Lead, Total | ND | | mg/kg | 2.00 | 0.107 | 1 | 11/10/20 14:30 | 11/10/20 20:36 | 1,6010D | BV |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2048416
**Report Date:** 11/18/20

# Method Blank Analysis
# Batch Quality Control

**Prep Information**

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 25-26 Batch: WG1432986-1 | | | | | | | | | | |
| Lead, TCLP | 0.039 | J | mg/l | 0.500 | 0.027 | 1 | 11/11/20 10:23 | 11/11/20 11:48 | 1,6010D | PS |

**Prep Information**

Digestion Method: EPA 3015
TCLP/SPLP Extraction Date: 11/09/20 05:20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2048416

**Report Date:** 11/18/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01-14 Batch: WG1430923-2 SRM Lot Number: D109-540 | | | | | | | | |
| Lead, Total | 102 | | - | | 72-128 | - | | |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01-06,09,11-12,14 Batch: WG1431263-2 | | | | | | | | |
| Lead, TCLP | 99 | | - | | 75-125 | - | | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 07-08,10,13 Batch: WG1431269-2 | | | | | | | | |
| Lead, TCLP | 101 | | - | | 75-125 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 25-26 Batch: WG1432548-2 SRM Lot Number: D109-540 | | | | | | | | |
| Lead, Total | 103 | | - | | 72-128 | - | | |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 25-26 Batch: WG1432986-2 | | | | | | | | |
| Lead, TCLP | 101 | | - | | 75-125 | - | | 20 |

# Matrix Spike Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2048416
**Report Date:** 11/18/20

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01-14 QC Batch ID: WG1430923-3 QC Sample: L2046246-17 Client ID: MS Sample | | | | | | | | | | | | |
| Lead, Total | 163 | 53.4 | 210 | 88 | | - | - | | 75-125 | - | | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01-06,09,11-12,14 QC Batch ID: WG1431263-3 QC Sample: L2048416-01 Client ID: LD-B1 (0-2') | | | | | | | | | | | | |
| Lead, TCLP | 0.408J | 5.1 | 5.44 | 107 | | - | - | | 75-125 | - | | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 07-08,10,13 QC Batch ID: WG1431269-3 QC Sample: L2048416-07 Client ID: LD-B4 (0-2') | | | | | | | | | | | | |
| Lead, TCLP | 3.29 | 5.1 | 8.33 | 99 | | - | - | | 75-125 | - | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 25-26 QC Batch ID: WG1432548-3 QC Sample: L2048416-25 Client ID: LD-B6-A (0-2') | | | | | | | | | | | | |
| Lead, Total | 268 | 45 | 286 | **40** | Q | - | - | | 75-125 | - | | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 25-26 QC Batch ID: WG1432986-3 QC Sample: L2048416-25 Client ID: LD-B6-A (0-2') | | | | | | | | | | | | |
| Lead, TCLP | 0.237J | 5.1 | 5.31 | 104 | | - | - | | 75-125 | - | | 20 |

# Lab Duplicate Analysis
*Batch Quality Control*

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

***Lab Number:*** L2048416
***Report Date:*** 11/18/20

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01-14 QC Batch ID: WG1430923-4 QC Sample: L2046246-17 Client ID: DUP Sample | | | | | | |
| Lead, Total | 163 | 142 | mg/kg | 14 | | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01-06,09,11-12,14 QC Batch ID: WG1431263-4 QC Sample: L2048416-01 Client ID: LD-B1 (0-2') | | | | | | |
| Lead, TCLP | 0.408J | 0.367J | mg/l | NC | | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 07-08,10,13 QC Batch ID: WG1431269-4 QC Sample: L2048416-07 Client ID: LD-B4 (0-2') | | | | | | |
| Lead, TCLP | 3.29 | 3.30 | mg/l | 0 | | 20 |
| Total Metals - Mansfield Lab Associated sample(s): 25-26 QC Batch ID: WG1432548-4 QC Sample: L2048416-25 Client ID: LD-B6-A (0-2') | | | | | | |
| Lead, Total | 268 | 400 | mg/kg | **40** | Q | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 25-26 QC Batch ID: WG1432986-4 QC Sample: L2048416-25 Client ID: LD-B6-A (0-2') | | | | | | |
| Lead, TCLP | 0.237J | 0.230J | mg/l | NC | | 20 |

# INORGANICS
# &
# MISCELLANEOUS

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2048416
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-01
Client ID: LD-B1 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil

Date Collected: 11/04/20 08:14
Date Received: 11/04/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 89.0 | | % | 0.100 | NA | 1 | - | 11/05/20 09:50 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2048416
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-02
Client ID: LD-B1 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil

Date Collected: 11/04/20 08:16
Date Received: 11/04/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 84.2 | | % | 0.100 | NA | 1 | - | 11/05/20 09:50 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2048416
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-03
Client ID: LD-B2 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil

Date Collected: 11/04/20 08:28
Date Received: 11/04/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 86.7 | | % | 0.100 | NA | 1 | - | 11/05/20 09:50 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2048416
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-04
Client ID: LD-B2 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 11/04/20 08:31
Date Received: 11/04/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 82.6 | | % | 0.100 | NA | 1 | - | 11/05/20 09:50 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2048416
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-05
Client ID: LD-B3 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 11/04/20 08:35
Date Received: 11/04/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 89.3 | | % | 0.100 | NA | 1 | - | 11/05/20 09:50 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2048416
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-06
Client ID: LD-B3 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 11/04/20 08:38
Date Received: 11/04/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 86.9 | | % | 0.100 | NA | 1 | - | 11/05/20 09:50 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2048416
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-07
Client ID: LD-B4 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil

Date Collected: 11/04/20 08:51
Date Received: 11/04/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 85.2 | | % | 0.100 | NA | 1 | - | 11/05/20 09:50 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2048416
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-08
Client ID: LD-B4 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 11/04/20 08:55
Date Received: 11/04/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 84.0 | | % | 0.100 | NA | 1 | - | 11/05/20 09:50 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2048416
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-09
Client ID: LD-B5 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 11/04/20 09:00
Date Received: 11/04/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 87.8 | | % | 0.100 | NA | 1 | - | 11/05/20 09:50 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2048416
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-10
Client ID: LD-B5 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 11/04/20 09:03
Date Received: 11/04/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 85.7 | | % | 0.100 | NA | 1 | - | 11/05/20 09:50 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2048416
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-11
Client ID: LD-B6 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 11/04/20 09:09
Date Received: 11/04/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 87.7 | | % | 0.100 | NA | 1 | - | 11/05/20 09:50 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2048416
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-12
Client ID: LD-B6 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil

Date Collected: 11/04/20 09:12
Date Received: 11/04/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 83.9 | | % | 0.100 | NA | 1 | - | 11/05/20 09:50 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2048416
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-13
Client ID: LD-B7 (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil

Date Collected: 11/04/20 10:37
Date Received: 11/04/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 86.6 | | % | 0.100 | NA | 1 | - | 11/05/20 09:50 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2048416
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-14
Client ID: LD-B7 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 11/04/20 10:41
Date Received: 11/04/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 83.3 | | % | 0.100 | NA | 1 | - | 11/05/20 09:50 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2048416
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-25
Client ID: LD-B6-A (0-2')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil
Date Collected: 11/04/20 09:45
Date Received: 11/04/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 87.4 | | % | 0.100 | NA | 1 | - | 11/09/20 16:33 | 121,2540G | TR |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2048416
**Report Date:** 11/18/20

## SAMPLE RESULTS

Lab ID: L2048416-26
Client ID: LD-B6-A (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil

Date Collected: 11/04/20 09:49
Date Received: 11/04/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 82.3 | | % | 0.100 | NA | 1 | - | 11/09/20 16:33 | 121,2540G | TR |

# Lab Duplicate Analysis

***Batch Quality Control***

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

***Lab Number:*** L2048416

***Report Date:*** 11/18/20

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| General Chemistry - Westborough Lab Associated sample(s): 01-14 QC Batch ID: WG1430648-1 QC Sample: L2048416-01 Client ID: LD-B1 (0-2') | | | | | | |
| Solids, Total | 89.0 | 86.6 | % | 3 | | 20 |
| General Chemistry - Westborough Lab Associated sample(s): 25-26 QC Batch ID: WG1432207-1 QC Sample: L2049098-28 Client ID: DUP Sample | | | | | | |
| Solids, Total | 74.4 | 74.1 | % | 0 | | 20 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2048416
**Report Date:** 11/18/20

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

### Cooler Information

| Cooler | Custody Seal |
|---|---|
| A | Absent |
| B | Absent |

### Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2048416-01A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 5.1 | Y | Absent | | PB-TI(180) |
| L2048416-01B | Glass 250ml/8oz unpreserved | A | NA | | 5.1 | Y | Absent | | TS(7) |
| L2048416-01W9 | Tumble Vessel | A | NA | | 5.1 | Y | Absent | | - |
| L2048416-01X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 5.1 | Y | Absent | | PB-CI(180) |
| L2048416-02A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 5.1 | Y | Absent | | PB-TI(180) |
| L2048416-02B | Glass 250ml/8oz unpreserved | A | NA | | 5.1 | Y | Absent | | TS(7) |
| L2048416-02W9 | Tumble Vessel | A | NA | | 5.1 | Y | Absent | | - |
| L2048416-02X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 5.1 | Y | Absent | | PB-CI(180) |
| L2048416-03A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 5.1 | Y | Absent | | PB-TI(180) |
| L2048416-03B | Glass 250ml/8oz unpreserved | A | NA | | 5.1 | Y | Absent | | TS(7) |
| L2048416-03W9 | Tumble Vessel | A | NA | | 5.1 | Y | Absent | | - |
| L2048416-03X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 5.1 | Y | Absent | | PB-CI(180) |
| L2048416-04A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 5.1 | Y | Absent | | PB-TI(180) |
| L2048416-04B | Glass 250ml/8oz unpreserved | A | NA | | 5.1 | Y | Absent | | TS(7) |
| L2048416-04W9 | Tumble Vessel | A | NA | | 5.1 | Y | Absent | | - |
| L2048416-04X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 5.1 | Y | Absent | | PB-CI(180) |
| L2048416-05A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 5.1 | Y | Absent | | PB-TI(180) |
| L2048416-05B | Glass 250ml/8oz unpreserved | A | NA | | 5.1 | Y | Absent | | TS(7) |
| L2048416-05W9 | Tumble Vessel | A | NA | | 5.1 | Y | Absent | | - |
| L2048416-05X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 5.1 | Y | Absent | | PB-CI(180) |
| L2048416-06A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 5.1 | Y | Absent | | PB-TI(180) |
| L2048416-06B | Glass 250ml/8oz unpreserved | A | NA | | 5.1 | Y | Absent | | TS(7) |



*Values in parentheses indicate holding time in days

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2048416
**Report Date:** 11/18/20

### Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2048416-06W9 | Tumble Vessel | A | NA | | 5.1 | Y | Absent | | - |
| L2048416-06X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 5.1 | Y | Absent | | PB-CI(180) |
| L2048416-07A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 5.1 | Y | Absent | | PB-TI(180) |
| L2048416-07B | Glass 250ml/8oz unpreserved | A | NA | | 5.1 | Y | Absent | | TS(7) |
| L2048416-07W9 | Tumble Vessel | A | NA | | 5.1 | Y | Absent | | - |
| L2048416-07X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 5.1 | Y | Absent | | PB-CI(180) |
| L2048416-08A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 5.1 | Y | Absent | | PB-TI(180) |
| L2048416-08B | Glass 250ml/8oz unpreserved | A | NA | | 5.1 | Y | Absent | | TS(7) |
| L2048416-08W9 | Tumble Vessel | A | NA | | 5.1 | Y | Absent | | - |
| L2048416-08X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 5.1 | Y | Absent | | PB-CI(180) |
| L2048416-09A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 5.1 | Y | Absent | | PB-TI(180) |
| L2048416-09B | Glass 250ml/8oz unpreserved | A | NA | | 5.1 | Y | Absent | | TS(7) |
| L2048416-09W9 | Tumble Vessel | A | NA | | 5.1 | Y | Absent | | - |
| L2048416-09X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 5.1 | Y | Absent | | PB-CI(180) |
| L2048416-10A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 5.1 | Y | Absent | | PB-TI(180) |
| L2048416-10B | Glass 250ml/8oz unpreserved | A | NA | | 5.1 | Y | Absent | | TS(7) |
| L2048416-10W9 | Tumble Vessel | A | NA | | 5.1 | Y | Absent | | - |
| L2048416-10X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 5.1 | Y | Absent | | PB-CI(180) |
| L2048416-11A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 5.1 | Y | Absent | | PB-TI(180) |
| L2048416-11B | Glass 250ml/8oz unpreserved | A | NA | | 5.1 | Y | Absent | | TS(7) |
| L2048416-11W9 | Tumble Vessel | A | NA | | 5.1 | Y | Absent | | - |
| L2048416-11X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 5.1 | Y | Absent | | PB-CI(180) |
| L2048416-12A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 5.1 | Y | Absent | | PB-TI(180) |
| L2048416-12B | Glass 250ml/8oz unpreserved | A | NA | | 5.1 | Y | Absent | | TS(7) |
| L2048416-12W9 | Tumble Vessel | A | NA | | 5.1 | Y | Absent | | - |
| L2048416-12X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 5.1 | Y | Absent | | PB-CI(180) |
| L2048416-13A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 5.1 | Y | Absent | | PB-TI(180) |
| L2048416-13B | Glass 250ml/8oz unpreserved | A | NA | | 5.1 | Y | Absent | | TS(7) |



*Values in parentheses indicate holding time in days

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2048416
**Report Date:** 11/18/20

### Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2048416-13W9 | Tumble Vessel | A | NA | | 5.1 | Y | Absent | | - |
| L2048416-13X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 5.1 | Y | Absent | | PB-CI(180) |
| L2048416-14A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 5.1 | Y | Absent | | PB-TI(180) |
| L2048416-14B | Glass 250ml/8oz unpreserved | A | NA | | 5.1 | Y | Absent | | TS(7) |
| L2048416-14W9 | Tumble Vessel | A | NA | | 5.1 | Y | Absent | | - |
| L2048416-14X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 5.1 | Y | Absent | | PB-CI(180) |
| L2048416-15A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 5.1 | Y | Absent | | HOLD-METAL(180) |
| L2048416-15B | Glass 250ml/8oz unpreserved | A | NA | | 5.1 | Y | Absent | | HOLD-CONTINGENCY(14),HOLD-WETCHEM() |
| L2048416-16A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 5.1 | Y | Absent | | HOLD-METAL(180) |
| L2048416-16B | Glass 250ml/8oz unpreserved | A | NA | | 5.1 | Y | Absent | | HOLD-CONTINGENCY(14),HOLD-WETCHEM() |
| L2048416-17A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 5.1 | Y | Absent | | HOLD-METAL(180) |
| L2048416-17B | Glass 250ml/8oz unpreserved | A | NA | | 5.1 | Y | Absent | | HOLD-CONTINGENCY(14),HOLD-WETCHEM() |
| L2048416-18A | Metals Only-Glass 60mL/2oz unpreserved | B | NA | | 4.9 | Y | Absent | | HOLD-METAL(180) |
| L2048416-18B | Glass 250ml/8oz unpreserved | B | NA | | 4.9 | Y | Absent | | HOLD-CONTINGENCY(14),HOLD-WETCHEM() |
| L2048416-19A | Metals Only-Glass 60mL/2oz unpreserved | B | NA | | 4.9 | Y | Absent | | HOLD-METAL(180) |
| L2048416-19B | Glass 250ml/8oz unpreserved | B | NA | | 4.9 | Y | Absent | | HOLD-CONTINGENCY(14),HOLD-WETCHEM() |
| L2048416-20A | Metals Only-Glass 60mL/2oz unpreserved | B | NA | | 4.9 | Y | Absent | | HOLD-METAL(180) |
| L2048416-20B | Glass 250ml/8oz unpreserved | B | NA | | 4.9 | Y | Absent | | HOLD-CONTINGENCY(14),HOLD-WETCHEM() |
| L2048416-21A | Metals Only-Glass 60mL/2oz unpreserved | B | NA | | 4.9 | Y | Absent | | HOLD-METAL(180) |
| L2048416-21B | Glass 250ml/8oz unpreserved | B | NA | | 4.9 | Y | Absent | | HOLD-CONTINGENCY(14),HOLD-WETCHEM() |
| L2048416-22A | Metals Only-Glass 60mL/2oz unpreserved | B | NA | | 4.9 | Y | Absent | | HOLD-METAL(180) |
| L2048416-22B | Glass 250ml/8oz unpreserved | B | NA | | 4.9 | Y | Absent | | HOLD-CONTINGENCY(14),HOLD-WETCHEM() |
| L2048416-23A | Metals Only-Glass 60mL/2oz unpreserved | B | NA | | 4.9 | Y | Absent | | HOLD-METAL(180) |
| L2048416-23B | Glass 250ml/8oz unpreserved | B | NA | | 4.9 | Y | Absent | | HOLD-CONTINGENCY(14),HOLD-WETCHEM() |
| L2048416-24A | Metals Only-Glass 60mL/2oz unpreserved | B | NA | | 4.9 | Y | Absent | | HOLD-METAL(180) |
| L2048416-24B | Glass 250ml/8oz unpreserved | B | NA | | 4.9 | Y | Absent | | HOLD-CONTINGENCY(14),HOLD-WETCHEM() |
| L2048416-25A | Metals Only-Glass 60mL/2oz unpreserved | B | NA | | 4.9 | Y | Absent | | PB-TI(180) |
| L2048416-25B | Glass 250ml/8oz unpreserved | B | NA | | 4.9 | Y | Absent | | TS(7) |



*Values in parentheses indicate holding time in days

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2048416
**Report Date:** 11/18/20

### Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2048416-25X | Plastic 120ml HNO3 preserved Extracts | NA | NA | | | Y | Absent | | PB-CI(180) |
| L2048416-25X9 | Tumble Vessel | NA | NA | | | Y | Absent | | - |
| L2048416-26A | Metals Only-Glass 60mL/2oz unpreserved | B | NA | | 4.9 | Y | Absent | | PB-TI(180) |
| L2048416-26B | Glass 250ml/8oz unpreserved | B | NA | | 4.9 | Y | Absent | | TS(7) |
| L2048416-26X | Plastic 120ml HNO3 preserved Extracts | NA | NA | | | Y | Absent | | PB-CI(180) |
| L2048416-26X9 | Tumble Vessel | NA | NA | | | Y | Absent | | - |



*Values in parentheses indicate holding time in days

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2048416 |
| **Project Number:** | 135173-002 | **Report Date:** | 11/18/20 |

## GLOSSARY

***Acronyms***

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

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

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

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

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

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

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

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

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

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

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

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

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

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

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

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2048416 |
| **Project Number:** | 135173-002 | **Report Date:** | 11/18/20 |

***Footnotes***

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

***Terms***

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

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

***Data Qualifiers***

**A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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

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

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

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

**F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

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

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

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

**J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

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

**ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

**NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2048416 |
| **Project Number:** | 135173-002 | **Report Date:** | 11/18/20 |

***Data Qualifiers***

the identification is based on a mass spectral library search.

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

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

**R** - Analytical results are from sample re-analysis.

**RE** - Analytical results are from sample re-extraction.

**S** - Analytical results are from modified screening analysis.

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2048416 |
| **Project Number:** | 135173-002 | **Report Date:** | 11/18/20 |

## REFERENCES


1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.


## LIMITATION OF LIABILITIES

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

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

# Certification Information

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

**Westborough Facility**
**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene
**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
**EPA 8270D:** NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
**SM4500**: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

**Mansfield Facility**
**SM 2540D:** TSS
**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
**EPA TO-12** Non-methane organics
**EPA 3C** Fixed gases
**Biological Tissue Matrix:** EPA 3050B

**The following analytes are included in our Massachusetts DEP Scope of Accreditation**

**Westborough Facility:**

***Drinking Water***
**EPA 300.0**: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
**EPA 332**: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
**Microbiology**: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

***Non-Potable Water***
**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
**EPA 624.1**: Volatile Halocarbons & Aromatics,
**EPA 608.3**: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
**EPA 625.1**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
**Microbiology**: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

**Mansfield Facility:**

***Drinking Water***
**EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
**EPA 522.**

***Non-Potable Water***
**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
**EPA 200.8:** Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
**EPA 245.1** Hg.
**SM2340B**

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

# NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581 — 8 Walkup Dr. — TEL: 508-898-9220 — FAX: 508-898-9193

Mansfield, MA 02048 — 320 Forbes Blvd — TEL: 508-822-9300 — FAX: 508-822-3288

**Service Centers**
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page: 1 of 3

Date Rec'd in Lab: 11/04/20

ALPHA Job #: L2048416

## Client Information

Client: Haley & Aldrich of NY
Address: 237 West 35th Street, Floor 16, New York, NY 10123
Phone:
Fax:
Email: MConlon@haleyaldrich.com

## Project Information

Project Name: 310 Grand Concourse
Project Location: 310 Grand Concourse, Bronx, NY
Project # 135173-002
(Use Project name as Project #) ☐
Project Manager: Mari Conlon
ALPHAQuote #:

## Turn-Around Time

Standard ☐ Due Date:
Rush (only if pre approved) ☑ # of Days: 3

## Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☑ Other PDF + Excel

## Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☑ NY Restricted Use ☐ Other
☑ NY Unrestricted Use
☐ NYC Sewer Discharge

## Billing Information

☑ Same as Client Info
PO #

## Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

**Other project specific requirements/comments:**

**Please specify Metals or TAL.**

## ANALYSIS

**Sample Filtration**
☐ Done
☐ Lab to do
***Preservation***
☐ Lab to do
***(Please Specify below)***

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection Date | Collection Time | Sample Matrix | Sampler's Initials | Total Lead | TCLP Lead | Sample Specific Comments | Total Bottle |
|---|---|---|---|---|---|---|---|---|---|
| 48416-01 | LD-B1 (0-2') | 11-4-20 | 0814 | S | ZS | X | X | | 2 |
| -02 | LD-B1 (2-5') | | 0816 | S | ZS | X | X | | 2 |
| -03 | LD-B2 (0-2') | | 0828 | S | ZS | X | X | | 2 |
| -04 | LD-B2 (2-5') | | 0831 | S | ZS | X | X | | 2 |
| -05 | LD-B3 (0-2') | | 0835 | S | ZS | X | X | | 2 |
| -06 | LD-B3 (2-5') | | 0838 | S | ZS | X | X | | 2 |
| -07 | LD-B4 (0-2') | | 0851 | S | ZS | X | X | | 2 |
| -08 | LD-B4 (2-5') | | 0855 | S | ZS | X | X | | 2 |
| -09 | LD-B5 (0-2') | | 0900 | S | ZS | X | X | | 2 |
| -10 | LD-B5 (2-5') | | 0903 | S | ZS | X | X | | 2 |

| | | |
|---|---|---|
| Container Type | A | A |
| Preservative | A | A |

Preservative Code: A = None; B = HCl; C = $HNO_3$; D = $H_2SO_4$; E = NaOH; F = MeOH; G = $NaHSO_4$; H = $Na_2S_2O_3$; K/E = Zn Ac/NaOH; O = Other

Container Code: P = Plastic; A = Amber Glass; V = Vial; G = Glass; B = Bacteria Cup; C = Cube; O = Other; E = Encore; D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

| Relinquished By: | Date/Time | Received By: | Date/Time |
|---|---|---|---|
| Mark Simmel | 11/4/20 1330 | [illegible] | 11/4/20 1350 |
| [illegible] | 11/4/20 1510 | Paul Magella | 11/4/20 1642 |
| Paul Magella | 11/4/20 2200 | [illegible] | 11/4/20 2200 |

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

# NEW YORK CHAIN OF CUSTODY

ALPHA

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 2 of 3

Date Rec'd in Lab 11/4/20

ALPHA Job # L2048416

**Client Information**
Client: Haley & Aldrich of NY
Address: 237 West 35th Street, Floor 16, New York, NY 10123
Phone:
Fax:
Email: MConlon@haleyaldrich.com

**Project Information**
Project Name: 310 Grand Concourse
Project Location: 310 Grand Concourse, Bronx, NY
Project # 135173-002
(Use Project name as Project #)
Project Manager: Mari Conlon
ALPHAQuote #:

**Turn-Around Time**
Standard ☐ Due Date:
Rush (only if pre approved) ☑ # of Days: 3

**Deliverables**
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☑ Other PDF + Excel

**Regulatory Requirement**
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☑ NY Restricted Use ☐ Other
☑ NY Unrestricted Use
☐ NYC Sewer Discharge

**Billing Information**
☑ Same as Client Info
PO #

**Disposal Site Information**
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

**Other project specific requirements/comments:**

**Please specify Metals or TAL.**

**ANALYSIS**

**Sample Filtration**
☐ Done
☐ Lab to do
**Preservation**
☐ Lab to do
*(Please Specify below)*

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection Date | Collection Time | Sample Matrix | Sampler's Initials | Total Lead | TCLP Lead | Sample Specific Comments | Total # Bottles |
|---|---|---|---|---|---|---|---|---|---|
| 48416-011 | LD-B6 (0-2') | 11-4-20 | 0909 | S | ZS | X | X | | 2 |
| -12 | LD-B6 (2-5') | | 0912 | S | ZS | X | X | | 2 |
| -13 | LD-B7 (0-2') | | 1037 | S | ZS | X | X | | 2 |
| -14 | LD-B7 (2-5') | | 1041 | S | ZS | X | X | | 2 |
| -15 | LD-B1-A (0-2') | | 1000 | S | ZS | X | X | PLACE ON HOLD | 2 |
| -16 | LD-B1-A (2-5') | | 1003 | S | ZS | X | X | PLACE ON HOLD | 2 |
| -17 | LD-B2-A (0-2') | | 1012 | S | ZS | X | X | PLACE ON HOLD | 2 |
| -18 | LD-B2-A (2-5') | | 1015 | S | ZS | X | X | PLACE ON HOLD | 2 |
| -19 | LD-B3-A (0-2') | | 1024 | S | ZS | X | X | PLACE ON HOLD | 2 |
| -20 | LD-B3-A (2-5') | | 1027 | S | ZS | X | X | PLACE ON HOLD | 2 |

| | | |
|---|---|---|
| Container Type | A | A |
| Preservative | A | A |

Preservative Code:
A = None
B = HCl
C = $HNO_3$
D = $H_2SO_4$
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

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

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

| Relinquished By: | Date/Time | Received By: | Date/Time |
|---|---|---|---|
| Mark Simmel | 11/4/20 1330 | [illegible] | 11/4/20 1330 |
| [illegible] | 11/4/20 1510 | [illegible] | 11/4/20 1610 |
| [illegible] | 11/4/20 2200 | [illegible] | 11/4/20 2200 |

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ALPHA

# NEW YORK CHAIN OF CUSTODY

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 3 of 3

Date Rec'd in Lab: 11/04/20

ALPHA Job #: L2048416

## Client Information

Client: Haley & Aldrich of NY
Address: 237 West 35th Street, Floor 16, New York, NY 10123
Phone:
Fax:
Email: MConlon@haleyaldrich.com

## Project Information

Project Name: 310 Grand Concourse
Project Location: 310 Grand Concourse, Bronx, NY
Project # 135173-002
(Use Project name as Project #) ☐
Project Manager: Mari Conlon
ALPHAQuote #:

## Turn-Around Time

Standard ☐ Due Date:
Rush (only if pre approved) ☑ # of Days: 3

## Deliverables

☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☑ Other PDF + Excel

## Regulatory Requirement

☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☑ NY Restricted Use ☐ Other
☑ NY Unrestricted Use
☐ NYC Sewer Discharge

## Billing Information

☑ Same as Client Info
PO #

## Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

**Other project specific requirements/comments:**

**Please specify Metals or TAL.**

## ANALYSIS

***Sample Filtration***
☐ Done
☐ Lab to do
***Preservation***
☐ Lab to do
***(Please Specify below)***

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection Date | Collection Time | Sample Matrix | Sampler's Initials | Total Lead | TCLP Lead | Sample Specific Comments | Total # Bottles |
|---|---|---|---|---|---|---|---|---|---|
| 48416-21 | LD-B4-A (0-2') | 11-4-20 | 0926 | S | ZS | X | X | PLACE ON HOLD | 2 |
| -22 | LD-B4-A (2-5') | | 0930 | S | ZS | X | X | PLACE ON HOLD | 2 |
| -23 | LD-B5-A (0-2') | | 0935 | S | ZS | X | X | PLACE ON HOLD | 2 |
| -24 | LD-B5-A (2-5') | | 0940 | S | ZS | X | X | PLACE ON HOLD | 2 |
| -25 | LD-B6-A (0-2') | | 0945 | S | ZS | X | X | PLACE ON HOLD | 2 |
| -26 | LD-B6-A (2-5') | | 0949 | S | ZS | X | X | PLACE ON HOLD | 2 |

| | | |
|---|---|---|
| Container Type | A | A |
| Preservative | A | A |

Preservative Code:
A = None
B = HCl
C = $HNO_3$
D = $H_2SO_4$
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

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

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

| Relinquished By: | Date/Time | Received By: | Date/Time |
|---|---|---|---|
| Mark Simmel | 11/4/20 1330 | [illegible] | 11/4/20 1330 |
| [illegible] | 11/4/20 1510 | [illegible] | 11/4/20 1604 |
| [illegible] | 11/4/20 2200 | [illegible] | 11/4/20 2200 |

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ANALYTICAL REPORT

| | |
|---|---|
| Lab Number: | L2049765 |
| Client: | Haley & Aldrich<br>237 West 35th Street<br>16th Floor<br>New York, NY 10123 |
| ATTN: | Mari Cate Conlon |
| Phone: | (347) 271-1521 |
| Project Name: | 310 GRAND CONCOURSE |
| Project Number: | 135173-002 |
| Report Date: | 11/20/20 |

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

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

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2049765
**Report Date:** 11/20/20

| Alpha Sample ID | Client ID | Matrix | Sample Location | Collection Date/Time | Receive Date |
|---|---|---|---|---|---|
| L2049765-01 | LD-B6 (5-7') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/11/20 09:50 | 11/11/20 |
| L2049765-02 | LD-B6 (7-9') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/11/20 09:58 | 11/11/20 |
| L2049765-03 | LD-B7 (5-7') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/11/20 09:28 | 11/11/20 |
| L2049765-04 | LD-B7 (7-9') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/11/20 09:34 | 11/11/20 |
| L2049765-05 | LD-B6-A1 (0-2') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/11/20 10:17 | 11/11/20 |
| L2049765-06 | LD-B6-A1 (2-5') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/11/20 10:22 | 11/11/20 |
| L2049765-07 | LD-B6-A1 (5-7') | SOIL | 310 GRAND CONCOURSE, BRONX, NY | 11/11/20 10:27 | 11/11/20 |

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2049765 |
| **Project Number:** | 135173-002 | **Report Date:** | 11/20/20 |

## Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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

Please contact Project Management at 800-624-9220 with any questions.

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2049765 |
| **Project Number:** | 135173-002 | **Report Date:** | 11/20/20 |

**Case Narrative (continued)**

Report Submission

November 20, 2020: This final report includes the results of all requested analyses.

November 16, 2020: This preliminary report includes the results of the TCLP Lead analysis performed on L2049765-06 and -07 (LD-B6-A1 (2-5') and LD-B6-A1 (5-7')).

November 13, 2020: This is a preliminary report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

The analyses performed were specified by the client.

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

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative Date: 11/20/20

# METALS

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2049765
**Project Number:** 135173-002
**Report Date:** 11/20/20

## SAMPLE RESULTS

Lab ID: L2049765-01
Client ID: LD-B6 (5-7')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/11/20 09:50
Date Received: 11/11/20
Field Prep: Not Specified
Sample Depth:
Matrix: Soil
Percent Solids: 88%
TCLP/SPLP Ext. Date: 11/12/20 05:25

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 11/13/20 10:40 | 11/13/20 12:43 | EPA 3015 | 1,6010D | PS |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2049765
**Project Number:** 135173-002
**Report Date:** 11/20/20

## SAMPLE RESULTS

Lab ID: L2049765-01
Client ID: LD-B6 (5-7')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/11/20 09:50
Date Received: 11/11/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 88%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 12.0 | | mg/kg | 2.18 | 0.117 | 1 | 11/13/20 07:40 | 11/13/20 15:03 | EPA 3050B | 1,6010D | PS |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2049765
**Project Number:** 135173-002
**Report Date:** 11/20/20

## SAMPLE RESULTS

Lab ID: L2049765-03
Client ID: LD-B7 (5-7')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/11/20 09:28
Date Received: 11/11/20
Field Prep: Not Specified
Sample Depth:
Matrix: Soil
Percent Solids: 89%
TCLP/SPLP Ext. Date: 11/12/20 05:25

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 11/13/20 10:40 | 11/13/20 12:48 | EPA 3015 | 1,6010D | PS |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2049765
**Project Number:** 135173-002
**Report Date:** 11/20/20

## SAMPLE RESULTS

Lab ID: L2049765-03
Client ID: LD-B7 (5-7')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/11/20 09:28
Date Received: 11/11/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 89%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 2.22 | | mg/kg | 2.21 | 0.118 | 1 | 11/13/20 07:40 | 11/13/20 15:08 | EPA 3050B | 1,6010D | PS |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2049765
**Project Number:** 135173-002
**Report Date:** 11/20/20

## SAMPLE RESULTS

Lab ID: L2049765-06
Client ID: LD-B6-A1 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/11/20 10:22
Date Received: 11/11/20
Field Prep: Not Specified
Sample Depth:
Matrix: Soil
Percent Solids: 88%
TCLP/SPLP Ext. Date: 11/12/20 15:30

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 1.06 | | mg/l | 0.500 | 0.027 | 1 | 11/16/20 09:36 | 11/16/20 11:12 | EPA 3015 | 1,6010D | GD |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2049765
**Project Number:** 135173-002
**Report Date:** 11/20/20

## SAMPLE RESULTS

Lab ID: L2049765-06
Client ID: LD-B6-A1 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/11/20 10:22
Date Received: 11/11/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 88%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 258 | | mg/kg | 2.19 | 0.118 | 1 | 11/13/20 07:40 | 11/13/20 15:13 | EPA 3050B | 1,6010D | PS |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2049765
**Project Number:** 135173-002
**Report Date:** 11/20/20

## SAMPLE RESULTS

Lab ID: L2049765-07
Client ID: LD-B6-A1 (5-7')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/11/20 10:27
Date Received: 11/11/20
Field Prep: Not Specified
Sample Depth:
Matrix: Soil
Percent Solids: 87%
TCLP/SPLP Ext. Date: 11/12/20 15:30

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TCLP Metals by EPA 1311 - Mansfield Lab** | | | | | | | | | | | |
| Lead, TCLP | 1.24 | | mg/l | 0.500 | 0.027 | 1 | 11/16/20 09:36 | 11/16/20 11:07 | EPA 3015 | 1,6010D | GD |

**Project Name:** 310 GRAND CONCOURSE
**Lab Number:** L2049765
**Project Number:** 135173-002
**Report Date:** 11/20/20

## SAMPLE RESULTS

Lab ID: L2049765-07
Client ID: LD-B6-A1 (5-7')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Date Collected: 11/11/20 10:27
Date Received: 11/11/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 87%

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Prep Method | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Metals - Mansfield Lab** | | | | | | | | | | | |
| Lead, Total | 83.8 | | mg/kg | 2.27 | 0.122 | 1 | 11/13/20 07:40 | 11/13/20 15:18 | EPA 3050B | 1,6010D | PS |

**Project Name:** 310 GRAND CONCOURSE **Lab Number:** L2049765

**Project Number:** 135173-002 **Report Date:** 11/20/20

# Method Blank Analysis
# Batch Quality Control

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab for sample(s): 01,03,06-07 Batch: WG1433705-1 | | | | | | | | | | |
| Lead, Total | ND | | mg/kg | 2.00 | 0.107 | 1 | 11/13/20 07:40 | 11/13/20 14:17 | 1,6010D | PS |

**Prep Information**

Digestion Method: EPA 3050B

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 01,03 Batch: WG1433971-1 | | | | | | | | | | |
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 11/13/20 10:40 | 11/13/20 12:11 | 1,6010D | PS |

**Prep Information**

Digestion Method: EPA 3015

TCLP/SPLP Extraction Date: 11/11/20 21:54

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| TCLP Metals by EPA 1311 - Mansfield Lab for sample(s): 06-07 Batch: WG1434166-1 | | | | | | | | | | |
| Lead, TCLP | ND | | mg/l | 0.500 | 0.027 | 1 | 11/16/20 09:36 | 11/16/20 10:48 | 1,6010D | GD |

**Prep Information**

Digestion Method: EPA 3015

TCLP/SPLP Extraction Date: 11/12/20 15:30

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

**Lab Number:** L2049765

**Report Date:** 11/20/20

| Parameter | LCS %Recovery | Qual | LCSD %Recovery | Qual | %Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01,03,06-07 Batch: WG1433705-2 SRM Lot Number: D109-540 | | | | | | | | |
| Lead, Total | 98 | | - | | 72-128 | - | | |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01,03 Batch: WG1433971-2 | | | | | | | | |
| Lead, TCLP | 103 | | - | | 75-125 | - | | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 06-07 Batch: WG1434166-2 | | | | | | | | |
| Lead, TCLP | 107 | | - | | 75-125 | - | | 20 |

# Matrix Spike Analysis
## Batch Quality Control

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2049765
**Report Date:** 11/20/20

| Parameter | Native Sample | MS Added | MS Found | MS %Recovery | Qual | MSD Found | MSD %Recovery | Qual | Recovery Limits | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Metals - Mansfield Lab Associated sample(s): 01,03,06-07 QC Batch ID: WG1433705-3 WG1433705-4 QC Sample: L2049381-11 Client ID: MS Sample | | | | | | | | | | | | |
| Lead, Total | 3.01J | 51.1 | 41.9 | 82 | | 42.3 | 82 | | 75-125 | 1 | | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01,03 QC Batch ID: WG1433971-3 QC Sample: L2049761-01 Client ID: MS Sample | | | | | | | | | | | | |
| Lead, TCLP | 0.693 | 5.1 | 5.95 | 103 | | - | - | | 75-125 | - | | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 06-07 QC Batch ID: WG1434166-3 QC Sample: L2049765-06 Client ID: LD-B6-A1 (2-5') | | | | | | | | | | | | |
| Lead, TCLP | 1.06 | 5.1 | 6.59 | 108 | | - | - | | 75-125 | - | | 20 |

# Lab Duplicate Analysis

***Batch Quality Control***

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

***Lab Number:*** L2049765

***Report Date:*** 11/20/20

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 01,03 QC Batch ID: WG1433971-4 QC Sample: L2049761-01 Client ID: DUP Sample | | | | | | |
| Lead, TCLP | 0.693 | 0.702 | mg/l | 1 | | 20 |
| TCLP Metals by EPA 1311 - Mansfield Lab Associated sample(s): 06-07 QC Batch ID: WG1434166-4 QC Sample: L2049765-06 Client ID: LD-B6-A1 (2-5') | | | | | | |
| Lead, TCLP | 1.06 | 1.06 | mg/l | 0 | | 20 |

# INORGANICS
# &
# MISCELLANEOUS

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2049765
**Report Date:** 11/20/20

## SAMPLE RESULTS

Lab ID: L2049765-01
Client ID: LD-B6 (5-7')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil

Date Collected: 11/11/20 09:50
Date Received: 11/11/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 88.3 | | % | 0.100 | NA | 1 | - | 11/12/20 08:46 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2049765
**Report Date:** 11/20/20

## SAMPLE RESULTS

Lab ID: L2049765-03
Client ID: LD-B7 (5-7')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil

Date Collected: 11/11/20 09:28
Date Received: 11/11/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 88.9 | | % | 0.100 | NA | 1 | - | 11/12/20 08:46 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2049765
**Report Date:** 11/20/20

## SAMPLE RESULTS

Lab ID: L2049765-06
Client ID: LD-B6-A1 (2-5')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil

Date Collected: 11/11/20 10:22
Date Received: 11/11/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 88.3 | | % | 0.100 | NA | 1 | - | 11/12/20 11:45 | 121,2540G | RI |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002
**Lab Number:** L2049765
**Report Date:** 11/20/20

## SAMPLE RESULTS

Lab ID: L2049765-07
Client ID: LD-B6-A1 (5-7')
Sample Location: 310 GRAND CONCOURSE, BRONX, NY
Sample Depth:
Matrix: Soil

Date Collected: 11/11/20 10:27
Date Received: 11/11/20
Field Prep: Not Specified

| Parameter | Result | Qualifier | Units | RL | MDL | Dilution Factor | Date Prepared | Date Analyzed | Analytical Method | Analyst |
|---|---|---|---|---|---|---|---|---|---|---|
| **General Chemistry - Westborough Lab** | | | | | | | | | | |
| Solids, Total | 87.2 | | % | 0.100 | NA | 1 | - | 11/12/20 11:45 | 121,2540G | RI |

# Lab Duplicate Analysis

***Batch Quality Control***

**Project Name:** 310 GRAND CONCOURSE

**Project Number:** 135173-002

***Lab Number:*** L2049765

***Report Date:*** 11/20/20

| Parameter | Native Sample | Duplicate Sample | Units | RPD | Qual | RPD Limits |
|---|---|---|---|---|---|---|
| General Chemistry - Westborough Lab Associated sample(s): 01,03 QC Batch ID: WG1433410-1 QC Sample: L2049765-01 Client ID: LD-B6 (5-7') | | | | | | |
| Solids, Total | 88.3 | 89.4 | % | 1 | | 20 |
| General Chemistry - Westborough Lab Associated sample(s): 06-07 QC Batch ID: WG1433515-1 QC Sample: L2049765-06 Client ID: LD-B6-A1 (2-5') | | | | | | |
| Solids, Total | 88.3 | 88.7 | % | 0 | | 20 |

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2049765
**Report Date:** 11/20/20

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

### Cooler Information

| Cooler | Custody Seal |
|---|---|
| A | Absent |

### Container Information

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|
| L2049765-01A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.9 | Y | Absent | | PB-TI(180) |
| L2049765-01B | Glass 250ml/8oz unpreserved | A | NA | | 3.9 | Y | Absent | | TS(7) |
| L2049765-01X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 3.9 | Y | Absent | | PB-CI(180) |
| L2049765-01X9 | Tumble Vessel | A | NA | | 3.9 | Y | Absent | | - |
| L2049765-02A | Glass 60mL/2oz unpreserved | A | NA | | 3.9 | Y | Absent | | HOLD-METAL(180) |
| L2049765-02B | Glass 250ml/8oz unpreserved | A | NA | | 3.9 | Y | Absent | | HOLD-WETCHEM() |
| L2049765-03A | Metals Only-Glass 60mL/2oz unpreserved | A | NA | | 3.9 | Y | Absent | | PB-TI(180) |
| L2049765-03B | Glass 250ml/8oz unpreserved | A | NA | | 3.9 | Y | Absent | | TS(7) |
| L2049765-03X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 3.9 | Y | Absent | | PB-CI(180) |
| L2049765-03X9 | Tumble Vessel | A | NA | | 3.9 | Y | Absent | | - |
| L2049765-04A | Glass 60mL/2oz unpreserved | A | NA | | 3.9 | Y | Absent | | HOLD-METAL(180) |
| L2049765-04B | Glass 250ml/8oz unpreserved | A | NA | | 3.9 | Y | Absent | | HOLD-WETCHEM() |
| L2049765-05A | Glass 60mL/2oz unpreserved | A | NA | | 3.9 | Y | Absent | | HOLD-METAL(180) |
| L2049765-05B | Glass 250ml/8oz unpreserved | A | NA | | 3.9 | Y | Absent | | HOLD-WETCHEM() |
| L2049765-06A | Glass 60mL/2oz unpreserved | A | NA | | 3.9 | Y | Absent | | PB-TI(180) |
| L2049765-06B | Glass 250ml/8oz unpreserved | A | NA | | 3.9 | Y | Absent | | TS(7) |
| L2049765-06X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 3.9 | Y | Absent | | PB-CI(180) |
| L2049765-06X9 | Tumble Vessel | A | NA | | 3.9 | Y | Absent | | - |
| L2049765-07A | Glass 60mL/2oz unpreserved | A | NA | | 3.9 | Y | Absent | | PB-TI(180) |
| L2049765-07B | Glass 250ml/8oz unpreserved | A | NA | | 3.9 | Y | Absent | | TS(7) |
| L2049765-07X | Plastic 120ml HNO3 preserved Extracts | A | NA | | 3.9 | Y | Absent | | PB-CI(180) |
| L2049765-07X9 | Tumble Vessel | A | NA | | 3.9 | Y | Absent | | - |



*Values in parentheses indicate holding time in days

**Project Name:** 310 GRAND CONCOURSE
**Project Number:** 135173-002

**Lab Number:** L2049765
**Report Date:** 11/20/20

**Container Information**

| Container ID | Container Type | Cooler | Initial pH | Final pH | Temp deg C | Pres | Seal | Frozen Date/Time | Analysis(*) |
|---|---|---|---|---|---|---|---|---|---|

**Container Comments**

| | |
|---|---|
| L2049765-06A | Labeled as LD-B6-A1 (2-5'), bagged with rest of sample and collection time matches. |



*Values in parentheses indicate holding time in days

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2049765 |
| **Project Number:** | 135173-002 | **Report Date:** | 11/20/20 |

## GLOSSARY

***Acronyms***

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

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

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

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

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

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

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

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

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

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

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

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

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

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

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

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

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

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2049765 |
| **Project Number:** | 135173-002 | **Report Date:** | 11/20/20 |

***Footnotes***

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

***Terms***

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

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

***Data Qualifiers***

**A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

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

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

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

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

**F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

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

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

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

**J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

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

**ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

**NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2049765 |
| **Project Number:** | 135173-002 | **Report Date:** | 11/20/20 |

***Data Qualifiers***

the identification is based on a mass spectral library search.

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

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

**R** - Analytical results are from sample re-analysis.

**RE** - Analytical results are from sample re-extraction.

**S** - Analytical results are from modified screening analysis.

*Report Format: DU Report with 'J' Qualifiers*

| | | | |
|---|---|---|---|
| **Project Name:** | 310 GRAND CONCOURSE | **Lab Number:** | L2049765 |
| **Project Number:** | 135173-002 | **Report Date:** | 11/20/20 |

## REFERENCES


1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.


## LIMITATION OF LIABILITIES

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

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

# Certification Information

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

**Westborough Facility**
**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene
**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
**EPA 8270D:** NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
**SM4500**: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

**Mansfield Facility**
**SM 2540D:** TSS
**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
**EPA TO-12** Non-methane organics
**EPA 3C** Fixed gases
**Biological Tissue Matrix:** EPA 3050B

**The following analytes are included in our Massachusetts DEP Scope of Accreditation**

**Westborough Facility:**

***Drinking Water***
**EPA 300.0**: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
**EPA 332**: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
**Microbiology**: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

***Non-Potable Water***
**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
**EPA 624.1**: Volatile Halocarbons & Aromatics,
**EPA 608.3**: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
**EPA 625.1**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
**Microbiology**: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

**Mansfield Facility:**

***Drinking Water***
**EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
**EPA 522.**

***Non-Potable Water***
**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
**EPA 200.8:** Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
**EPA 245.1** Hg.
**SM2340B**

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

# NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

**Service Centers**
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 11/12/20

ALPHA Job #: L2049765

**Client Information**
Client: Haley & Aldrich of NY
Address: 237 West 35th Street, Floor 16, New York, NY 10123
Phone:
Fax:
Email: MConlon@haleyaldrich.com

**Project Information**
Project Name: 310 Grand Concourse
Project Location: 310 Grand Concourse, Bronx, NY
Project #: 135173-002
(Use Project name as Project #)
Project Manager: Mari Conlon
ALPHAQuote #:

**Turn-Around Time**
Standard ☐ Due Date:
Rush (only if pre approved) ☑ # of Days: 12

These samples have been previously analyzed by Alpha ☐

**Other project specific requirements/comments:**

**Please specify Metals or TAL.**

**Deliverables**
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☑ Other PDF + Excel

**Regulatory Requirement**
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☑ NY Restricted Use ☐ Other
☑ NY Unrestricted Use
☐ NYC Sewer Discharge

**Billing Information**
☑ Same as Client Info
PO #

**Disposal Site Information**
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

**ANALYSIS**

**Sample Filtration**
☐ Done
☐ Lab to do
*Preservation*
☐ Lab to do
*(Please Specify below)*

| ALPHA Lab ID (Lab Use Only) | Sample ID | Collection Date | Collection Time | Sample Matrix | Sampler's Initials | Total Lead | TCLP Lead | Sample Specific Comments | Total Bottle |
|---|---|---|---|---|---|---|---|---|---|
| 49765-01 | LD-BG (5-7') | 11-11-20 | 0950 | S | ZS | X | X | | 2 |
| -02 | LD-BG (7-9') | | 0958 | S | ZS | X | X | PLACE ON HOLD | 2 |
| -03 | LD-B7 (5-7') | | 0928 | S | ZS | X | X | | 2 |
| -04 | LD-B7 (7-9') | | 0934 | S | ZS | X | X | PLACE ON HOLD | 2 |
| -05 | LD-BG-A1 (0-2') | | 1017 | S | ZS | X | X | PLACE ON HOLD | 2 |
| -06 | LD-BG-A1 (2-5') | | 1022 | S | ZS | X | X | PLACE ON HOLD | 2 |
| -07 | LD-BG-A1 (5-7') | | 1027 | S | ZS | X | X | PLACE ON HOLD | 2 |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

Preservative Code:
A = None
B = HCl
C = $HNO_3$
D = $H_2SO_4$
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

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

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Container Type | A | A | | | | | | | |
| Preservative | A | A | | | | | | | |

| Relinquished By: | Date/Time | Received By: | Date/Time |
|---|---|---|---|
| Mark Simonel | 11/11/20 1300 | [illegible] (AAL) | 11/11/20 1300 |
| [illegible] (AAL) | 11/11/20 1800 | [illegible] | 11/11/20 2000 |
| [illegible] | 11/12/20 0040 | [illegible] | 11/12/20 00:40 |

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1185

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

## PERMIT ISSUED TO:

ARV TRANSPORT LLC
278 MORRIS STREET
PHILLIPSBURG, NJ 08865

CONTACT NAME: ARNALDO AROCHO-VEGA
COUNTY: OUT OF STATE
TELEPHONE NO: (908)627-9068

## PERMIT TYPE:

■ NEW
□ RENEWAL
□ MODIFICATION

EFFECTIVE DATE: 02/22/2020
EXPIRATION DATE: 02/21/2021
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:**
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| 110 Sand Company Clean Fill Disposal Site | Melville , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| ATLANTIC COUNTY UTILITIES AUTHORITY | EGG HARBOR , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BAYSHORE SOIL MANAGEMENT, LLC | KEASBEY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BETHLEHEM EARTH, LP | BETHLEHEM , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BETHLEHEM LANDFILL | BETHLEHEM , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BURLINGTON COUNTY RESOURCE RECOVERY COMPLEX | COLUMBUS , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CAPITOL DEVELOPMENT | E. BANGOR , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH - BETHLEHEM | BETHLEHEM , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF CARTERET | CARTERET , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF MARYLAND | HAGERSTOWN , MD | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

**NOTE:** By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the Environmental Conservation Law, all applicable regulations, and the General Conditions printed on the back of this page.

ADDRESS: New York State Department of Environmental Conservation
Division of Materials Management - Waste Transporter Program
625 Broadway, 9th Floor
Albany, NY 12233-7251

AUTHORIZED SIGNATURE: _____ Date: 2/20/2020

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1185

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

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**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| CLEAN EARTH OF NEW CASTLE, INC. | NEW CASTLE , DE | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| CLEAN EARTH OF NORTH JERSEY | KEARNY , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| CLEAN EARTH OF PHILADELPHIA | PHILADELPHIA , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| CLEAN EARTH OF SOUTHEAST PENNSYLVANIA | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| COMMONWEALTH ENVIRONMENTAL SYSTEMS, LP | HEGINS , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| CONESTOGA LANDFILL | MORGANTOWN , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| COPLAY AGGREGATES | WHITEHALL , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| CUMBERLAND COUNTY IMPROVEMENT AUTHORITY | MILLVILLE , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| CUMBERLAND COUNTY LANDFILL (PA DEP 100945) | SHIPPENSBURG , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| CYCLE CHEM (NJ) | ELIZABETH , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| DOREMUS AVE SITE PREP & EARTHWORK | NEWARK , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| EARTH EFFICIENT BTL | POCONO SUMMIT , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| Empire Seneca | Waterloo , NY | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| ENVIRONMENTAL & RECYCLING SERVICES, INC. | TAYLOR , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| EVERGREEN RECYCLING | NEWARK , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| FAIRLESS LANDFILL (PA DEP 101699) | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1185

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

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EFFECTIVE DATE: 02/22/2020
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**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| Framitz Inc | Oceanside , NY | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| FRATTARELLI BROS TOPSOIL OPERATION | CARSTADT , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| FREEMANSBURG RESTORATION FACILITY | FREEMANSBURG , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| GERDAU AMERISTEEL PERTH AMBOY MILL/ANACONDA COOPER SITE | PERTH AMBOY , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| GRAND CENTRAL SANITARY LANDFILL | PEN ARGYL , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| GREENVIEW | STROUDSBURG , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| GRIFFIN PIPE PRODUCTION CO. | FLORENCE , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| GROWS LANDFILL (PA DEP 100148) | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| Hakes C&D Disposal Inc | Painted Post , NY | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| HAZLETON CREEK PROPERTIES, LLC | HAZLETON , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| HOFFMAN GRIFFETT MINE RECLAMATION FACILITY | BELVIDERE , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| Hunters Point Recycling Inc | Long Island City , NY | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| IMPACT RECOVERY AND REUSE CENTER | LYNDHURST , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| JERC PARTNERS VII/LLC | EDISON , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| KEEGAN LANDFILL (HMDC) | KEARNEY , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| KEYSTONE SANITARY LANDFILL | DUNMORE , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1185

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

ARV TRANSPORT LLC
278 MORRIS STREET
PHILLIPSBURG, NJ 08865

CONTACT NAME: ARNALDO AROCHO-VEGA
COUNTY: OUT OF STATE
TELEPHONE NO: (908)627-9068

**PERMIT TYPE:**

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EFFECTIVE DATE: 02/22/2020
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US EPA ID NUMBER:

AUTHORIZED WASTE TYPES BY DESTINATION FACILITY: (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| KINGSLAND LANDFILL CLOSURE PROJECT | LYNDHURST , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| LYNDHURST LANDFILL | LYNDHURST , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| MALANKA (MALL) LANDFILL | SECAUCUS , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| NATURES CHOICE | KEARNY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| New York Recycling LLC | Bronx , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| NJ ZINC FACILITY - PHASE 3 | PALMERTON , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Ontario County Sanitary Landfill | Stanley , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| OVERPECK PARK LANDFILL AREA IV | PALISADES PARK , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| P PARK NORTH LLC | PROSPECT PARK , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Pebble Lane Associates LLC | Maspeth , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| PHASE III ENVIRONMENTAL | PALMERTON , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| PURE EARTH (MID ATLANTIC) RECYCLING TECH | VINELAND , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| PURE EARTH RECYCLING | VINELAND , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| PURE SOIL @ PERTH AMBOY | PERTH AMBOY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| PURE SOIL TECHNOLOGIES | JACKSON , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| REPUBLIC ENVIRONMENTAL SYSTEMS (PA) INC. | HATFIELD , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1185

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

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278 MORRIS STREET
PHILLIPSBURG, NJ 08865

**PERMIT TYPE:**

■ NEW
☐ RENEWAL
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CONTACT NAME: ARNALDO AROCHO-VEGA
COUNTY: OUT OF STATE
TELEPHONE NO: (908)627-9068

EFFECTIVE DATE: 02/22/2020
EXPIRATION DATE: **02/21/2021**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| RODOTA FILL SITE | BELVIDERE , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| SOIL SAFE, INC. | LOGAN TOWNSHIP , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| SOIL SAFE-METRO 12 | CARTERET , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| STRAVOLA BBQ | BOUND BROOK , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| TETERBORO LANDING | TETERBORO , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| TREMLEY POINT DISPOSAL SITE | LINDEN , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| TULLYTOWN RESOURCE RECOVERY FACILITY (PA DEP 101494) | TULLYTOWN , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| VALLEY INDUSTRIAL PROPERTIES | EAST BANGOR , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| Vanbro Corporation | Staten Island , NY | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| WASTE MANAGEMENT DRPI LANDFILL | NEW CASTLE , DE | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| WESTERN BERKS LANDFILL | BIRDSBORO , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| WESTSIDE TRANSLOAD LLC | NORTH BERGEN , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| WMNY Varick 1 Transfer Station | Brooklyn , NY | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
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TELEPHONE NO: (908)627-9068

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**AUTHORIZED VEHICLES:**
The Permittee is Authorized to Operate the Following Vehicles to Transport Waste:
(Vehicles enclosed in <>'s are authorized to haul Residential Raw Sewage and/or Septage only)
2 (Two) Permitted Vehicle(s)

NJ AU171J
NJ AW168D
End of List

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1116

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

## PERMIT ISSUED TO:

CABRERA TRANSPORT LLC
648 4TH STREET, APT. 1
NEWARK, NJ 07107

CONTACT NAME: GALO CABRERA-SOLORZANO
COUNTY: OUT OF STATE
TELEPHONE NO: (973)536-7350

## PERMIT TYPE:

☐ NEW
■ RENEWAL
☐ MODIFICATION

EFFECTIVE DATE: 07/25/2020
EXPIRATION DATE: **07/24/2021**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:**
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| 110 Sand Company Clean Fill Disposal Site | Melville , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| ATLANTIC COUNTY UTILITIES AUTHORITY | EGG HARBOR , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BAYSHORE SOIL MANAGEMENT, LLC | KEASBEY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BETHLEHEM LANDFILL | BETHLEHEM , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BROOK BROTHERS ENTERPRISES/FRATTERELLI BROS | CARSTADT , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BURLINGTON COUNTY RESOURCE RECOVERY COMPLEX | COLUMBUS , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CAPITOL DEVELOPMENT | E. BANGOR , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Casella Recycling Stanley | Stanley , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH - BETHLEHEM | BETHLEHEM , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF CARTERET | CARTERET , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

**NOTE:** By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the Environmental Conservation Law, all applicable regulations, and the General Conditions printed on the back of this page.

ADDRESS:
New York State Department of Environmental Conservation
Division of Materials Management - Waste Transporter Program
625 Broadway, 9th Floor
Albany, NY 12233-7251

AUTHORIZED SIGNATURE: _____ Date: _____

Digitally signed by Richard Clarkson
DN: cn=Richard Clarkson, o=NYSDEC, ou=Division of Materials Management, email=richard.clarkson@dec.ny.gov, c=US
Date: 2020.06.24 14:41:34 -04'00'

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1116

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

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648 4TH STREET, APT. 1
NEWARK, NJ 07107

CONTACT NAME: GALO CABRERA-SOLORZANO
COUNTY: OUT OF STATE
TELEPHONE NO: (973)536-7350

**PERMIT TYPE:**

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**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| CLEAN EARTH OF MARYLAND | HAGERSTOWN , MD | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF NEW CASTLE, INC. | NEW CASTLE , DE | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF NORTH JERSEY | KEARNY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF PHILADELPHIA | PHILADELPHIA , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF SOUTHEAST PENNSYLVANIA | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLINTON QUARRY | CLINTON , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| COMMONWEALTH ENVIRONMENTAL SYSTEMS, LP | HEGINS , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CONESTOGA LANDFILL | MORGANTOWN , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| COPLAY AGGREGATES | WHITEHALL , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CYCLE CHEM (NJ) | ELIZABETH , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| DOREMUS AVE SITE PREP & EARTHWORK | NEWARK , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| ELM STREET DISTRIBUTION CENTER | PERTH AMBOY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Empire Seneca | Waterloo , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Evergreen Recycling of Corona (Willets Point Blvd) | Corona , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| FAIRLESS LANDFILL (PA DEP 101699) | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Faztec Industries | Staten Island , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
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## PART 364
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| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| Framitz Inc | Oceanside , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| FREEMANSBURG RESTORATION FACILITY | BETHLEHEM , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GERDAU AMERISTEEL PERTH AMBOY MILL/ANACONDA COOPER SITE | PERTH AMBOY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GRAND CENTRAL SANITARY LANDFILL | PEN ARGYL , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GREEN ROCK RECYCLING | CLINTON , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GREENVIEW | STROUDSBURG , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GRIFFIN PIPE PRODUCTION CO. | FLORENCE , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GRINNELL RECYCLING INC | SPARTA , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GROWS LANDFILL (PA DEP 100148) | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GROWS LANDFILL NORTH (PA DEP 101680) | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Hakes C&D Disposal Inc | Painted Post , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| HAZLETON CREEK PROPERTIES, LLC | HAZLETON , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| HOFFMAN GRIFFETT MINE RECLAMATION FACILITY | BELVIDERE , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Hunters Point Recycling Inc | Long Island City , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| IMPACT RECOVERY AND REUSE CENTER | LYNDHURST , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| JERC PARTNERS VII/LLC | EDISON , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

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DIVISION OF MATERIALS MANAGEMENT

# PART 364
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**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| KEEGAN LANDFILL (HMDC) | KEARNEY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| KEYSTONE SANITARY LANDFILL | DUNMORE , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| KINGSLAND LANDFILL CLOSURE PROJECT | LYNDHURST , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| LIBERTY AGGREGATES | JERSEY CITY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| MALANKA (MALL) LANDFILL | SECAUCUS , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| New York Recycling LLC | Bronx , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| NJ ZINC FACILITY - PHASE 3 | PALMERTON , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Ontario County Sanitary Landfill | Stanley , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| P PARK NORTH LLC | PROSPECT PARK , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Pebble Lane Associates LLC | Maspeth , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| PURE EARTH (MID ATLANTIC) RECYCLING TECH | VINELAND , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| PURE EARTH RECYCLING | VINELAND , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| PURE SOIL TECHNOLOGIES | JACKSON , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| RESOURCE MANAGEMENT TECHNOLOGIES | NORTH BERGEN , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| ROCKRETE RECYCLING | ELIZABETH , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| ROCKTECH | JERSEY CITY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1116

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

CABRERA TRANSPORT LLC
648 4TH STREET, APT. 1
NEWARK, NJ 07107

CONTACT NAME: GALO CABRERA-SOLORZANO
COUNTY: OUT OF STATE
TELEPHONE NO: (973)536-7350

**PERMIT TYPE:**

☐ NEW
■ RENEWAL
☐ MODIFICATION

EFFECTIVE DATE: 07/25/2020
EXPIRATION DATE: **07/24/2021**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| RODOTA FILL SITE | BELVIDERE , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| SILVA CONSTRUCTION & DEMOLITION | NEWARK , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| SOIL SAFE, INC. | LOGAN TOWNSHIP , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| SOIL SAFE-METRO 12 | CARTERET , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| STRAVOLA BBQ | BOUND BROOK , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| TETERBORO LANDING | TETERBORO , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| TILCON - KEARNY RECYCLING | KEARNY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| TILCON - MOUNT HOPE QUARRY | WHARTON , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| TULLYTOWN RESOURCE RECOVERY FACILITY (PA DEP 101494) | TULLYTOWN , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| VALLEY INDUSTRIAL PROPERTIES | EAST BANGOR , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| WASTE MANAGEMENT | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| WMNY Varick 1 Transfer Station | Brooklyn , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| YANNUZZI & SONS | HILLSBOROUGH , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1116

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

CABRERA TRANSPORT LLC
648 4TH STREET, APT. 1
NEWARK, NJ 07107

**PERMIT TYPE:**

☐ NEW
■ RENEWAL
☐ MODIFICATION

| | | | |
|---|---|---|---|
| CONTACT NAME: | GALO CABRERA-SOLORZANO | EFFECTIVE DATE: | 07/25/2020 |
| COUNTY: | OUT OF STATE | EXPIRATION DATE: | **07/24/2021** |
| TELEPHONE NO: | (973)536-7350 | US EPA ID NUMBER: | |

**AUTHORIZED VEHICLES**:
The Permittee is Authorized to Operate the Following Vehicles to Transport Waste:

(Vehicles enclosed in <>'s are authorized to haul Residential Raw Sewage and/or Septage only)

4 (Four) Permitted Vehicle(s)

NJ AU100F
NJ AU514L
NJ AU692P
NJ AW472E
End of List

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER REGISTRATION NO. NJ-1212

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

## REGISTRATION ISSUED TO:

D TORRES TRUCKING LLC
700 SCHUYLER AVENUE, B21
KEARNY, NJ 07032

CONTACT NAME: DARIEL TORRES
COUNTY: OUT OF STATE
TELEPHONE NO: (862)596-5045

## REGISTRATION TYPE:

- ■ NEW
- □ RENEWAL
- □ MODIFICATION

EFFECTIVE DATE: 10/29/2020
EXPIRATION DATE: **10/28/2021**

**WASTE TYPES TO BE TRANSPORTED**

The Registrant is Authorized to Transport the Following Waste Type(s):

Commercial Solid Waste [364-3.1(c)]

**6 NYCRR Part 364 Registrations do not specify vehicles or receiving facilities.**

**NOTE:** By acceptance of this registration, the registrant agrees that the registration is contingent upon strict compliance with the Environmental Conservation Law, and all applicable regulations.

ADDRESS:

New York State Department of Environmental Conservation
Division of Materials Management - Waste Transporter Program
625 Broadway, 9th Floor
Albany, NY 12233-7251

AUTHORIZED SIGNATURE: Laura Stevens Digitally signed by Laura Stevens Date: 2020.10.28 14:20:34 -04'00' Date: ____/____/____

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-957

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

## PERMIT ISSUED TO:

D&A CONTRACTING, LLC
322 ROUTE 46 WEST
PARSIPPANY, NJ 07054

CONTACT NAME: JAMES C. DEZAO
COUNTY: OUT OF STATE
TELEPHONE NO: (201)919-5191

## PERMIT TYPE:

☐ NEW
☐ RENEWAL
■ MODIFICATION

EFFECTIVE DATE: 09/14/2020
EXPIRATION DATE: **03/18/2021**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:**

The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| BAYONNE LOGISTICS CENTER/BAYONNE MILITARY OCEAN TERMINAL | BAYONNE , NJ | Non-Hazardous Industrial/Commercial | |
| BAYSHORE SOIL MANAGEMENT, LLC | KEASBEY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BETHLEHEM EARTH, LP | BETHLEHEM , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BETHLEHEM LANDFILL | BETHLEHEM , PA | Non-Hazardous Industrial/Commercial<br>Asbestos<br>Petroleum Contaminated Soil | |
| BROOK BROTHERS ENTERPRISES/FRATTERELLI BROS | CARSTADT , NJ | Non-Hazardous Industrial/Commercial | |
| CLEAN EARTH - BETHLEHEM | BETHLEHEM , PA | Non-Hazardous Industrial/Commercial | |
| CLEAN EARTH OF CARTERET | CARTERET , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF NEW CASTLE, INC. | NEW CASTLE , DE | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF NORTH JERSEY | KEARNY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF SOUTHEAST PENNSYLVANIA | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CONESTOGA LANDFILL | MORGANTOWN , PA | Non-Hazardous Industrial/Commercial | |
| COPLAY AGGREGATES | WHITEHALL , PA | Non-Hazardous Industrial/Commercial | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

**NOTE:** By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the Environmental Conservation Law, all applicable regulations, and the General Conditions printed on the back of this page.

ADDRESS:

New York State Department of Environmental Conservation
Division of Materials Management - Waste Transporter Program
625 Broadway, 9th Floor
Albany, NY 12233-7251

AUTHORIZED SIGNATURE: Laura Stevens Digitally signed by Laura Stevens Date: 2020.09.14 08:04:14 -04'00' Date: _____

WASTE TRANSPORTER PERMIT

# GENERAL CONDITIONS

**The permittee must:**

1. Carry a copy of this waste transporter permit in each vehicle used to transport waste. Failure to produce a copy of the permit upon request is a violation of the permit.

2. Display the full name of the transporter on both sides of each vehicle and display the waste transporter permit number on both sides and rear of each vehicle containing waste. The displayed name and permit number must be in characters at least three inches high and of a color that contrasts sharply with the background.

3. Transport waste only in authorized vehicles. An authorized vehicle is one that is listed on this permit.

4. Submit to the Department a modification application for additions/deletions to the authorized fleet of vehicles. The permittee must wait for a modified permit before operating the vehicles identified in the modification application.

5. Submit to the Department a modification application to add a new waste category or a new destination facility, or to change the current waste or destination facility category. The permittee must wait for a modified permit before transporting new waste types or transporting to new destination facilities.

6. Submit to the Department a modification application for any change to the permit.

7. Comply with requirements for placarding and packaging as set forth in New York State Transportation Law as well as any applicable federal rules and regulations.

8. Contain all wastes in the vehicle so there is no leaking, blowing, or other discharge of waste.

9. Use vehicles to transport only materials not intended for human or animal consumption unless the vehicle is properly cleaned.

10. Comply with requirements for manifesting hazardous waste, regulated medical waste, or low-level radioactive waste as set forth in the New York State Environmental Conservation Law and the implementing regulations. Transporters who provide a pre-printed manifest to a generator/shipper/ offeror of regulated waste shall ensure that all information is correct and clearly legible on all copies of the manifest.

11. Deliver waste only to transfer, storage, treatment and disposal facilities authorized to accept such waste. Permittee must demonstrate that facilities are so authorized if requested to do so.

12. Maintain liability insurance as required by New York State Environmental Conservation Law.

13. Maintain records of the amount of each waste type transported to each destination facility on a calendar-year basis. The transporter is obligated to provide a report of this information to the Department by March 1 of each year.

14. Pay regulatory fees on an annual basis. Non-payment may be cause for revocation or suspension of permit.

15. This permit is not transferrable. A change of ownership will invalidate this permit.

16. This permit does not relieve the permittee from the obligation to obtain any other approvals or permits, or from complying with any other applicable federal, state, or local requirement.

17. Renewal applications must be submitted no less than 30 days prior to the expiration date of the permit to:

**New York State Department of Environmental Conservation**
**Division of Materials Management, Waste Transporter Program**
**625 Broadway, 9th Floor**
**Albany, NY 12233-7251**

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-957

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

## PERMIT ISSUED TO:

D&A CONTRACTING, LLC
322 ROUTE 46 WEST
PARSIPPANY, NJ 07054

CONTACT NAME: JAMES C. DEZAO
COUNTY: OUT OF STATE
TELEPHONE NO: (201)919-5191

## PERMIT TYPE:

☐ NEW
☐ RENEWAL
■ MODIFICATION

EFFECTIVE DATE: 09/14/2020
EXPIRATION DATE: **03/18/2021**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| COPLAY AGGREGATES | WHITEHALL , PA | Petroleum Contaminated Soil | |
| CUMBERLAND COUNTY IMPROVEMENT AUTHORITY | MILLVILLE , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CUMBERLAND COUNTY LANDFILL (PA DEP 100945) | SHIPPENSBURG , PA | Non-Hazardous Industrial/Commercial<br>Asbestos<br>Petroleum Contaminated Soil | |
| CUMBERLAND COUNTY LF-NEWBURG | NEWBURG , PA | Non-Hazardous Industrial/Commercial<br>Asbestos<br>Petroleum Contaminated Soil | |
| CYCLE CHEM (NJ) | ELIZABETH , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| DOREMUS AVENUE REDEVELOPMENT PROJECT | NEWARK , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| EARTH EFFICIENT BTL | POCONO SUMMIT , PA | Non-Hazardous Industrial/Commercial | |
| EARTH EFFICIENT HARMONY (PLANT #1 BELVIDERE RD) | PHILLIPSBURG , NJ | Non-Hazardous Industrial/Commercial | |
| EARTH EFFICIENT HARMONY (PLANT #2 FOUL RIFT) | BELVIDERE , NJ | Non-Hazardous Industrial/Commercial | |
| EARTH EFFICIENT MSM LLC | EAST STROUDSBURG , PA | Non-Hazardous Industrial/Commercial | |
| FAIRLESS LANDFILL (PA DEP 101699) | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial | |
| GERDAU AMERISTEEL PERTH AMBOY MILL/ANACONDA COOPER SITE | PERTH AMBOY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GRAND CENTRAL SANITARY LANDFILL | PEN ARGYL , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil<br>Sludge from Sewage or Water Supply Treatment Plant | |
| GREENVIEW | STROUDSBURG , PA | Non-Hazardous Industrial/Commercial | |
| GRIFFIN PIPE PRODUCTION CO. | FLORENCE , NJ | Non-Hazardous Industrial/Commercial | |
| GROWS LANDFILL NORTH (PA DEP 101680) | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial<br>Asbestos<br>Petroleum Contaminated Soil | |
| HAZLETON CREEK PROPERTIES, LLC | HAZLETON , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| HOFFMAN GRIFFETT MINE RECLAMATION FACILITY | BELVIDERE , NJ | Non-Hazardous Industrial/Commercial | |
| IMPACT RECOVERY AND REUSE CENTER | LYNDHURST , NJ | Non-Hazardous Industrial/Commercial | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-957

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

## PERMIT ISSUED TO:

D&A CONTRACTING, LLC
322 ROUTE 46 WEST
PARSIPPANY, NJ 07054

CONTACT NAME: JAMES C. DEZAO
COUNTY: OUT OF STATE
TELEPHONE NO: (201)919-5191

## PERMIT TYPE:

☐ NEW
☐ RENEWAL
■ MODIFICATION

EFFECTIVE DATE: 09/14/2020
EXPIRATION DATE: **03/18/2021**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| KINGSLAND LANDFILL CLOSURE PROJECT | LYNDHURST , NJ | Non-Hazardous Industrial/Commercial | |
| OVERPECK PARK LANDFILL AREA IV | PALISADES PARK , NJ | Non-Hazardous Industrial/Commercial | |
| P PARK NORTH LLC | PROSPECT PARK , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| PHASE III ENVIRONMENTAL | PALMERTON , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| PURE SOIL @ PERTH AMBOY | PERTH AMBOY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| PURE SOIL TECHNOLOGIES | JACKSON , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| REPUBLIC ENVIRONMENTAL SYSTEMS (PA) INC. | HATFIELD , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| SOIL SAFE, INC. | LOGAN TOWNSHIP , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| SOIL SAFE-METRO 12 | CARTERET , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| TREMLEY POINT FLY ASH DISPOSAL SITE | LINDEN , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| TULLYTOWN RESOURCE RECOVERY FACILITY (PA DEP 101494) | TULLYTOWN , PA | Non-Hazardous Industrial/Commercial<br>Asbestos<br>Petroleum Contaminated Soil | |
| VALLEY INDUSTRIAL PROPERTIES | EAST BANGOR , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Vanbro Corporation | Staten Island , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| WASTE MANAGEMENT | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| WASTE MANAGEMENT DRPI LANDFILL | NEW CASTLE , DE | Non-Hazardous Industrial/Commercial | |
| WESTERN BERKS LANDFILL | BIRDSBORO , PA | Non-Hazardous Industrial/Commercial<br>Asbestos<br>Petroleum Contaminated Soil | |
| WESTSIDE TRANSLOAD LLC | NORTH BERGEN , NJ | Non-Hazardous Industrial/Commercial | |

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-957

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

## PERMIT ISSUED TO:

D&A CONTRACTING, LLC
322 ROUTE 46 WEST
PARSIPPANY, NJ 07054

## PERMIT TYPE:

☐ NEW
☐ RENEWAL
■ MODIFICATION

| | | | |
|---|---|---|---|
| CONTACT NAME: | JAMES C. DEZAO | EFFECTIVE DATE: | 09/14/2020 |
| COUNTY: | OUT OF STATE | EXPIRATION DATE: | **03/18/2021** |
| TELEPHONE NO: | (201)919-5191 | US EPA ID NUMBER: | |

**AUTHORIZED VEHICLES**:
The Permittee is Authorized to Operate the Following Vehicles to Transport Waste:

(Vehicles enclosed in <>'s are authorized to haul Residential Raw Sewage and/or Septage only)

58 (Fifty Eight) Permitted Vehicle(s)

NJ AS356V
NJ AS412T
NJ AS413T
NJ AS414T
NJ AS461U
NJ AS462U
NJ AS463U
NJ AS500Y
NJ AS501Y
NJ AS676N
NJ AT171P
NJ AT515L
NJ AT516L
NJ AT517L
NJ AT693C
NJ AT715T
NJ AT844M
NJ AT878N
NJ AT879N
NJ AT880N
NJ AT923R
NJ AT924R
NJ AU273U
NJ AU328Y
NJ AU329Y
NJ AU330Y
NJ AU371W
NJ AU372W
NJ AU426R
NJ AU427R
NJ AU435F
NJ AU435J
NJ AU436J
NJ AU520N
NJ AU521N
NJ AU522N
NJ AU674Y
NJ AU706U
NJ AU707U
NJ AU739H
NJ AU740H
NJ AU741H
NJ AU742H
NJ AU825V
NJ AU872D
NJ AU873D
NJ AU915N
NJ AU995D
NJ AW243D
NJ AW559L
NJ AW560L
NJ AW562C
NJ AW839A
NJ AW840A
NJ AW857D
NJ AW858D
NJ AW859D
NJ AW860D
End of List

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-941

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

## PERMIT ISSUED TO:

DSM TRUCKING, LLC
53 ROCCO STREET
BELLEVILLE, NJ 07109

CONTACT NAME: DAVID SANCHEZ-MORALES
COUNTY: OUT OF STATE
TELEPHONE NO: (973)820-8586

## PERMIT TYPE:

☐ NEW
☐ RENEWAL
■ MODIFICATION

EFFECTIVE DATE: 06/10/2020
EXPIRATION DATE: **06/07/2021**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:**

The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| 110 Sand Company Clean Fill Disposal Site | Melville , NY | Non-Hazardous Industrial/Commercial | |
| 380 DEVELOPMENT LLC (Various BUDs) | STATEN ISLAND , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Allocco Recycling Ltd (Kingsland Ave) | Brooklyn , NY | Non-Hazardous Industrial/Commercial | |
| ATLANTIC COUNTY UTILITIES AUTHORITY | EGG HARBOR , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BAYSHORE SOIL MANAGEMENT, LLC | KEASBEY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BELLMAWR WATERFRONT DEVELOPMENT | BELLMAWR , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BETHLEHEM EARTH, LP | BETHLEHEM , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BETHLEHEM LANDFILL | BETHLEHEM , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BREEZY POINT COOP | QUEENS , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BROOK BROTHERS ENTERPRISES/FRATTERELLI BROS | CARSTADT , NJ | Non-Hazardous Industrial/Commercial | |
| CAPE MAY CO. MUA | WOODBINE , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF CARTERET | CARTERET , NJ | Non-Hazardous Industrial/Commercial | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

**NOTE:** By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the Environmental Conservation Law, all applicable regulations, and the General Conditions printed on the back of this page.

ADDRESS:

New York State Department of Environmental Conservation
Division of Materials Management - Waste Transporter Program
625 Broadway, 9th Floor
Albany, NY 12233-7251

AUTHORIZED SIGNATURE: _ _ Date: / /

Digitally signed by Richard Clarkson
DN: cn=Richard Clarkson, o=NYSDEC, ou=Division of Materials Management, email=richard.clarkson@dec.ny.gov, c=US
Date: 2020.06.09 11:49:04 -04'00'

# WASTE TRANSPORTER PERMIT

## GENERAL CONDITIONS

**The permittee must:**

1. Carry a copy of this waste transporter permit in each vehicle to transport waste. Failure to produce a copy of the permit upon request is a violation of the permit.

2. Display the full name of the transporter on both sides of each vehicle and display the waste transporter permit number on both sides and rear of each vehicle containing waste. The displayed name and permit number must be in characters at least three inches high and of a color that contrasts sharply with the background.

3. Transport waste only in authorized vehicles. An authorized vehicle is one that is listed on this permit.

4. Submit to the Department a modification application for additions/deletions to the authorized fleet of vehicles. The permittee must wait for a modified permit before operating the vehicles identified in the modification application.

5. Submit to the Department a modification application to add a new waste category or a new destination facility, or to change the current waste or destination facility category. The permittee must wait for a modified permit before transporting new waste types or transporting to new destination facilities.

6. Submit to the Department a modification application for change of address or company name.

7. Comply with requirements for placarding and packaging as set forth in New York State Transportation Law as well as any applicable federal rules and regulations.

8. Contain all wastes in the vehicle so there is no leaking, blowing, or other discharge of waste.

9. Use vehicles to transport only materials not intended for human or animal consumption unless the vehicle is properly cleaned.

10. Comply with requirements for manifesting hazardous waste, regulated medical waste, or low-level radioactive waste as set forth in the New York State Environmental Conservation Law and the implementing regulations. Transporters who provide a pre-printed manifest to a generator/shipper/ offeror of regulated waste shall ensure that all information is correct and clearly legible on all copies of the manifest.

11. Deliver waste only to transfer, storage, treatment and disposal facilities authorized to accept such waste. Permittee must demonstrate that facilities are so authorized if requested to do so.

12. Maintain liability insurance as required by New York State Environmental Conservation Law.

13. Maintain records of the amount of each waste type transported to each destination facility on a calendar-year basis. The transporter is obligated to provide a report of this information to the Department at the time of permit renewal, or to any law enforcement officer, if requested to do so.

14. Pay regulatory fees on an annual basis. Non-payment may be cause for revocation or suspension of permit.

15. This permit is not transferrable. A change of ownership will invalidate this permit.

16. This permit does not relieve the permittee from the obligation to obtain any other approvals or permits, or from complying with any other applicable federal, state, or local requirement.

17. **Renewal applications must be submitted no less than 30 days prior to the expiration date of the permit to:**

**New York State Department of Environmental Conservation**
**Division of Materials Management, Waste Transporter Program**
**625 Broadway, 9th Floor**
**Albany, NY 12233-7251**

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-941

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

DSM TRUCKING, LLC
53 ROCCO STREET
BELLEVILLE, NJ 07109

**PERMIT TYPE:**

☐ NEW
☐ RENEWAL
■ MODIFICATION

CONTACT NAME: DAVID SANCHEZ-MORALES
COUNTY: OUT OF STATE
TELEPHONE NO: (973)820-8586

EFFECTIVE DATE: 06/10/2020
EXPIRATION DATE: **06/07/2021**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| CLEAN EARTH OF CARTERET | CARTERET , NJ | Petroleum Contaminated Soil | |
| CLEAN EARTH OF NEW CASTLE, INC. | NEW CASTLE , DE | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF NORTH JERSEY | KEARNY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF PHILADELPHIA | PHILADELPHIA , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF SOUTHEAST PENNSYLVANIA | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLINTON QUARRY LLC | UNION TOWNSHIP , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| COMMONWEALTH ENVIRONMENTAL SYSTEMS, LP | HEGINS , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CONESTOGA LANDFILL | MORGANTOWN , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| COPLAY AGGREGATES | WHITEHALL , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CUMBERLAND COUNTY IMPROVEMENT AUTHORITY | MILLVILLE , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CYCLE CHEM (NJ) | ELIZABETH , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Dakota Supply Corp | Montrose , NY | Non-Hazardous Industrial/Commercial | |
| DOREMUS AVENUE REDEVELOPMENT PROJECT | NEWARK , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| EARTH EFFICIENT BTL | POCONO SUMMIT , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| EARTH EFFICIENT HARMONY (PLANT #1 BELVIDERE RD) | PHILLIPSBURG , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| EARTH EFFICIENT HARMONY (PLANT #2 FOUL RIFT) | BELVIDERE , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| EARTH EFFICIENT MSM LLC | EAST STROUDSBURG , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-941

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

## PERMIT ISSUED TO:

DSM TRUCKING, LLC
53 ROCCO STREET
BELLEVILLE, NJ 07109

CONTACT NAME: DAVID SANCHEZ-MORALES
COUNTY: OUT OF STATE
TELEPHONE NO: (973)820-8586

## PERMIT TYPE:

☐ NEW
☐ RENEWAL
■ MODIFICATION

EFFECTIVE DATE: 06/10/2020
EXPIRATION DATE: **06/07/2021**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| ENVIRONMENTAL & RECYCLING SERVICES, INC. | TAYLOR , PA | Non-Hazardous Industrial/Commercial | |
| Evergreen Recycling of Corona (Willets Point Blvd) | Corona , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| FAIRLESS LANDFILL (PA DEP 101699) | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Faztec Industries | Staten Island , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Flag Container Services Inc | Staten Island , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Framitz Inc | Oceanside , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| FREEMANSBURG RESTORATION FACILITY | BETHLEHEM , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GERDAU AMERISTEEL PERTH AMBOY MILL/ANACONDA COOPER SITE | PERTH AMBOY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GRAND CENTRAL SANITARY LANDFILL | PEN ARGYL , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Great Gardens LLC | Yaphank , NY | Non-Hazardous Industrial/Commercial | |
| GREEN ROCK RECYCLING | CLINTON , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GREENVIEW | STROUDSBURG , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GRINNELL RECYCLING INC | SPARTA , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| HAZLETON CREEK PROPERTIES, LLC | HAZLETON , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| HOFFMAN GRIFFETT MINE RECLAMATION FACILITY | BELVIDERE , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Hunters Point Recycling Inc | Long Island City , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| IMPACT RECOVERY AND REUSE CENTER | LYNDHURST , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-941

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

## PERMIT ISSUED TO:

DSM TRUCKING, LLC
53 ROCCO STREET
BELLEVILLE, NJ 07109

CONTACT NAME: DAVID SANCHEZ-MORALES
COUNTY: OUT OF STATE
TELEPHONE NO: (973)820-8586

## PERMIT TYPE:

☐ NEW
☐ RENEWAL
■ MODIFICATION

EFFECTIVE DATE: 06/10/2020
EXPIRATION DATE: **06/07/2021**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| KEEGAN LANDFILL (HMDC) | KEARNEY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| KEYSTONE SANITARY LANDFILL | DUNMORE , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| KINGSLAND LANDFILL CLOSURE PROJECT | LYNDHURST , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| KINSLEY LANDFILL | SEWELL , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Lawton Adams Construction Corp | Somers , NY | Non-Hazardous Industrial/Commercial | |
| LIBERTY AGGREGATES | JERSEY CITY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| MORRIS BLANCHARD REDEVELOPMENT | NEWARK , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| NATURES CHOICE | KEARNY , NJ | Non-Hazardous Industrial/Commercial | |
| New York Recycling LLC | Bronx , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| NYSW SUSQUEHANNA BULK SYSTEMS (MHF SERVICES) | NORTH BERGEN , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| OVERPECK PARK LANDFILL AREA IV | PALISADES PARK , NJ | Non-Hazardous Industrial/Commercial | |
| P PARK NORTH LLC | PROSPECT PARK , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Pebble Lane Associates LLC | Maspeth , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| PHASE III ENVIRONMENTAL | PALMERTON , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| PHILLIPSBURG COMMERCE PK URBAN RENEWAL ENTITY | PHILLIPSBURG , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| PURE SOIL TECHNOLOGIES | JACKSON , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| REPUBLIC SERVICES MODERN LANDFILL | YORK , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| RESOURCE MANAGEMENT TECHNOLOGIES | NORTH BERGEN , NJ | Non-Hazardous Industrial/Commercial | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-941

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

## PERMIT ISSUED TO:

DSM TRUCKING, LLC
53 ROCCO STREET
BELLEVILLE, NJ 07109

CONTACT NAME: DAVID SANCHEZ-MORALES
COUNTY: OUT OF STATE
TELEPHONE NO: (973)820-8586

## PERMIT TYPE:

☐ NEW
☐ RENEWAL
■ MODIFICATION

EFFECTIVE DATE: 06/10/2020
EXPIRATION DATE: **06/07/2021**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| RESOURCE MANAGEMENT TECHNOLOGIES | NORTH BERGEN , NJ | Petroleum Contaminated Soil | |
| ROCKRETE RECYCLING | ELIZABETH , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| ROCKTECH | JERSEY CITY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| RODOTA FILL SITE | BELVIDERE , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| SILVA CONSTRUCTION & DEMOLITION | NEWARK , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| SOIL SAFE, INC. | LOGAN TOWNSHIP , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| SOIL SAFE-METRO 12 | CARTERET , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| South Shore Recycling LLC | Staten Island , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| STERICYCLE - HATFIELD | HATFIELD , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| TILCON - KEARNY RECYCLING | KEARNY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| TILCON NEW YORK, INC. | WHARTON , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| TM Maintenance Inc | Staten Island , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| TREMLEY POINT FLY ASH DISPOSAL SITE | LINDEN , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| TULLYTOWN RESOURCE RECOVERY FACILITY (PA DEP 101494) | TULLYTOWN , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| VALLEY INDUSTRIAL PROPERTIES | EAST BANGOR , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Vanbro Corporation | Staten Island , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| WESTSIDE TRANSLOAD LLC | NORTH BERGEN , NJ | Non-Hazardous Industrial/Commercial | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-941

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

DSM TRUCKING, LLC
53 ROCCO STREET
BELLEVILLE, NJ 07109

**PERMIT TYPE:**

☐ NEW
☐ RENEWAL
■ MODIFICATION

| | | | |
|---|---|---|---|
| CONTACT NAME: | DAVID SANCHEZ-MORALES | EFFECTIVE DATE: | 06/10/2020 |
| COUNTY: | OUT OF STATE | EXPIRATION DATE: | **06/07/2021** |
| TELEPHONE NO: | (973)820-8586 | US EPA ID NUMBER: | |

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)

The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| WESTSIDE TRANSLOAD LLC | NORTH BERGEN , NJ | Petroleum Contaminated Soil | |
| WMNY Varick 1 Transfer Station | Brooklyn , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| YANNUZZI & SONS | HILLSBOROUGH , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-941

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

DSM TRUCKING, LLC
53 ROCCO STREET
BELLEVILLE, NJ 07109

**PERMIT TYPE:**

☐ NEW
☐ RENEWAL
■ MODIFICATION

| | | | |
|---|---|---|---|
| CONTACT NAME: | DAVID SANCHEZ-MORALES | EFFECTIVE DATE: | 06/10/2020 |
| COUNTY: | OUT OF STATE | EXPIRATION DATE: | **06/07/2021** |
| TELEPHONE NO: | (973)820-8586 | US EPA ID NUMBER: | |

**AUTHORIZED VEHICLES**:
The Permittee is Authorized to Operate the Following Vehicles to Transport Waste:

(Vehicles enclosed in <>'s are authorized to haul Residential Raw Sewage and/or Septage only)

12 (Twelve) Permitted Vehicle(s)

NJ AS742U
NJ AS861R
NJ AS862R
NJ AS994V
NJ AT532X
NJ AT898W
NJ AU118F
NJ AU342R
NJ AU395G
NJ AU537X
NJ AU824A
NJ AW282C
End of List

# WASTE TRANSPORTER PERMIT

## GENERAL CONDITIONS

The permittee must:

1. Carry a copy of this waste transporter permit in each vehicle to transport waste. Failure to produce a copy of the permit upon request is a violation of the permit.

2. Display the full name of the transporter on both sides of each vehicle and display the waste transporter permit number on both sides and rear of each vehicle containing waste. The displayed name and permit number must be in characters at least three inches high and of a color that contrasts sharply with the background.

3. Transport waste only in authorized vehicles. An authorized vehicle is one that is listed on this permit.

4. Submit to the Department a modification application for additions/deletions to the authorized fleet of vehicles. The permittee must wait for a modified permit before operating the vehicles identified in the modification application.

5. Submit to the Department a modification application to add a new waste category or a new destination facility, or to change the current waste or destination facility category. The permittee must wait for a modified permit before transporting new waste types or transporting to new destination facilities.

6. Submit to the Department a modification application for change of address or company name.

7. Comply with requirements for placarding and packaging as set forth in New York State Transportation Law as well as any applicable federal rules and regulations.

8. Contain all wastes in the vehicle so there is no leaking, blowing, or other discharge of waste.

9. Use vehicles to transport only materials not intended for human or animal consumption unless the vehicle is properly cleaned.

10. Comply with requirements for manifesting hazardous waste, regulated medical waste, or low-level radioactive waste as set forth in the New York State Environmental Conservation Law and the implementing regulations. Transporters who provide a pre-printed manifest to a generator/shipper/ offeror of regulated waste shall ensure that all information is correct and clearly legible on all copies of the manifest.

11. Deliver waste only to transfer, storage.. treatment and disposal facilities authorized to accept such waste. Permittee must demonstrate that facilities are so authorized if requested to do so.

12. Maintain liability insurance as required by New York State Environmental Conservation Law.

13. Maintain records of the amount of each waste type transported to each destination facility on a calendar-year basis. The transporter is obligated to provide a report of this information to the Department at the time of permit renewal, or to any law enforcement officer, if requested to do so.

14. Pay regulatory fees on an annual basis. Non-payment may be cause for revocation or suspension of permit.

15. This permit is not transferrable. A change of ownership will invalidate this permit.

16. This permit does not relieve the permittee from the obligation to obtain any other approvals or permits, or from complying with any other applicable federal, state, or local requirement.

17. Renewal applications must be submitted no less than 30 days prior to the expiration date of the permit to:

New York State Department of Environmental Conservation
Division of Materials Management, Waste Transporter Program
625 Broadway, gth Floor
Albany, NV 12233-7251

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1173

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

## PERMIT ISSUED TO:

HD ADMINISTRATIVE SERVICES LLC
9010 COLUMBIA AVENUE, FLOOR 1
NORTH BERGEN, NJ 07047

CONTACT NAME: GRETTER HERNANDEZ
COUNTY: OUT OF STATE
TELEPHONE NO: (201)679-0110

## PERMIT TYPE:

■ NEW
□ RENEWAL
□ MODIFICATION

EFFECTIVE DATE: 01/08/2020
EXPIRATION DATE: **01/07/2021**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:**
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| 110 Sand Company Clean Fill Disposal Site | Melville , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| ATLANTIC COUNTY UTILITIES AUTHORITY | EGG HARBOR , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BAYSHORE SOIL MANAGEMENT, LLC | KEASBEY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BETHLEHEM EARTH, LP | BETHLEHEM , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BETHLEHEM LANDFILL | BETHLEHEM , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BURLINGTON COUNTY RESOURCE RECOVERY COMPLEX | COLUMBUS , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CAPITOL DEVELOPMENT | E. BANGOR , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH - BETHLEHEM | BETHLEHEM , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF CARTERET | CARTERET , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF MARYLAND | HAGERSTOWN , MD | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

**NOTE:** By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the Environmental Conservation Law, all applicable regulations, and the General Conditions printed on the back of this page.

ADDRESS:

New York State Department of Environmental Conservation
Division of Materials Management - Waste Transporter Program
625 Broadway, 9th Floor
Albany, NY 12233-7251

AUTHORIZED SIGNATURE: _____ Date: 1/6/20

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1173

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

## PERMIT ISSUED TO:

HD ADMINISTRATIVE SERVICES LLC
9010 COLUMBIA AVENUE, FLOOR 1
NORTH BERGEN, NJ 07047

CONTACT NAME: GRETTER HERNANDEZ
COUNTY: OUT OF STATE
TELEPHONE NO: (201)679-0110

## PERMIT TYPE:

■ NEW
□ RENEWAL
□ MODIFICATION

EFFECTIVE DATE: 01/08/2020
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US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| CLEAN EARTH OF NEW CASTLE, INC. | NEW CASTLE , DE | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| CLEAN EARTH OF NORTH JERSEY | KEARNY , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| CLEAN EARTH OF PHILADELPHIA | PHILADELPHIA , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| CLEAN EARTH OF SOUTHEAST PENNSYLVANIA | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| COMMONWEALTH ENVIRONMENTAL SYSTEMS, LP | HEGINS , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| CONESTOGA LANDFILL | MORGANTOWN , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| CYCLE CHEM (NJ) | ELIZABETH , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| DOREMUS AVE SITE PREP & EARTHWORK | NEWARK , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| EARTH EFFICIENT BTL | POCONO SUMMIT , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| Empire Seneca | Waterloo , NY | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| ENVIRONMENTAL & RECYCLING SERVICES, INC. | TAYLOR , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| Evergreen Recycling of Corona (Willets Point Blvd) | Corona , NY | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| FAIRLESS LANDFILL (PA DEP 101699) | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| Framitz Inc | Oceanside , NY | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| FRATTARELLI BROS TOPSOIL OPERATION | CARSTADT , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| FREEMANSBURG RESTORATION FACILITY | FREEMANSBURG , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1173

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

## PERMIT ISSUED TO:

HD ADMINISTRATIVE SERVICES LLC
9010 COLUMBIA AVENUE, FLOOR 1
NORTH BERGEN, NJ 07047

CONTACT NAME: GRETTER HERNANDEZ
COUNTY: OUT OF STATE
TELEPHONE NO: (201)679-0110

## PERMIT TYPE:

■ NEW
□ RENEWAL
□ MODIFICATION

EFFECTIVE DATE: 01/08/2020
EXPIRATION DATE: **01/07/2021**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| GERDAU AMERISTEEL PERTH AMBOY MILL/ANACONDA COOPER SITE | PERTH AMBOY , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| GRAND CENTRAL SANITARY LANDFILL | PEN ARGYL , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| GREENVIEW | STROUDSBURG , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| GROWS LANDFILL (PA DEP 100148) | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| Hakes C&D Disposal Inc | Painted Post , NY | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| HAZLETON CREEK PROPERTIES, LLC | HAZLETON , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| HOFFMAN GRIFFETT MINE RECLAMATION FACILITY | BELVIDERE , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| Hunters Point Recycling Inc | Long Island City , NY | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| IMPACT RECOVERY AND REUSE CENTER | LYNDHURST , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| JERC PARTNERS VII/LLC | EDISON , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| KEEGAN LANDFILL (HMDC) | KEARNEY , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| KEYSTONE SANITARY LANDFILL | DUNMORE , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| KINGSLAND LANDFILL CLOSURE PROJECT | LYNDHURST , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| MALANKA (MALL) LANDFILL | SECAUCUS , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| NATURES CHOICE | KEARNY , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| New York Recycling LLC | Bronx , NY | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1173

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

HD ADMINISTRATIVE SERVICES LLC
9010 COLUMBIA AVENUE, FLOOR 1
NORTH BERGEN, NJ 07047

CONTACT NAME: GRETTER HERNANDEZ
COUNTY: OUT OF STATE
TELEPHONE NO: (201)679-0110

**PERMIT TYPE:**

■ NEW
□ RENEWAL
□ MODIFICATION

EFFECTIVE DATE: 01/08/2020
EXPIRATION DATE: **01/07/2021**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| NJ ZINC FACILITY - PHASE 3 | PALMERTON , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Ontario County Sanitary Landfill | Stanley , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| P PARK NORTH LLC | PROSPECT PARK , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Pebble Lane Associates LLC | Maspeth , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| PURE EARTH (MID ATLANTIC) RECYCLING TECH | VINELAND , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| PURE EARTH RECYCLING | VINELAND , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| PURE SOIL TECHNOLOGIES | JACKSON , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| RODOTA FILL SITE | BELVIDERE , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| SOIL SAFE, INC. | LOGAN TOWNSHIP , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| SOIL SAFE-METRO 12 | CARTERET , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| STRAVOLA BBQ | BOUND BROOK , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| TETERBORO LANDING | TETERBORO , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| TULLYTOWN RESOURCE RECOVERY FACILITY (PA DEP 101494) | TULLYTOWN , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| VALLEY INDUSTRIAL PROPERTIES | EAST BANGOR , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Vanbro Corporation | Staten Island , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| WMNY Varick 1 Transfer Station | Brooklyn , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1173

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

HD ADMINISTRATIVE SERVICES LLC
9010 COLUMBIA AVENUE, FLOOR 1
NORTH BERGEN, NJ 07047

**PERMIT TYPE:**

■ NEW
□ RENEWAL
□ MODIFICATION

| | | | |
|---|---|---|---|
| CONTACT NAME: | GRETTER HERNANDEZ | EFFECTIVE DATE: | 01/08/2020 |
| COUNTY: | OUT OF STATE | EXPIRATION DATE: | **01/07/2021** |
| TELEPHONE NO: | (201)679-0110 | US EPA ID NUMBER: | |

**AUTHORIZED VEHICLES:**
The Permittee is Authorized to Operate the Following Vehicles to Transport Waste:

(Vehicles enclosed in <>'s are authorized to haul Residential Raw Sewage and/or Septage only)

3 (Three) Permitted Vehicle(s)

NJ AU941R
NJ AU942R
NJ AU943R
End of List

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-993

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

## PERMIT ISSUED TO:

JENCAR TRUCKING CORP.
10 ALEXANDER DRIVE
RANDOLPH, NJ 07869

CONTACT NAME: CARLOS ECHEVERRI
COUNTY: OUT OF STATE
TELEPHONE NO: (973)328-3284

## PERMIT TYPE:

☐ NEW
■ RENEWAL
☐ MODIFICATION

EFFECTIVE DATE: 10/28/2020
EXPIRATION DATE: **10/27/2021**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:**

The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| 110 Sand Company Clean Fill Disposal Site | Melville , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| ACUA HANEMAN "FRITZ" ENVIRONMENTAL PARK | EGG HARBOR TOWNSHIP , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BAYSHORE RECYCLING | WOODBRIDGE , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BAYSHORE SOIL MANAGEMENT, LLC | KEASBEY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BETHLEHEM LANDFILL | BETHLEHEM , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BTL BARTELL | POCONO SUMMIT , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CAPITOL DEVELOPMENT | E. BANGOR , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH - BETHLEHEM | BETHLEHEM , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF CARTERET | CARTERET , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF MARYLAND | HAGERSTOWN , MD | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

**NOTE:** By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the Environmental Conservation Law, all applicable regulations, and the General Conditions printed on the back of this page.

ADDRESS:

New York State Department of Environmental Conservation
Division of Materials Management - Waste Transporter Program
625 Broadway, 9th Floor
Albany, NY 12233-7251

AUTHORIZED SIGNATURE: Laura Stevens Digitally signed by Laura Stevens Date: 2020.11.04 09:08:35 -05'00' Date: ____/____/____

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-993

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

JENCAR TRUCKING CORP.
10 ALEXANDER DRIVE
RANDOLPH, NJ 07869

CONTACT NAME: CARLOS ECHEVERRI
COUNTY: OUT OF STATE
TELEPHONE NO: (973)328-3284

**PERMIT TYPE:**

☐ NEW
■ RENEWAL
☐ MODIFICATION

EFFECTIVE DATE: 10/28/2020
EXPIRATION DATE: **10/27/2021**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| CLEAN EARTH OF NEW CASTLE, INC. | NEW CASTLE , DE | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| CLEAN EARTH OF PHILADELPHIA | PHILADELPHIA , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| CLINTON QUARRY LLC | UNION TOWNSHIP , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| COMMONWEALTH ENVIRONMENTAL SYSTEMS, LP | HEGINS , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| CONESTOGA LANDFILL | MORGANTOWN , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| COPLAY AGGREGATES | WHITEHALL , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| CUMBERLAND COUNTY IMPROVEMENT AUTHORITY | MILLVILLE , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| DOREMUS AVENUE REDEVELOPMENT PROJECT | NEWARK , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| ESMI OF NEW JERSEY | KEASBEY , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| FAIRLESS LANDFILL (PA DEP 101699) | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| Faztec Industries | Staten Island , NY | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| Framitz Inc | Oceanside , NY | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| FREEMANSBURG RESTORATION FACILITY | FREEMANSBURG , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| GERDAU AMERISTEEL PERTH AMBOY MILL/ANACONDA COOPER SITE | PERTH AMBOY , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| GRAND CENTRAL SANITARY LANDFILL | PEN ARGYL , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| GREEN ASPHALT CO LLC | LONG ISLAND CITY , NY | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-993

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

JENCAR TRUCKING CORP.
10 ALEXANDER DRIVE
RANDOLPH, NJ 07869

CONTACT NAME: CARLOS ECHEVERRI
COUNTY: OUT OF STATE
TELEPHONE NO: (973)328-3284

**PERMIT TYPE:**

☐ NEW
■ RENEWAL
☐ MODIFICATION

EFFECTIVE DATE: 10/28/2020
EXPIRATION DATE: **10/27/2021**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| GREEN ROCK RECYCLING | CLINTON , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GREENVIEW | STROUDSBURG , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GRIFFIN PIPE PRODUCTION CO. | FLORENCE , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GRINNELL RECYCLING INC | SPARTA , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| HAZLETON CREEK PROPERTIES, LLC | HAZLETON , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| HOFFMAN GRIFFETT MINE RECLAMATION FACILITY | BELVIDERE , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Hunters Point Recycling Inc | Long Island City , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| IMPACT RECOVERY AND REUSE CENTER | LYNDHURST , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| KEEGAN LANDFILL (HMDC) | KEARNEY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| KEYSTONE SANITARY LANDFILL | DUNMORE , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| KINGSLAND LANDFILL CLOSURE PROJECT | LYNDHURST , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| KINGSLEY LANDFILL | SEWELL , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| LIBERTY AGGREGATES | JERSEY CITY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| New York Recycling LLC | Bronx , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| P PARK NORTH LLC | PROSPECT PARK , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Pebble Lane Associates LLC | Maspeth , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-993

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

JENCAR TRUCKING CORP.
10 ALEXANDER DRIVE
RANDOLPH, NJ 07869

CONTACT NAME: CARLOS ECHEVERRI
COUNTY: OUT OF STATE
TELEPHONE NO: (973)328-3284

**PERMIT TYPE:**

☐ NEW
■ RENEWAL
☐ MODIFICATION

EFFECTIVE DATE: 10/28/2020
EXPIRATION DATE: **10/27/2021**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| PHASE III ENVIRONMENTAL | PALMERTON , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| PURE SOIL TECHNOLOGIES | JACKSON , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| RESOURCE MANAGEMENT TECHNOLOGIES | NORTH BERGEN , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| ROCKRETE RECYCLING | ELIZABETH , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| ROCKTECH | JERSEY CITY , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| RODOTA FILL SITE | BELVIDERE , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| SILVA CONSTRUCTION & DEMOLITION | NEWARK , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| SOIL SAFE, INC. | LOGAN TOWNSHIP , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| SOIL SAFE-METRO 12 | CARTERET , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| STERICYCLE - HATFIELD | HATFIELD , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| TILCON - KEARNY RECYCLING | KEARNY , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| TILCON NEW YORK, INC. | WHARTON , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| TOTAL RECYCLING CORPORATION/FULLERTON SLAG BANK | ALLENTOWN , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| TREMLEY POINT FLY ASH DISPOSAL SITE | LINDEN , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| TULLYTOWN RESOURCE RECOVERY FACILITY (PA DEP 101494) | TULLYTOWN , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| Vanbro Corporation | Staten Island , NY | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-993

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

## PERMIT ISSUED TO:

JENCAR TRUCKING CORP.
10 ALEXANDER DRIVE
RANDOLPH, NJ 07869

CONTACT NAME: CARLOS ECHEVERRI
COUNTY: OUT OF STATE
TELEPHONE NO: (973)328-3284

## PERMIT TYPE:

☐ NEW
■ RENEWAL
☐ MODIFICATION

EFFECTIVE DATE: 10/28/2020
EXPIRATION DATE: **10/27/2021**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| WMNY Varick 1 Transfer Station | Brooklyn , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| YANNUZZI & SONS | HILLSBOROUGH , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-993

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

## PERMIT ISSUED TO:

JENCAR TRUCKING CORP.
10 ALEXANDER DRIVE
RANDOLPH, NJ 07869

## PERMIT TYPE:

☐ NEW
■ RENEWAL
☐ MODIFICATION

CONTACT NAME: CARLOS ECHEVERRI
COUNTY: OUT OF STATE
TELEPHONE NO: (973)328-3284

EFFECTIVE DATE: 10/28/2020
EXPIRATION DATE: **10/27/2021**
US EPA ID NUMBER:

**AUTHORIZED VEHICLES**:
The Permittee is Authorized to Operate the Following Vehicles to Transport Waste:

(Vehicles enclosed in <>'s are authorized to haul Residential Raw Sewage and/or Septage only)

24 (Twenty Four) Permitted Vehicle(s)

NJ AP812A
NJ AS241G
NJ AS416T
NJ AS450Y
NJ AS595U
NJ AS702T
NJ AT172H
NJ AT240X
NJ AT296T
NJ AT318P
NJ AT558Y
NJ AT564L
NJ AT683F
NJ AT731Y
NJ AT883D
NJ AT968D
NJ AU313C
NJ AU467C
NJ AU853R
NJ AU854R
NJ AW405J
NJ AW431C
NJ AW432C
NJ AW847H
End of List

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-997

Pursuant to Article 27, Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

J G M TRUCKING, LLC
986 EDWARD RD. STE 7
PARSIPPANY, NJ 07054

**PERMIT TYPE:**

☐ NEW
☐ RENEWAL
▣ MODIFICATION

CONTACT NAME: JONAS G. MIERES
COUNTY: OUT OF STATE
TELEPHONE NO: (973)390-1106

EFFECTIVE DATE: 01/13/2020
EXPIRATION DATE: 11/13/2020
US EPA ID NUMBER:

AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| ATLANTIC COUNTY UTILITIES AUTHORITY | EGG HARBOR , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BAYSHORE RECYCLING | WOODBRIDGE , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BAYSHORE SOIL MANAGEMENT, LLC | KEASBEY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BELLMAWR WATERFRONT DEVELOPMENT | BELLMAWR , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BETHLEHEM LANDFILL | BETHLEHEM , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BURLINGTON COUNTY RESOURCE RECOVERY COMPLEX | COLUMBUS , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CAPITOL DEVELOPMENT | E BANGOR , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF CARTERET | CARTERET , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF MARYLAND | HAGERSTOWN , MD | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF NEW CASTLE, INC. | NEW CASTLE , DE | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NOTE: By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the Environmental Conservation Law, all applicable regulations, and the General Conditions printed on the back of this copy.

ADDRESS:

New York State Department of Environmental Conservation
Division of Materials Management - Waste Transporter Program
625 Broadway, 9th Floor
Albany, NY 12233-7251

AUTHORIZED SIGNATURE: _____ Date: 1/10/2020

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-997

Pursuant to Article 27, Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

J G M TRUCKING, LLC
986 EDWARD RD. STE 7
PARSIPPANY, NJ 07054

**PERMIT TYPE:**

☐ NEW
☐ RENEWAL
▣ MODIFICATION

CONTACT NAME: JONAS G. MIERES
COUNTY: OUT OF STATE
TELEPHONE NO: (973)390-1105

EFFECTIVE DATE: 01/13/2020
EXPIRATION DATE: 11/13/2020
US EPA ID NUMBER:

AUTHORIZED WASTE TYPES BY DESTINATION FACILITY: (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| CLEAN EARTH OF NORTH JERSEY | KEARNY , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| CLEAN EARTH OF PHILADELPHIA | PHILADELPHIA , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| CLEAN EARTH OF SOUTHEAST PENNSYLVANIA | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| CLINTON QUARRY LLC | UNION TOWNSHIP , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| COMMONWEALTH ENVIRONMENTAL SYSTEMS, LP | HEGINS , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| Cycle Chem Inc dba ACV Enviro | New Windsor , NY | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| DOREMUS AVE SITE PREP & EARTHWORK | NEWARK , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| FAIRLESS LANDFILL (PA DEP 101696) | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| Fastec Industries | Staten Island , NY | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| GERDAU AMERISTEEL PERTH AMBOY MILL/ANACONDA COOPER SITE | PERTH AMBOY , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| GRAND CENTRAL SANITARY LANDFILL | PEN ARGYL , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| GREEN ROCK RECYCLING | CLINTON , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| GREENVIEW | STROUDSBURG , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| GRINNELL RECYCLING INC | SPARTA , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| GROWS LANDFILL (PA DEP 100148) | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| HAZLETON CREEK PROPERTIES, LLC | HAZLETON , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-997

Pursuant to Article 27 ,Titles 3 and 19 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

J G M TRUCKING, LLC
986 EDWARD RD. STE 7
PARSIPPANY, NJ 07054

**PERMIT TYPE:**

☐ NEW
☐ RENEWAL
■ MODIFICATION

CONTACT NAME: JONA$ G. MIERES
COUNTY: OUT OF STATE
TELEPHONE NO: (973)390-1106

EFFECTIVE DATE: 01/13/2020
EXPIRATION DATE: 11/13/2020
US EPA ID NUMBER:

AUTHORIZED WASTE TYPES BY DESTINATION FACILITY: (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| HOFFMAN GRIFFETT MINE RECLAMATION FACILITY | BELVIDERE , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| IMPACT RECOVERY AND REUSE CENTER | LYNDHURST , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| JERC PARTNER$ VII/LLC | EDISON , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| KEEGAN LANDFILL (HMDC) | KEARNEY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| KEYSTONE SANITARY LANDFILL | DUNMORE , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| KINGSLAND LANDFILL CLOSURE PROJECT | LYNDHURST , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| KINGSLEY LANDFILL | SEWELL , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| LIBERTY AGGREGATES | JERSEY CITY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| MALANKA (MALL) LANDFILL | SECAUCUS , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| NJ ZINC FACILITY - PHASE 3 | PALMERTON , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Pebble Lane Associates LLC | Maspeth , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| PHASE III ENVIRONMENTAL | PALMERTON , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| PURE EARTH (MID ATLANTIC) RECYCLING TECH | VINELAND , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| PURE EARTH RECYCLING | VINELAND , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| PURE SOIL @ PERTH AMBOY | PERTH AMBOY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| PURE SOIL TECHNOLOGIES | JACKSON , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-997

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

J G M TRUCKING, LLC
986 EDWARD RD. STE 7
PARSIPPANY, NJ 07054

CONTACT NAME: JONAS G. MIERES
COUNTY: OUT OF STATE
TELEPHONE NO: (973)390-1106

**PERMIT TYPE:**

☐ NEW
☐ RENEWAL
■ MODIFICATION

EFFECTIVE DATE: 01/13/2020
EXPIRATION DATE: 11/13/2020
US EPA ID NUMBER:

AUTHORIZED WASTE TYPES BY DESTINATION FACILITY: (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed:

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| RESOURCE MANAGEMENT TECHNOLOGIES | NORTH BERGEN , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| ROCKRETE RECYCLING | ELIZABETH , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| ROCKTECH | JERSEY CITY , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| RODOTA FILL SITE | BELVIDERE , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| SOIL SAFE, INC. | LOGAN TOWNSHIP , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| SOIL SAFE-METRO 12 | CARTERET , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| TETERBORO LANDING | TETERBORO , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| TILCON - KEARNY RECYCLING | KEARNY , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| TILCON - MOUNT HOPE QUARRY | WHARTON , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| TOTAL RECYCLING CORPORATION/FULLERTON SLAG BANK | ALLENTOWN , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| TULLYTOWN RESOURCE RECOVERY FACILITY (PA DEP 101494) | TULLYTOWN , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| VALLEY INDUSTRIAL PROPERTIES | EAST BANGOR , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| WMNY Varick 1 Transfer Station | Brooklyn , NY | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| YANNUZZI & SONS | HILLSBOROUGH , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-997

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

J G M TRUCKING, LLC
986 EDWARD RD. STE 7
PARSIPPANY, NJ 07054

**PERMIT TYPE:**

- ☐ NEW
- ☐ RENEWAL
- ■ MODIFICATION

CONTACT NAME: JONAS G. MIERES
COUNTY: OUT OF STATE
TELEPHONE NO: (973)390-1106

EFFECTIVE DATE: 01/13/2020
EXPIRATION DATE: 11/13/2020
US EPA ID NUMBER:

AUTHORIZED VEHICLES:
The Permittee is Authorized to Operate the Following Vehicles to Transport Waste.

(Vehicles enclosed in <>'s are authorized to haul Residential Raw Sewage and/or Septage only)

14 (Fourteen) Permitted Vehicle(s)

NJ AS878T
NJ AT237X
NJ AT261J
NJ AT341T
NJ AT577Z
NJ AT664L
NJ AT679X
NJ AT720C
NJ AU536E
NJ AU552N
NJ AU656P
NJ AU662S
NJ AU806J
NJ AW690H
End of List

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1067

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

JOEL TRUCKING LLC
719 UNDERCLIFF AVENUE
EDGEWATER, NJ 07020

**PERMIT TYPE:**

☐ NEW
■ RENEWAL
☐ MODIFICATION

CONTACT NAME: ALBERTO CABRERA
COUNTY: OUT OF STATE
TELEPHONE NO: (201)699-6434

EFFECTIVE DATE: 12/21/2019
EXPIRATION DATE: **12/20/2020**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:**
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| AERC RECYCLING SOLUTIONS | ALLENTOWN , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| AERC RECYCLING SOLUTIONS (26TH ST) | ALLENTOWN , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| ATLANTIC COUNTY UTILITIES AUTHORITY | EGG HARBOR , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BETHLEHEM LANDFILL | BETHLEHEM , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BURLINGTON COUNTY RESOURCE RECOVERY COMPLEX | COLUMBUS , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH - BETHLEHEM | BETHLEHEM , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF CARTERET | CARTERET , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF NEW CASTLE, INC. | NEW CASTLE , DE | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF PHILADELPHIA | PHILADELPHIA , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLINTON QUARRY | CLINTON , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

**NOTE:** By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the Environmental Conservation Law, all applicable regulations, and the General Conditions printed on the back of this page.

ADDRESS:

New York State Department of Environmental Conservation
Division of Materials Management - Waste Transporter Program
625 Broadway, 9th Floor
Albany, NY 12233-7251

AUTHORIZED SIGNATURE: _____ Date: 12/20/19



NOTICE
This renewed permit is not valid until the effective date listed on this permit.

# WASTE TRANSPORTER PERMIT

## GENERAL CONDITIONS

**The permittee must:**

1. Carry a copy of this waste transporter permit in each vehicle to transport waste. Failure to produce a copy of the permit upon request is a violation of the permit.

2. Display the full name of the transporter on both sides of each vehicle and display the waste transporter permit number on both sides and rear of each vehicle containing waste. The displayed name and permit number must be in characters at least three inches high and of a color that contrasts sharply with the background.

3. Transport waste only in authorized vehicles. An authorized vehicle is one that is listed on this permit.

4. Submit to the Department a modification application for additions/deletions to the authorized fleet of vehicles. The permittee must wait for a modified permit before operating the vehicles identified in the modification application.

5. Submit to the Department a modification application to add a new waste category or a new destination facility, or to change the current waste or destination facility category. The permittee must wait for a modified permit before transporting new waste types or transporting to new destination facilities.

6. Submit to the Department a modification application for change of address or company name.

7. Comply with requirements for placarding and packaging as set forth in New York State Transportation Law as well as any applicable federal rules and regulations.

8. Contain all wastes in the vehicle so there is no leaking, blowing, or other discharge of waste.

9. Use vehicles to transport only materials not intended for human or animal consumption unless the vehicle is properly cleaned.

10. Comply with requirements for manifesting hazardous waste, regulated medical waste, or low-level radioactive waste as set forth in the New York State Environmental Conservation Law and the implementing regulations. Transporters who provide a pre-printed manifest to a generator/shipper/ offeror of regulated waste shall ensure that all information is correct and clearly legible on all copies of the manifest.

11. Deliver waste only to transfer, storage, treatment and disposal facilities authorized to accept such waste. Permittee must demonstrate that facilities are so authorized if requested to do so.

12. Maintain liability insurance as required by New York State Environmental Conservation Law.

13. Maintain records of the amount of each waste type transported to each destination facility on a calendar-year basis. The transporter is obligated to provide a report of this information to the Department at the time of permit renewal, or to any law enforcement officer, if requested to do so.

14. Pay regulatory fees on an annual basis. Non-payment may be cause for revocation or suspension of permit.

15. This permit is not transferrable. A change of ownership will invalidate this permit.

16. This permit does not relieve the permittee from the obligation to obtain any other approvals or permits, or from complying with any other applicable federal, state, or local requirement.

17. **Renewal applications must be submitted no less than 30 days prior to the expiration date of the permit to:**

**New York State Department of Environmental Conservation**
**Division of Materials Management, Waste Transporter Program**
**625 Broadway, 9th Floor**
**Albany, NY 12233-7251**

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1067

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

JOEL TRUCKING LLC
719 UNDERCLIFF AVENUE
EDGEWATER, NJ 07020

CONTACT NAME: ALBERTO CABRERA
COUNTY: OUT OF STATE
TELEPHONE NO: (201)699-6434

**PERMIT TYPE:**

☐ NEW
■ RENEWAL
☐ MODIFICATION

EFFECTIVE DATE: 12/21/2019
EXPIRATION DATE: **12/20/2020**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| COMMONWEALTH ENVIRONMENTAL SYSTEMS, LP | HEGINS , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| CONESTOGA LANDFILL | MORGANTOWN , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| DOREMUS AVE SITE PREP & EARTHWORK | NEWARK , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| FAIRLESS LANDFILL (PA DEP 101699) | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| Faztec Industries | Staten Island , NY | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| Framitz Inc | Oceanside , NY | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| FREEMANSBURG RESTORATION FACILITY | FREEMANSBURG , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| GERDAU AMERISTEEL PERTH AMBOY MILL/ANACONDA COOPER SITE | PERTH AMBOY , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| GRAND CENTRAL SANITATION | PEN ARGYLE , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| GREEN ROCK RECYCLING | CLINTON , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| GREENVIEW | STROUDSBURG , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| GRIFFIN PIPE PRODUCTION CO. | FLORENCE , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| GRINNELL RECYCLING INC | SPARTA , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| HOFFMAN GRIFFETT MINE RECLAMATION FACILITY | BELVIDERE , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| IMPACT RECOVERY AND REUSE CENTER | LYNDHURST , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| KEEGAN LANDFILL (HMDC) | KEARNEY , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1067

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

JOEL TRUCKING LLC
719 UNDERCLIFF AVENUE
EDGEWATER, NJ 07020

CONTACT NAME: ALBERTO CABRERA
COUNTY: OUT OF STATE
TELEPHONE NO: (201)699-6434

**PERMIT TYPE:**

☐ NEW
■ RENEWAL
☐ MODIFICATION

EFFECTIVE DATE: 12/21/2019
EXPIRATION DATE: 12/20/2020
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| KEYSTONE SANITARY LANDFILL | DUNMORE , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| LIBERTY AGGREGATES | JERSEY CITY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| LINDEN DEVELOPMENT LLC | LINDEN , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| PHASE III ENVIRONMENTAL | PALMERTON , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| RESOURCE MANAGEMENT TECHNOLOGIES | NORTH BERGEN , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| ROCKRETE RECYCLING | ELIZABETH , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| ROCKTECH | JERSEY CITY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| RODOTA FILL SITE | BELVIDERE , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| SILVA CONSTRUCTION & DEMOLITION | NEWARK , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| SOIL SAFE, INC. | LOGAN TOWNSHIP , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| TILCON - KEARNY RECYCLING | KEARNY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| TILCON - MOUNT HOPE QUARRY | WHARTON , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| WMNY Varick 1 Transfer Station | Brooklyn , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| YANNUZZI & SONS | HILLSBOROUGH , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1067

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

JOEL TRUCKING LLC
719 UNDERCLIFF AVENUE
EDGEWATER, NJ 07020

**PERMIT TYPE:**

☐ NEW
■ RENEWAL
☐ MODIFICATION

| | | | |
|---|---|---|---|
| CONTACT NAME: | ALBERTO CABRERA | EFFECTIVE DATE: | 12/21/2019 |
| COUNTY: | OUT OF STATE | EXPIRATION DATE: | **12/20/2020** |
| TELEPHONE NO: | (201)699-6434 | US EPA ID NUMBER: | |

AUTHORIZED VEHICLES:
The Permittee is Authorized to Operate the Following Vehicles to Transport Waste:

(Vehicles enclosed in <>'s are authorized to haul Residential Raw Sewage and/or Septage only)

9 (Nine) Pemiitted Vehicle(s)

NJ AS420W
NJ AS599X
NJ AT631X
NJ AU260R
NJ AU302A
NJ AU714R
NJ AU927B
NJ AW226L
NJ AW614K
End of List

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1064

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

## PERMIT ISSUED TO:

JHONATAN TRUCKING LLC
10 LAWRENCE STREET
BELLEVILLE, NJ 07109

CONTACT NAME: JHONATAN DIAZ
COUNTY: OUT OF STATE
TELEPHONE NO: (201)275-5282

## PERMIT TYPE:

☐ NEW
☐ RENEWAL
■ MODIFICATION

EFFECTIVE DATE: 01/23/2020
EXPIRATION DATE: **11/30/2020**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:**
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| 110 Sand Company Clean Fill Disposal Site | Melville , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| 380 DEVELOPMENT LLC (Various BUDs) | STATEN ISLAND , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| All City Recycling LLC | Bronx , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Allocco Recycling Ltd (Kingslan Ave) | Brooklyn , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| ATLANTIC COUNTY UTILITIES AUTHORITY | EGG HARBOR , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BAYSHORE SOIL MANAGEMENT, LLC | KEASBEY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BETHLEHEM EARTH, LP | BETHLEHEM , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BETHLEHEM LANDFILL | BETHLEHEM , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Bronx City Recycling (1390 Viele Ave) | Bronx , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BTL BARTELL | POCONO SUMMIT , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

**NOTE:** By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the Environmental Conservation Law, all applicable regulations, and the General Conditions printed on the back of this page.

ADDRESS: New York State Department of Environmental Conservation
Division of Materials Management - Waste Transporter Program
625 Broadway, 9th Floor
Albany, NY 12233-7251

AUTHORIZED SIGNATURE: _____ Date: 1/21/2020

# WASTE TRANSPORTER PERMIT

## GENERAL CONDITIONS

The permittee must:

1. Carry a copy of this waste transporter permit in each vehicle to transport waste. Failure to produce a copy of the permit upon request is a violation of the permit.

2. Display the full name of the transporter on both sides of each vehicle and display the waste transporter permit number on both sides and rear of each vehicle containing waste. The displayed name and permit number must be in characters at least three inches high and of a color that contrasts sharply with the background.

3. Transport waste only in authorized vehicles. An authorized vehicle is one that is listed on this permit.

4. Submit to the Department a modification application for additions/deletions to the authorized fleet of vehicles. The permittee must wait for a modified permit before operating the vehicles identified in the modification application.

5. Submit to the Department a modification application to add a new waste category or a new destination facility, or to change the current waste or destination facility category. The permittee must wait for a modified permit before transporting new waste types or transporting to new destination facilities.

6. Submit to the Department a modification application for change of address or company name.

7. Comply with requirements for placarding and packaging as set forth in New York State Transportation Law as well as any applicable federal rules and regulations.

8. Contain all wastes in the vehicle so there is no leaking, blowing, or other discharge of waste.

9. Use vehicles to transport only materials not intended for human or animal consumption unless the vehicle is properly cleaned.

10. Comply with requirements for manifesting hazardous waste, regulated medical waste, or low-level radioactive waste as set forth in the New York State Environmental Conservation Law and the implementing regulations. Transporters who provide a pre-printed manifest to a generator/shipper/offeror of regulated waste shall ensure that all information is correct and clearly legible on all copies of the manifest.

11. Deliver waste only to transfer, storage, treatment and disposal facilities authorized to accept such waste. Permittee must demonstrate that facilities are so authorized if requested to do so.

12. Maintain liability insurance as required by New York State Environmental Conservation Law.

13. Maintain records of the amount of each waste type transported to each destination facility on a calendar-year basis. The transporter is obligated to provide a report of this information to the Department at the time of permit renewal, or to any law enforcement officer, if requested to do so.

14. Pay regulatory fees on an annual basis. Non-payment may be cause for revocation or suspension of permit.

15. This permit is not transferrable. A change of ownership will invalidate this permit.

16. This permit does not relieve the permittee from the obligation to obtain any other approvals or permits, or from complying with any other applicable federal, state, or local requirement.

17. Renewal applications must be submitted no less than 30 days prior to the expiration date of the permit to:

New York State Department of Environmental Conservation
Division of Materials Management, Waste Transporter Program
625 Broadway, gth Floor
Albany, NV 12233-7251

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1064

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

## PERMIT ISSUED TO:

JHONATAN TRUCKING LLC
10 LAWRENCE STREET
BELLEVILLE, NJ 07109

CONTACT NAME: JHONATAN DIAZ
COUNTY: OUT OF STATE
TELEPHONE NO: (201)275-5282

## PERMIT TYPE:

☐ NEW
☐ RENEWAL
■ MODIFICATION

EFFECTIVE DATE: 01/23/2020
EXPIRATION DATE: **11/30/2020**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| CAPITOL DEVELOPMENT | E. BANGOR , PA | Non-Hazardous Industrial/Commercial | |
| Castle Hill Recycling | Bronx , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF CARTERET | CARTERET , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF NEW CASTLE, INC. | NEW CASTLE , DE | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF PHILADELPHIA | PHILADELPHIA , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF SOUTHEAST PENNSYLVANIA | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLINTON QUARRY | CLINTON , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| COMMONWEALTH ENVIRONMENTAL SYSTEMS, LP | HEGINS , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CONESTOGA LANDFILL | MORGANTOWN , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| COPLAY AGGREGATES | WHITEHALL , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CUMBERLAND COUNTY IMPROVEMENT AUTHORITY | MILLVILLE , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CYCLE CHEM (NJ) | ELIZABETH , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| DOREMUS AVE SITE PREP & EARTHWORK | NEWARK , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| ENVIRONMENTAL & RECYCLING SERVICES, INC. | TAYLOR , PA | Non-Hazardous Industrial/Commercial | |
| EVERGREEN RECYCLING OF CORONA | QUEENS , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| EVERGREEN RECYCLING OF CORONA, INC | FLUSHING , NY | Petroleum Contaminated Soil | |
| FAIRLESS LANDFILL (PA DEP 101699) | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Faztec Industries | Staten Island , NY | Non-Hazardous Industrial/Commercial | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1064

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

JHONATAN TRUCKING LLC
10 LAWRENCE STREET
BELLEVILLE, NJ 07109

CONTACT NAME: JHONATAN DIAZ
COUNTY: OUT OF STATE
TELEPHONE NO: (201)275-5282

**PERMIT TYPE:**

☐ NEW
☐ RENEWAL
■ MODIFICATION

EFFECTIVE DATE: 01/23/2020
EXPIRATION DATE: **11/30/2020**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| Faztec Industries | Staten Island , NY | Petroleum Contaminated Soil | |
| Framitz Inc | Oceanside , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| FRATTARELLI BROS TOPSOIL OPERATION | CARSTADT , NJ | Non-Hazardous Industrial/Commercial | |
| FREEMANSBURG RESTORATION FACILITY | FREEMANSBURG , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GERDAU AMERISTEEL PERTH AMBOY MILL/ANACONDA COOPER SITE | PERTH AMBOY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GRAND CENTRAL SANITARY LANDFILL | PEN ARGYL , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GREEN ROCK RECYCLING | CLINTON , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GREENVIEW | STROUDSBURG , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GRINNELL RECYCLING INC | SPARTA , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| HAZLETON CREEK PROPERTIES, LLC | HAZLETON , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| High Acres Western Expansion Landfill | Fairport , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| HOFFMAN GRIFFETT MINE RECLAMATION FACILITY | BELVIDERE , NJ | Non-Hazardous Industrial/Commercial | |
| Hunters Point Recycling Inc | Long Island City , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| IMPACT RECOVERY AND REUSE CENTER | LYNDHURST , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| KEEGAN LANDFILL (HMDC) | KEARNEY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| KEYSTONE SANITARY LANDFILL | DUNMORE , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| KINGSLAND LANDFILL CLOSURE PROJECT | LYNDHURST , NJ | Non-Hazardous Industrial/Commercial | |
| LIBERTY AGGREGATES | JERSEY CITY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1064

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

## PERMIT ISSUED TO:

JHONATAN TRUCKING LLC
10 LAWRENCE STREET
BELLEVILLE, NJ 07109

CONTACT NAME: JHONATAN DIAZ
COUNTY: OUT OF STATE
TELEPHONE NO: (201)275-5282

## PERMIT TYPE:

☐ NEW
☐ RENEWAL
■ MODIFICATION

EFFECTIVE DATE: 01/23/2020
EXPIRATION DATE: **11/30/2020**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| MAX ENVIRONMENTAL TECHNOLOGIES | YUKON , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| NATURES CHOICE | KEARNY , NJ | Non-Hazardous Industrial/Commercial | |
| New York Recycling LLC | Bronx , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| OVERPECK PARK LANDFILL AREA IV | PALISADES PARK , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| P PARK NORTH LLC | PROSPECT PARK , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Pebble Lane Associates LLC | Maspeth , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| RESOURCE MANAGEMENT TECHNOLOGIES | NORTH BERGEN , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| ROCKRETE RECYCLING | ELIZABETH , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| ROCKTECH | JERSEY CITY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| RODOTA FILL SITE | BELVIDERE , NJ | Non-Hazardous Industrial/Commercial | |
| Russo Recycling Company/Whip Realty Corp | Rosedale , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| SILVA CONSTRUCTION & DEMOLITION | NEWARK , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| SOIL SAFE, INC. | SWEDESBORO , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| SOIL SAFE-METRO 12 | CARTERET , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| South Shore Recycling LLC | Staten Island , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| STERICYCLE - HATFIELD | HATFIELD , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| TILCON - KEARNY RECYCLING | KEARNY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1064

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

JHONATAN TRUCKING LLC
10 LAWRENCE STREET
BELLEVILLE, NJ 07109

CONTACT NAME: JHONATAN DIAZ
COUNTY: OUT OF STATE
TELEPHONE NO: (201)275-5282

**PERMIT TYPE:**

☐ NEW
☐ RENEWAL
■ MODIFICATION

EFFECTIVE DATE: 01/23/2020
EXPIRATION DATE: **11/30/2020**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| TILCON NEW YORK, INC. | WHARTON , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| TM Maintenance Inc | Staten Island , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| TULLYTOWN RESOURCE RECOVERY FACILITY (PA DEP 101494) | TULLYTOWN , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| VALLEY INDUSTRIAL PROPERTIES | EAST BANGOR , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Vanbro Corporation | Staten Island , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| WESTSIDE TRANSLOAD LLC | NORTH BERGEN , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| WMNY Varick 1 Transfer Station | Brooklyn , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| YANNUZZI & SONS | HILLSBOROUGH , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1064

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

JHONATAN TRUCKING LLC
10 LAWRENCE STREET
BELLEVILLE, NJ 07109

**PERMIT TYPE:**

☐ NEW
☐ RENEWAL
■ MODIFICATION

| | | | |
|---|---|---|---|
| CONTACT NAME: | JHONATAN DIAZ | EFFECTIVE DATE: | 01/23/2020 |
| COUNTY: | OUT OF STATE | EXPIRATION DATE: | **11/30/2020** |
| TELEPHONE NO: | (201)275-5282 | US EPA ID NUMBER: | |

**AUTHORIZED VEHICLES:**
The Permittee is Authorized to Operate the Following Vehicles to Transport Waste:

(Vehicles enclosed in <>'s are authorized to haul Residential Raw Sewage and/or Septage only)

15 (Fifteen) Permitted Vehicle(s)

NJ AS421Z
NJ AT523M
NJ AT524M
NJ AT827Z
NJ AT912Y
NJ AT992B
NJ AU103P
NJ AU129V
NJ AU357H
NJ AU420D
NJ AU421D
NJ AU575G
NJ AU834X
NJ AW882K
NJ AW883K
End of List

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1024

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

LEANDRO TRANSPORT, LLC
35 FAIRMOUNT TERRACE
WEST ORANGE, NJ 07052

**PERMIT TYPE:**

☐ NEW
■ RENEWAL
☐ MODIFICATION

| | | | |
|---|---|---|---|
| CONTACT NAME: | THOMY ALVARADO | EFFECTIVE DATE: | 05/16/2020 |
| COUNTY: | OUT OF STATE | EXPIRATION DATE: | **05/15/2021** |
| TELEPHONE NO: | (862)368-5789 | US EPA ID NUMBER: | |

**AUTHORIZED VEHICLES**:
The Permittee is Authorized to Operate the Following Vehicles to Transport Waste:

(Vehicles enclosed in <>'s are authorized to haul Residential Raw Sewage and/or Septage only)

1 (One) Permitted Vehicle(s)

NJ AT636U
End of List

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1024

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

LEANDRO TRANSPORT, LLC
35 FAIRMOUNT TERRACE
WEST ORANGE, NJ 07052

CONTACT NAME: THOMY ALVARADO
COUNTY: OUT OF STATE
TELEPHONE NO: (862)368-5789

**PERMIT TYPE:**

☐ NEW
■ RENEWAL
☐ MODIFICATION

EFFECTIVE DATE: 05/16/2020
EXPIRATION DATE: **05/15/2021**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| JERC PARTNERS VII/LLC | EDISON , NJ | Petroleum Contaminated Soil | |
| MALANKA (MALL) LANDFILL | SECAUCUS , NJ | Petroleum Contaminated Soil | |
| SOIL SAFE, INC. | SWEDESBORO , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| SOIL SAFE-METRO 12 | CARTERET , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| TETERBORO LANDING | TETERBORO , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1024

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

LEANDRO TRANSPORT, LLC
35 FAIRMOUNT TERRACE
WEST ORANGE, NJ 07052

CONTACT NAME: THOMY ALVARADO
COUNTY: OUT OF STATE
TELEPHONE NO: (862)368-5789

**PERMIT TYPE:**

☐ NEW
■ RENEWAL
☐ MODIFICATION

EFFECTIVE DATE: 05/16/2020
EXPIRATION DATE: **05/15/2021**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:**

The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| BELLMAWR WATERFRONT DEVELOPMENT | BELLMAWR , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF CARTERET | CARTERET , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF MARYLAND | HAGERSTOWN , MD | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF NEW CASTLE, INC. | NEW CASTLE , DE | Petroleum Contaminated Soil | |
| CLEAN EARTH OF NORTH JERSEY | KEARNY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF PHILADELPHIA | PHILADELPHIA , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF SOUTHEAST PENNSYLVANIA | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| HAZLETON CREEK PROPERTIES, LLC | HAZLETON , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| HENRY HARRIS SLF (ALHERN, INC.) | MULLICA HILL , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| IMPACT ENVIRONMENTAL | PALMERTON , PA | Non-Hazardous Industrial/Commercial | |
| IMPACT RECOVERY AND REUSE CENTER | LYNDHURST , NJ | Non-Hazardous Industrial/Commercial | |
| JERC PARTNERS VII/LLC | EDISON , NJ | Non-Hazardous Industrial/Commercial | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

**NOTE:** By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the Environmental Conservation Law, all applicable regulations, and the General Conditions printed on the back of this page.

ADDRESS:

New York State Department of Environmental Conservation
Division of Materials Management - Waste Transporter Program
625 Broadway, 9th Floor
Albany, NY 12233-7251

AUTHORIZED SIGNATURE: Laura Stevens Digitally signed by Laura Stevens Date: 2020.05.12 11:56:18 -04'00' Date: ____/____/____

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1008

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

PEDRO TEIXEIRA, INC./dba T-MAK SERVICES
36 ALPINE PLACE
KEARNY, NJ 07032

**PERMIT TYPE:**

- ☐ NEW
- ■ RENEWAL
- ☐ MODIFICATION

| | | | |
|---|---|---|---|
| CONTACT NAME: | SANDRA TEIXEIRA | EFFECTIVE DATE: | 01/24/2020 |
| COUNTY: | OUT OF STATE | EXPIRATION DATE: | **01/23/2021** |
| TELEPHONE NO: | (201)988-5226 | US EPA ID NUMBER: | |

**AUTHORIZED VEHICLES:**
The Permittee is Authorized to Operate the Following Vehicles to Transport Waste:

(Vehicles enclosed in <>'s are authorized to haul Residential Raw Sewage and/or Septage only)

6 (Six) Permitted Vehicle(s)

NJ AU222N
NJ AW368B
NJ AW628C
NJ AW629C
NJ AW910J
NJ AW911J
End of List

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1008

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

PEDRO TEIXEIRA, INC./dba T-MAK SERVICES
36 ALPINE PLACE
KEARNY, NJ 07032

**PERMIT TYPE:**

☐ NEW
■ RENEWAL
☐ MODIFICATION

CONTACT NAME: SANDRA TEIXEIRA
COUNTY: OUT OF STATE
TELEPHONE NO: (201)988-5226

EFFECTIVE DATE: 01/24/2020
EXPIRATION DATE: **01/23/2021**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| TILCON - KEARNY RECYCLING | KEARNY , NJ | Petroleum Contaminated Soil | |
| TILCON NEW YORK, INC. | WHARTON , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| TOTAL RECYCLING CORPORATION/FULLERTON SLAG BANK | ALLENTOWN , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| TREMLEY POINT FLY ASH DISPOSAL SITE | LINDEN , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| TULLYTOWN RESOURCE RECOVERY FACILITY (PA DEP 101494) | TULLYTOWN , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| VALLEY INDUSTRIAL PROPERTIES | EAST BANGOR , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Vanbro Corporation | Staten Island , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| WESTSIDE TRANSLOAD LLC | NORTH BERGEN , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| WMNY Varick 1 Transfer Station | Brooklyn , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| YANNUZZI & SONS | HILLSBOROUGH , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1008

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

PEDRO TEIXEIRA, INC./dba T-MAK SERVICES
36 ALPINE PLACE
KEARNY, NJ 07032

**PERMIT TYPE:**

☐ NEW
■ RENEWAL
☐ MODIFICATION

CONTACT NAME: SANDRA TEIXEIRA
COUNTY: OUT OF STATE
TELEPHONE NO: (201)988-5226

EFFECTIVE DATE: 01/24/2020
EXPIRATION DATE: 01/23/2021
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| OVERPECK PARK LANDFILL AREA IV | PALISADES PARK , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| P PARK NORTH LLC | PROSPECT PARK , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Pebble Lane Associates LLC | Maspeth , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| PHASE III ENVIRONMENTAL | PALMERTON , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| PHILLIPSBURG COMMERCE PK URBAN RENEWAL ENTITY | PHILLIPSBURG , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| PURE SOIL TECHNOLOGIES | JACKSON , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| RESOURCE MANAGEMENT TECHNOLOGIES | NORTH BERGEN , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| RIVER TERMINAL DEVELOPMENT & WAREHOUSING CO. | SOUTH KEARNY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| ROCKRETE RECYCLING | ELIZABETH , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| ROCKTECH | JERSEY CITY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| RODOTA FILL SITE | BELVIDERE , NJ | Non-Hazardous Industrial/Commercial | |
| SILVA CONSTRUCTION & DEMOLITION | NEWARK , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| SOIL SAFE, INC. | LOGAN TOWNSHIP , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| SOIL SAFE-METRO 12 | CARTERET , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| STERICYCLE - HATFIELD | HATFIELD , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| TETERBORO LANDING | TETERBORO , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| TILCON - KEARNY RECYCLING | KEARNY , NJ | Non-Hazardous Industrial/Commercial | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1008

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

PEDRO TEIXEIRA, INC./dba T-MAK SERVICES
36 ALPINE PLACE
KEARNY, NJ 07032

**PERMIT TYPE:**

☐ NEW
■ RENEWAL
☐ MODIFICATION

CONTACT NAME: SANDRA TEIXEIRA
COUNTY: OUT OF STATE
TELEPHONE NO: (201)988-5226

EFFECTIVE DATE: 01/24/2020
EXPIRATION DATE: **01/23/2021**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| GREEN ROCK RECYCLING | CLINTON , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GREENVIEW | STROUDSBURG , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GRIFFIN PIPE PRODUCTION CO. | FLORENCE , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GRINNELL RECYCLING INC | SPARTA , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| HAZLETON CREEK PROPERTIES, LLC | HAZLETON , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| HENRY HARRIS SLF (ALHERN, INC.) | MULLICA HILL , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| HOFFMAN GRIFFETT MINE RECLAMATION FACILITY | BELVIDERE , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Hunters Point Recycling Inc | Long Island City , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| IMPACT RECOVERY AND REUSE CENTER | LYNDHURST , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| JERC PARTNERS VII/LLC | EDISON , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| KEEGAN LANDFILL (HMDC) | KEARNEY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| KEYSTONE SANITARY LANDFILL | DUNMORE , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| KINGSLEY LANDFILL | SEWELL , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| LIBERTY AGGREGATES | JERSEY CITY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| MALANKA (MALL) LANDFILL | SECAUCUS , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| New York Recycling LLC | Bronx , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1008

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

PEDRO TEIXEIRA, INC./dba T-MAK SERVICES
36 ALPINE PLACE
KEARNY, NJ 07032

**PERMIT TYPE:**

☐ NEW
■ RENEWAL
☐ MODIFICATION

CONTACT NAME: SANDRA TEIXEIRA
COUNTY: OUT OF STATE
TELEPHONE NO: (201)988-5226

EFFECTIVE DATE: 01/24/2020
EXPIRATION DATE: **01/23/2021**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| CLEAN EARTH OF PHILADELPHIA | PHILADELPHIA , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF SOUTHEAST PENNSYLVANIA | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLINTON QUARRY | CLINTON , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| COMMONWEALTH ENVIRONMENTAL SYSTEMS, LP | HEGINS , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CONESTOGA LANDFILL | MORGANTOWN , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| COPLAY AGGREGATES | WHITEHALL , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CUMBERLAND COUNTY IMPROVEMENT AUTHORITY | MILLVILLE , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| DOREMUS AVE SITE PREP & EARTHWORK | NEWARK , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| ENCAP PHASE I REDEVELOPMENT PROJECT | LYNDHURST , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| FAIRLESS LANDFILL (PA DEP 101699) | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Faztec Industries | Staten Island , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Framitz Inc | Oceanside , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| FREEMANSBURG RESTORATION FACILITY | FREEMANSBURG , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GERDAU AMERISTEEL PERTH AMBOY MILL/ANACONDA COOPER SITE | PERTH AMBOY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GLOUCESTER COUNTY IMPROVEMENT AUTHORITY | SWEDESBORO , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GRAND CENTRAL SANITARY LANDFILL | PEN ARGYL , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1008

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

PEDRO TEIXEIRA, INC./dba T-MAK SERVICES
36 ALPINE PLACE
KEARNY, NJ 07032

CONTACT NAME: SANDRA TEIXEIRA
COUNTY: OUT OF STATE
TELEPHONE NO: (201)988-5226

**PERMIT TYPE:**

☐ NEW
■ RENEWAL
☐ MODIFICATION

EFFECTIVE DATE: 01/24/2020
EXPIRATION DATE: **01/23/2021**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:**
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| 110 Sand Company Clean Fill Disposal Site | Melville , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| ATLANTIC COUNTY UTILITIES AUTHORITY | EGG HARBOR , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BAYSHORE SOIL MANAGEMENT, LLC | KEASBEY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BELLMAWR WATERFRONT DEVELOPMENT | BELLMAWR , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BETHLEHEM EARTH, LP | BETHLEHEM , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BETHLEHEM LANDFILL | BETHLEHEM , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| BTL BARTELL | POCONO SUMMIT , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF CARTERET | CARTERET , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF NEW CASTLE, INC. | NEW CASTLE , DE | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF NORTH JERSEY | KEARNY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

**NOTE:** By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the Environmental Conservation Law, all applicable regulations, and the General Conditions printed on the back of this page.

ADDRESS:

New York State Department of Environmental Conservation
Division of Materials Management - Waste Transporter Program
625 Broadway, 9th Floor
Albany, NY 12233-7251

AUTHORIZED SIGNATURE: _____ Date: 12/9/19

NOTICE
This permit is not valid until the effective date listed on the permit

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1090

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

## PERMIT ISSUED TO:

SVA TRUCKING LLC
2 CORNELL STREET
WHARTON, NJ 07885

CONTACT NAME: SERGIO RENDON-BEDOYA
COUNTY: OUT OF STATE
TELEPHONE NO: (973)632-8181

## PERMIT TYPE:

☐ NEW
■ RENEWAL
☐ MODIFICATION

EFFECTIVE DATE: 06/20/2020
EXPIRATION DATE: **06/19/2021**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:**

The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| ATLANTIC COUNTY UTILITIES AUTHORITY | EGG HARBOR , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| BETHLEHEM LANDFILL | BETHLEHEM , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| BURLINGTON COUNTY RESOURCE RECOVERY COMPLEX | COLUMBUS , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| CLEAN EARTH OF CARTERET | CARTERET , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| CLEAN EARTH OF MARYLAND | HAGERSTOWN , MD | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| CLEAN EARTH OF NORTH JERSEY | KEARNY , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| CLEAN EARTH OF PHILADELPHIA | PHILADELPHIA , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| CLEAN EARTH OF SOUTHEAST PENNSYLVANIA | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| CLINTON QUARRY | CLINTON , NJ | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |
| COMMONWEALTH ENVIRONMENTAL SYSTEMS, LP | HEGINS , PA | Non-Hazardous Industrial/Commercial Petroleum Contaminated Soil | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

**NOTE:** By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the Environmental Conservation Law, all applicable regulations, and the General Conditions printed on the back of this page.

ADDRESS:

New York State Department of Environmental Conservation
Division of Materials Management - Waste Transporter Program
625 Broadway, 9th Floor
Albany, NY 12233-7251

AUTHORIZED SIGNATURE: Laura Stevens Digitally signed by Laura Stevens Date: 2020.05.28 13:05:42 -04'00' Date:

# WASTE TRANSPORTER PERMIT

# GENERAL CONDITIONS

**The permittee must:**

1. Carry a copy of this waste transporter permit in each vehicle used to transport waste. Failure to produce a copy of the permit upon request is a violation of the permit.

2. Display the full name of the transporter on both sides of each vehicle and display the waste transporter permit number on both sides and rear of each vehicle containing waste. The displayed name and permit number must be in characters at least three inches high and of a color that contrasts sharply with the background.

3. Transport waste only in authorized vehicles. An authorized vehicle is one that is listed on this permit.

4. Submit to the Department a modification application for additions/deletions to the authorized fleet of vehicles. The permittee must wait for a modified permit before operating the vehicles identified in the modification application.

5. Submit to the Department a modification application to add a new waste category or a new destination facility, or to change the current waste or destination facility category. The permittee must wait for a modified permit before transporting new waste types or transporting to new destination facilities.

6. Submit to the Department a modification application for any change to the permit.

7. Comply with requirements for placarding and packaging as set forth in New York State Transportation Law as well as any applicable federal rules and regulations.

8. Contain all wastes in the vehicle so there is no leaking, blowing, or other discharge of waste.

9. Use vehicles to transport only materials not intended for human or animal consumption unless the vehicle is properly cleaned.

10. Comply with requirements for manifesting hazardous waste, regulated medical waste, or low-level radioactive waste as set forth in the New York State Environmental Conservation Law and the implementing regulations. Transporters who provide a pre-printed manifest to a generator/shipper/ offeror of regulated waste shall ensure that all information is correct and clearly legible on all copies of the manifest.

11. Deliver waste only to transfer, storage, treatment and disposal facilities authorized to accept such waste. Permittee must demonstrate that facilities are so authorized if requested to do so.

12. Maintain liability insurance as required by New York State Environmental Conservation Law.

13. Maintain records of the amount of each waste type transported to each destination facility on a calendar-year basis. The transporter is obligated to provide a report of this information to the Department by March 1 of each year.

14. Pay regulatory fees on an annual basis. Non-payment may be cause for revocation or suspension of permit.

15. This permit is not transferrable. A change of ownership will invalidate this permit.

16. This permit does not relieve the permittee from the obligation to obtain any other approvals or permits, or from complying with any other applicable federal, state, or local requirement.

17. Renewal applications must be submitted no less than 30 days prior to the expiration date of the permit to:

**New York State Department of Environmental Conservation**
**Division of Materials Management, Waste Transporter Program**
**625 Broadway, 9th Floor**
**Albany, NY 12233-7251**

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1090

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

## PERMIT ISSUED TO:

SVA TRUCKING LLC
2 CORNELL STREET
WHARTON, NJ 07885

CONTACT NAME: SERGIO RENDON-BEDOYA
COUNTY: OUT OF STATE
TELEPHONE NO: (973)632-8181

## PERMIT TYPE:

☐ NEW
■ RENEWAL
☐ MODIFICATION

EFFECTIVE DATE: 06/20/2020
EXPIRATION DATE: **06/19/2021**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| COPLAY AGGREGATES | WHITEHALL , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Cycle Chem Inc dba ACV Enviro | New Windsor , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| DOREMUS AVE SITE PREP & EARTHWORK | NEWARK , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| ELM STREET DISTRIBUTION CENTER | PERTH AMBOY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| ESMI OF NEW JERSEY | KEASBEY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| FAIRLESS LANDFILL (PA DEP 101699) | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Faztec Industries | Staten Island , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GERDAU AMERISTEEL PERTH AMBOY MILL/ANACONDA COOPER SITE | PERTH AMBOY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GRAND CENTRAL SANITARY LANDFILL | PEN ARGYL , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GREEN ROCK RECYCLING | CLINTON , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GRINNELL RECYCLING INC | SPARTA , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GROWS LANDFILL NORTH (PA DEP 101680) | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| HAZLETON CREEK PROPERTIES, LLC | HAZLETON , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| HENRY HARRIS SLF (ALHERN, INC.) | MULLICA HILL , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| HOFFMAN GRIFFETT MINE RECLAMATION FACILITY | BELVIDERE , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| IMPACT RECOVERY AND REUSE CENTER | LYNDHURST , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1090

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

## PERMIT ISSUED TO:

SVA TRUCKING LLC
2 CORNELL STREET
WHARTON, NJ 07885

CONTACT NAME: SERGIO RENDON-BEDOYA
COUNTY: OUT OF STATE
TELEPHONE NO: (973)632-8181

## PERMIT TYPE:

☐ NEW
■ RENEWAL
☐ MODIFICATION

EFFECTIVE DATE: 06/20/2020
EXPIRATION DATE: **06/19/2021**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| JERC PARTNERS VII/LLC | EDISON , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| KEEGAN LANDFILL (HMDC) | KEARNEY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| KEYSTONE SANITARY LANDFILL | DUNMORE , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| KINGSLAND LANDFILL CLOSURE PROJECT | LYNDHURST , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| LIBERTY AGGREGATES | JERSEY CITY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| MALANKA (MALL) LANDFILL | SECAUCUS , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| Organic Recycling Inc | Tappan , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| PATRIOT RECYCLING (DO NOT USE - USE FRAMITZ FACILITY) | OCEANSIDE , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| PHASE III ENVIRONMENTAL | PALMERTON , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| PURE EARTH (MID ATLANTIC) RECYCLING TECH | VINELAND , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| PURE EARTH RECYCLING | VINELAND , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| PURE SOIL TECHNOLOGIES | JACKSON , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| RESOURCE MANAGEMENT TECHNOLOGIES | NORTH BERGEN , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| ROCKRETE RECYCLING | ELIZABETH , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| ROCKTECH | JERSEY CITY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| RODOTA FILL SITE | BELVIDERE , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1090

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

SVA TRUCKING LLC
2 CORNELL STREET
WHARTON, NJ 07885

**PERMIT TYPE:**

☐ NEW
■ RENEWAL
☐ MODIFICATION

| | | | |
|---|---|---|---|
| CONTACT NAME: | SERGIO RENDON-BEDOYA | EFFECTIVE DATE: | 06/20/2020 |
| COUNTY: | OUT OF STATE | EXPIRATION DATE: | **06/19/2021** |
| TELEPHONE NO: | (973)632-8181 | US EPA ID NUMBER: | |

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| SILVA CONSTRUCTION & DEMOLITION | NEWARK , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| SOIL SAFE, INC. | LOGAN TOWNSHIP , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| TETERBORO LANDING | TETERBORO , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| TILCON - KEARNY RECYCLING | KEARNY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| TILCON - MOUNT HOPE QUARRY | WHARTON , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| TOTAL RECYCLING CORPORATION/FULLERTON SLAG BANK | ALLENTOWN , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| TULLYTOWN LANDFILL (WASTE MANAGEMENT) | TULLYTOWN BURROUGH , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| WALTER R. EARLE RECYCLING CORP. | JACKSON , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| WMNY Varick 1 Transfer Station | Brooklyn , NY | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| YANNUZZI & SONS | HILLSBOROUGH , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-1090

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

## PERMIT ISSUED TO:

SVA TRUCKING LLC
2 CORNELL STREET
WHARTON, NJ 07885

## PERMIT TYPE:

☐ NEW
■ RENEWAL
☐ MODIFICATION

| | | | |
|---|---|---|---|
| CONTACT NAME: | SERGIO RENDON-BEDOYA | EFFECTIVE DATE: | 06/20/2020 |
| COUNTY: | OUT OF STATE | EXPIRATION DATE: | **06/19/2021** |
| TELEPHONE NO: | (973)632-8181 | US EPA ID NUMBER: | |

**AUTHORIZED VEHICLES**:
The Permittee is Authorized to Operate the Following Vehicles to Transport Waste:

(Vehicles enclosed in <>'s are authorized to haul Residential Raw Sewage and/or Septage only)

17 (Seventeen) Permitted Vehicle(s)

NJ AT808W
NJ AT809W
NJ AU331W
NJ AU384C
NJ AU411Y
NJ AU551N
NJ AU555T
NJ AU662Z
NJ AU740U
NJ AU949Z
NJ AW106M
NJ AW107M
NJ AW325B
NJ AW326B
NJ AW819K
NJ AW956L
NJ AW957L
End of List

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-846

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

ZELIA TRUCKING, INC.
175 JORDAN ROAD
COLONIA, NJ 07067

CONTACT NAME: ZELIA JORGE
COUNTY: OUT OF STATE
TELEPHONE NO: (732)501-0522

**PERMIT TYPE:**

☐ NEW
■ RENEWAL
☐ MODIFICATION

EFFECTIVE DATE: 03/04/2020
EXPIRATION DATE: **03/03/2021**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:**
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| ATLANTIC COUNTY UTILITIES AUTHORITY | EGG HARBOR , NJ | Petroleum Contaminated Soil | |
| BAYSHORE SOIL MANAGEMENT, LLC | KEASBEY , NJ | Petroleum Contaminated Soil | |
| BETHLEHEM EARTH, LP | BETHLEHEM , PA | Non-Hazardous Industrial/Commercial | |
| CLEAN EARTH OF CARTERET | CARTERET , NJ | Petroleum Contaminated Soil | |
| CLEAN EARTH OF NORTH JERSEY | KEARNY , NJ | Petroleum Contaminated Soil | |
| CLEAN EARTH OF PHILADELPHIA | PHILADELPHIA , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| CLEAN EARTH OF SOUTHEAST PENNSYLVANIA | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial | |
| DOREMUS AVENUE REDEVELOPMENT PROJECT | NEWARK , NJ | Non-Hazardous Industrial/Commercial | |
| FAIRLESS LANDFILL (PA DEP 101699) | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| FREEMANSBURG RESTORATION FACILITY | FREEMANSBURG , PA | Non-Hazardous Industrial/Commercial | |
| GERDAU AMERISTEEL PERTH AMBOY MILL/ANACONDA COOPER SITE | PERTH AMBOY , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| GRIFFIN PIPE PRODUCTION CO. | FLORENCE , NJ | Non-Hazardous Industrial/Commercial | |
| GROWS LANDFILL NORTH (PA DEP 101680) | MORRISVILLE , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| HAZLETON CREEK PROPERTIES, LLC | HAZLETON , PA | Non-Hazardous Industrial/Commercial | |
| IMPACT RECOVERY AND REUSE CENTER | LYNDHURST , NJ | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |

*** AUTHORIZED WASTE TYPES BY DESTINATION FACILITY LISTING (continued on next page) ***

**NOTE:** By acceptance of this permit, the permittee agrees that the permit is contingent upon strict compliance with the Environmental Conservation Law, all applicable regulations, and the General Conditions printed on the back of this page.

ADDRESS:

New York State Department of Environmental Conservation
Division of Materials Management - Waste Transporter Program
625 Broadway, 9th Floor
Albany, NY 12233-7251

AUTHORIZED SIGNATURE: _____ Date: 2/6/2020



NOTICE

This renewed permit is not valid until the effective date listed on the permit.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-846

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

ZELIA TRUCKING, INC.
175 JORDAN ROAD
COLONIA, NJ 07067

CONTACT NAME: ZELIA JORGE
COUNTY: OUT OF STATE
TELEPHONE NO: (732)501-0522

**PERMIT TYPE:**

- ☐ NEW
- ■ RENEWAL
- ☐ MODIFICATION

EFFECTIVE DATE: 03/04/2020
EXPIRATION DATE: **03/03/2021**
US EPA ID NUMBER:

**AUTHORIZED WASTE TYPES BY DESTINATION FACILITY:** (Continued)
The Permittee is Authorized to Transport the Following Waste Type(s) to the Destination Facility listed :

| Destination Facility | Location | Waste Type(s) | Note |
|---|---|---|---|
| KINGSLEY LANDFILL | SEWELL , NJ | Non-Hazardous Industrial/Commercial | |
| MALANKA (MALL) LANDFILL | SECAUCUS , NJ | Petroleum Contaminated Soil | |
| MIDDLESEX COUNTY UTILITIES AUTHORITY-EDGEBORO LANDFILL | EAST BRUNSWICK , NJ | Petroleum Contaminated Soil | |
| MIDDLESEX LOGISTIC CENTER | EDISON , NJ | Petroleum Contaminated Soil | |
| PHASE III ENVIRONMENTAL | PALMERTON , PA | Petroleum Contaminated Soil | |
| PURE SOIL @ PERTH AMBOY | PERTH AMBOY , NJ | Non-Hazardous Industrial/Commercial | |
| PURE SOIL TECHNOLOGIES | JACKSON , NJ | Non-Hazardous Industrial/Commercial | |
| RIVER TERMINAL DEVELOPMENT & WAREHOUSING CO. | SOUTH KEARNY , NJ | Non-Hazardous Industrial/Commercial | |
| SOIL SAFE, INC. | LOGAN TOWNSHIP , NJ | Petroleum Contaminated Soil | |
| SOIL SAFE-METRO 12 | CARTERET , NJ | Petroleum Contaminated Soil | |
| TOTAL RECYCLING CORPORATION/FULLERTON SLAG BANK | ALLENTOWN , PA | Petroleum Contaminated Soil | |
| TULLYTOWN RESOURCE RECOVERY FACILITY (PA DEP 101494) | TULLYTOWN , PA | Non-Hazardous Industrial/Commercial<br>Petroleum Contaminated Soil | |
| WESTSIDE TRANSLOAD LLC | NORTH BERGEN , NJ | Petroleum Contaminated Soil | |

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF MATERIALS MANAGEMENT

# PART 364
# WASTE TRANSPORTER PERMIT NO. NJ-846

Pursuant to Article 27 ,Titles 3 and 15 of the Environmental Conservation Law and 6 NYCRR 364

**PERMIT ISSUED TO:**

ZELIA TRUCKING, INC.
175 JORDAN ROAD
COLONIA, NJ 07067

**PERMIT TYPE:**

☐ NEW
■ RENEWAL
☐ MODIFICATION

CONTACT NAME: ZELIA JORGE
COUNTY: OUT OF STATE
TELEPHONE NO: (732)501-0522

EFFECTIVE DATE: 03/04/2020
EXPIRATION DATE: **03/03/2021**
US EPA ID NUMBER:

**AUTHORIZED VEHICLES:**
The Permittee is Authorized to Operate the Following Vehicles to Transport Waste:
(Vehicles enclosed in <>'s are authorized to haul Residential Raw Sewage and/or Septage only)

7 (Seven) Permitted Vehicle(s)

NJ AU362Y
NJ AU363Y
NJ AU364Y
NJ AU365Y
NJ AU568C
NJ AU569C
NJ AW111D
End of List

BAYSHORE
Soil Management, LLC
**75 Crows Mill Road, P.O. Box 290**
**Keasbey, New Jersey 08832**
**Phone: (732) 738-6000 • Fax: (732) 738-9150**
www.bayshorerecycling.com

November 19, 2020

Mr. Moshe Monheit
Rock Brokerage
170 Lee Avenue
Brooklyn NY, 11211

**RE: 310 Grand Concourse Project**
**310 Grand Concourse**
**Bronx, NY 10451**

Dear Mr. Monheit:

Bayshore Soil Management, LLC (BSM) has reviewed the provided analytical results for soils/fill materials being generated at the 310 Grand Concourse Project in Bronx, NY. In review of Alpha Analytical Laboratories reports: L2040645 and L2040350, with September 2020 waste characterization results for grids: A (0-5 ft.), B (0-5 ft., acceptable balance), C (0-5 ft., acceptable balance), D (0-5 ft., acceptable balance), E (0-4 ft.), E (4-7 ft.), and F(0-5 ft., acceptable balance), BSM has identified soils that appear to meet our acceptance criteria for Petroleum Contaminated Soils/Urban Fill. Approval excludes TCLP-Lead Hazardous materials identified in the September 2020 waste class sampling grids: B (0-5 ft), C (0-5 ft.), D (0-5 ft.), F (0-5 ft.); February 2020 waste class sampling grids: C (0-5 ft.) and H (0-5 ft.), and subsequent failed delineation samples: LD-B7 (0-2'), LD-B7 (2-5'), LD-B6 (0-2'), LD-B6 (2-5'), and LD-B6-A (2-5'). Assessment of materials represented by 9/20 WC samples: WC-A (5-10), WC-B (5-10), WC-F (5-10), WC-F (10-15), WC-F (15-20), WC-C (5-10), WC-D (5-10) (and correlated 2/20 WC grids: A (5-10 ft.), B (5-10 ft.), C (5-10 ft.), D (5-10 ft.), E (5-10 ft.), F (5-10 ft.), G (5-10 ft.), and H (5-10 ft.)), will be contingent upon BSM receipt of acceptable results for vertical delineation of Total and TCLP-Lead, at the depth of at least 5.5 ft. bgs. Please refer to the attached map showing acceptable areas in the 0-5 ft. depth interval in green (with the exception of Grid E, acceptable in 0-7 ft. interval), and unacceptable portion shown in blue. The review was based on the submitted generator waste profile, analytical testing results stemming from site remedial investigation work, site information, and the following documents:

- Remedial Investigation Report for 310 Grand Concourse Project in Bronx, NY, prepared by EBC, dated February, 2019
- Limited Phase II Subsurface Investigation Report for 276, 310 and 334 Grand Concourse, Bronx, NY, prepared by EBC, dated July 19, 2018
- Phase I Environmental Site Assessment Report for Report for 276, 310 and 334 Grand Concourse, Bronx, NY, prepared by EBC, dated January 16, 2018
- Preliminary Geotechnical Report for 310 Grand Concourse Project in Bronx, NY, prepared by Structural Engineering Technologies, P.C., dated January 25, 2019
- Remedial Action Work Plan for 310-336 Grand Concourse in Bronx, NY, prepared by AMC Engineering, PLLC, dated August 2019
- Supplemental analyses for petroleum-based contamination provided in Alpha Analytical Reports: L2040044,
- Total and TCLP-Lead delineation data provided in Alpha Analytical reports: L2049765, L2045640, L2048416, L2049405
- Supplemental waste characterization sampling results provided in Phoenix reports: GCF26114, GCF26118, GCF26126, GCF26130, GCF26122, and GCF26110

BAYSHORE
Soil Management, LLC
75 Crows Mill Road, P.O. Box 290
Keasbey, New Jersey 08832
Phone: (732) 738-6000 • Fax: (732) 738-9150
www.bayshorerecycling.com

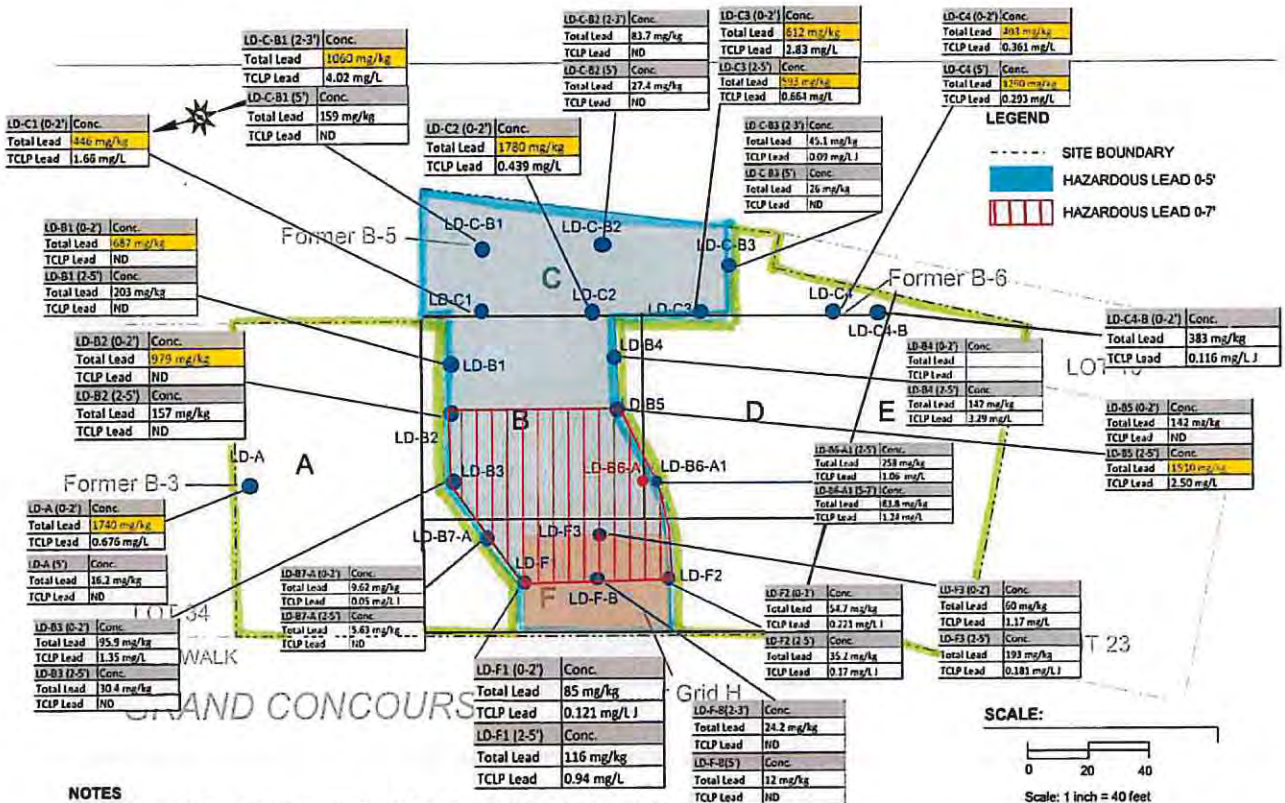
Bayshore Soil Management, LLC can only accept non-hazardous contaminated soil. Based on our review of the soil chemistry data, the material is acceptable under the guidelines of our operating permits, with the above-noted exceptions and conditions.

The project has been approved for up to 5,700 tons under **BSM#2720-1282,** pending BSM collection of 1 Paint Filter Test. Approval tonnage may be increased, pending BSM receipt of the aforementioned delineation results. Should you have any questions or require further information, feel free to contact me at 732.738.6000.

Kind Regards,

Iryna Shybysta
Compliance Manager

LG/JA
Attachment




**NOTES**

**Note 1: Lateral delineation pending results of LD-B6-A and LD-B7-A from 0-2' and 2-5'**

**Note 2: Vertical delineation pending results of LD-B6 and LD-B7 from 5-7'**

**Note 3: Total Lead results compared to NYSDEC Part 375 Restricted Residential Soil Cleanup Objectives (400 mg/kg)**

**Not5 4: TCLP Lead results compared to EPA 40CFR Part 261 Toxicity Characteristics Regulatory Levels Criteria (5.0 mg/L)**

**Note 5: Blue soil boring locations did not identify hazardous levels of lead based on EPA 40CFR Part 261 Toxicity Characteristics Regulatory Levels Criteria**

**Note 6: Red soil boring locations found hazardous levels of lead based on EPA 40CFR Part 261 Toxicity Characteristics Regulatory Levels Criteria**

310-338 GRAND CONCOURSE, BRONX, NY

HAZARDOUS LEAD DELINEATION MAP

AUGUST 2020

FIGURE 1

CleanEarth

11/30/2020

Moshe Monheit
Rock Brokerage
P.O. Box 110995
Brooklyn, NY 11211

**RE: Profile Approval – 310 Grand Concourse LLC**
**310 Grand Concourse, Bronx, NY 10451**

Based on a review of the information and analytical data provided we have determined that Clean Earth Environmental Solutions, Inc. – Republic Environmental Systems, (PA) LLC (permit #PAD085690592) has the capability, capacity, and possesses the necessary insurance and permits to dispose of this waste material in accordance with all federal, state, and local regulations.

TSDF Destination Facility – Clean Earth Environmental Solutions, Inc. (Republic Environmental Systems, (PA) LLC) 2869 Sandstone Drive, Hatfield, PA 19440

This Material will be accepted throughout the life of the above project for a total of 3000 Tons under approval number 1702021-00 at Clean Earth's Hatfield TSDF, EPA ID 085690592 (operating permit under Republic Environmental Systems (PA), LLC.

**Generating address**: 310 Grand Concourse, Bronx, NY 10451

3000 Tons: Soil Containing Lead (D008), Approval # 1702021-00.

If you require any additional information, please do not hesitate to call me at (973) 452-6770.

Sincerely,

Matt Feo

Matt Feo
Account Manager
Clean Earth Environmental Solutions, Inc.

**IMPACT ENVIRONMENTAL**
170 Keyland Court| Bohemia| NY | 11716 | 631.269.8800
welcome to solid ground… *www.impactenvironmental.com*

March 16, 2021

Moshe Monheit
**Rock Brokerage**
126 Nostrand Ave, Brooklyn, NY

RE: IMP#14883-01-01-1001
310 Grand Concourse, Bronx, NY

Mr. Monheit:

Impact Environmental Consulting, Inc. has reviewed the analytical data and site background information associated with fill materials from the above referenced donor source location ("site"). The information was reviewed to determine if the fill material meets the physical and chemical requirements of Impact Reuse & Recovery Center ("IRRC") located at 1000 Page Avenue, Lyndhurst, NJ (the "facility") in compliance with the facility permit (NJDEP CBG110003). The review included an evaluation of the following documents:

- Remedial Investigation Report dated February 2019, (Environmental Business Consultants);
- Laboratory Reports dated 2/7/20, 2/10/20, & 2/11/20 (Phoenix Environmental Laboratories, Inc.);
- Analytical Reports dated 9/30/20, 10/1/20, 10/2/20, 10/28/20, 11/4/20 & 11/11/20, & 3/16/21 (Alpha Analytical);

The analytical data subject to the investigations/reports were reviewed and compared with the facility permit requirements and soil represented by the following sample IDs are found acceptable for disposal at our permitted facility pending 5' end point samples in proposed grids:

**See attached Sample Disposal Matrix & Maps**

The volume represented by this approval is approximately 1,000 cubic yards. Receipt of all materials is subject to an inspection at the facility. The following non-analytical factors will apply:

| EXCLUDED MEDIA | TREATED & UNTREATED WOOD LIMITATION | SLAG/ASH/CINDER LIMITATION | MOISTURE CONTENT LIMITATION | PHOTO-IONIZATION DETECTOR LIMIT (PPM) | MATERIAL SIZE LIMIT |
|---|---|---|---|---|---|
| MSW, Wood, Vegetation, slag/ash/cinder, asphalt, Petroleum Impacted Material | 0% | 0% | No Free-Standing Liquid | 0 | 12" |

The facility operates between 7:00 AM to 5:00 PM Monday through Friday and 7:00 AM to 3:00 PM on Saturday. Materials will be accepted and managed in accordance with our permit. Currently, the facility is operated in compliance with its valid and current operating permit.

Please contact me for any further assistance in this matter.

Sincerely,
**IMPACT ENVIRONMENTAL**

Richard Parrish, *President*

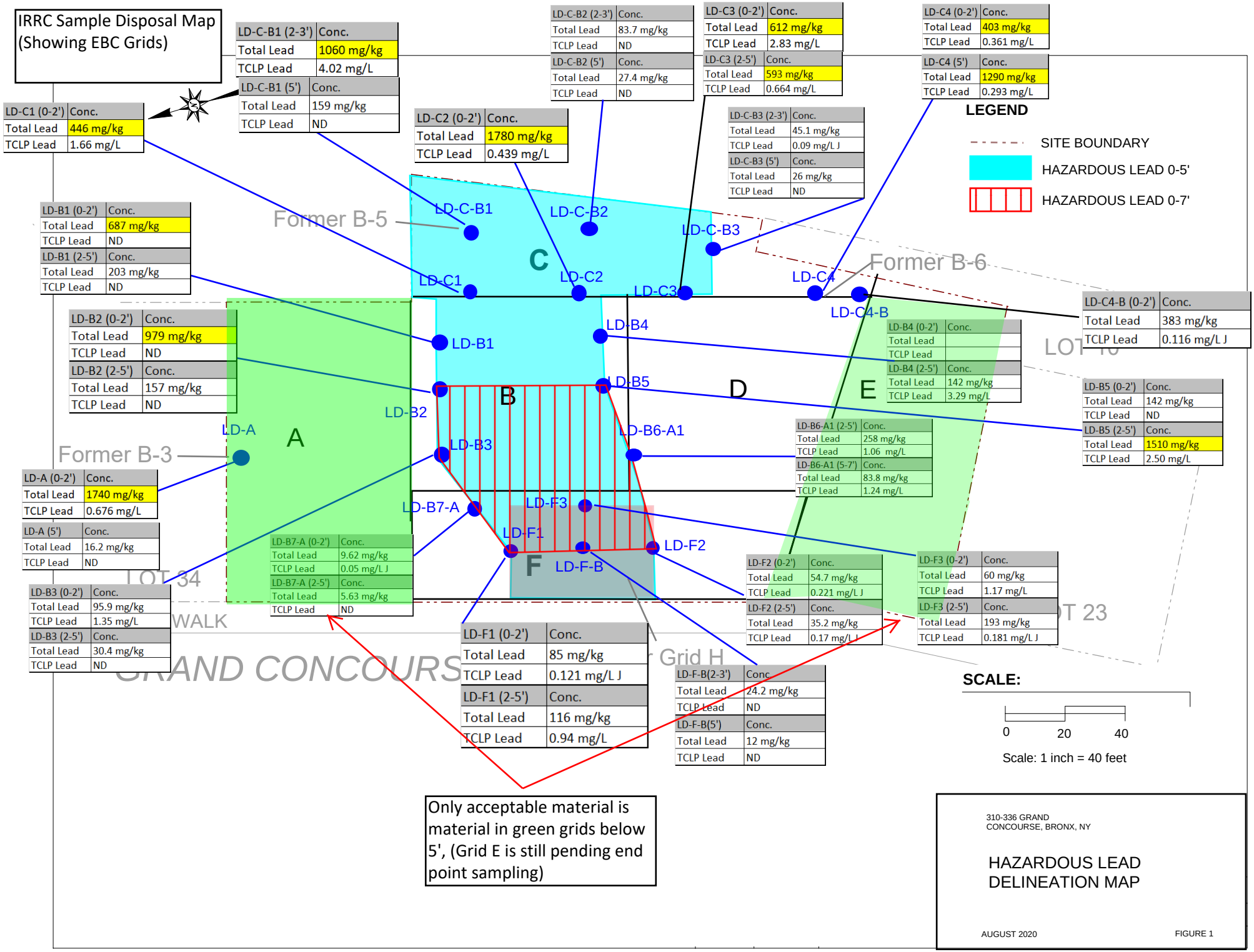
| H&A WC Samples | |
|---|---|
| Sample ID | IRRC CF Status |
| WC-A (0-5') | Not Approved |
| A-B3 (1-3') | |
| WC-A (5-10') | Approved |
| A-B5 (7-9') | |
| WC-B (0-5') | Not Approved |
| B-B4 (3-5') | |
| WC-B (5-10') | Not Approved |
| B-B3 (8-10') | |
| WC-F (0-5') | Not Approved |
| F-B4 (3-5') | |
| WC-F (5-10') | Not Approved |
| F-B5 (9-10') | |
| WC-F (10-15') | Not Approved |
| F-B2 (10-12') | |
| PD-1 | |
| PD-2 | |
| PD-3 | |
| WC-F (15-20') | Not Approved |
| F-B3 (15-17') | |
| F-B3 (15-17') | |
| WC-C (0-5') | Not Approved |
| C-B3 (2-4') | |
| C-B4 (2-4') | |
| WC-C (5-10') | Not Approved |
| C-B3 (7-9') | |
| WC-D (0-5') | |
| D-B4 (2-4') | Not Approved |
| WC-D (5-10') | |
| D-B3 (7-9') | |
| WC-E (0-4') | Not Approved |
| E-B5 (2-4') | |
| WC-E (4-7') | Approved Pending end point sampling |
| E-B4 (7-8') | |

| 5' End Point Samples | |
|---|---|
| GS-A1 (5-6') | Approved |
| GS-A2 (5-6') | |
| GS-A3 (5-6') | |

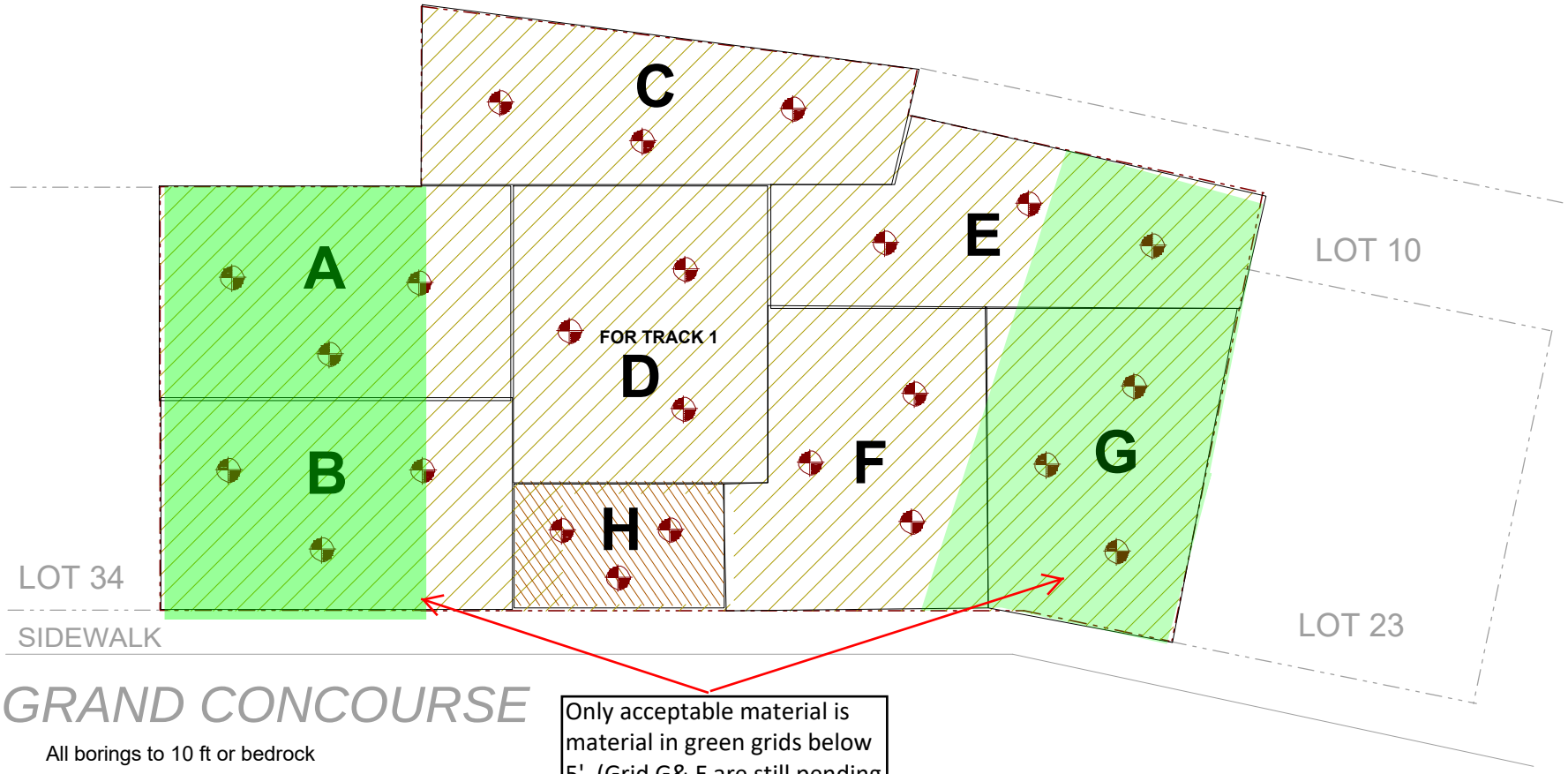
| EBC WC Samples | |
|---|---|
| Sample ID | IRRC CF Status |
| A COMP (0-5) | Not Approved |
| A GRAB (0-5) | |
| A COMP (5-10) | Approved |
| A GRAB (5-10) | |
| B COMP(0-5) | Not Approved |
| B GRAB(0-5) | |
| B COMP(5-10) | Approved |
| B GRAB(5-10) | |
| C COMP (0-5) | Not Approved |
| C GRAB (0-5) | |
| C COMP (5-10) | Not Approved |
| C GRAB (5-10) | |
| D COMP (0-5) | Not Approved |
| D GRAB (0-5) | |
| D COMP (5-10) | Not Approved |
| D GRAB (5-10) | |
| E COMP(0-5) | Not Approved |
| E GRAB(0-5) | |
| E COMP(5-10) | Approved Pending end point sampling |
| E GRAB(5-10) | |
| F COMP(0-5) | Not Approved |
| F GRAB(0-5) | |
| F COMP(5-10) | Not Approved |
| F GRAB(5-10) | |
| G COMP(0-5) | Not Approved |
| G GRAB(0-5) | |
| G COMP(5-10) | Approved Pending end point sampling |
| G GRAB(5-10) | |
| H COMP(0-5) | Not Approved |
| H GRAB(0-5) | |
| H COMP(5-10) | Not Approved |
| H GRAB(5-10) | |

| Lead Delineation Samples | |
|---|---|
| LD-A (0-2') | Not Approved |
| LD-A (5') | Not Approved |
| LD-C-B1 (2-3') | Not Approved |
| LD-C-B1 (5') | Not Approved |
| LD-C-B2 (2-3') | Not Approved |
| LD-C-B2 (5') | Not Approved |
| LD-C-B3 (2-3') | Not Approved |
| LD-C-B3 (5') | Not Approved |
| LD-C1 (0-2') | Not Approved |
| LD-C2 (0-2') | Not Approved |
| LD-C3 (0-2') | Not Approved |
| LD-C4 (0-2') | Not Approved |
| LD-C4 (5') | Not Approved |
| LD-C4-B (0-2') | Not Approved |
| LD-F-B (2-3') | Not Approved |
| LD-F-B (5') | Not Approved |
| LD-F1 (0-2') | Not Approved |
| LD-F2 (0-2') | Not Approved |
| LD-F3 (0-2') | Not Approved |
| LD-B1-A (0-2') | Not Approved |
| LD-B1-A (2-5') | Not Approved |
| LD-F1 (2-5') | Not Approved |
| LD-F2 (2-5') | Not Approved |
| LD-F3 (2-5') | Not Approved |
| LD-C3 (2-5') | Not Approved |
| LD-B1 (0-2') | Not Approved |
| LD-B1 (2-5') | Not Approved |
| LD-B2 (0-2') | Not Approved |
| LD-B2 (2-5') | Not Approved |
| LD-B3 (0-2') | Not Approved |
| LD-B3 (2-5') | Not Approved |
| LD-B4 (0-2') | Not Approved |
| LD-B4 (2-5') | Not Approved |
| LD-B5 (0-2') | Not Approved |
| LD-B5 (2-5') | Not Approved |
| LD-B6 (0-2') | Not Approved |
| LD-B6 (2-5') | Not Approved |
| LD-B7 (0-2') | Not Approved |
| LD-B7 (2-5') | Not Approved |
| LD-B6 (0-2') | Not Approved |
| LD-B6 (2-5') | Not Approved |
| LD-B7 (0-2') | Not Approved |
| LD-B7 (2-5') | Not Approved |
| LD-B6-A (0-2') | Not Approved |
| LD-B6-A (2-5') | Not Approved |
| LD-B7-A (0-2') | Not Approved |
| LD-B7-A (2-5') | Not Approved |
| LD-B6 (5-7') | Not Approved |
| LD-B7 (5-7') | Not Approved |
| LD-B6-A1 (2-5') | Not Approved |
| LD-B6-A1 (5-7') | Not Approved |

***See attached Sample Disposal Maps***


IRRC Sample Disposal Map (Showing EBC Grids)
LD-C-B1 (2-3') Conc.
Total Lead 1060 mg/kg
TCLP Lead 4.02 mg/L
LD-C-B1 (5') Conc.
Total Lead 159 mg/kg
TCLP Lead ND
LD-C1 (0-2') Conc.
Total Lead 446 mg/kg
TCLP Lead 1.66 mg/L
LD-C-B2 (2-3') Conc.
Total Lead 83.7 mg/kg
TCLP Lead ND
LD-C-B2 (5') Conc.
Total Lead 27.4 mg/kg
TCLP Lead ND
LD-C2 (0-2') Conc.
Total Lead 1780 mg/kg
TCLP Lead 0.439 mg/L
LD-C3 (0-2') Conc.
Total Lead 612 mg/kg
TCLP Lead 2.83 mg/L
LD-C3 (2-5') Conc.
Total Lead 593 mg/kg
TCLP Lead 0.664 mg/L
LD-C-B3 (2-3') Conc.
Total Lead 45.1 mg/kg
TCLP Lead 0.09 mg/L J
LD-C-B3 (5') Conc.
Total Lead 26 mg/kg
TCLP Lead ND
LD-C4 (0-2') Conc.
Total Lead 403 mg/kg
TCLP Lead 0.361 mg/L
LD-C4 (5') Conc.
Total Lead 1290 mg/kg
TCLP Lead 0.293 mg/L
LEGEND
SITE BOUNDARY
HAZARDOUS LEAD 0-5'
HAZARDOUS LEAD 0-7'
LD-B1 (0-2') Conc.
Total Lead 687 mg/kg
TCLP Lead ND
LD-B1 (2-5') Conc.
Total Lead 203 mg/kg
TCLP Lead ND
LD-B2 (0-2') Conc.
Total Lead 979 mg/kg
TCLP Lead ND
LD-B2 (2-5') Conc.
Total Lead 157 mg/kg
TCLP Lead ND
LD-B4 (0-2') Conc.
Total Lead
TCLP Lead
LD-B4 (2-5') Conc.
Total Lead 142 mg/kg
TCLP Lead 3.29 mg/L
LD-C4-B (0-2') Conc.
Total Lead 383 mg/kg
TCLP Lead 0.116 mg/L J
LD-B5 (0-2') Conc.
Total Lead 142 mg/kg
TCLP Lead ND
LD-B5 (2-5') Conc.
Total Lead 1510 mg/kg
TCLP Lead 2.50 mg/L
LD-B6-A1 (2-5') Conc.
Total Lead 258 mg/kg
TCLP Lead 1.06 mg/L
LD-B6-A1 (5-7') Conc.
Total Lead 83.8 mg/kg
TCLP Lead 1.24 mg/L
LD-A (0-2') Conc.
Total Lead 1740 mg/kg
TCLP Lead 0.676 mg/L
LD-A (5') Conc.
Total Lead 16.2 mg/kg
TCLP Lead ND
LD-B3 (0-2') Conc.
Total Lead 95.9 mg/kg
TCLP Lead 1.35 mg/L
LD-B3 (2-5') Conc.
Total Lead 30.4 mg/kg
TCLP Lead ND
LD-B7-A (0-2') Conc.
Total Lead 9.62 mg/kg
TCLP Lead 0.05 mg/L J
LD-B7-A (2-5') Conc.
Total Lead 5.63 mg/kg
TCLP Lead ND
LD-F1 (0-2') Conc.
Total Lead 85 mg/kg
TCLP Lead 0.121 mg/L J
LD-F1 (2-5') Conc.
Total Lead 116 mg/kg
TCLP Lead 0.94 mg/L
LD-F2 (0-2') Conc.
Total Lead 54.7 mg/kg
TCLP Lead 0.221 mg/L J
LD-F2 (2-5') Conc.
Total Lead 35.2 mg/kg
TCLP Lead 0.17 mg/L J
LD-F3 (0-2') Conc.
Total Lead 60 mg/kg
TCLP Lead 1.17 mg/L
LD-F3 (2-5') Conc.
Total Lead 193 mg/kg
TCLP Lead 0.181 mg/L J
LD-F-B(2-3') Conc.
Total Lead 24.2 mg/kg
TCLP Lead ND
LD-F-B(5') Conc.
Total Lead 12 mg/kg
TCLP Lead ND
Former B-5
Former B-6
Former B-3
LD-C-B1
LD-C-B2
LD-C-B3
LD-C1
LD-C2
LD-C3
LD-C4
LD-C4-B
LD-B1
LD-B4
LD-B5
LD-B2
LD-A
LD-B6-A1
LD-B3
LD-B7-A
LD-F3
LD-F1
LD-F2
LD-F-B
A
B
C
D
E
F
LOT 34
WALK
GRAND CONCOURS
Grid H
T 23
SCALE:
0 20 40
Scale: 1 inch = 40 feet
Only acceptable material is material in green grids below 5', (Grid E is still pending end point sampling)
310-336 GRAND CONCOURSE, BRONX, NY
HAZARDOUS LEAD DELINEATION MAP
AUGUST 2020
FIGURE 1

IRRC Sample Disposal Map
(Showing EBC Grids)




GRAND CONCOURSE

All borings to 10 ft or bedrock

Make one 5-point composite

from each grid section from 0-5 ft

and a scond from 5-10ft.

One grab per 5 ft interval per section.

Only acceptable material is material in green grids below 5', (Grid G& E are still pending end point sampling)

**KEY:**

BCP Site Boundary

**SCALE:**

0 20 40

Scale: 1 inch = 40 feet

EBC
ENVIRONMENTAL BUSINESS CONSULTANTS
Phone 631.504.6000
Fax 631. 924 .2870

Figure No. 11

Site Name: 310 GRAND CONCOURSE

Site Address: 310 GRAND CONCOURSE, BRONX, NY

Drawing Title: WASTE CHARACTERIZATION PLAN

State of New Jersey

CHRIS CHRISTIE
*Governor*

KIM GUADAGNO
*Lt. Governor*

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BOB MARTIN
*Commissioner*

Division of Solid & Hazardous Waste
Bureau of Recycling & Hazardous Waste Management
401 East State Street
P.O. Box 420, Mail Code 401-02C
Trenton, NJ 08625-0420
Tel (609) 984-3438 Fax (609) 777-1951/984-0565
www.nj.gov/dep/dshw/recycling

# RECYCLING CENTER GENERAL APPROVAL FOR CLASS B RECYCLABLE MATERIALS

Under the provisions of N.J.S.A. 13:1E-1 *et seq.* and N.J.S.A. 13:1E-99.11 *et seq.*, known as the Solid Waste Management Act and New Jersey Statewide Mandatory Source Separation and Recycling Act, respectively, and pursuant to N.J.A.C. 7:26A-1 *et seq.*, known as the Recycling Regulations, this approval is hereby issued to:

**Bayshore Recycling #2**

| | |
|---|---|
| Facility Type: | Recycling Center for Class B Materials |
| Block & Lot Nos.: | Block 41.03 & Lots 3.02, 3.18 & 4.02<br>Block 51 & Lots 1, 1.02, 1.18, 2, 2.02 & 2.03<br>Block 52 & Lot 1 |
| Municipality: | Township of Woodbridge |
| County: | Middlesex |
| Facility ID No.: | 132397 |
| Permit No.: | CBG170003 |

This General Approval is subject to compliance with all conditions specified herein and all regulations promulgated by the Department of Environmental Protection (Department).

This General Approval shall not prejudice any claim the State may have to riparian land nor does it allow the registrant to fill or alter, or allow to be filled or altered, in any way, lands that are deemed to be riparian, wetlands, stream encroachment or flood plains, or within the Coastal Area Facility Review Act (CAFRA) zone or are subject to the Pinelands Protection Act of 1979, nor shall it allow the discharge of pollutants to waters of this State without prior acquisition of the necessary grants, permits, or approvals from the Department.

March 2, 2017
Issuance Date

December 31, 2021
Expiration Date

Zafar Billah, Acting Chief
Bureau of Recycling & Hazardous Waste Management

Scope of Approval

This General Approval (approval), along with the referenced application documents herein specified, shall constitute the sole approval of Recycling Center operations for Class B Recyclable Material (concrete, asphalt, brick, block, petroleum contaminated soil, street sweepings, potable water treatment residuals, carbon filtration media & untreated wood) storage and process center by **Bayshore Recycling Corp.** located in the Township of Woodbridge, Middlesex County, New Jersey. Any registration, approval or permit previously issued by the Division of Solid & Hazardous Waste, or its predecessor agencies, for the specific activities as described below and as conditioned herein, is hereby superseded.

Regulated Activities at the Facility

Conditions 1 through 39 of this general approval are conditions that are applicable to all New Jersey recycling facilities. Conditions 40 through 86 of this general approval are conditions that are applicable to New Jersey recycling facilities that receive, store or process Class B materials.

Facility Description

The recycling center is a Class B facility operated by the Bayshore Recycling Corp. The recycling center is located at 75 Crows Mill Road/100 Bayview Avenue on Block 41.03 & Lots 3.02, 3.18 & 4.02, Block 51 & Lots 1, 1.02, 1.18, 2, 2.02 & 2.03, and Block 52 & Lot 1 in the Township of Woodbridge, Middlesex County. This regional recycling center is authorized to receive concrete, asphalt, brick, block, slag (on a case by case basis), glass cullet, untreated wood, potable water treatment residuals, carbon filtration media, street sweepings and petroleum contaminated soil from demolition contractors, municipalities, manufacturers, gasoline stations, home owners and sites remediated for petroleum contamination. All processed soil will be used for beneficial use projects, brownfields, landfill caps and construction projects.

Petroleum contaminated soil shall be sampled either at the point of generation or at the recycling center for the petroleum contaminated soils processing operation. The sampling results shall be used to determine the maximum contaminant feed rate or maximum petroleum contaminant concentration for the processing equipment.

Prior to the acceptance of potable water treatment residuals, carbon filtration media and street sweepings the facility shall have received analytical results along with a signed certification from the generator certifying the material meets the Department's non-residential soil remediation standards.

Stericycle®
Environmental Solutions

We protect
what matters.

Hatfield Pennsylvania TSDF

# FACILITY AUDIT PACKAGE




866-303-7344
StericycleEnvironmental.com

Stericycle®
Environmental Solutions

**Facility Audit Package**

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ENVIRONMENTAL SOLUTIONS FACILITIES & CONTACTS

INSURANCE

PERMITS & ACCEPTED WASTE CODES

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Environmental Solutions

# Facility Audit Package

Introduction

# About Stericycle

## We protect what matters

Around the world and in most organizations, increasingly strict regulatory guidelines and stringent quality controls are putting new demands on businesses. And for many, staying up to date with the requirements that govern their respective industries is a challenge. That's where we come in.

Stericycle is a world-leading business-to-business services company providing organizations, large or small, with a wide array of essential and highly specialized compliance-based solutions. We have the scale, expertise, and experience to handle the many complicated and often behind-the-scenes services that allow our more than 1,000,000 customers to focus on their business.

To our customers and the communities that we serve, Stericycle is a company that protects people, brands and business. We protect what matters.

# Overview of Stericycle's Key Services



**M&I Hazardous Waste**

Proper packaging, transportation and treatment of "less than a truckload" RCRA regulated materials



**Retail/Healthcare Hazardous Waste**

Turn-key services to manage disposal of hazardous wastes in the healthcare setting and from unusable products from retail outlets



**Pharmaceutical Waste**

Proper packaging, transportation and treatment for all types of unused pharmaceuticals to protect the environment and communities



**Compliance**

Tools and resources to promote safety, compliance, data privacy, and other best practices for small healthcare offices



**Medical Waste**

Compliant management of regulated medical waste to protect workers, reduce contamination risk, and improve sustainability



**Information Destruction**

Protects businesses and their customers with secure collection and destruction of confidential information



**Recalls**

Comprehensive brand protection solutions including notifications, returns management, replacement, and reporting of product recalls



**Communication Solutions**

Live voice and automated systems to manage customer and patient contact, appointments, and other communications

# Stericycle Environmental Solutions

Stericycle Environmental Solutions provides customers with an unparalleled portfolio of services designed to successfully comply with all environmental and waste regulations. Our deep bench of highly trained technicians, expertise in compliant packaging for containment and segregation, and fleet of specially equipped trucks address our customers' needs and ensure full compliance with various OSHA, DOT, EPA and state regulations.

A total of thirteen RCRA Part B permitted Treatment, Storage and Disposal Facilities (TSDFs) and approximately fifty permitted Service Centers deliver the most appropriate hazardous waste disposal method for any given client, while meeting all regulatory and sustainability goals.

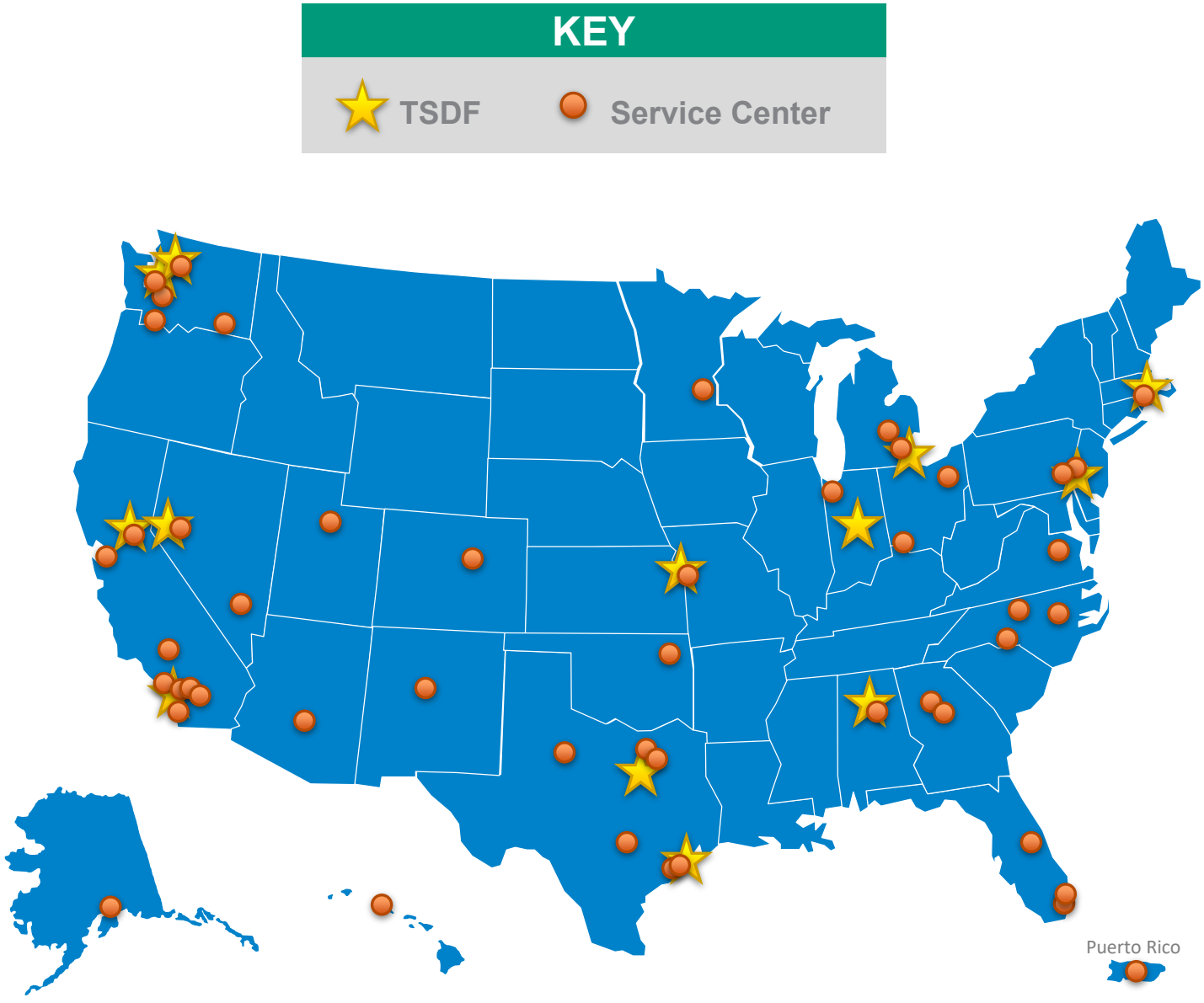
Beyond compliance, we work closely with our customers to uncover innovative reuse, recycling and alternative-use options that control costs, minimize liability, and support sustainability goals and environmental responsibility.

Stericycle®
Environmental Solutions

# Facility Audit Package

Environmental Solutions Facilities & Contacts

# U.S. ENVIRONMENTAL SOLUTIONS FACILITIES



# Treatment, Storage and Disposal Facilities

| | | | |
|---|---|---|---|
| 500 Medco Road<br>Birmingham, AL 35217<br>205-841-1707 | **LOCATION TYPE** | TSDF | **CAPABILITIES** |
| | **LEGAL/PERMITTED NAME** | Allworth, LLC | RCRA Part B Facility, Storage capacity of over 67,000 gallons and 1,040 drums; Solvent recovery/distillation; Fuel blending. Transportation and Disposal of Hazardous, Non-hazardous, and Universal wastes. |
| | **EPA ID #** | ALD 094 476 793 | |
| **FACILITY MANAGER** | **LEGAL DOT NAME** | Stericycle Specialty Waste Solutions, Inc | |
| Todd Williamson | **DOT #** | 337503 | |

| | | | |
|---|---|---|---|
| 425 Isis Avenue<br>Inglewood, CA 90301<br>323-776-6233 | **LOCATION TYPE** | TSDF | **CAPABILITIES** |
| | **LEGAL/PERMITTED NAME** | Rho Chem, LLC | RCRA Part B Facility, Transportation services; storage capacity of 183,400 gallons and 1,080 drums; Fuel blending; Solvent recycling/distribution; Transportation and Disposal of Hazardous, Non-hazardous, and Universal wastes. Battery recycling; Fluorescent bulb recovery; Chlorinated solvent recovery. |
| | **EPA ID #** | CAD 008 364 432 | |
| **FACILITY MANAGER** | **LEGAL DOT NAME** | Rho-Chem LLC | |
| Dorothy Harley | **DOT #** | 195711 | |

| | | | |
|---|---|---|---|
| 11855 White Rock<br>Rancho Cordova, CA 95742<br>916-351-0980 | **LOCATION TYPE** | TSDF | **CAPABILITIES** |
| | **LEGAL/PERMITTED NAME** | General Environmental Management of Rancho Cordova, LLC dba PSC Environmental Services of Rancho Cordova | RCRA Part B Facility, Repacking;Consolidation; Lab packing; Transportation & Disposal of Hazardous, Non-hazardous, and Universal wastes. Bulk liquid capacity of 360,000 gallons. Containerized waste capacity of 3,140,000. On-site laboratory for testing received waste. 10-day Truck-to-Truck Transfer; |
| | **EPA ID #** | CAD 980 884 183 | |
| **FACILITY MANAGER** | **LEGAL DOT NAME** | 21ST Century Environmental Management of California LP | |
| Modesto Granados | **DOT #** | 2059497 | |

# Treatment, Storage and Disposal Facilities (continued)

| | | | |
|---|---|---|---|
| 2770 Fortune Circle East<br>Indianapolis, IN 46241<br>317-860-1192 | **LOCATION TYPE** | TSDF | **CAPABILITIES** |
| | **LEGAL/PERMITTED NAME** | Stericycle Specialty Waste, Inc. | RCRA Part B Facility, Transportation, Storage, Disposal of Hazardous and Non-Hazardous waste, Universal waste, Waste to Energy, Recycling |
| | **EPA ID #** | INR000110197 | |
| **FACILITY MANAGER** | **LEGAL DOT NAME** | Stericycle Specialty Waste Solutions, Inc | |
| Holly Gamage | **DOT #** | 1348411 | |

| | | | |
|---|---|---|---|
| 515 Lycaste St.<br>Detroit, MI 48214<br>313-824-5840 | **LOCATION TYPE** | TSDF | **CAPABILITIES** |
| | **LEGAL/PERMITTED NAME** | Petro-Chem Processing Group of Nortru, LLC | RCRA Part B Facility; Storage capacity 1.1 million gallons and 7,195 drums; Solvent distillation; Metal/solids shredding; Metal drum recycling; Transportation and Disposal of Hazardous, Non-hazardous, and Universal wastes and Waste-to- Energy Recycling. |
| | **EPA ID #** | MID 980 615 298 | |
| **FACILITY MANAGER** | **LEGAL DOT NAME** | Petro-Chem Processing Group of Nortru, LLC | |
| Melanie Frohriep | **DOT #** | 337503 | |

| | | | |
|---|---|---|---|
| 700 Mulberry St.<br>Kansas City, MO 64101<br>816-474-1391 | **LOCATION TYPE** | TSDF | **CAPABILITIES** |
| | **LEGAL/PERMITTED NAME** | Solvent Recovery, LLC | RCRA Part B, CERCLA approved Facility; Storage capacity 85,650 gallons and 2,891 drums; Fuel blending; Lab pack/de-pack; |
| | **EPA ID #** | MOD 000 610 766 | |
| **FACILITY MANAGER** | **LEGAL DOT NAME** | Stericycle Specialty Waste Solutions, Inc | |
| Matt Clutter | **DOT #** | 1348411 | |

| | | | |
|---|---|---|---|
| 2095 Newlands Dr. E<br>Fernley, NV 89408<br>775-575-2760 | **LOCATION TYPE** | TSDF | **CAPABILITIES** |
| | **LEGAL/PERMITTED NAME** | 21st Century Environmental Management of Nevada, LLC | RCRA Part B Facility; storage capacity of 182,303 gallons and 2,942 drums (liquid); 3,211 cubic yards (solid); Inorganic waste treatment; Metal- bearing resource recovery; Photographic silver recovery; Battery recycling, Transportation and Disposal of Hazardous, Non-hazardous, and Universal wastes. |
| | **EPA ID #** | NVD 980 895 338 | |
| **FACILITY MANAGER** | **LEGAL DOT NAME** | 21st Century Environmental Management of Nevada LLC | |
| Rick King | **DOT #** | 615443 | |

# Treatment, Storage and Disposal Facilities (continued)

| | | | |
|---|---|---|---|
| 2869 Sandstone Dr.<br>Hatfield, PA 19440<br>215-822-8995 | **LOCATION TYPE** | TSDF | **CAPABILITIES** |
| | **LEGAL/PERMITTED NAME** | Republic Environmental Systems, LLC | RCRA Part B Facility; Approved to accept 440 waste codes; Storage capacity of 160,000 gallons, 569 drums, and 750 tons of bulk solids; Corrosive, Inorganic Wastewater Treatment; Heavy metal stabilization; Transportation & Disposal of Hazardous, Non-hazardous, and Universal wastes. |
| | **EPA ID #** | PAD 085 690 592 | |
| **FACILITY MANAGER** | **LEGAL DOT NAME** | Republic Environmental Systems Transportation Group LLC | |
| Richard Scheule | **DOT #** | 267146 | |

| | | | |
|---|---|---|---|
| 275 Allens Avenue<br>Providence, RI 02905<br>401-781-6340 | **LOCATION TYPE** | TSDF | **CAPABILITIES** |
| | **LEGAL/PERMITTED NAME** | Northland Environmental, LLC | RCRA Part B Facility; Storage capacity of 130,000 gallons and over 5,000 drums; Transportation & Disposal of Hazardous, Non-hazardous, and Universal wastes. Lab pack; Oil recycling, Fuel blending; Silver reclamation. |
| | **EPA ID #** | RID 040 098 352 | |
| **FACILITY MANAGER** | **LEGAL DOT NAME** | Republic Environmental Systems Transportation Group LLC | |
| Tony Boiano | **DOT #** | 618090 | |

| | | | |
|---|---|---|---|
| 405 Powell St.<br>Avalon, TX 76623<br>972-627-3224 | **LOCATION TYPE** | TSDF | **CAPABILITIES** |
| | **LEGAL/PERMITTED NAME** | Chemical Reclamation Services, LLC | RCRA Part B, CERCLA approved; storage capacity of 180,000 gallons; 3,500 drums; and 60 cubic yard of solids. Solvent recovery; Fuel blending. |
| | **EPA ID #** | TXD 046 844 700 | |
| **FACILITY MANAGER** | **LEGAL DOT NAME** | Philip Reclamation Services Houston LLC | |
| Johnny Busby | **DOT #** | 166862 | |

# Treatment, Storage and Disposal Facilities (continued)

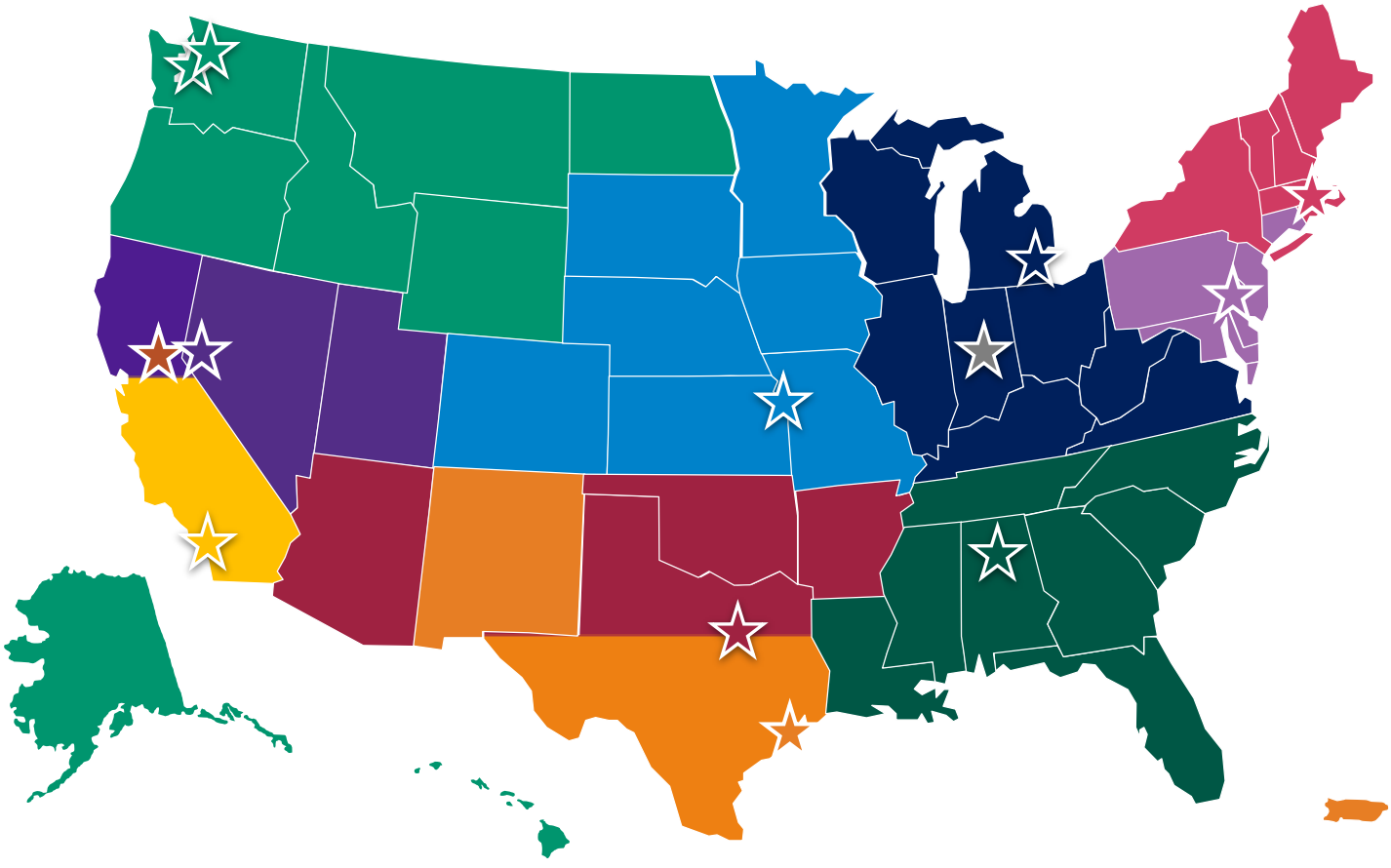
| | | | |
|---|---|---|---|
| 2131 Progressive Dr.<br>Dallas, TX 75212<br>214-637-5575 | **LOCATION TYPE** | Plant | **CAPABILITIES** |
| | **LEGAL/PERMITTED NAME** | PSC Recovery Systems, LLC | Water/Wastewater Treatment Facility; sewer & line cleaning; sand & grease trap cleaning/treatment; vacuum trucks; |
| | **EPA ID #** | TXD 102 599 339 | |
| **FACILITY MANAGER** | **LEGAL DOT NAME** | PSC Recovery Systems LLC | |
| Mike Gerhke | **DOT #** | 993643 | |

| | | | |
|---|---|---|---|
| 4050 Homestead Road<br>Houston, TX 77028<br>713-679-2300 | **LOCATION TYPE** | TSDF | **CAPABILITIES** |
| | **LEGAL/PERMITTED NAME** | Philip Reclamation Services, Houston, LLC | RCRA Part B Facility, CERCLA approved; Storage capacity of 50,000 gallons and 1,100 drums; Wastewater Treatment; Fuel blending; Solidification; Stabilization; Lab Pack, Solvent recovery. Bulking for Incineration; |
| | **EPA ID #** | TXD0474196338 | |
| **FACILITY MANAGER** | **LEGAL DOT NAME** | Philip Reclamation Services Houston LLC | |
| Terry Ramey | **DOT #** | 166862 | |

| | | | |
|---|---|---|---|
| 20245 77th Ave. South<br>Kent, WA 98032<br>253-872-8030 | **LOCATION TYPE** | TSDF | **CAPABILITIES** |
| | **LEGAL/PERMITTED NAME** | Burlington Environmental, LLC | RCRA Part B, CERCLA approved Facility; Storage capacity of 500,000 gallons and 6,000 drums; Carbon adsorption; Chemical oxidation/ precipitation/stabilization; Wastewater and sludge Treatment; PCB waste storage. |
| | **EPA ID #** | WAD 991 281 767 | |
| **FACILITY MANAGER** | **LEGAL DOT NAME** | Burlington Environmental LLC | |
| Megan Swick | **DOT #** | 262568 | |

| | | | |
|---|---|---|---|
| 1701 E. Alexander Ave<br>Tacoma, WA 98421<br>253-627-7568 | **LOCATION TYPE** | TSDF | **CAPABILITIES** |
| | **LEGAL/PERMITTED NAME** | Burlington Environmental, LLC | RCRA Part B, CERCLA approved; Bulk storage capacity 754,860 Gallons; Container storage capacity 284,130 Gallons; Treatment- Fuel Blending, Neutralization, Carbon Absorption, Chemical Oxidation, Chemical Precipitation, Chemical Reduction, Cyanide Destruction, Cylinder Depressurization, Decanting/Clarification, Demulsification, Dewatering, Emulsification, Filtration, Flocculation, Heat Treatment, Lab-Packing, Sedimentation, Solidification, Stabilization |
| | **EPA ID #** | WAD 020 257 945 | |
| **FACILITY MANAGER** | **LEGAL DOT NAME** | Burlington Environmental LLC | |
| Michael Galvan | **DOT #** | 262568 | |

# Flow of Waste



| | | |
|---|---|---|
| Kansas City | Kent & Tacoma | Detroit |
| Hatfield | Providence | Rancho Cordova |
| Fernley | Inglewood | Avalon |
| Houston | Birmingham | Indianapolis |

This map is a generalization and exceptions do exist.

Stericycle®
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# Facility Audit Package

See Attachments

Insurance & Permits

Stericycle®
Environmental Solutions

# Hatfield, Pennsylvania TSDF
# Accepted Waste Codes

| D | F | K | | | P | | | U | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D001 | F001 | K001 | K052 | K136 | P001 | P058 | P118 | U001 | U053 | U107 | U158 | U214 |
| D002 | F002 | K002 | K060 | | P002 | P059 | P119 | U002 | U055 | U108 | U159 | U215 |
| D003 | F003 | K003 | K061 | | P003 | P060 | P120 | U003 | U056 | U109 | U160 | U216 |
| D004 | F004 | K004 | K062 | | P004 | P062 | P121 | U004 | U057 | U110 | U161 | U217 |
| D005 | F005 | K005 | K064 | | P005 | P063 | P122 | U005 | U058 | U111 | U162 | U218 |
| D006 | F006 | K006 | K065 | | P006 | P064 | P123 | U006 | U059 | U112 | U163 | U219 |
| D007 | F007 | K007 | K066 | | P007 | P065 | P127 | U007 | U060 | U113 | U164 | U220 |
| D008 | F008 | K008 | K069 | | P008 | P066 | P128 | U008 | U061 | U114 | U165 | U221 |
| D009 | F009 | K009 | K071 | | P009 | P067 | P185 | U009 | U062 | U115 | U166 | U222 |
| D010 | F010 | K010 | K073 | | P010 | P068 | P188 | U010 | U063 | U116 | U167 | U223 |
| D011 | F011 | K011 | K083 | | P011 | P069 | P189 | U011 | U064 | U117 | U168 | U225 |
| D012 | F012 | K013 | K084 | K156 | P012 | P070 | P190 | U012 | U066 | U118 | U169 | U226 |
| D013 | F019 | K014 | K085 | K157 | P013 | P071 | P191 | U014 | U067 | U119 | U170 | U227 |
| D014 | F020 | K015 | K086 | K158 | P014 | P072 | P192 | U015 | U068 | U120 | U171 | U228 |
| D015 | F021 | K016 | K087 | K159 | P015 | P073 | P194 | U016 | U069 | U121 | U172 | U234 |
| D016 | F022 | K017 | K088 | K161 | P016 | P074 | P196 | U017 | U070 | U122 | U173 | U235 |
| D017 | F023 | K018 | K090 | K169 | P017 | P075 | P197 | U018 | U071 | U123 | U174 | U236 |
| D018 | F024 | K019 | K091 | K170 | P018 | P076 | P198 | U019 | U072 | U124 | U176 | U237 |
| D019 | F025 | K020 | K093 | K171 | P020 | P077 | P199 | U020 | U073 | U125 | U177 | U238 |
| D020 | F026 | K021 | K094 | K172 | P021 | P078 | P201 | U021 | U074 | U126 | U178 | U239 |
| D021 | F027 | K022 | K095 | | P022 | P081 | P202 | U022 | U075 | U127 | U179 | U240 |
| D022 | F028 | K023 | K096 | | P023 | P082 | P203 | U023 | U076 | U128 | U180 | U243 |
| D023 | F032 | K024 | K097 | | P024 | P084 | P204 | U024 | U077 | U129 | U181 | U244 |
| D024 | F034 | K025 | K098 | | P026 | P085 | P205 | U025 | U078 | U130 | U182 | U246 |
| D025 | F035 | K026 | | | P027 | P087 | | U026 | U079 | U131 | U183 | U247 |
| D026 | F037 | K027 | K100 | | P028 | P088 | | U027 | U080 | U132 | U184 | U248 |
| D027 | F038 | K028 | K101 | | P029 | P089 | | U028 | U081 | U133 | U185 | U249 |
| D028 | F039 | K029 | K102 | | P030 | P092 | | U029 | U082 | U134 | U186 | U271 |
| D029 | | K030 | K103 | | P031 | P093 | | U030 | U083 | U135 | U187 | U278 |
| D030 | | K031 | K104 | | P033 | P094 | | U031 | U084 | U136 | U188 | U279 |
| D031 | | K032 | K105 | | P034 | P095 | | U032 | U085 | U137 | U189 | U280 |
| D032 | | K033 | K106 | | P036 | P096 | | U033 | U086 | U138 | U190 | U328 |
| D033 | | K034 | | | P037 | P097 | | U034 | U087 | U140 | U191 | U353 |
| D034 | | K035 | | | P038 | P098 | | U035 | U088 | U141 | U192 | U359 |
| D035 | | K036 | | | P039 | P099 | | U036 | U089 | U142 | U193 | U364 |
| D036 | | K037 | | | P040 | P101 | | U037 | U090 | U143 | U194 | U367 |
| D037 | | K038 | K111 | | P041 | P102 | | U038 | U091 | U144 | U196 | U372 |
| D038 | | K039 | K112 | | P042 | P103 | | U039 | U092 | U145 | U197 | U373 |
| D039 | | K040 | K113 | | P043 | P104 | | U041 | U093 | U146 | U200 | U387 |
| D040 | | K041 | K114 | | P044 | P105 | | U042 | U094 | U147 | U201 | U389 |
| D041 | | K042 | K115 | | P045 | P106 | | U043 | U095 | U148 | U203 | U394 |
| D042 | | K043 | K116 | | P046 | P108 | | U044 | U096 | U149 | U204 | U395 |
| D043 | | K044 | K117 | | P047 | P109 | | U045 | U097 | U150 | U205 | U404 |
| | | K045 | K118 | | P048 | P110 | | U046 | U098 | U151 | U206 | U409 |
| | | K046 | K123 | | P049 | P111 | | U047 | U099 | U152 | U207 | U410 |
| | | K047 | K124 | | P050 | P112 | | U048 | U101 | U153 | U208 | U411 |
| | | K048 | K125 | | P051 | P113 | | U049 | U102 | U154 | U209 | |
| | | K049 | K126 | | P054 | P114 | | U050 | U103 | U155 | U210 | |
| | | K050 | | | P056 | P115 | | U051 | U105 | U156 | U211 | |
| | | K051 | | | P057 | P116 | | U052 | U106 | U157 | U213 | |

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY PROGRAM

# STATE ONLY OPERATING PERMIT

Issue Date: July 8, 2016 Effective Date: July 8, 2016
Expiration Date: July 8, 2021

In accordance with the provisions of the Air Pollution Control Act, the Act of January 8, 1960, P.L. 2119, as amended, and 25 Pa. Code Chapter 127, the Owner, [and Operator if noted] (hereinafter referred to as permittee) identified below is authorized by the Department of Environmental Protection (Department) to operate the air emission source(s) more fully described in this permit. This Facility is subject to all terms and conditions specified in this permit. Nothing in this permit relieves the permittee from its obligations to comply with all applicable Federal, State and Local laws and regulations.

The regulatory or statutory authority for each permit condition is set forth in brackets. All terms and conditions in this permit are federally enforceable unless otherwise designated.

**State Only Permit No: 46-00146**
Synthetic Minor
Federal Tax Id - Plant Code: 26-2277300-1

## Owner Information

Name: REPUBLIC ENV SYS PA LLC
Mailing Address: 2869 SANDSTONE DR
HATFIELD, PA 19440-1912

## Plant Information

Plant: REPUBLIC ENV SYS PA LLC/HATFIELD
Location: 46 Montgomery County 46930 Hatfield Township
SIC Code: 4953 Trans. & Utilities - Refuse Systems

## Responsible Official

Name: RICHARD SCHEULE
Title: OPERATIONS MANAGER
Phone (215) 822 - 8995 Ext.101

## Permit Contact Person

Name: JUSTIN N PICKENS
Title: COMPLIANCE MANAGER
Phone: (215) 822 - 8995 Ext.111

[Signature] James D. Rebarchak
*JAMES D. REBARCHAK, SOUTHEAST REGION AIR PROGRAM MANAGER*

| DEA REGISTRATION NUMBER | THIS REGISTRATION EXPIRES | FEE PAID |
|---|---|---|
| RR0416328 | 04-30-2020 | $1523 |

| SCHEDULES | BUSINESS ACTIVITY | ISSUE DATE |
|---|---|---|
| 2,2N, 3,3N,4,5 | REVERSE DISTRIB | 03-07-2019 |

REPUBLIC ENVIRONMENTAL SYSTEMS (PENNSYLV
STERICYCLE ENVIRONMENTAL SOLUTIONS
2869 SANDSTONE DR
HATFIELD, PA 19440-1912

**CONTROLLED SUBSTANCE/REGULATED CHEMICAL REGISTRATION CERTIFICATE**
**UNITED STATES DEPARTMENT OF JUSTICE**
**DRUG ENFORCEMENT ADMINISTRATION**
**WASHINGTON D.C. 20537**

Sections 304 and 1008 (21 USC 824 and 958) of the Controlled Substances Act of 1970, as amended, provide that the Attorney General may revoke or suspend a registration to manufacture, distribute, dispense, import or export a controlled substance.

**THIS CERTIFICATE IS NOT TRANSFERABLE ON CHANGE OF OWNERSHIP, CONTROL, LOCATION, OR BUSINESS ACTIVITY, AND IT IS NOT VALID AFTER THE EXPIRATION DATE.**

Form DEA-223/511 (9/2016)

**REPORT CHANGES PROMPTLY**

**REQUESTING MODIFICATIONS TO YOUR REGISTRATION CERTIFICATE**

To request a change to your registered name, address, the drug schedule or the drug codes you handle, please

1. visit our web site at **deadiversion.usdoj.gov** - or
2. call our customer Service Center at **1-(800) 882-9539** - or
3. submit your change(s) in writing to:

**Drug Enforcement Administration**
**P.O. Box 2639**
**Springfield, VA 22152-2639**

See Title 21 Code of Federal Regulations, Section 1301.51 for complete instructions.

You have been registered to handle the following chemical/drug codes:

1 : 2
557/634

REPUBLIC ENVIRONMENTAL SYSTEMS (PENNSYLV
2869 SANDSTONE DR
HATFIELD, PA 19440-1912

| DEA REGISTRATION NUMBER | THIS REGISTRATION EXPIRES | FEE PAID |
|---|---|---|
| RR0416328 | 04-30-2020 | $1523 |

| SCHEDULES | BUSINESS ACTIVITY | ISSUE DATE |
|---|---|---|
| 2,2N, 3,3N,4,5 | REVERSE DISTRIB | 03-07-2019 |

*REPUBLIC ENVIRONMENTAL SYSTEMS (PENNSYLV*
*STERICYCLE ENVIRONMENTAL SOLUTIONS*
*2869 SANDSTONE DR*
*HATFIELD, PA 19440-1912*

**CONTROLLED SUBSTANCE REGISTRATION CERTIFICATE**
**UNITED STATES DEPARTMENT OF JUSTICE**
**DRUG ENFORCEMENT ADMINISTRATION**
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**UNITED STATES DEPARTMENT OF JUSTICE**
**DRUG ENFORCEMENT ADMINISTRATION**
**WASHINGTON D.C. 20537**

| DEA REGISTRATION NUMBER | THIS REGISTRATION EXPIRES | FEE PAID |
|---|---|---|
| RR0416328 | 04-30-2020 | $1523 |

| SCHEDULES | BUSINESS ACTIVITY | ISSUE DATE |
|---|---|---|
| 2,2N, 3,3N,4,5 | REVERSE DISTRIB | 03-07-2019 |

REPUBLIC ENVIRONMENTAL SYSTEMS (PENNSYLV
STERICYCLE ENVIRONMENTAL SOLUTIONS
2869 SANDSTONE DR
HATFIELD, PA 19440-1912

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Form DEA-223 (9/2016)

RALPH HARVEY, Chairman
DONALD ATKISS, Vice Chairman
GEORGE LANDES, Asst. Secretary
BARRY WERT, Secretary/Asst. Treasurer
CHARLES SIBEL, Treasurer

PETER R. DORNEY, Executive Director

HATFIELD TOWNSHIP MUNICIPAL AUTHORITY
CLEAN WATER

GHD INC
Engineer
717-541-0622

HAMBURG, RUBIN, MULLIN,
MAXWELL & LUPIN
Solicitor
215-661-0400

# PERMIT NO. 9035

In accordance with the provisions of Hatfield Township Ordinance No. 600 – (amending Ord. 420, Ch. 18.), and all Hatfield Township Municipal Authority (HTMA) rules and resolutions relating to the discharge of wastewater to the Hatfield Township Municipal Authority's Wastewater Treatment System,

**REPUBLIC ENVIRONMENTAL SYSTEMS (PA) LLC, (RESPA) Permittee**
**aka - Stericycle Environmental Services**
**2869 Sandstone Drive**
**Hatfield, PA 19440,**

A Significant Industrial User as defined by this permit, is hereby authorized to discharge process wastewater from the above identified facility and through the outfall identified herein, into the Hatfield Township Municipal Authority wastewater treatment system in accordance with the conditions set forth in this permit.

Compliance with this permit does not relieve the permittee of its obligations to comply with any and all applicable pretreatment regulations, standards or requirements under local, state, and federal laws, including any such regulations, standards, requirements, or laws that may become effective during the term of this permit.

Noncompliance with any term or condition of this permit shall constitute a violation of the Hatfield Township Sewer Use Ordinance.

This permit shall become effective on July 1, 2018 and shall expire at midnight on June 30, 2021.

If the permittee wishes to continue to discharge after the expiration date of this permit, an application must be filed for renewal in accordance with Ordinance requirements, a minimum of 90 days prior to the expiration date, or as otherwise specified by this permit.

Issued this 14th day of June, 2018.

Issued by: Joseph C. Stammers, Plant Manager

Joseph E. Stammers

# Certificate of Licensure

**Certificate No.** 8000002814
(A certificate starting with a number 4, 5 or 6 does not permit the posession or sale of controlled substances or prescription drugs.)

**Drug & Device Registration**
555 WALNUT ST
FORUM PLACE -7th FLOOR -SUITE 701
HARRISBURG, PA 17101
(717) 787-4779

**Category:**

Wholesaler/Distributor

REPUBLIC ENVIRONMENTAL SYSTEMS (PENNSYLVANIA), LLC
2869 SANDSTONE DRIVE
HATFIELD, PA 19440

The above business is registered in the required category to conduct and maintain a facility in accordance with the provisions of the Wholesale Prescription Drug License Act, Act #145, approved December 14, 1992.

**Issuance Date: April 04, 2016**
**Expiration Date: The Last Day of April, 2020**

Susan Coble
Acting Deputy Secretary for Quality Assurance

pennsylvania
DEPARTMENT OF HEALTH

Rachel L. Levine, MD
Secretary of Health

**NOTE: THIS CERTIFICATE MUST BE POSTED IN A CONSPICUOUS PLACE ON THE PREMISES.**

**COMMONWEALTH OF PENNSYLVANIA**
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**PERMIT**
**FOR HAZARDOUS WASTE STORAGE, TREATMENT, AND DISPOSAL**

Permittee: Republic Environmental Systems (Pennsylvania), LLC Permit Number: PAD 085 690 592

Facility: Republic Environmental Systems (Pennsylvania), LLC

2869 Sandstone Drive, Hatfield, PA 19440

This permit is issued by the Commonwealth of Pennsylvania Department of Environmental Protection (DEP) under authority of the Pennsylvania Solid Waste Management Act, the Act of July 7, 1980, Act 97, 35 P.S. Section 6018.101 et seq. (the Act), DEP's hazardous waste regulations, and Federal hazardous waste regulations, to Republic Environmental Systems (Pennsylvania), LLC (hereafter called the Permittee), to continue operations at a hazardous waste management facility located at 2869 Sandstone Drive, Hatfield, PA, in Hatfield Township, Montgomery County, at latitude 40 ° 17 ' 30 " North and longitude -75 ° 17 ' 09 " West.

The Permittee must comply with all terms and conditions of this permit. This permit consists of the conditions contained herein (Parts I–VI and Attachments 1 through 11, consisting of pages 1 through 46) and the applicable regulations contained in 25 Pa. Code Chapters 260a–270a and 40 CFR 260–270 as specified in the permit.

This permit is based on the assumption that the information submitted in the permit renewal application attached to the Permittee's letter dated November 22, 2011; as modified by subsequent amendments dated December 19, 2011; November 2, 2012; June 20, 2013; September 4, 2013; November 8, 2013; May 2, 2014, and October 2, 2014 (hereafter referred to as the application); are accurate and that the facility will be constructed and/or operated as specified in the application. Any inaccuracies found in this information may be grounds for the revocation or modification of this permit and potential enforcement action. The Permittee must inform DEP of any deviation from or changes in the information in the application which would affect the Permittee's ability to comply with the applicable regulations or permit conditions.

This permit is conditioned upon full compliance with all applicable provisions of the Act; DEP's regulations contained in 25 Pa. Code Chapters 260a–270a; Federal regulations contained in 40 CFR Chapters 260–270; the Clean Streams Law, 35 P.S. 691.1 et seq.; the Air Pollution Control Act, 35 P.S. 4001 et seq.; the Dam Safety and Encroachments Act, 32 P.S. 693.1 et seq.; the Surface Mining Conservation and Reclamation Act, 52 P.S. 1396.1 et seq.; the Coal Refuse Disposal Control Act, 52 P.S. 30.51 et seq.; all other Pennsylvania statutes related to the protection of the environment; and all Pennsylvania statutes related to the protection of public health, safety, and welfare.

This permit is effective as of December 10, 2014, and shall remain in effect until December 10, 2024, unless revoked and reissued, or terminated in accordance with 25 Pa. Codes 270a.41, 270a.42, and 270a.43 and 40 CFR 270.41, 270.42, and 270.43, or continued.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF CLEAN WATER

# PAG-03
# AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT FOR DISCHARGES OF STORMWATER ASSOCIATED WITH INDUSTRIAL ACTIVITY

## NPDES PERMIT NO: PAR900009

In compliance with the provisions of the Clean Water Act, 33 U.S.C. Section 1251 *et seq.*, and Pennsylvania's Clean Streams Law, as amended, 35 P.S. Section 691.1 *et seq.*,

**Republic Environmental Systems (Pennsylvania), LLC**
**2869 Sandstone Drive**
**Hatfield, PA 19440**

(permittee) is authorized to discharge from a facility known as **Republic Environmental Systems (Pennsylvania), LLC** (facility), located in **Hatfield Township, Montgomery County**, to **Unnamed Tributary to West Branch Neshaminy Creek** in Watershed(s) **2-F** in accordance with the effluent limitations, monitoring and reporting requirements, best management practices (BMPs) and other conditions set forth in Parts A, B and C and Appendix(ces) **A** herein.

**APPROVAL OF COVERAGE TO DISCHARGE UNDER THIS GENERAL NPDES PERMIT IS AUTHORIZED BEGINNING ON JANUARY 1, 2017. WHEN THE GENERAL PERMIT IS RENEWED, REISSUED OR MODIFIED, THE FACILITY OR ACTIVITY COVERED BY THE APPROVAL FOR COVERAGE MUST COMPLY WITH THE FINAL RENEWED, REISSUED OR MODIFIED GENERAL PERMIT.**

The authority granted by coverage under the PAG-03 NPDES General Permit ("General Permit") is subject to the following further qualifications:

1. The permittee shall comply with the terms and conditions of the PAG-03 NPDES General Permit, including the monitoring and reporting requirements contained in Part A, the standard conditions in Part B, the special conditions in Part C, and the applicable appendix or appendices for all discharges of stormwater from the facility.

2. Submission of a Notice of Intent (NOI) is not required for renewal of coverage under this General Permit and coverage is automatically extended for the duration of the final renewed, reissued or amended General Permit, unless DEP notifies the permittee in writing that submission of an NOI is required. The permittee shall be responsible for complying with the final renewed, reissued or amended General Permit. If the permittee is unable to comply with the renewed, reissued or amended General Permit, the permittee shall submit an application for an individual NPDES permit within 90 days of the final General Permit publication.

3. If the permittee believes a conflict exists between the requirements in the NOI or its supporting documents and the terms and conditions of the PAG-03 NPDES General Permit, the permittee shall comply with the terms and conditions of the General Permit.

4. The Permittee's failure to comply with the terms, conditions, or effluent limitations of the PAG-03 NPDES General Permit is grounds for DEP to take an enforcement action, or to terminate or revoke coverage under this General Permit.

5. This PAG-03 NPDES General Permit does not authorize construction or modification of treatment facilities necessary to meet the terms and conditions of this General Permit.

**The aforementioned approval is authorized by:**

**Jenifer L. Fields, P.E.**
**Clean Water Program Manager**
**Southeast Regional Office**

# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 05/01/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

| PRODUCER | CONTACT NAME: Willis Towers Watson Certificate Center |
|---|---|
| Willis Towers Watson Northeast, Inc. fka Willis of Pennsylvania, Inc.<br>c/o 26 Century Blvd<br>P.O. Box 305191<br>Nashville, TN 372305191 USA | PHONE (A/C, No, Ext): 1-877-945-7378 FAX (A/C, No): 1-888-467-2378<br>E-MAIL ADDRESS: certificates@willis.com |

| INSURER(S) AFFORDING COVERAGE | NAIC # |
|---|---|
| INSURER A : ACE American Insurance Company | 22667 |
| INSURER B : American Guarantee and Liability Insurance | 26247 |
| INSURER C : Indemnity Insurance Company of North Ameri | 43575 |
| INSURER D : Allied World Assurance Company US Inc | 19489 |
| INSURER E : | |
| INSURER F : | |

INSURED
Clean Earth Environmental Solutions, Inc.
350 Poplar Church Road
Camp Hill, PA 17011

**COVERAGES** **CERTIFICATE NUMBER:** W16385811 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

| INSR LTR | TYPE OF INSURANCE | ADDL INSD | SUBR WVD | POLICY NUMBER | POLICY EFF (MM/DD/YYYY) | POLICY EXP (MM/DD/YYYY) | LIMITS | |
|---|---|---|---|---|---|---|---|---|
| A | [X] COMMERCIAL GENERAL LIABILITY<br>[ ] CLAIMS-MADE [X] OCCUR<br>GEN'L AGGREGATE LIMIT APPLIES PER:<br>[ ] POLICY [ ] PRO-JECT [ ] LOC<br>[ ] OTHER: | | | HDO G7123289A | 06/30/2019 | 06/30/2020 | EACH OCCURRENCE<br>DAMAGE TO RENTED PREMISES (Ea occurrence)<br>MED EXP (Any one person)<br>PERSONAL & ADV INJURY<br>GENERAL AGGREGATE<br>PRODUCTS - COMP/OP AGG | $ 5,000,000<br>$ 5,000,000<br>$ 100,000<br>$ 5,000,000<br>$ 5,000,000<br>$ 5,000,000 |
| A | AUTOMOBILE LIABILITY<br>[X] ANY AUTO<br>[ ] OWNED AUTOS ONLY [ ] SCHEDULED AUTOS<br>[X] HIRED AUTOS ONLY [X] NON-OWNED AUTOS ONLY | | | ISA H25279657 | 06/30/2019 | 06/30/2020 | COMBINED SINGLE LIMIT (Ea accident)<br>BODILY INJURY (Per person)<br>BODILY INJURY (Per accident)<br>PROPERTY DAMAGE (Per accident) | $ 3,000,000<br>$<br>$<br>$ |
| B | [X] UMBRELLA LIAB [X] OCCUR<br>[ ] EXCESS LIAB [ ] CLAIMS-MADE<br>[ ] DED [X] RETENTION $ 0 | | | AUC7364403 - 01 | 06/30/2019 | 06/30/2020 | EACH OCCURRENCE<br>AGGREGATE | $ 1,000,000<br>$ 1,000,000 |
| C | WORKERS COMPENSATION AND EMPLOYERS' LIABILITY<br>ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N: No<br>(Mandatory in NH)<br>If yes, describe under DESCRIPTION OF OPERATIONS below | N / A | | WLR C65891517 | 06/30/2019 | 06/30/2020 | [X] PER STATUTE [ ] OTH-ER<br>E.L. EACH ACCIDENT<br>E.L. DISEASE - EA EMPLOYEE<br>E.L. DISEASE - POLICY LIMIT | $ 1,000,000<br>$ 1,000,000<br>$ 1,000,000 |
| A | Excess Workers Compensation | | | WCU C65891554 | 06/30/2019 | 06/30/2020 | | See Page 2 |

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

This Voids and Replaces Previously Issued Certificate Dated 04/14/2020 WITH ID: W16176044.

Evidence of Coverage.
SEE ATTACHED

**CERTIFICATE HOLDER**

Clean Earth Environmental Solutions, Inc.
350 Poplar Church Road
Camp Hill, PA 17011

**CANCELLATION**

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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AGENCY CUSTOMER ID: _____

LOC #: _____

# ADDITIONAL REMARKS SCHEDULE



| AGENCY | | NAMED INSURED |
|---|---|---|
| Willis Towers Watson Northeast, Inc. fka Willis of Pennsylvania, Inc. | | Clean Earth Environmental Solutions, Inc.<br>350 Poplar Church Road<br>Camp Hill, PA 17011 |
| POLICY NUMBER<br>See Page 1 | | |
| CARRIER<br>See Page 1 | NAIC CODE<br>See Page 1 | EFFECTIVE DATE: See Page 1 |

**ADDITIONAL REMARKS**

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,

FORM NUMBER: 25 FORM TITLE: Certificate of Liability Insurance

Excess Workers Compensation:
Part One: Statutory

Part Two:
Bodily Injury by Accident, Each Accident: $1,000,000
Bodily Injury by Disease, Policy Limit: $1,000,000
Bodily Injury by Disease, Each Employee: $1,000,000

Named Insured is Self-Insured for Auto Physical Damage.

INSURER AFFORDING COVERAGE: Allied World Assurance Company US Inc NAIC#: 19489
POLICY NUMBER: 0312-3009 EFF DATE: 04/06/2020 EXP DATE: 04/06/2021

| TYPE OF INSURANCE: | LIMIT DESCRIPTION: | LIMIT AMOUNT: |
|---|---|---|
| Site Pollution Liability | Per Incident: | $10,000,000 |
| | Aggregate: | $10,000,000 |
| | Deductible: | $250,000 |



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SR ID: 19571232 BATCH: 1666285 CERT: W16385811

# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 05/12/2020

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

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| PRODUCER | CONTACT NAME: Willis Towers Watson Certificate Center |
|---|---|
| Willis Towers Watson Northeast, Inc. fka Willis of Pennsylvania, Inc.<br>c/o 26 Century Blvd<br>P.O. Box 305191<br>Nashville, TN 372305191 USA | PHONE (A/C, No, Ext): 1-877-945-7378 FAX (A/C, No): 1-888-467-2378<br>E-MAIL ADDRESS: certificates@willis.com |

| INSURER(S) AFFORDING COVERAGE | NAIC # |
|---|---|
| INSURER A : ACE American Insurance Company | 22667 |
| INSURER B : American Guarantee and Liability Insurance | 26247 |
| INSURER C : Indemnity Insurance Company of North Ameri | 43575 |
| INSURER D : Allied World Assurance Company US Inc | 19489 |
| INSURER E : | |
| INSURER F : | |

INSURED
Clean Earth Specialty Waste Solutions, Inc.
350 Poplar Church Road
Camp Hill, PA 17011

**COVERAGES** **CERTIFICATE NUMBER:** W16450914 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

| INSR LTR | TYPE OF INSURANCE | ADDL INSD | SUBR WVD | POLICY NUMBER | POLICY EFF (MM/DD/YYYY) | POLICY EXP (MM/DD/YYYY) | LIMITS | |
|---|---|---|---|---|---|---|---|---|
| A | [X] COMMERCIAL GENERAL LIABILITY<br>[ ] CLAIMS-MADE [X] OCCUR<br>GEN'L AGGREGATE LIMIT APPLIES PER:<br>[ ] POLICY [ ] PRO-JECT [ ] LOC<br>[ ] OTHER: | | | HDO G7123289A | 06/30/2019 | 06/30/2020 | EACH OCCURRENCE<br>DAMAGE TO RENTED PREMISES (Ea occurrence)<br>MED EXP (Any one person)<br>PERSONAL & ADV INJURY<br>GENERAL AGGREGATE<br>PRODUCTS - COMP/OP AGG | $ 5,000,000<br>$ 5,000,000<br>$ 100,000<br>$ 5,000,000<br>$ 5,000,000<br>$ 5,000,000 |
| A | AUTOMOBILE LIABILITY<br>[X] ANY AUTO<br>[ ] OWNED AUTOS ONLY [ ] SCHEDULED AUTOS<br>[X] HIRED AUTOS ONLY [X] NON-OWNED AUTOS ONLY | | | ISA H25279657 | 06/30/2019 | 06/30/2020 | COMBINED SINGLE LIMIT (Ea accident)<br>BODILY INJURY (Per person)<br>BODILY INJURY (Per accident)<br>PROPERTY DAMAGE (Per accident) | $ 3,000,000<br>$<br>$<br>$ |
| B | [X] UMBRELLA LIAB [X] OCCUR<br>EXCESS LIAB [ ] CLAIMS-MADE<br>[ ] DED [X] RETENTION $ 0 | | | AUC7364403 - 01 | 06/30/2019 | 06/30/2020 | EACH OCCURRENCE<br>AGGREGATE | $ 1,000,000<br>$ 1,000,000 |
| C | WORKERS COMPENSATION AND EMPLOYERS' LIABILITY<br>ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N: No<br>(Mandatory in NH)<br>If yes, describe under DESCRIPTION OF OPERATIONS below | N / A | | WLR C65891517 | 06/30/2019 | 06/30/2020 | [X] PER STATUTE [ ] OTH-ER<br>E.L. EACH ACCIDENT<br>E.L. DISEASE - EA EMPLOYEE<br>E.L. DISEASE - POLICY LIMIT | $ 1,000,000<br>$ 1,000,000<br>$ 1,000,000 |
| A | Excess Workers Compensation | | | WCU C65891554 | 06/30/2019 | 06/30/2020 | | See Page 2 |

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
Evidence of Coverage.
SEE ATTACHED

**CERTIFICATE HOLDER**

Clean Earth Specialty Waste Solutions, Inc.
350 Poplar Church Road
Camp Hill, PA 17011

**CANCELLATION**

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE



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AGENCY CUSTOMER ID: _____

LOC #: _____

# ADDITIONAL REMARKS SCHEDULE



| AGENCY | | NAMED INSURED |
|---|---|---|
| Willis Towers Watson Northeast, Inc. fka Willis of Pennsylvania, Inc. | | Clean Earth Specialty Waste Solutions, Inc.<br>350 Poplar Church Road<br>Camp Hill, PA 17011 |
| POLICY NUMBER<br>See Page 1 | | |
| CARRIER<br>See Page 1 | NAIC CODE<br>See Page 1 | EFFECTIVE DATE: See Page 1 |

**ADDITIONAL REMARKS**

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,

FORM NUMBER: 25 FORM TITLE: Certificate of Liability Insurance

Excess Workers Compensation:
Part One: Statutory

Part Two:
Bodily Injury by Accident, Each Accident: $1,000,000
Bodily Injury by Disease, Policy Limit: $1,000,000
Bodily Injury by Disease, Each Employee: $1,000,000

Named Insured is Self-Insured for Auto Physical Damage.

INSURER AFFORDING COVERAGE: Allied World Assurance Company US Inc NAIC#: 19489
POLICY NUMBER: 0312-3009 EFF DATE: 04/06/2020 EXP DATE: 04/06/2021

| TYPE OF INSURANCE: | LIMIT DESCRIPTION: | LIMIT AMOUNT: |
|---|---|---|
| Site Pollution Liability | Per Incident: | $10,000,000 |
| | Aggregate: | $10,000,000 |
| | Deductible: | $250,000 |



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SR ID: 19607243 BATCH: 1676916 CERT: W16450914

State of New Jersey

CHRIS CHRISTIE
*Governor*

KIM GUADAGNO
*Lt. Governor*

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BOB MARTIN
*Commissioner*

Division of Solid & Hazardous Waste
Bureau of Recycling & Hazardous Waste Management
401 East State Street
P.O. Box 420, Mail Code 401-02C
Trenton, NJ 08625-0420
Tel (609) 984-3438 Fax (609) 777-1951/984-0565
www.nj.gov/dep/dshw/recycling

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Richard Parrish, President
Impact Environmental Consulting, Inc.
170 Keyland Court
Bohemia, NY 11716

June 5, 2017

Re: Class B Recycling Center General Approval Renewal with No Changes
Impact Environmental Consulting, Inc.
Block 235, Lots 4 & 5
City of Lyndhurst, Bergen County
Facility No. 131888
Permit No.: CBG170002

Dear Mr. Parrish:

Please be advised that the New Jersey Department of Environmental Protection, Division of Solid and Hazardous Waste has reached a final determination to issue the Class B Recycling Center General Approval with No Changes for the above referenced facility. Enclosed is a copy of the final document.

Should you wish to contest any of the conditions of the enclosed general approval, you must file a request for an adjudicatory hearing within twenty (20) days of the date you receive this decision notice in accordance with the procedures found in N.J.A.C. 7:26A-3.14. A copy of the request should also be mailed to this office.

If you have any questions concerning this matter, please contact Rakesh Patel of my staff at (609) 984-6814, or by email at rakesh.patel@dep.nj.gov

Sincerely,

Zafar Billah

Zafar M. Billah, Acting Chief
Bureau of Recycling &
Hazardous Waste Management

Enclosures

C: *Thomas Farrell, Chief, Bureau of SW Compliance & Enforcement
*Gina Lugo, Supervisor, Bureau of SW Compliance & Enforcement
*Ron Bannister, Supervisor, Bureau of Non-Point Pollution Control
Richard Wierer, Bergen County Solid Waste Coordinator
Mark Vangieri, Bergen County Recycling Coordinator
Maureen Kelly, Bergen County Health Department
Tom Marturano, NJSEA Solid Waste Coordinator
Helen Polito, Lyndhurst Municipal Clerk

*Via Email

State of New Jersey

CHRIS CHRISTIE
*Governor*

KIM GUADAGNO
*Lt. Governor*

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BOB MARTIN
*Commissioner*

Division of Solid & Hazardous Waste
Bureau of Recycling & Hazardous Waste Management
401 East State Street
P.O. Box 420, Mail Code 401-02C
Trenton, NJ 08625-0420
Tel (609) 984-3438 Fax (609) 777-1951/984-0565
www.nj.gov/dep/dshw/recycling

# CLASS B RECYCLING CENTER GENERAL APPROVAL

Under the provisions of N.J.S.A. 13:1E-1 *et seq.* and N.J.S.A. 13:1E-99.11 *et seq.*, known as the Solid Waste Management Act and New Jersey Statewide Mandatory Source Separation and Recycling Act, respectively, and pursuant to N.J.A.C. 7:26A-1 *et seq.,* known as the Recycling Regulations, this approval is hereby issued to:

**Impact Environmental Consulting, Inc.**

| | |
|---|---|
| Facility Type: | Recycling Center for Class B Materials |
| LOT NO.(S): | 4 & 5 |
| BLOCK NO.: | 235 |
| MUNICIPALITY: | Lyndhurst |
| COUNTY: | Bergen |
| FACILITY REGISTRATION NO.: | 131888 |
| Permit No.: | CBG170002 |

This General Approval is subject to compliance with all conditions specified herein and all regulations promulgated by the Department of Environmental Protection (Department).

This General Approval shall not prejudice any claim the State may have to riparian land nor does it allow the registrant to fill or alter, or allow to be filled or altered, in any way, lands that are deemed to be riparian, wetlands, stream encroachment or flood plains, or within the Coastal Area Facility Review Act (CAFRA) zone or are subject to the Pinelands Protection Act of 1979, nor shall it allow the discharge of pollutants to waters of this State without prior acquisition of the necessary grants, permits, or approvals from the Department.

Zafar Billah

June 5, 2017
Issuance Date

Zafar M. Billah Acting Chief
Bureau of Recycling &
Hazardous Waste Management

May 7, 2022
Expiration Date

Scope of Approval

This General Approval (approval), along with the referenced application documents herein specified, shall constitute the sole approval of Recycling Center operations for Class B Recyclable Material (Concrete, Concrete Block, Brick, Asphalt, Cinder Block, Ceramic, Tile, Asphalt Millings, Porcelain, Plaster, and Terra Cotta) by Impact Environmental Consulting, Inc. (holder) headquartered in Bohemia, New York. Any registration, approval or permit previously issued by Division of Solid and Hazardous Waste, or its predecessor agencies, for the specific activities as described below and as conditioned herein, is hereby superseded.

Regulated Activities at the Facility

Items 1 through 39 of this approval contain the general conditions applicable to all recycling centers. Items 40 through 68 of this approval contain the operating requirements applicable to the Class B recyclable materials handling. Items 69 through 80 of this approval contain general conditions applicable to beneficial use materials handling.

Facility Description

The recycling center is a Class B facility operated by Impact Environmental Consulting, Inc. The recycling center is located on Page Ave. and Schuyler Ave., Block 235, Lots 4 and 5, in Lyndhurst, Bergen County. This regional recycling center receives concrete, concrete block, brick, asphalt, cinder block, ceramic, tile, asphalt millings, porcelain, plaster, and terra cotta from demolition contractors, manufacturers and municipalities. The recycling center also receives beneficial use soils preapproved by the Department that are commingled with other approved Class B recyclable material from demolition and/or redevelopment projects. The recycling center is authorized to accept and process the above materials 7:00 a.m. to 5:00 p.m., Monday through Friday and 7:00 a.m. to 3:00 p.m., Saturday.

The recycling center is also utilized for finished product storage and equipment storage as shown on the site plan.

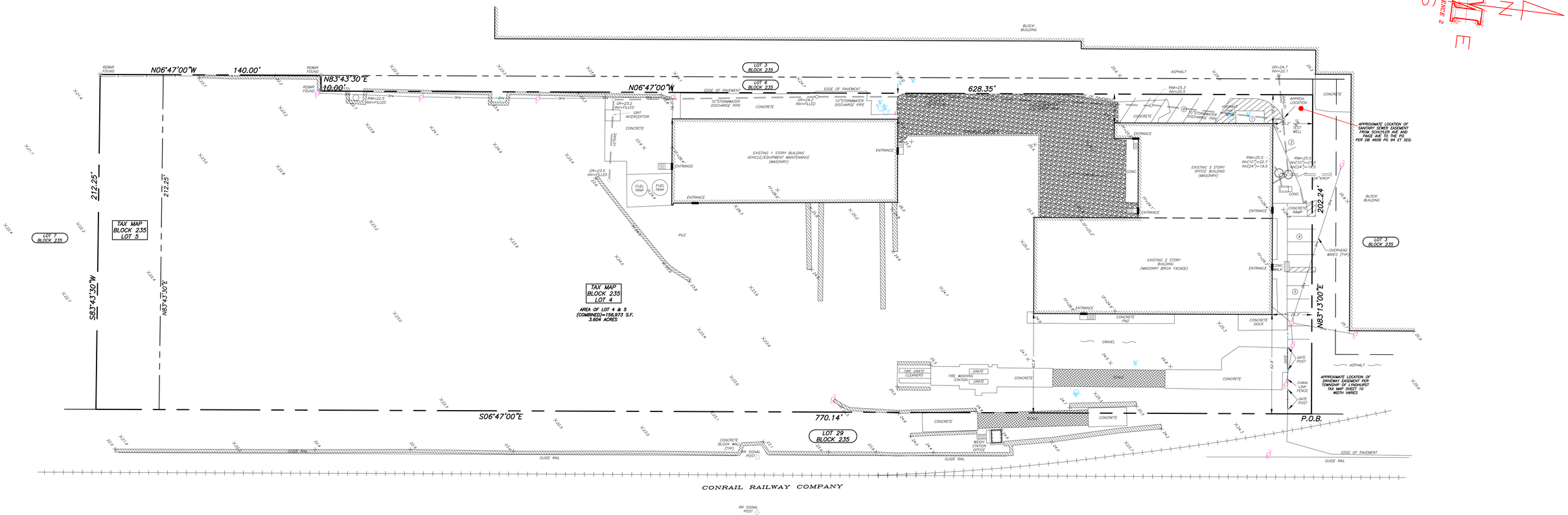
Approved General Approval Application and Associated Documents

The registrant shall construct and operate the facility in accordance with N.J.A.C. 7:26A-1 *et seq.*, the conditions of this Approval, and the following documents:

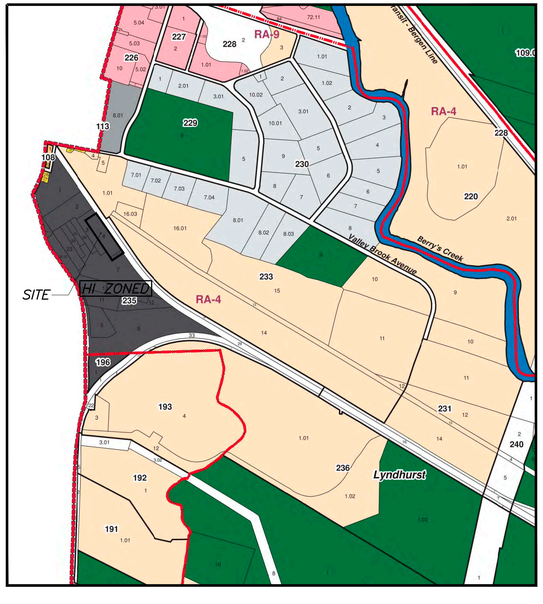
(1) Site Plan: Figure # 2-3, 2-3A, 2-4, 2-4A & 2-4B sealed by Joel Rogers, P.E. for Impact Environmental dated October 7th, 2014.

(2) Class B Renewal Application dated January 17, 2017 submitted by Impact Environmental and signed by Mr. Richard Parrish, P.G.

In case of conflict, the provisions of N.J.A.C. 7:26A-1 *et seq.* shall have precedence over the conditions of this Approval, and the conditions of this Approval shall have precedence over plans and specifications listed above.




## HACKENSACK MEADOWLANDS DISTRICT MAP




## NOTES:

1. SUBJECT TO EASEMENTS, GRANTS, RESTRICTIONS, RIGHT-OF-WAYS AND CONDITIONS OF RECORD AND SUCH STATE OF FACTS WHICH AN ACCURATE, CURRENT AND COMPLETE ABSTRACT OF TITLE MIGHT DISCLOSE.
2. STREET NAMES AND RIGHT-OF-WAY WIDTHS AND BLOCK AND LOT DESIGNATIONS ARE PER THE CURRENT MUNICIPAL TAX MAPS.
3. EXCEPT AS SPECIFICALLY STATED OR SHOWN ON THIS PLAT, THIS SURVEY DOES NOT PURPORT TO REFLECT MUNICIPAL SETBACK REQUIREMENTS, RESTRICTIVE COVENANTS, SUBDIVISION RESTRICTIONS, ZONING OR OTHER LAND USE REGULATIONS.
4. THIS SURVEY IS BASED ON EXISTING PHYSICAL CONDITIONS FOUND AT THE SITE ON THE DATES OF THE FIELD SURVEY AND ON DEED, FILED, AND UNFILED MAP INFORMATION.
5. SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED OR CONSIDERED AS PART OF THIS SURVEY, NO STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONTAINERS OR FACILITIES THAT MAY AFFECT THE USE OR DEVELOPMENT OF THIS TRACT.
6. ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MARKED WITH AN ORIGINAL OF THE LAND SURVEYORS EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID COPIES.
7. SIGNATURE AND EMBOSSED SEAL SIGNIFY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE ADOPTED BY THE N.J. STATE BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS. CERTIFICATIONS INDICATED HEREON SHALL RUN ONLY TO THE PERSON FOR WHICH THE SURVEY IS PREPARED, AND ON HIS BEHALF TO THE TITLE COMPANY. GOVERNMENTAL AGENCY AND LENDING INSTITUTION LISTED HEREON. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.
8. ELEVATIONS BASED ON NGVD29 AND ESTABLISHED BY RAPID STATIS GPS OBSERVATIONS USING COR STATION "NJIT" CONVERSION TO NGVD29 FROM NAVD88 BY VERTCON PROGRAM. CONTOURS HAVE A 1 FOOT INTERVAL.
9. IN ACCORDANCE WITH N.J.A.C. 13:40-5.1(d), UNDER "LAND SURVEYORS; PREPARATION OF LAND SURVEYS," A WAIVER OF THE RIGHT TO HAVE CORNER MARKERS SET HAS BEEN FILED WITH THIS OFFICE BY THE ULTIMATE USER.

## REFERENCES:

1. TAX MAP FOR THE TOWNSHIP OF LYNDHUSRT, BERGEN COUNTY, NEW JERSEY
2. DEED BOOK 8320 PAGE 334 ET SEQ.
3. "SUBDIVISION OF PROPERTY OF D.L.&W. RAILROAD COMPANY, BOROUGH OF NORTH ARLINGTON AND TOWNSHIP OF LYNDHURST, BERGEN COUNTY, NEW JERSEY" PREPARED BY RONALD B. BROWN, ENGINEER, DATED NOVEMBER 1958, LAST REVISED DECEMBER 1958. THIS IS UNAVAILABLE AT THE BERGEN COUNY CLERK'S OFFICE.
4. TITLE REPORT # CTA2097 BY CECERE TITLE AGENCY, AGENT FOR FIRST AMERICAN TITLE INSURANCE COMPANY.
5. FIELD SURVEY PERFORMED AUGUST 2014.

## ZONING:

PROPOERTY IS CURRENTLY IN THE HEAVY INDUSTRIAL (HI) ZONED LAND

GRAPHIC SCALE
30 0 15 30 60
(IN FEET)
1 INCH = 30 FEET

| REV. | DATE | DESCRIPTION |
|---|---|---|

DRAWN BY : CC
CHECKED BY : DWD
PROJECT No: 14082

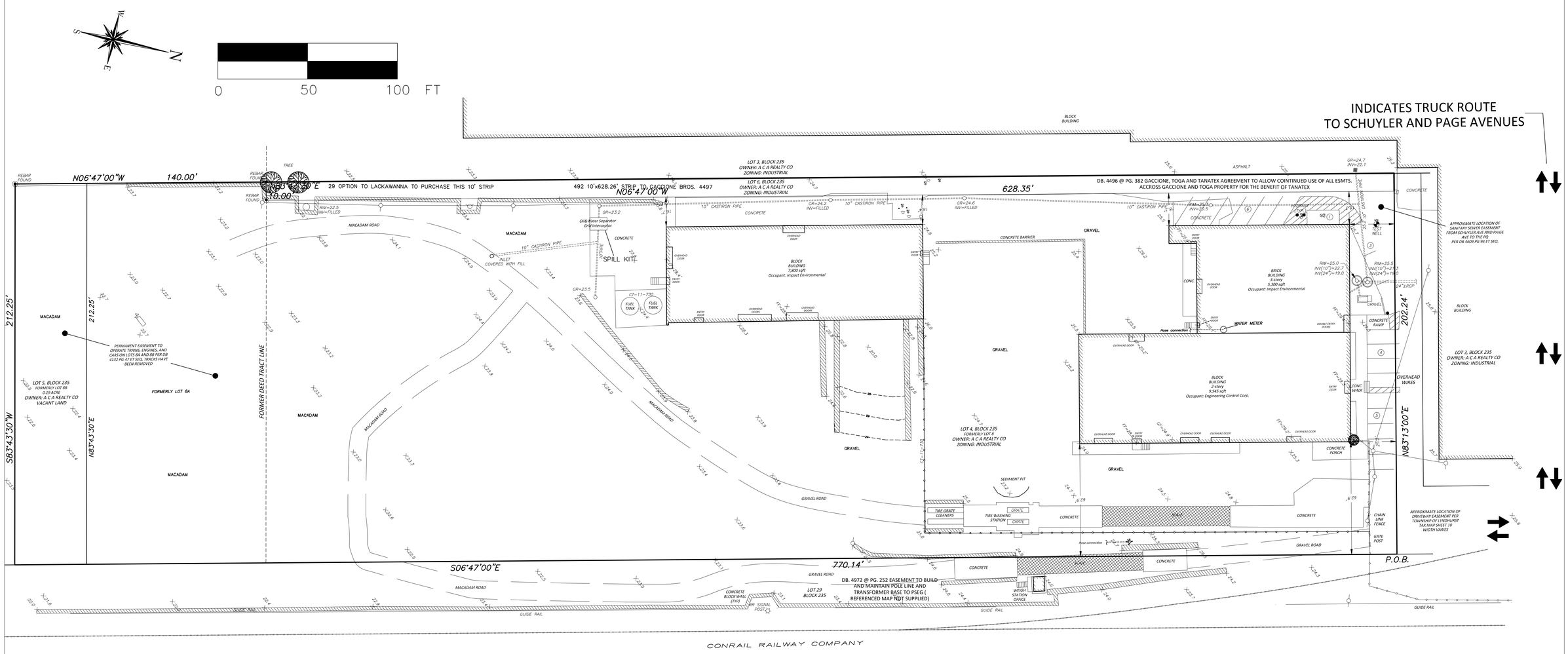
McNALLY ENGINEERING, LLC.

DRAWING TITLE BOUNDARY AND TOPOGRAPHIC SURVEY

IMPACT ENVIRONMENTAL
BLOCK 235 - LOTS 4 & 5
TOWNSHIP OF LYNDHURST
BERGEN COUNTY, NEW JERSEY

McNALLY ENGINEERING, L.L.C.
Certificate of Authorization 24GA27928700, exp. 8/31/16
169 RAMAPO VALLEY ROAD
OAKLAND, NJ 07436
(201) 337-9051

| SCALE : | DATE : | SHEET No.: | DWG. No.: |
|---|---|---|---|
| 1" = 30' | 08/27/14 | 1 OF 1 | SB-1 |




## REFERENCES:

1. TAX MAP FOR THE TOWNSHIP OF LYNDHURST, BERGEN COUNTY, NEW JERSEY
2. DEED BOOK 8320 PAGE 334 ET SEQ.
3. "SUBDIVISION OF PROPERTY OF D.L.&W. RAILROAD COMPANY, BOROUGH OF NORTH ARLINGTON AND TOWNSHIP OF LYNDHURST, BERGEN COUNTY, NEW JERSEY" PREPARED BY RONALD B. BROWN, ENGINEER, DATED NOVEMBER 1958, LAST REVISED DECEMBER 1958. THIS IS UNAVAILABLE AT THE BERGEN COUNY CLERK'S OFFICE.
4. TITLE REPORT # CTA2097 BY CECERE TITLE AGENCY, AGENT FOR FIRST AMERICAN TITLE INSURANCE COMPANY.
5. BOUNDARY AND TOPOGRAPHIC SURVEY, PREPARED BY MCNALLY ENGINEERING, LLC, SIGNED BY DOUGLAS W. DOOLITTLE, P.E., LSRP, DATED AUGUST 26, 2014.

## LEGEND:

- FACILITY BOUNDARY
- PROPERTY LINE
- TRAIN TRACKS

## NOTES:

1. SUBJECT TO EASEMENTS, GRANTS, RESTRICTIONS, RIGHT-OF-WAYS AND CONDITIONS OF RECORD AND SUCH STATE OF FACTS WHICH AN ACCURATE, CURRENT AND COMPLETE ABSTRACT OF TITLE MIGHT DISCLOSE.
2. STREET NAMES AND RIGHT-OF-WAY WIDTHS AND BLOCK AND LOT DESIGNATIONS ARE PER THE CURRENT MUNICIPAL TAX MAPS.
3. EXCEPT AS SPECIFICALLY STATED OR SHOWN ON THIS PLAT, THIS SURVEY DOES NOT PURPORT TO REFLECT MUNICIPAL SETBACK REQUIREMENTS, RESTRICTIVE COVENANTS, SUBDIVISION RESTRICTIONS, ZONING OR OTHER LAND USE REGULATIONS.
4. SITE CONSISTS OF LOT 4 & 5 OF BLOCK 235, WITH AN AREA OF 156,973 SQFT (3.604 ACRES).

TITLE:

# EXISTING FEATURES

1000 Page Avenue
Lyndhurst, NJ

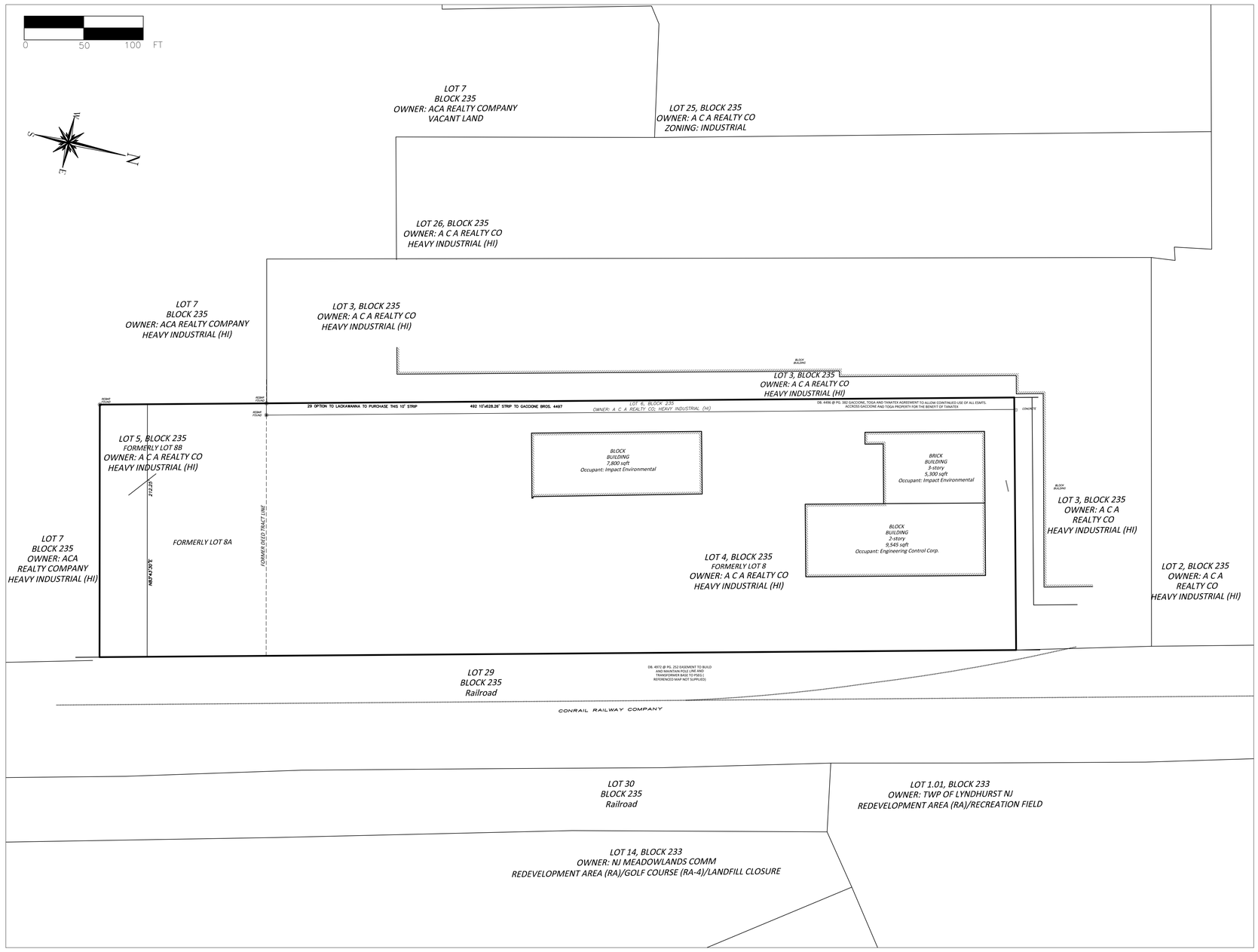
| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | JR |
| DATE: | 10/07/2014 |
| SCALE: | SEE DRAWING |

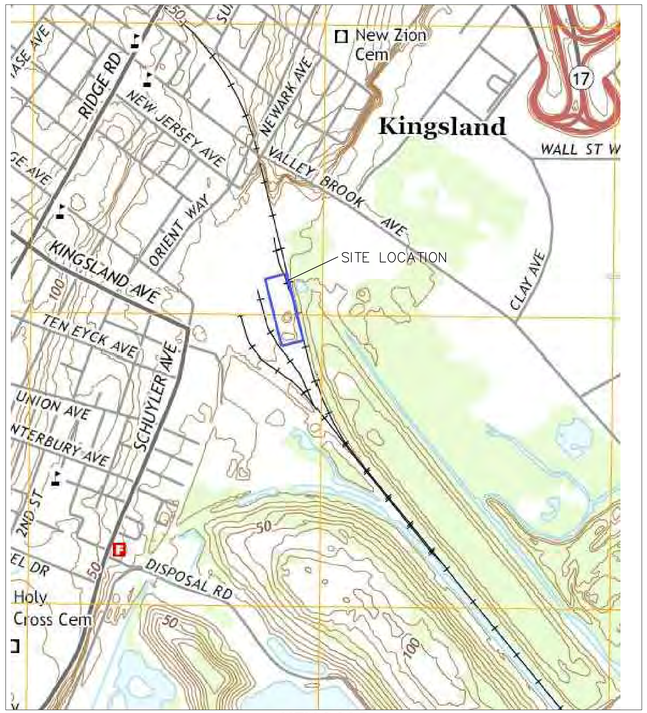
| | |
|---|---|
| PROJECT # | FAC8 |
| FIGURE # | 1 |

JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400


**IMPACT ENVIRONMENTAL**
170 KEYLAND COURT
BOHEMIA, NEW YORK 11716
TEL (631) 269-8800 FAX (631) 269-1599

1000 PAGE, AVENUE
LYNDHURST, NEW JERSEY 07071
TEL (201) 268-5686 FAX (631) 269-1599




KEY MAP

USGS TOPO MAP, WEEHAWKEN QUADRANGLE, 2014

## ZONING ANALYSIS:

| | |
|---|---|
| ZONE: | 1-3 HEAVY INDUSTRIAL |
| BLOCK: | 235 |
| LOTS: | 4 & 5 |
| EXISTING USE: | OFFICE/RECYCLING YARD |
| PROPOSED USE: | OFFICE/RECYCLING YARD |

| | REQUIRED | EXISTING/PROVIDED |
|---|---|---|
| MINIMUM LOT AREA | ONE ACRE | 156,966.75 SF= 3.6 AC |
| MINIMUM LOT WIDTH | 100 FT | 202.24 FT |
| MINIMUM LOT DEPTH | 150 FT | 770.11 FT |
| MINIMUM FRONT YARD | 35 FT | 25.14 FT (EXISTING) |
| MINIMUM SIDE YARD | 20 FT | 18.14 FT (EXISTING) |
| MINIMUM REAR YARD | 30 FT | +300 FT (EXISTING) |

## REFERENCES:


1. TAX MAP FOR THE TOWNSHIP OF LYNDHURST, BERGEN COUNTY, NEW JERSEY
2. DEED BOOK 8320 PAGE 334 ET SEQ.
3. "SUBDIVISION OF PROPERTY OF D.L.&W. RAILROAD COMPANY, BOROUGH OF NORTH ARLINGTON AND TOWNSHIP OF LYNDHURST, BERGEN COUNTY, NEW JERSEY" PREPARED BY RONALD B. BROWN, ENGINEER, DATED NOVEMBER 1958, LAST REVISED DECEMBER 1958. THIS IS UNAVAILABLE AT THE BERGEN COUNY CLERK'S OFFICE.
4. TITLE REPORT # CTA2097 BY CECERE TITLE AGENCY, AGENT FOR FIRST AMERICAN TITLE INSURANCE COMPANY.
5. BOUNDARY AND TOPOGRAPHIC SURVEY, PREPARED BY MCNALLY ENGINEERING, LLC, SIGNED BY DOUGLAS W. DOOLITTLE, P.E., LSRP, DATED AUGUST 26, 2014.
6. HACKENSACK MEADOWLANDS DISTRIC OFFICIAL ZONING MAP, PREPARED BY NEW JERSEY MEADOWNLANDS COMMISSION, REVISED AND ADOPTED JANUARY 20, 2009.


## LEGEND:

FACILITY BOUNDARY

PROPERTY LINE

## NOTES:

1. THE PROPOSED SITE PLAN DOES NOT INVOLVE ANY CHANGE TO EXISTING BUILDING STRUCTURES, TOTAL GROSS FLOOR AREA, FLOOR AREA RATIO, INTERIORS, TENANTS OR BUILDING ADA COMPLIANT.
2. SITE CONSISTS OF LOT 4 & 5 OF BLOCK 235, WITH AN AREA OF 156,973 SQFT (3.604 ACRES).

TITLE:

# LAND USE AND SURROUNDING PROPERTIES

1000 Page Avenue
Lyndhurst, NJ

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | JR |
| DATE: | 10/07/2014 |
| SCALE: | SEE DRAWING |

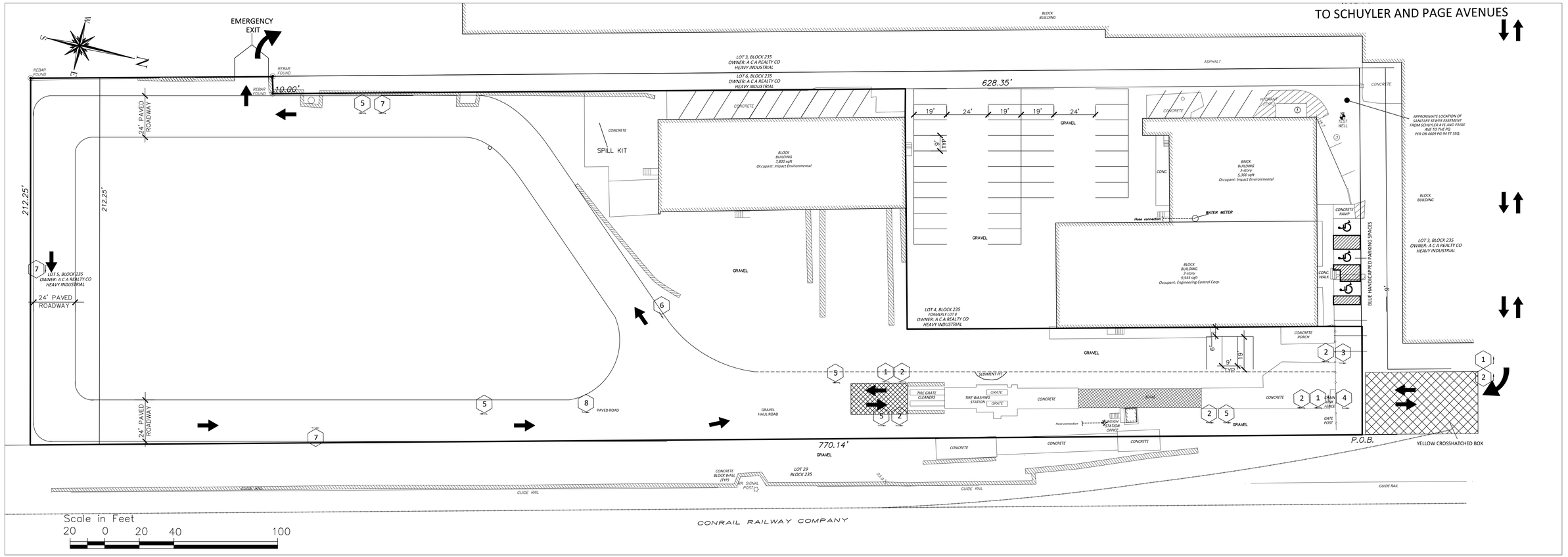
PROJECT # FAC8

FIGURE # 2

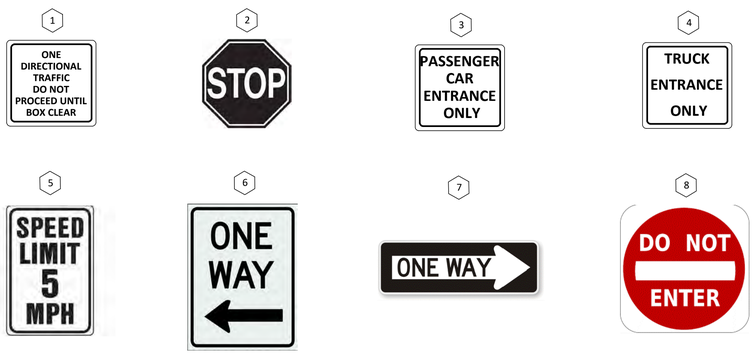
JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400


**IMPACT ENVIRONMENTAL**
170 KEYLAND COURT
BOHEMIA, NEW YORK 11716
TEL (631) 269-8800 FAX (631) 269-1599

1000 PAGE, AVENUE
LYNDHURST, NEW JERSEY 07071
TEL (201) 268-5686 FAX (631) 269-1599




## TRAFFIC SIGN DETAILS




## NOTES:

1. ALL TRAFFIC SIGNS WILL BE MOUNTED ON TEMPORARY TRAFFIC SIGN STANDS.
2. ALL ROAD STRIPES AND MARKINGS TO BE MADE WITH LATEX PAINT THAT IS A FAST-DRYING WHITE, OR NON-LEAD YELLOW, READY-MIXED PIGMENTED BINDER EMULSIFIED IN WATER AND CAPABLE OF ANCHORING REFLECTIVE GLASS BEADS THAT ARE SEPARATELY APPLIED. FED-STD-595B COLOR CHIP NO. 33538 FOR YELLOW, 15080 FOR BLUE AND NO. 37886 FOR WHITE. PAINT TO HAVE A MAXIMUM NO-TRACK TIME OF 120 SECONDS WHEN APPLIED IN A WET FILM THICKNESS OF 15 ± 1 MIL, AT 140 °F, AND WITH 12 POUNDS PER GALLON OF GLASS BEADS.

## LEGEND

- PROPERTY LINE
- BOUNDARY OF CLASS B RECYCLING
- JERSEY BARRIER WALL
- TRAIN TRACKS
- TRAFFIC DIRECTION
- PARKING SPACE
- 1 — TRAFFIC SIGN WITH FACING DIRECTION
- CROSSHATCH PAVEMENT MARKING

TITLE: **TRAFFIC PLANS AND DETAILS**

1000 Page Avenue
Lyndhurst, NJ

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | JR |
| DATE: | 10/07/2014 |
| SCALE: | SEE DRAWING |

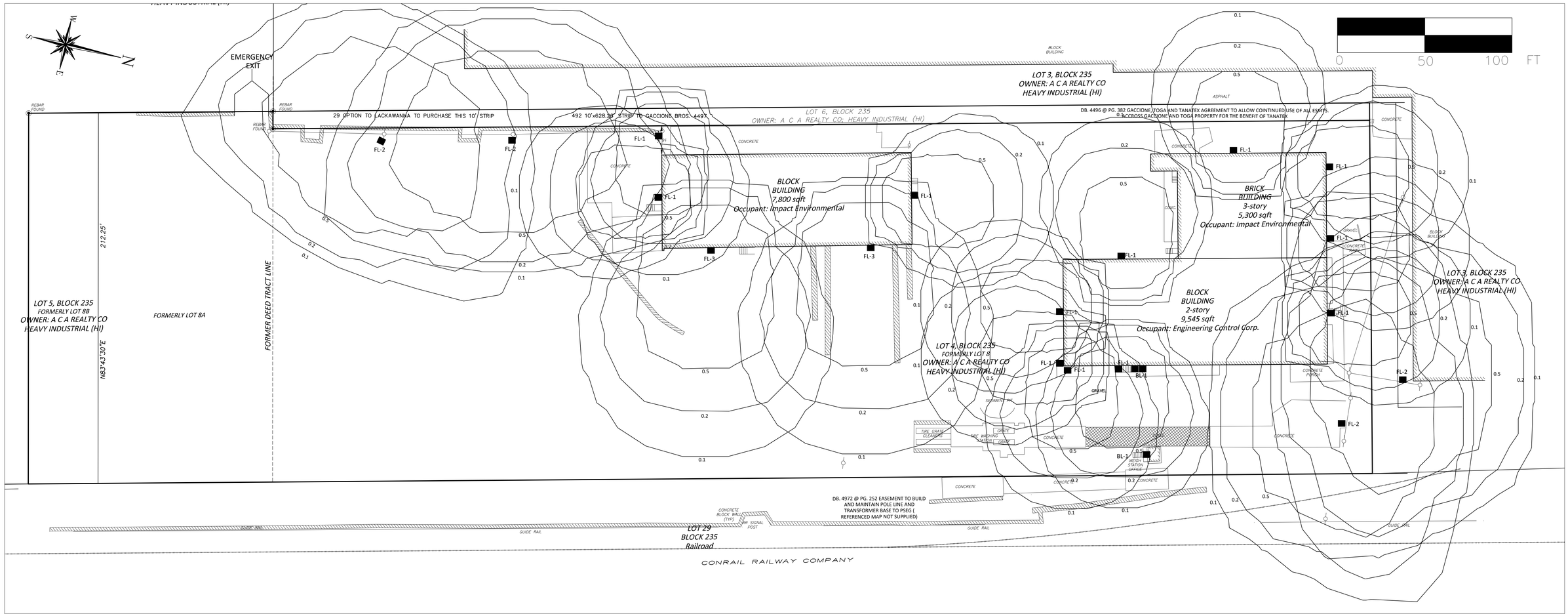
PROJECT # FAC8

FIGURE # 2-1

JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400

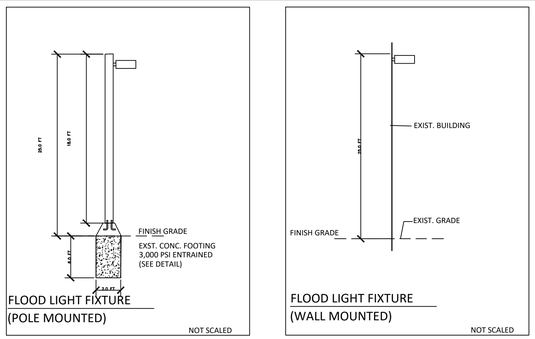
**IMPACT ENVIRONMENTAL**
170 KEYLAND COURT
BOHEMIA, NEW YORK 11716
TEL (631) 269-8800 FAX (631) 269-1599

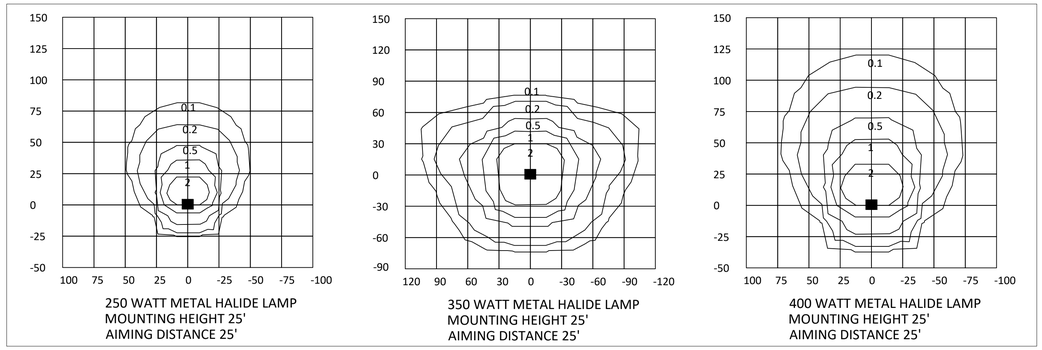
1000 PAGE, AVENUE
LYNDHURST, NEW JERSEY 07071
TEL (201) 268-5686 FAX (631) 269-1599




## LIGHTING SCHEDULE

| MARK | WATTAGE | FLOOD LIGHT | MOUNTING |
|---|---|---|---|
| FL-1 | 250 | WP3H250PSQ Metal Halide | WALL/POLE MOUNTED HEIGHT = 25' AIMING DISTANCE = 25' |
| FL-2 | 350 | ALH 350SFPSQ Metal Halide | POLE MOUNTED HEIGHT = 25' AIMING DISTANCE = 25' |
| FL-3 | 400 | WP4H400 PSQ Metal Halide | WALL MOUNTED HEIGHT = 25' AIMING DISTANCE = 25' |
| BL-1 | 60 | Bulb Light | WALL MOUNTED HEIGHT = 7' |




## NOTES:

1. SITE LIGHTING SHALL BE MAINTAINED BY OPERATOR AS INDICATED ON PLAN.
2. ALL LIGHT FIXTURES SHALL BE NON-GLARE, COLOR CORRECTED LIGHTS AND SHALL BE DIRECTED SO AS NOT TO SHINE ON ADJACENT PROPERTIES.
3. ALL PARKING LIGHTS ARE TO BE PROVIDED WITH BAFFLES TO SHIELD GLARE.
4. ALL LIGHTING IS PROVIDED IN ACCORDANCE WITH RECOMMENDATIONS OF THE CURRENT EDITION OF THE ILLUMINATING ENGINEERING SOCIETY LIGHTING HANDBOOK AND PER CITY OF LYNDHURST AND HMDC ORDINANCE.
5. LIGHTS ARE MANUFACTURED BY RAB LIGHTING, INC. DATA IS ACQUIRED FROM WWW. RABWEB.COM.

TITLE:

# SITE LIGHTING PLAN

1000 Page Avenue
Lyndhurst, NJ

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | JR |
| DATE: | 10/07/2014 |
| SCALE: | SEE DRAWING |

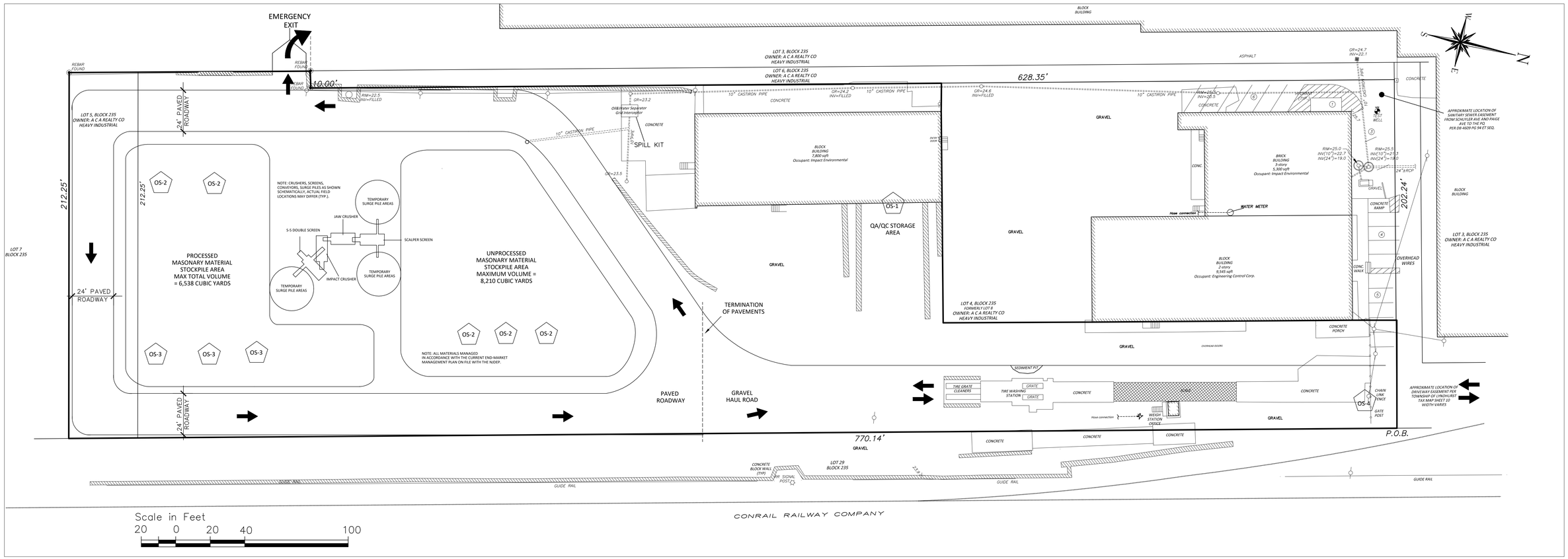
PROJECT # FAC8

FIGURE # 2-2

JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400


**IMPACT ENVIRONMENTAL**
170 KEYLAND COURT
BOHEMIA, NEW YORK 11716
TEL (631) 269-8800 FAX (631) 269-1599

1000 PAGE, AVENUE
LYNDHURST, NEW JERSEY 07071
TEL (201) 268-5686 FAX (631) 269-1599




| UNPROCESSED CLASS B MATERIALS | |
|---|---|
| COMPOSITION | MAXIMUM CAPACITY |
| CONCRETE, CONCRETE BLOCK, ASPHALT MILLINGS, BRICK, PORCELAIN, CERAMICS, CINDER BLOCKS, ASPHALT, TILE, TERRA COTTA, SOIL, CEMENT, CLEAN FILL | AREA VARIES (MAX AREA 13,985 SF AT 1:1 SLOPE WITH 25' HEIGHT). MAXIMUM VOLUME = 8,210 CUBIC YARDS (APPROX. 11,494 TONS AT 1.4 TONS/CUBIC YARD) |

| PROCESSED CLASS B MATERIALS (PRODUCTS) | |
|---|---|
| COMPOSITION | MAXIMUM CAPACITY |
| COMMERCIAL GRADE BLEND, 1-5 BLEND, DENSE GRADED AGGREGATE, 1 1/2'' CLEANED CRUSHED AGGREGATE, OVERSIZE CRUSHED CONCRETE, 1''-2'' CRUSHED BRICK, 3/8'' MINUS CRUSHED BRICK, CRUSHED ASPHALT, EMBANKMENT MEDIA, CLEAN FILL, ENGINEERED FILL | STOCKPILE AND TEMPORARY SURGE PILES MAX TOTAL VOLUME: 6,538 CUBIC YARDS (APPROX. 9,153 TONS AT 1.4 TONS/CUBIC YARDS) |

MACHINERY SPECIFICATION

| MODEL No. | MACHINE | LENGTH (FT) | WIDTH (FT) | HEIGHT (FT) | STANDARD WEIGHT (LBS) |
|---|---|---|---|---|---|
| QE341 | SCALPING SCREEN | 50.6 | 47.6 | 14.6 | 63500 |
| QI240 | IMPACT CRUSHER | 48.1 | 18.3 | 13.5 | 86862 |
| QJ341 | JAW CRUSHER | 51.9 | 14.9 | 14.9 | 111069 |
| QA340 | DOUBLESCREEN UNIT | 58.1 | 55.7 | 20.2 | 59304 |

Permit Activity Number: PCP120001

## NOTES:

1. IMPACT REUSE AND RECOVERY CENTER, BLOCK 235, LOTS 4 &5, CITY OF LYNDHURST, BERGEN COUNTY, FACILITY NO. 131888; PERMIT CBG110003. RECYCLING CENTER GENERAL APPROVAL FOR CLASS B RECYCLABLE MATERIALS UNDER PROVISIONS OF NJSA 12:1E-1 ET SEQ. AND NJSA 13:1E-99.11 ET SEQ. KNOWN AS THE SOLID WASTE MANAGEMENT ACT AND NEW JERSEY STATEWIDE MANDATORY SOURCE SEPARATION AND RECYCLING ACT, RESPECTIVELY, AND PURSUANT TO NJAC 7:26A-1 ET SEQ., KNOWN AS THE RECYCLING REGULATIONS.
2. AIR POLLUTION CONTROL PRECONSTRUCTION PERMIT AND CERTIFICATE TO OPERATE CONSTRUCTION OF A NEW SOURCE: PCP120001 ISSUED TO THE IMPACT RECOVERY AND REUSE CENTER (FACILITY ID NO. 03507), MAY 17, 2012 EXPIRES IN FIVE YEARS.
3. STRAWBALES WITH FILTER FABRIC AND GRAVEL ARE PLACED AROUND STORM WATER INLETS. THESE INLETS ARE ALSO CONNECTED WITH UNDERGROUND PIPES.
4. ALL RECYCLABLES AND BYPRODUCTS ARE HANDLED IN ACCORDANCE WITH THE END-USE MANAGEMENT PLAN SUBMITTED ON JULY 31, 2014.
5. ALL MATERIAL STORED IN THE QA/QC STORAGE AREA MUST BE SAMPLED AND TESTED IN ACCORDANCE WITH NJDEP TECHNICAL GUIDANCE AND END-USE FACILITIES' REQUIREMENTS TO DETERMINE END USE.
6. SITE CONSISTING OF LOT 4 & 5 OF BLOCK 235 IS OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN AS SHOWN ON FIRM FLOOD INSURANCE MAP, BERGEN COUNTY, NEW JERSEY FROM FEDERAL EMERGENCY MANAGEMENT AGENCY DATED SEPTEMBER 30, 2005.
7. ALL VEHICULAR USE AREAS (PARKING AREAS AND ROADWAYS) ARE TO BE ESTABLISHED WITH ALL-WEATHER DUSTLESS MATERIAL.
5. EXISTING SITE DATA TAKEN FROM BOUNDARY AND TOPOGRAPHIC SURVEY, PREPARED BY MCNALLY ENGINEERING, LLC, SIGNED BY DOUGLAS W. DOOLITTLE, P.E., LSRP, DATED AUGUST 26, 2014.
6. THERE IS NO ANTICIPATED NEGATIVE IMPACT TO ADJACENT PROPERTIES RESULTING FROM SURFACE RUNOFF.
7. OPERATOR RESERVES THE RIGHT TO RECONFIGURE CRUSHER AND SCREENER AS REQUIRED (TYP.).

## LEGEND

- PROPERTY LINE
- BOUNDARY OF CLASS B RECYCLING
- JERSEY BARRIER WALL
- TRAIN TRACKS
- DRAINAGE PIPE
- TRAFFIC DIRECTION
- OS-1 OPERATIONAL SIGN

TITLE:
# CLASS B OPERATIONAL PLAN

1000 Page Avenue
Lyndhurst, NJ

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | JR |
| DATE: | 10/07/2014 |
| SCALE: | SEE DRAWING |

PROJECT # FAC8
FIGURE # 2-3

JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400


**IMPACT ENVIRONMENTAL**
170 KEYLAND COURT
BOHEMIA, NEW YORK 11716
TEL (631) 269-8800 FAX (631) 269-1599

1000 PAGE, AVENUE
LYNDHURST, NEW JERSEY 07071
TEL (201) 268-5686 FAX (631) 269-1599

**QA/QC Sampling Area**

TESTED:

OS-1

**End-Use Material**

*For (facility)*

TESTED:

OS-2

**Class B Product**

*For (Use)*

TESTED:

OS-3

## NOTES:

END USE MATERIALS TO DIFFERENT END-USE FACILITIES WILL NOT BE MIXED.

QA/QC STORAGE AREA TO BE USED TO TEST MATERIALS REQUIRING CONFIRMATION OF END-USE FACILITY.

ALL TESTING TO BE PERFORMED BY A NEW JERSEY CERTIFIED COMMERCIAL LABORATORY.

OPERATIONAL SIGNS (OS-1 TO OS-3) WILL BEAR UNIQUE SAMPLE IDENTIFICATION NUMBER(S) AND/OR SAMPLING DATE(S).

**IMPACT REUSE AND RECOVERY CENTER**

1000 Page Avenue, Lyndhurst, New Jersey
Normal Hours of Recycling Operation
Monday – Friday: *7:00 a.m. to 5:00 p.m.*
Saturday: *7:00 a.m. to 3:00 p.m.*

This is an approved New Jersey Department of Environmental Protection Recycling Center. The following materials separately or in a commingled manner are the only materials received:

**RECYCLABLE MATERIALS**

- Concrete
- Concrete block
- Brick
- Asphalt
- Asphalt millings
- Cinder block
- Ceramic
- Porcelain
- Tile
- Plaster
- Terra cotta

**INCIDENTAL MATERIALS**

- Soil
- Rebar
- Metal
- Materials that adhere to recyclables

Contaminants such as wood, plastic and garbage must be less than 1% by volume of the load.

**NOTE**: All loads subject to inspection. Do not off-load unless in the presence of an inspector. Loads can be rejected due to size of materials, weight of material or due to the presence of elevated contaminants. All persons offloading shall certify to the amount of material per load, municipality of origin of load, generator of waste, the transport company, transport vehicle license plate and the vehicle driver name by signing the transport manifest (Recyclable Materials Receipt Form) and acknowledgement of receipt of scale ticket.

**IN THE EVENT OF AN EMERGENCY DIAL 911 &**

**Impact Environmental - 631-269-8800**

**NJDEP Action Hotline - 877-927-6337**

OS-4

| | | | |
|---|---|---|---|
| TITLE: **CLASS B OPERATIONAL PLAN DETAILS** | | PROJECT # | FAC8 |
| | | FIGURE # | 2-3A |
| 1000 Page Avenue<br>Lyndhurst, NJ | DRAWN BY: XY<br>CHECKED BY: JR<br>DATE: 10/07/2014<br>SCALE: NOT TO SCALE | JOEL ROGERS, P.E.<br>NJ LICENSE NO.: 24GE04636400 | |

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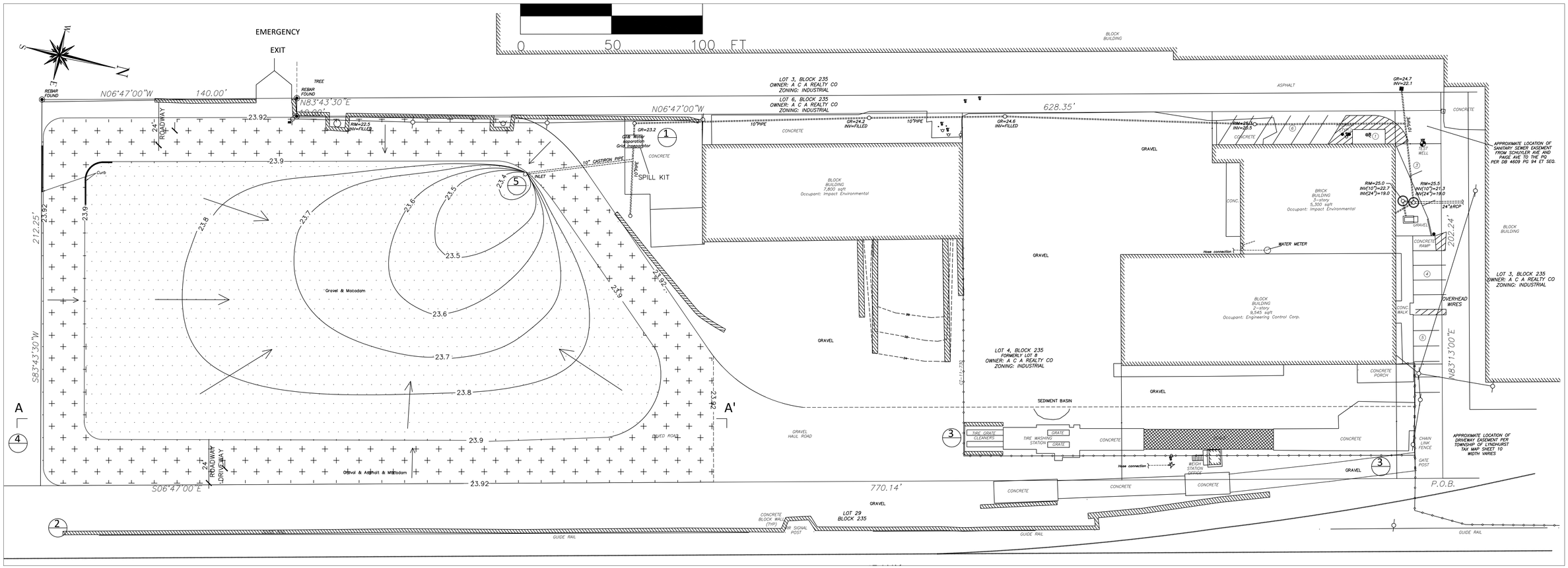


## NOTES:

1. THE FACILITY IS OUTSIDE OF THE 0.2% ANNUAL CHANCE (500-YEAR) FLOODPLAIN ACCORDING TO FIRM FLOOD INSURANCE MAP, BERGEN COUNTY, NEW JERSEY, FROM FEDERAL EMERGENCY MANAGEMENT AGENCY, DATED SEPTEMBER 30, 2005.
2. THE FACILITY CONSISTING OF LOT 4 & 5 OF BLOCK 235 DOES NOT CONTAIN ANY WETLANDS AREAS NOR IS IT WITHIN ANY WETLAND BUFFER ZONES AS TAKEN FROM WETLAND DELINEATION PLANS.
3. FACILITY IS REGULATED UNDER A STORMWATER DISCHARGE PERMIT: NJPDES NJ0217280. THE PERMIT APPLICATION, WHICH IS ADMINISTRATIVELY COMPLETE AND PENDING RESPONSE FROM NJDEP ON TECHNICAL COMPLETENESS, PROVIDES FOR DISCHARGE TO THE EXISTING STORM WATER DRAINAGE SYSTEM THAT IS COMPRISED OF CATCH BASINS THAT DISCHARGE TO AN OIL WATER SEPARATOR/GRIT INTERCEPTOR UNIT VIA 10" CAST IRON CONDUIT. THE OUTFALL FOR THE STORMWATER IS CLASSIFIED AS FW2-NT/SE2(C2).
4. STRAWBALES WITH FILTER FABRIC AND GRAVEL ARE PLACED AROUND STORMWATER INLETS. THESE INLETS ARE ALSO CONNECTED WITH UNDERGROUND PIPES.
5. THERE IS NO ANTICIPATED NEGATIVE IMPACT TO ADJACENT PROPERTIES RESULTING FROM SURFACE RUNOFF.
6. SILT FENCE IS INSTALLED IN FRONT OF CONCRETE BLOCK RETENTION WALLS.
7. MADACAM INSTALLED IN 1,000 SQFT LIFT SECTIONS.
8. ULTRA BASIN GUARD, 24' X 24', OIL AND SEDIMENT MODEL, HELPS COMPLY WITH NPDES, 40 CFR 122.26 (1999) WHEN USED AS BEST MANAGEMENT PRACTICE IN STORM WATER POLLUTION PREVENTION PLANS. LABELED: CAUTION, INLET PROTECTION, DO NOT POLLUTE

## LEGEND

- GR= / INV= — Storm inlet
- 4 — Reference to details
- Gravel & Asphalt & Macadam Pavement
- Gravel & Macadam Pavement
- Stormwater Drainage Direction

TITLE: **STORMWATER DRAINAGE PLAN**

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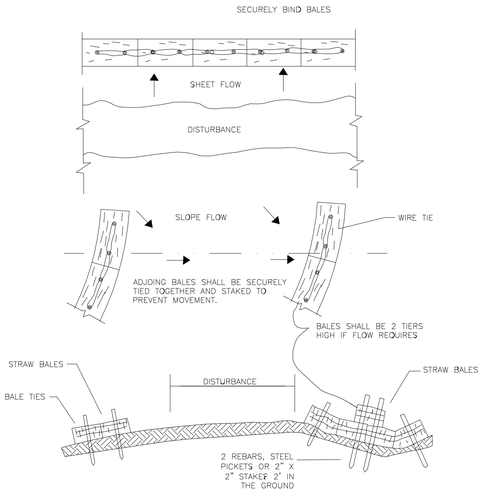
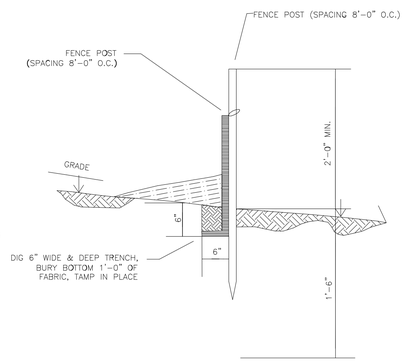
# DETAILS




1 STAW BALE SEDIMENT BARRIER
N.T.S.

NOTES:

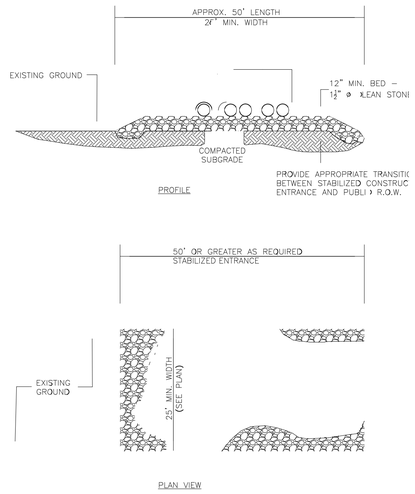
1. THE PRIMARY PURPOSE OF A STRAW BALE SEDIMENT BARRIER IS TO REDUCE VELOCITY AND TRAP SEDIMENT. VELOCITY IS REDUCED, WATER IS IMPOUNDED BEHIND THE BARRIER AND SEDIMENT FALLS OUT OF SUSPENSION.




2 SILT FENCE DETAIL
N.T.S.

NOTES:

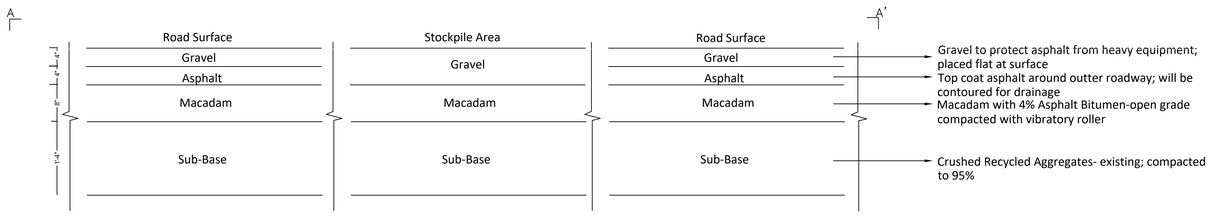
1. THE PRIMARY PURPOSE OF A SILT FENCE IS TO REDUCE VELOCITY AND TRAP SEDIMENT. VELOCITY IS REDUCED, WATER IS IMPOUNDED BEHIND THE BARRIER AND SEDIMENT FALLS OUT OF SUSPENSION.




3 TYPICAL STABILIZED CONSTRUCTION ENTRANCE
N.T.S.

NOTES:

1. USE MIRAFI 600X GEOTEXTILE OR APPROVED EQUAL UNDER ROCK CONSTRUCTION ENTRANCE.
2. THROUGHOUT OPERATION THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKIN OF SEDIMENTS ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE ENTRANCE.
3. ALL SEDIMENTS SPILLED, DROPPED WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMME
4. PERIODIC INSPECTION AND MAINTENANCE SHALL BE COMPLETED AFTER EACH RAIN EVENT.




4 GRAVEL & ASPHALT & MACADAM DETAIL

## RUNOFF CALCULATION

Using Rational Method

**1. Drainage Area:**

Macadam Area: A1=43458.2 ft2

Asphalt Area: A2=24077.4 ft2

A (total)= A1 + A2 = 67535.6 ft2 =1.55 acre

Design area with slope as : 0.002= 0.2%

**2. Determine the runoff coefficient (C):**

asphalt: C 0.7 ~ 0.95

macadam: C 0.35 ~ 0.70

gravel: C 0.35 ~ 0.70

This calculation use:

C (gravel+asphalt+macadam)=0.7

C(gravel+macadam)=0.40

C(total)= (0.40 x A1 + 0.7 x A2 )/A(total) = 0.5

**3. Determine hydraulic path and flow regimes:**

Consider flow in Macadam area as overland flow and flow in asphalt area as Shallow Concentrated Flow

Overland flow length is: Lo=286 ft

Shallow Concentrated flow length is: Lsc=34 ft

**a. Overland flow**

Overland flow length: Lo= 286 ft

This calculation uses the FAA equation

Slop in percent is: S=0.2

Travel time

To= 1.8(1.1-C(total) )x Lo ^0.5/ S^0.33

=36.4 min

**b. Shallow concentrated flow**

Velocity=2.6 ft/s

(Check Table " Average Velocities for Estimating Travel Time for Shallow Concentrated Flow)

Travel time Tsc= Lsc(ft)/60 V(ft/s)

= 34/(60x 2.6 ft/s) = 0.22 min

**4. Time of Concentration (Tc)**

Tc= To + Tsc = 36.4 min + 0.22 min = 36.62 min

**5. Intensity (i)**

i= 1.15 in/hr ( based on 1-year 1 hr Rainfall New Jersey )

i= 1.36 in/hr (based on 2-year 1 hr Rainfall New Jersey)

**6. Peak Discharge (q)**

Q (1 year Storm) = C i A = 0.5 x 1.15 in/hr x 1.55 ac = 0.89 cfs

Q (2 year Storm) = C i A = 0.5 x 1.36 in/hr x 1.55 ac = 1.05 cfs

**7. Existing Inlet Stormwater Pipe**

10 inch cast iron

Using Manning Formula:

Manning Roughness: n=0.011

Slop: S0= 0.002

Pipe Capacity:

Q(FULL) = (1.486/n)*(D)8/3*(S)1/2 =1. 07 cfs > 0.89 cfs

Q(FULL) = (1.486/n)*(D)8/3*(S)1/2 =1. 07 cfs > 1.05 cfs

Existing inlet and stormwater pipe are sufficient for the planned operations.

**Reference:**


[1] Rainfall Frequency Atlas of The United States, U.S. Department of Commerce

[2]Stormwater Design Manual, Boone County, Missouri Stormwater Program

[3]Airport Engineering: Planning Design and Development of 21st Century Airports, by Norman J. Ashford, Salh Mumayiz, Paul H Wright

[4]Figure 3-1 Average Velocities for estimating travel time for shallow concentration, Technical Release 55, Urban Hydrology for Small Watersheds


TITLE: **STORMWATER PLAN DETAILS & CALCULATION**

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PROJECT # FAC8

FIGURE # 2-4A

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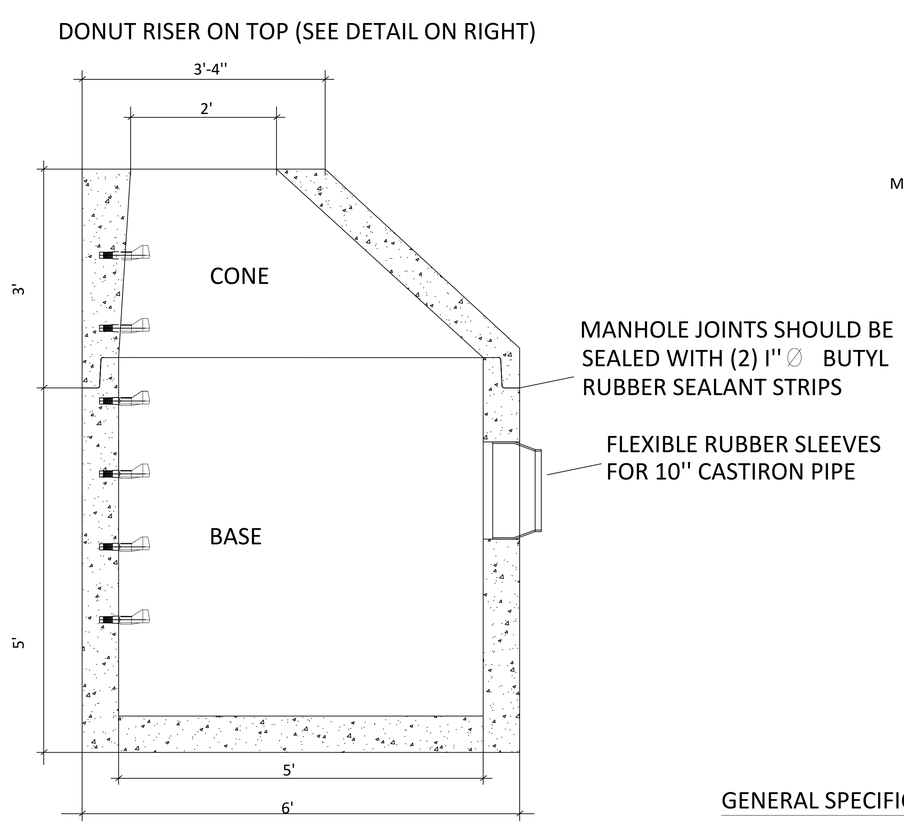


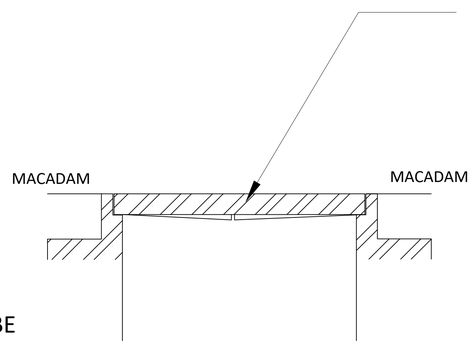


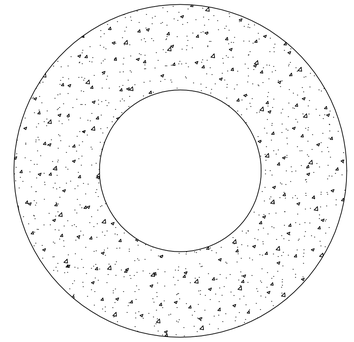

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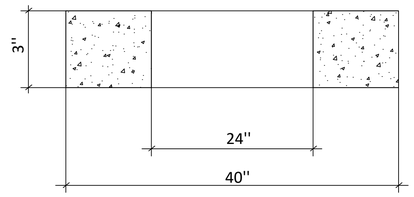


GENERAL SPECIFICATIONS

1) CONCRETE 5000 PSI AFTER 28 DAYS;
2) DESIGNED FOR H-20 WHEEL LOADING
3) CONFORMS TO ASTM-C478 SPECIFICATIONS
4) REINFORCED TO 0.15 IN^2/L.F
5) MANHOLE JOINTS SEALED W/(2) STRIPS OF BUTYL RUBBER
6) ULTRA BASIN GUARD, 24’ X 24’, OIL AND SEDIMENT MODEL, HELPS COMPLY WITH NPDES, 40 CFR 122.26 (1999) WHEN USED AS BEST MANAGEMENT PRACTICE IN STORM WATER POLLUTION PREVENTION PLANS. LABELED: CAUTION, INLET PROTECTION, DO NOT POLLUTE

5 TYPICAL DETAILS OF INLET (TYP.)

CONCRETE VAULT WITH RISER & SEDIMENT TRAP

TITLE: **STORMWATER PLAN DETAILS**

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PROJECT # FAC8

FIGURE # 2-4B

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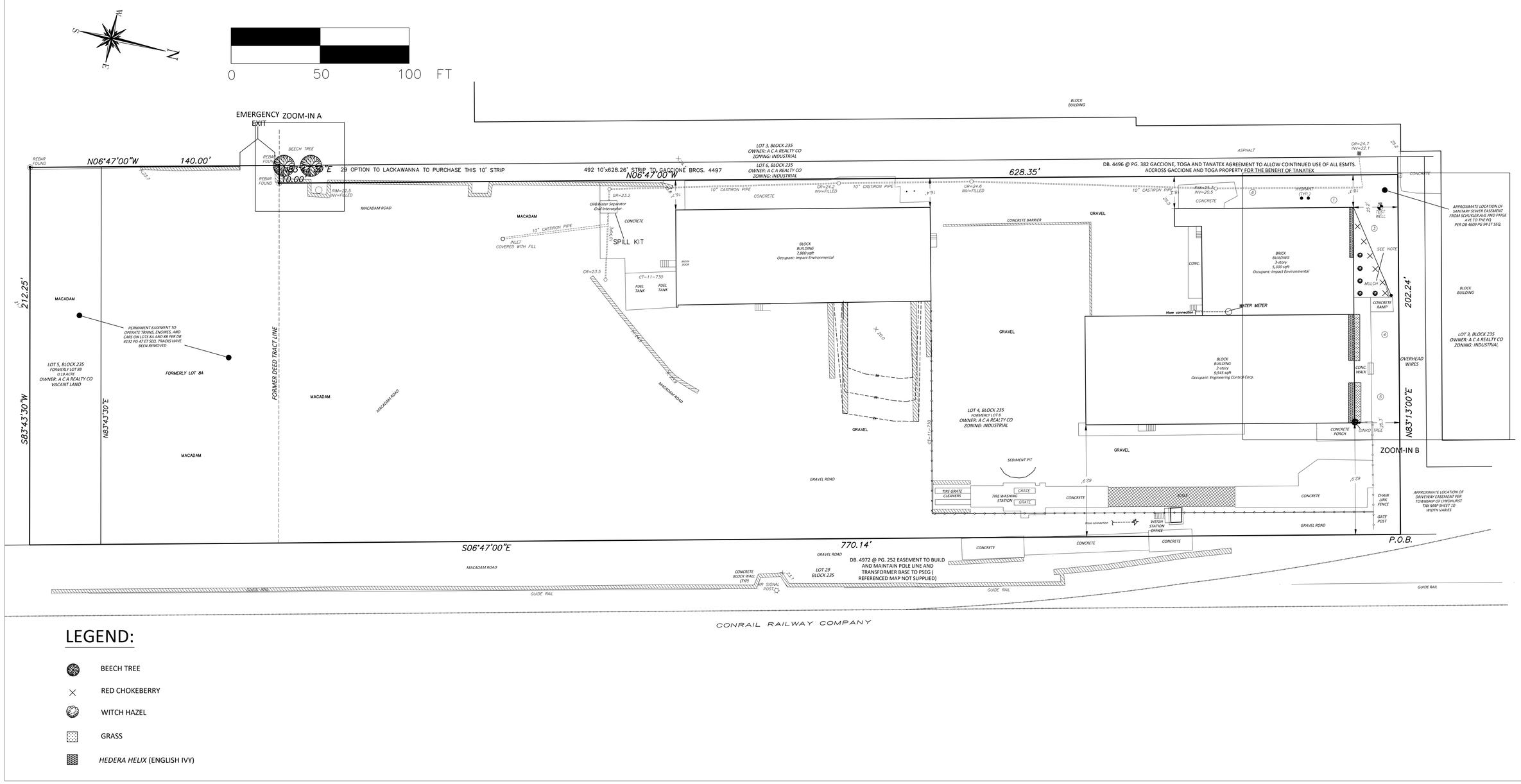


## LEGEND:

- BEECH TREE
- RED CHOKEBERRY
- WITCH HAZEL
- GRASS
- *HEDERA HELIX* (ENGLISH IVY)

## NOTES:

1. AREA TO BE COVERED WITH MULCH.
2. LANDSCAPING TO BE CONDUCTED PER NEW JERSEY MEADOWLANDS COMMISSION RECOMMENDED PLANT LIST FOR DRY CONDITIONS.
3. APPROX. 2,000 SQUARE FOOT OF *HEDERA HELIX* GROWS ON THE BUILDING FACADE.

TITLE:

# LANDSCAPING PLAN

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| PROJECT # | FAC8 |
| FIGURE # | 2-5 |

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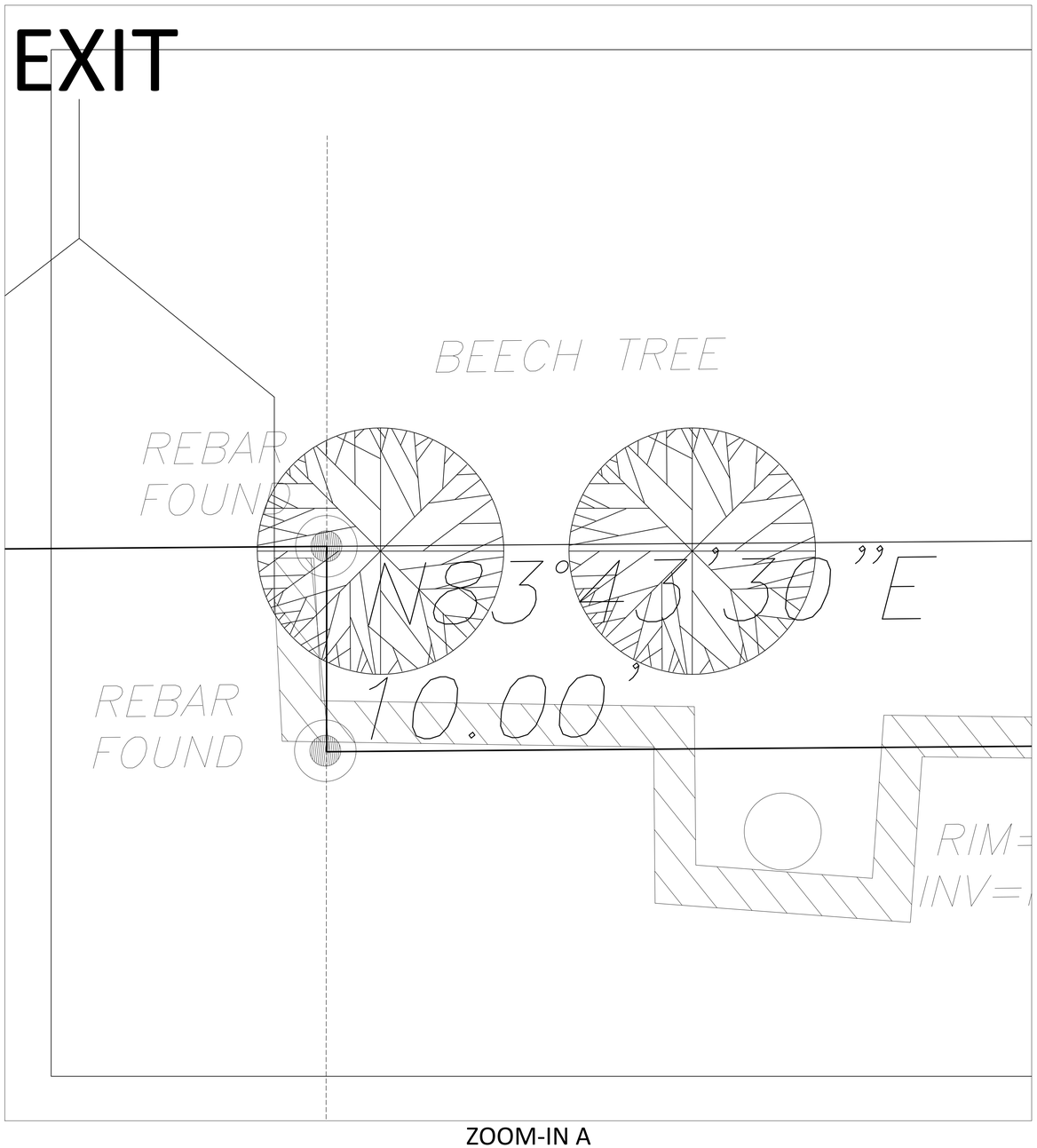
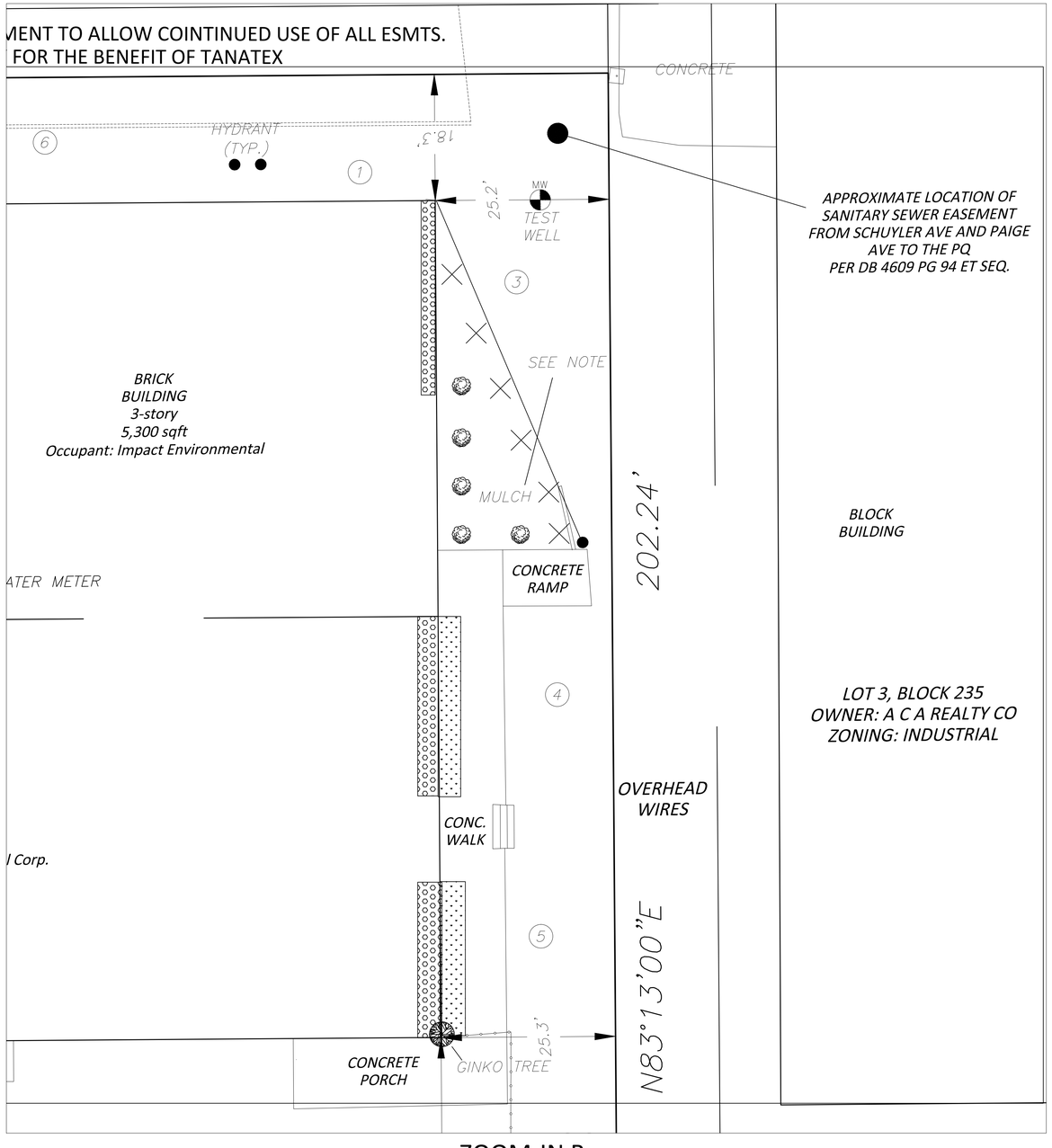



ZOOM-IN A




ZOOM-IN B

## NOTES:

1. AREA TO BE COVERED WITH MULCH.
2. LANDSCAPING TO BE CONDUCTED PER NEW JERSEY MEADOWLANDS COMMISSION RECOMMENDED PLANT LIST FOR DRY CONDITIONS.
3. APPROX. 2,000 SQUARE FOOT OF *HEDERA HELIX* GROWS ON THE BUILDING FACADE.

## LEGEND:

TREE | RED CHOKEBERRY | WITCH HAZEL | GRASS | *HEDERA HELIX* (ENGLISH IVY)

TITLE: **LANDSCAPING PLAN DETAILS**

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PROJECT # FAC8

FIGURE # 2-5A

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**Subject Item: PI 131888 -**

1. All persons issued a general approval to operate a recycling center for Class B, Class C and/or Class D recyclable material pursuant to N.J.A.C. 7:26A-1 et seq. shall comply with all conditions of the approval [N.J.A.C. 7:26A-3.1(a)]
2. The holder of this general approval shall prominently post and maintain a legible sign, at or near the entrance to the recycling center, indicating that the recycling center is an approved New Jersey Department of Environmental Protection recycling center. The sign shall also indicate the following: Hours of operation of the recycling center; Listing of the source separated materials to be received; The size, weight, or other restrictions regarding materials to be received; The maximum amount of contaminants allowed in each load; Warning that loads will be inspected and will be barred from offloading if the contaminant level is exceeded; and Notice that the person offloading shall certify the amount of material per load, municipality of origin of the material and any other information contained on the Recyclable Material Receipt Form [N.J.A.C. 7:26A-3.5(f)]
3. Application for renewal of this general approval shall be submitted at least three months prior to expiration of the current approval and shall comply with all requirements for renewal set forth in N.J.A.C. 7:26A-3.6 et seq. One copy of the application for renewal of the general approval shall be submitted by the applicant to the municipal clerk of the municipality in which the recycling center is located, and to the solid waste or recycling coordinator of the county in which the recycling center is located [N.J.A.C. 7:26A-3.6(a)]
4. The applicant for renewal of this general approval shall certify in writing to the Department that there have been no changes in the operations of the recycling center since the issuance of the general approval in order to renew the approval in its existing form. In the event that there have been changes in the operations of the recycling center or where changes are planned, the application for renewal of a general approval shall be accompanied by a written request to modify the general approval in accordance with N.J.A.C. 7:26A-3.10 [N.J.A.C. 7:26A-3.6(b)]
5. In a case where the holder of this general approval does not comply with N.J.A.C. 7:26A-3.6(a) and (b) and continues to operate without renewal of the general approval, the Department may take enforcement action including the assessment of penalties under N.J.S.A. 13:1E-9; require the holder of this general approval to file an application as a new applicant for a general approval in accordance with N.J.A.C. 7:26A-3.2 and pay the application fee as per N.J.A.C. 7:26A-2; and/or take any other appropriate actions [N.J.A.C. 7:26A-3.6(c)]
6. All persons granted a renewal pursuant to N.J.A.C. 7:26A-3.6(d) shall continue to pay the annual fee as specified in N.J.A.C. 7:26A-2 [N.J.A.C. 7:26A-3.6(h)]
7. The holder of this general approval shall obtain prior approval from the Department for any modification of the general approval [N.J.A.C. 7:26A-3.10(a)]
8. Any change affecting the conditions of this general approval requires the prior approval of the Department [N.J.A.C. 7:26A-3.10(b)1]
9. Any change to the information submitted pursuant to N.J.A.C. 7:26A-3.2(a), 3.4, 3.8, 3.18, 3.19 or 3.20 requires the prior approval of the Department, except that changes in end-market information submitted pursuant to N.J.A.C. 7:26A-3.2(a) 7 shall not require the prior approval of the Department but shall be handled in accordance with N.J.A.C. 7:26A-3.10(f). [N.J.A.C. 7:26A-3.10(b)2]

**Subject Item: PI 131888 -**

10. The holder of this general approval shall notify the Department in writing of the intended modification and shall update the information submitted pursuant to N.J.A.C. 7:26A-3.2(a), 3.4, 3.8, 3.18, 3.19 or 3.20. The holder of this general approval shall also provide written notice to the solid waste or recycling coordinator of the applicable county of any request to modify a general approval. [N.J.A.C. 7:26A-3.10(c)]

11. The holder of this general approval shall not institute the modification until it receives written approval from the Department [N.J.A.C. 7:26A-3.10(e)]

12. Within one week of any change to the end-market information submitted to the Department pursuant to N.J.A.C. 7:26A-3.2(a)7, the holder of this general approval shall submit to the Department a written notification which details any change in the use of the recyclable material transferred from the recycling center to an end-market or in the end-market location to which the recyclable material is transferred. The written notification shall be sent to: New Jersey Department of Environmental Protection, Division of Solid and Hazardous Waste, Bureau of Recycling & Hazardous Waste Management, P.O. Box 414, Mail Code 401-02C, Trenton, New Jersey 08625-0414. [N.J.A.C. 7:26A- 3.10(f)]

13. The Department may revoke this general approval upon a determination that the holder of the general approval has violated any provision of N.J.S.A. 13:1E-1 et seq., the New Jersey Statewide Mandatory Source Separation and Recycling Act, or any rule, regulation or administrative order promulgated pursuant to N.J.S.A. 13:1E-1 et seq. and the New Jersey Statewide Mandatory Source Separation and Recycling Act [N.J.A.C. 7:26A-3.13(a)1]

14. The Department may revoke this general approval upon a determination that the holder of the general approval has violated any solid waste utility law at N.J.S.A. 48:2-1 et seq. or 48:13A-1 et seq., or any rule, regulation or administrative order promulgated pursuant to N.J.S.A. 48:2-1 et seq. or 48:13A-1 et seq [N.J.A.C. 7:26A-3.13(a)2]

15. The Department may revoke this general approval upon a determination that the holder of the general approval has violated any provision of any laws related to pollution of the waters, air or land surfaces of the State or of any other State or Federal environmental laws including criminal laws related to environmental protection [N.J.A.C. 7:26A-3.13(a)3]

16. The Department may revoke this general approval upon a determination that the holder of the general approval has refused or failed to comply with any lawful order of the Department [N.J.A.C. 7:26A-3.13(a)4]

17. The Department may revoke this general approval upon a determination that the holder of the general approval has failed to comply with any of the conditions of this general approval issued by the Department [N.J.A.C. 7:26A-3.13(a)5]

18. The Department may revoke this general approval upon a determination that the holder of the general approval has transferred a general approval to a new owner or operator pursuant to N.J.A.C. 7:26A-3.15 without the prior approval of the Department [N.J.A.C. 7:26A-3.13(a)6]

19. The Department may revoke this general approval upon a determination that the holder of the general approval has failed to obtain any required permit or approval from the Department or other State or Federal agency [N.J.A.C. 7:26A-3.13(a)7]

**Subject Item: PI 131888 -**

20. The Department may revoke this general approval upon a determination that the holder of the general approval has committed any of the acts which are criteria for denial of a general approval set forth in N.J.A.C. 7:26A-3.12. [N.J.A.C. 7:26A-3.13(a)8]

21. This general approval shall not be transferred to a new owner or operator without the Department's prior approval [N.J.A.C. 7:26A-3.15(a)]

22. A written request for permission to allow a transfer of this general approval must be received by the Department at least 60 days in advance of the proposed transfer of ownership or operational control of the recycling center. The request for approval shall include the following: the name, address and social security number of all prospective new owners or operators; a written certification by the proposed transferee that the terms and conditions contained in the general approval will be met by the proposed transferee; and a written agreement between the current owner or operator of the recycling center and the proposed new owner or operator containing a specific future date for transfer of ownership or operational control [N.J.A.C. 7:26A-3.15(a)1]

23. A new owner or operator may commence operations at the recycling center only after the existing approval has been revoked and a new approval is issued to the new owner or operator pursuant to N.J.A.C. 7:26A-3.5 [N.J.A.C. 7:26A-3.15(a)2]

24. The holder of this general approval remains liable for ensuring compliance with all conditions of the approval unless and until the existing approval is revoked and a new approval is issued to the new owner or operator pursuant to N.J.A.C. 7:26A-3.5 [N.J.A.C. 7:26A-3.15(a)3]

25. Compliance with the transfer requirements set forth at N.J.A.C. 7:26A-3.15 shall not relieve the holder of this general approval from the separate responsibility of providing notice of such transfer pursuant to the requirements of any other statutory or regulatory provision [N.J.A.C. 7:26A-3.15(a)4]

26. The transfer of a controlling interest in the stock or assets of the recycling center that is the subject of this general approval shall constitute a transfer of this general approval [N.J.A.C. 7:26A-3.15(b)]

27. The holder of this general approval shall maintain a daily record of the amounts of each recyclable material by type and municipality of origin which are received, stored, processed or transferred each day, expressed in tons, cubic yards, cubic feet or gallons. Those operators specifying this information in cubic yards shall also indicate the conversion ratio of the materials from cubic yards to tons [N.J.A.C. 7:26A-3.17(a)1]

28. The holder of this general approval shall maintain a daily record of the name, address and telephone number of the end-markets for all recyclable materials transported from the recycling center, including the amounts, in tons, cubic yards, cubic feet or gallons, transported to each end-market. Those persons specifying this information in cubic yards shall also indicate the conversion ratio of the materials from cubic yards to tons [N.J.A.C. 7:26A-3.17(a)2]

29. The holder of this general approval shall maintain a daily record of the amount of residue disposed of, expressed in tons, cubic yards, cubic feet or gallons, including the name and New Jersey Department of Environmental Protection solid waste registration number of the solid waste collector/hauler contracted to provide the haulage/disposal service. Those persons specifying the amount of residue in cubic yards shall also indicate the conversion ratio of the residue from cubic yards to tons. [N.J.A.C. 7:26A-3.17(a)3]

**Subject Item: PI 131888 -**

30. The holder of this general approval shall retain all Recyclable Material Receipt Forms required pursuant to N.J.A.C. 7:26A-3.2(a)16iii for three calendar years following the calendar year for which an annual report is required pursuant to N.J.A.C. 7:26A-3.17(c) [N.J.A.C. 7:26A-3.17(b)]

31. The holder of this general approval shall submit an annual report containing monthly summary statements of the information required pursuant to N.J.A.C. 7:26A-3.17(a) to the New Jersey Department of Environmental Protection, Division of Solid and Hazardous Waste, on or before March 1 of each year, for the previous calendar year. The summaries shall include the following: monthly totals of the amount of recyclable material received from each customer by municipality of origin; monthly totals of the amount of recyclable product transferred to each end-market; and the amount of residue disposed of during each month. [N.J.A.C. 7:26A- 3.17(c)]

32. The holder of this general approval shall certify in writing to the Department that all residue generated at the recycling center has been disposed of in accordance with the solid waste management rules at N.J.A.C. 7:26. The certification shall be submitted annually as part of the annual report [N.J.A.C. 7:26A-3.17(e)]

33. All information submitted to the Department pursuant N.J.A.C. 7:26A shall be handled in accordance with the requirements of the Public Records law, N.J.S.A. 47:1-1 et seq. The Department will hold confidential all end-market information, as well as information pertaining to the municipality of origin of recyclable material, submitted pursuant to N.J.A.C 7:26A-3.2, 3.7, and 3.17 through 3.20 for a period of two years from the date on which the information is submitted to the Department, where specified as confidential by the applicant and where there are no health, safety or environmental concerns which require the release of the information, as determined by the Department. [N.J.A.C. 7:26A-3.17(f)]

34. The holder of this general approval shall provide a recycling tonnage report by February 1 of each year to all municipalities from which recyclable material is received in the previous calendar year. The report shall detail the amount of each source separated recyclable material, expressed in tons or cubic yards, brought to the recycling center, as well as the date on which the recyclable materials were delivered to the recycling center. Those persons specifying this information in cubic yards shall also indicate the conversion ratio of the materials from cubic yards to tons [N.J.A.C. 7:26A-4.4(a)]

35. The recycling center shall not commence operations unless and until it is included in the applicable district solid waste management plan [N.J.A.C. 7:26A-4.2]

36. The construction of the recycling center that is the subject of this general approval shall be in conformance with the New Jersey Uniform Construction Code, N.J.S.A. 52:27D-119 et seq., and the rules promulgated pursuant thereto [N.J.A.C. 7:26A-4.1(b)]

37. The New Jersey Department of Environmental Protection or an authorized representative acting pursuant to the County Environmental Health Act, N.J.S.A. 26:3A2-1 et seq. shall have the right to enter and inspect any building or other portion of the recycling center at any time in order to determine compliance with the provisions of all applicable laws or rules and regulations adopted pursuant thereto. This right to inspect includes, but is not limited to: sampling any materials on site; photographing any portion of the recycling center; investigating an actual or suspected source of pollution of the environment; and, ascertaining compliance or non-compliance with the statutes, rules or regulations of the Department, including conditions of the recycling center approval issued by the Department. [N.J.A.C. 7:26-1.7(a)]

**Subject Item: PI 131888 -**

38. The right of entry specified at N.J.A.C. 7:26A-1.7(a) shall be limited to normal operating hours for the purpose of reviewing and copying all applicable records, which shall be made available to the Department during an inspection and submitted to the Department upon request. [N.J.A.C. 7:26-1.7(b)]

39. The facility shall comply with the general operating requirements for all Recycling Centers as provided at N.J.A.C. 7:26A-4.1 [N.J.A.C. 7:26A-4]

**Subject Item: RCBG850400 - Class B Materials Handling**

40. The following source separated Class B recyclable materials, which have been separated at the point of generation from other waste materials or separated at a permitted solid waste facility authorized to separate recyclable materials, may be received, stored, processed or transferred at this recycling center: Concrete, Concrete Block, Cinder Block, Brick, Asphalt, Asphalt Millings, Plaster, Ceramic, Porcelain, Tile, and Terra Cotta. [N.J.A.C. 7:26A-3.5(e)]

41. At no time shall the receipt, storage, processing, or transferring of non-source separated construction and demolition material be allowed at this recycling center. The prohibition of this material shall be strictly enforced and any incident shall be considered a serious violation to the conditions of this Approval. [N.J.A.C. 7:26A-3.5(e)]

42. The recycling center may receive, store, process, or transfer source separated Concrete, Concrete Block, Cinder Block, Brick, Asphalt, Asphalt Millings, Plaster, Ceramic, Porcelain, Tile, or Terra Cotta separately or in a commingled manner. The commingling of any other materials not described above is prohibited. [N.J.A.C. 7:26A-3.5(e)]

43. The maximum amount of contaminants, as defined in N.J.A.C. 7:26A-1.3, allowed in each incoming load of Class B recyclable material shall be limited to 1% by volume. Incidental by-product materials shall not be considered to be contaminants. [N.J.A.C. 7:26A-3.5(e)]

44. Incidental amounts of rebar, metal, soil, and other by-products which adhere to the Class B recyclable materials, as specified in this Approval, and which are returned to the economic mainstream as raw material or products, may be received, stored, processed, or transferred at this recycling center. The receipt of such incidental amounts of these materials need not be separately accounted for, but the storage and end-markets for these materials shall be subject to specific conditions of this Approval. [N.J.A.C. 7:26A-3.5(e)]

45. The holder of this general approval shall operate the recycling center and construct or install associated appurtenances thereto, in accordance with the provisions of N.J.A.C. 7:26A-1 et seq., the conditions of this general approval, and the general approval application documents. [N.J.A.C. 7:26A-3.5(e)]

46. In case of conflict, the provisions of N.J.A.C 7:26A-1 et seq. shall have precedence over the conditions of this Approval, and the conditions of this Approval shall have precedence over plans and specifications listed above. [N.J.A.C. 7:26A- 3.5(e)]

47. One complete set of the general approval application documents, this general approval, and all records, reports and plans as may be required pursuant to this approval shall be kept on file at the recycling center and shall be available for inspection by authorized representatives of the Department or delegated agents upon presentation of credentials. [N.J.A.C. 7:26A-3.5(e)]

**Subject Item: RCBG850400 - Class B Materials Handling**

48. Hours of operation for receiving, storing, processing, or transferring the source separated recyclable material shall be limited to: 7:00 a.m. to 5:00 p.m., Monday through Friday; 7:00 a.m. to 3:00 p.m., Saturday. [N.J.A.C. 7:26A-3.5(e)]

49. Material deliveries to the recycling center shall be scheduled in such a manner as to minimize truck queuing on the recycling center property. Under no circumstances shall delivery trucks be allowed to back-up or queue onto public roads. [N.J.A.C. 7:26A-3.5(e)]

50. The recycling center may receive no more than 250 tons per day of the recyclable materials. [N.J.A.C. 7:26A-3.5(e)]

51. The total amount of unprocessed Class B recyclable & Beneficial Use material stored on-site shall not exceed 8,210 cubic yards. Unprocessed materials & incoming Beneficial Use material stored on-site shall be stored only in those areas designated for that purpose as indicated on the approved site plan drawing. [N.J.A.C. 7:26A- 3.5(e)]

52. If at any time, the amount of unprocessed Class B & beneficial use material stored on-site exceeds 8,210 cubic yards, the recycling center shall immediately cease receiving any unprocessed Class B & beneficial use material until the amount of these material stored on-site falls below 8,210 cubic yards. [N.J.A.C. 7:26A- 3.5(e)]

53. Unprocessed recyclable material shall not remain on-site, in its unprocessed form, for more than one (1) year. [N.J.A.C. 7:26A-3.9(b)]

54. The total amount of processed Class B recyclable & beneficial use material stored on-site shall not exceed 6,538 cubic yards. Processed Class B & beneficial use materials stored on-site shall be stored only in those areas designated for that purpose as indicated on the approved site plan drawing. [N.J.A.C. 7:26A- 3.5(e)]

55. If at any time, the amount of processed Class B & benefical use material stored on-site exceeds 6,538 cubic yards, the recycling center shall immediately cease processing activities until the amount of these material falls below 6,538 cubic yards. [N.J.A.C. 7:26A- 3.5(e)]

56. All processed material shall be stored separately from residues. [N.J.A.C. 7:26A-3.5(e)]

57. By-products shall be stored in the container(s) or area(s) as depicted on the approved site plan and shall be removed off-site to the end markets as referenced in the approved documents. [N.J.A.C. 7:26A-3.5(e)]

58. Horizontal and vertical control points for the unprocessed and processed materials stockpile areas shall be set and maintained on-site. Horizontal limitation markers shall be set at the corners of the stockpile areas as depicted on the approved site plan. Vertical limitation markers shall be set at locations in close proximity of the stockpile areas and shall clearly establish elevation height of 25 feet above the existing grade for the unprocessed & processed stockpile areas. [N.J.A.C. 7:26A-3.5(e)]

59. Metal pipe or metal rods or the equivalent as approved by the Department shall be used to establish these control points. [N.J.A.C. 7:26A- 3.5(e)]

60. Ingress and egress of the facility shall be restricted to Page Avenue only. [N.J.A.C. 7:26A-3.5(e)]

61. Methods of effectively controlling dust shall be implemented at the facility in order to prevent offsite migration. [N.J.A.C. 7:26A-3.5(e)]

**Subject Item: RCBG850400 - Class B Materials Handling**

62. Fire fighting and emergency procedures shall be posted, and shall include the telephone numbers of local fire, police, ambulance, and hospital facilities. If a fire occurs on-site, the facility shall immediately notify the local fire official and report the incident to the N.J.D.E.P. Environmental Action Hotline at 1-877-927-6337. [N.J.A.C. 7:26A-3.5(e)]

63. Any suspected or prohibited hazardous waste, as defined at N.J.A.C. 7:26G-5, found in a load accepted at the recycling center shall not be returned to the generator. Such materials shall be segregated and stored in a secure manner and shall be immediately reported to the N.J.D.E.P. Environmental Action Hotline at 1-877-927-6337. The owner/operator of the recycling center shall secure the name of the collector/hauler suspected of delivering such waste to the facility and related information surrounding the incident, if available, and shall make this information known to N.J.D.E.P. enforcement personnel. Such material may be returned to a known generator, provided that specific permission to do so is received by the owner/operator after contacting 1-877-927-6337. Otherwise, the owner/operator shall dispose off the unauthorized waste in accordance with instructions received from the Department. [N.J.A.C. 7:26A- 3.5(e)]

64. All revisions to the site plan and the approved documents which may be required as a result of the above, shall be submitted to this office for modification to this Approval. [N.J.A.C. 7:26A-3.5(e)]

65. Pursuant to N.J.A.C. 7:26A-3.11(a), the holder of this general approval shall obtain prior approval from the Department for any increase in the design capacity of the facility. The facility shall submit a request to the Department, in writing, for the proposed increase and shall submit updated information pursuant to the requirements of N.J.A.C. 7:26A-3.2(a), 3.4, or 3.8, as applicable. The facility shall also provide written notice of the request to the solid waste or recycling coordinator of the applicable district. [N.J.A.C. 7:26A-3.5(e)]

66. The following equipment or equivalent shall be availale for recycling operations and shall be maintained in operable condition:

Edge TS5 - Stacker
Sandvik QE341- Scalper & Jaw Crusher
KPI-JCI FT4250CC - Crusher
Ravo 5 Series - Street Sweeper
John Deere 844J - Wheel Loader
Komatsu WA500 - Wheel Loader
John Deere 350D - Excavator
Komatsu PC360 - Excavator
Komatsu PC490 - Excavator. [N.J.A.C. 7:26A- 3.5(e)3]

**Subject Item: RCBG850400 - Class B Materials Handling**

67. Impact Environmental Consulting Inc shall maintain a $450,000 financial assurance in the form of a letter of credit or performance bond (a rating of at least A or A+ by A.M. Best or equivalent rating by Moody's, Standard & Poor's, or Fitch) active naming Commissioner, New Jersey Department of Environmental Protection c/o Division of Solid and Hazardous Waste, Mail Code 401-02C Trenton, NJ 08625-0420 as the beneficiary. The financial assurance shall be in accordance with the requirements specified in N.J.A.C. 7:26A-3.4(d) or (e).

Also, Impact Environmental Consulting Inc. shall maintain a Certificate of Liability Insurance demonstrating at least the following minimum insurance coverage and limits:

General Liability - $ 1 million per occurrence, $ 2 million general aggregate, $ 2 million products/completed operations, $10 million excess.

Environmental Pollution – Third Party Claims for Cleanup Costs, Bodily Injury or Property Damage, $ 1 million per condition, $10 million excess.

Environmental Pollution – Third Party Claims for Contingent Transportation, $ 1 million per condition, $10 million excess.

Contractors Pollution - $1 million per claim, $10 million excess.

The State of New Jersey, Department of Environmental Protection shall be named as an additional named insured for the above insurance coverage.

Upon renewal of above Certificate of Liability Insurance and Letter of Credit, Impact Environmental Consulting Inc shall submit the renewed documents to this Division. [N.J.A.C. 7:26A- 3.4]

68. Requisite Recycling Center opertaions shall not be delayed or neglected for the lack of required equipment or for equipment downtime. [N.J.A.C. 7:26A- 3.5(e)]

**Subject Item: RCBG1106269 - Beneficial Use Materials Handling**

69. The owner/operator is authorized to accept higher volume of soils (contaminated above the New Jersey Residential Direct Contact Soil Remediation Standards (NJRDCSRS)) comingled with approved Class B recyclable materials (Beneficial Use Determination Material - BUD Material) generated from demolition and/or redevelopment projects for processing and shipment to an end use facility, provided beneficial use of the BUD material at the end use facility is preapproved by the Department through a Certificate of Authority to Operate (CAO) a Beneficial Use Project in accordance with N.J.A.C. 7:26-1.7(g). [N.J.A.C. 7:26A- 3 .5(e)]

70. The owner/operator shall submit a separate application for each project site generating BUD Material. For out-of-state end use sites, the applications shall include additional information in accordance with N.J.A.C. 7:26-1.7(g)8 including but not limited to, a letter from each end use facilities indicating their willingness to accept the BUD Material for beneficial use and corresponding quantity, and a letter from the appropriate regulatory agency of the state where the end use facility is located verifying that the facility is operating in accordance with all applicable rules and regulations and can lawfully accept the material for the declared beneficial use and a current copy of the end use facility's authorization to operate, i.e., a permit. [N.J.A.C. 7:26A- 3 .5(e)]

**Subject Item: RCBG1106269 - Beneficial Use Materials Handling**

71. All BUD Material accepted at the facility shall be managed in accordance with the requirements specified in a CAO issued to the facility and conditions of this Approval. [N.J.A.C. 7:26A- 3.5(e)]

72. A log shall be maintained of each incoming and outgoing shipment of BUD Material. The log shall include the following: 1. Name of the Project Site generating the material; 2. NJDEP issued CAO Number; 3. CAO Expiration Date; 4. Date and Time of receipt (incoming); 5. Quantity received; 6. Date and Time of outgoing shipment, 7. Name of the end use facility; and 8. Quantity shipped (outgoing). [N.J.A.C. 7:26- 1.7(a)]

73. In the event that the BUD Material fails to meet the acceptance criteria, the owner/operator shall not accept the material and reject the shipment back to the generator. All rejected shipment shall be entered in the log mentioned above and a written notification shall be sent to the NJDEP, Bureau of Recycling and Hazardous Waste Management. [N.J.A.C. 7:26A- 3.5(e)]

74. The owner/operator shall not accept shipment of BUD Material from any project prior to the Department's issuance of a CAO specific to the project site and corresponding end use facilities. [N.J.A.C. 7:26A- 3 .5(e)]

75. Commingled Class B material that have been separated from the BUD soils through processing, shall not be sold as a product in open market. [N.J.A.C. 7:26A- 3 .5(e)]

76. All incoming shipment of BUD Material shall be processed at the facility as described in the permit modification application dated October 29, 2014 and associated documents. [N.J.A.C. 7:26A- 3.5(e)]

77. Appropriate dust control and run-on, run-off controls shall be provided for each processed and unprocessed BUD Material storage areas. [N.J.A.C. 7:26A- 3 .5(e)]

78. In the event of any outgoing shipment of BUD Material being rejected by the end use facility, the owner/operator shall be responsible for proper disposal of the material as solid waste and report to the NJDEP, Bureau of Recycling and Hazardous Waste Management. [N.J.A.C. 7:26A- 3 .5(e)]

79. The owner/operator shall obtain and maintain all other necessary permits for the management of BUD Material at the facility including, but not limited to, permits from the Department's Division of Air Quality and the Division of Water Quality. [N.J.A.C. 7:26A- 3 .5(e)]

80. All unprocessed and processed BUD Material shall be stored on paved surfaces in designated areas identified in the approved site plans. [N.J.A.C. 7:26A- 3.5(e)]

IMPAENV-01 TGRENNAN

# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 5/10/2019

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

| PRODUCER | CONTACT NAME: Amy Chasan |
|---|---|
| UNFCU Financial Services, LLC dba Industrial Coverage<br>62 South Ocean Avenue<br>Patchogue, NY 11772 | PHONE (A/C, No, Ext): (631) 736-7500 107 FAX (A/C, No):<br>E-MAIL ADDRESS: achasan@industrialcoverage.com |

| INSURER(S) AFFORDING COVERAGE | NAIC # |
|---|---|
| INSURER A : Ironshore Specialty Ins Co | 25445 |
| INSURER B : Liberty Mutual Fire Ins Co | 23035 |
| INSURER C : Liberty Insurance Corp. | 42404 |
| INSURER D : Travelers Property Casualty Insurance Company of America | 25674 |
| INSURER E : | |
| INSURER F : | |

INSURED

Impact Environmental Consulting Inc.
170 Keyland Ct
Bohemia, NY 11716

**COVERAGES** **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

| INSR LTR | TYPE OF INSURANCE | ADDL INSD | SUBR WVD | POLICY NUMBER | POLICY EFF (MM/DD/YYYY) | POLICY EXP (MM/DD/YYYY) | LIMITS | |
|---|---|---|---|---|---|---|---|---|
| A | X COMMERCIAL GENERAL LIABILITY<br>CLAIMS-MADE X OCCUR<br>X Contractual Liab<br>GEN'L AGGREGATE LIMIT APPLIES PER:<br>POLICY X PRO-JECT LOC<br>OTHER: | | | 000291609 | 5/12/2019 | 5/12/2020 | EACH OCCURRENCE<br>DAMAGE TO RENTED PREMISES (Ea occurrence)<br>MED EXP (Any one person)<br>PERSONAL & ADV INJURY<br>GENERAL AGGREGATE<br>PRODUCTS - COMP/OP AGG | $ 2,000,000<br>$ 500,000<br>$ 25,000<br>$ 1,000,000<br>$ 4,000,000<br>$ 4,000,000 |
| B | AUTOMOBILE LIABILITY<br>X ANY AUTO<br>OWNED AUTOS ONLY SCHEDULED AUTOS<br>HIRED AUTOS ONLY NON-OWNED AUTOS ONLY | | | AS2Z11B83P14019 | 5/12/2019 | 5/12/2020 | COMBINED SINGLE LIMIT (Ea accident)<br>BODILY INJURY (Per person)<br>BODILY INJURY (Per accident)<br>PROPERTY DAMAGE (Per accident) | $ 1,000,000<br>$<br>$<br>$ |
| A | UMBRELLA LIAB X OCCUR<br>X EXCESS LIAB CLAIMS-MADE<br>DED RETENTION $ | | | 000291709 | 5/12/2019 | 5/12/2020 | EACH OCCURRENCE<br>AGGREGATE | $ 23,000,000<br>$ 23,000,000 |
| C | WORKERS COMPENSATION AND EMPLOYERS' LIABILITY<br>ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y / N: N<br>If yes, describe under DESCRIPTION OF OPERATIONS below | N / A | | WC2Z11B83P14029 | 5/12/2019 | 5/12/2020 | X PER STATUTE OTH-ER<br>E.L. EACH ACCIDENT<br>E.L. DISEASE - EA EMPLOYEE<br>E.L. DISEASE - POLICY LIMIT | $ 1,000,000<br>$ 1,000,000<br>$ 1,000,000 |
| A | Prof/Pollution Liab | | | 000291609 | 5/12/2019 | 5/12/2020 | Occ/Agg | 2,000,000 |
| D | Prop/Contractor Eqp. | | | QT6603C466013TIL19 | 5/12/2019 | 5/12/2020 | Leased/Rented | 500,000 |

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

**CERTIFICATE HOLDER**

Impact Reuse & Recovery Center
1000 Page Avenue
Lyndhurst, NJ 07071

**CANCELLATION**

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE


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**PERMIT/CERTIFICATE**

## State of New Jersey

### Department of Environmental Protection

Environmental Regulation
Division of Air Quality
Air Quality Permitting Element
Mail Code 401-02
P.O. Box 420
Trenton, NJ 08625-0420

# Certificate to Operate Control Apparatus and/or Equipment

**Facility ID:** 03507
**Facility Name:** IMPACT RECOVERY & REUSE CTR

**Mailing Address:**
1000 PAGE AVE - 2ND FL
Lyndhurst , NJ 07071

**Plant Location:**
1000 PAGE AVE - 2ND FL
Lyndhurst , NJ 07071

**County:**
Bergen

**Location Description:**

**Permit ID:** PCP 120001
**Permit Type:** Construction of New Source

**Status:** Renewed
**Status Date:** 05/11/2017

**Effective:** 05/17/2012
**Expiration:** 05/16/2022

| | |
|---|---|
| **Designation of Equipment:** Screener | **Equipment Description:** Pioneer Keestrack Screener |
| **Designation of Equipment:** Scrn Conv | **Equipment Description:** Screener Discharge Conveyor |
| **Designation of Equipment:** Side Conv | **Equipment Description:** Side Conveyor |
| **Designation of Equipment:** Crusher | **Equipment Description:** Fintec 1107 Jaw Crusher |
| **Designation of Equipment:** Main Conv | **Equipment Description:** Main Conveyor |

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**Certificate to Operate Control Apparatus and/or Equipment**

This five year certificate is being issued under the authority of Chapter 106, P.L. 1967 N.J.S.A.26:2C-9.2. The possession of this document does not relieve you from the obligation of complying with all provisions of the New Jersey Administrative Code, Title 7, Chapter 27.

In addition to the facility specific requirements listed in this permit, the facility must comply with all applicable rules and requirements as well as the information contained in the approved permit. The facility must also comply with any applicable requirements of the N.J.A.C. 7:27-8.1 et. Seq. and other state rules summarized in the General Provisions for Preconstruction Permits, www.state.nj.us/dep/aqpp/applying.html

Pursuant to N.J.A.C. 7:27-8.13(b), the department may modify the conditions of approval of

this certificate at the time of renewal or at any time when the certificate is in force, if deemed necessary to protect human health, welfare or the environment.

You may also be subject to fees for services that are performed by the Department in accordance with the conditions of approval of this permit and 7:27-8.13(e). If you fail to pay a fee, the Department may assess civil administrative penalties and/or revoke this certificate.

In accordance with N.J.S.A. 54:4-3.56 to 3.58, you may be entitled to an exemption from municipal property taxation if your control device is taxed and is considered to be an air pollution control device. A tax exemption application may be obtained at www.state.nj.us/dep/aqpp/downloads/forms/TaxExemptionForm2.pdf.

In accordance with N.J.A.C. 7:27-8.3(d), you shall make this certificate readily available for inspection on the operating premises.

PERMIT/CERTIFICATE

# State of New Jersey

## Department of Environmental Protection

Environmental Regulation
Division of Air Quality
Air Quality Permitting Element
Mail Code 401-02
P.O. Box 420
Trenton, NJ 08625-0420

# Certificate to Operate Control Apparatus and/or Equipment

Facility ID: 03507
Facility Name: IMPACT RECOVERY & REUSE CTR

Mailing Address:
1000 PAGE AVE - 2ND FL
Lyndhurst , NJ 07071

Plant Location:
1000 PAGE AVE - 2ND FL
Lyndhurst , NJ 07071

County:
Bergen

Location Description:

Permit ID: PCP 120001
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| | |
|---|---|
| Designation of Equipment: Screener | Equipment Description: Pioneer Keestrack Screener |
| Designation of Equipment: Scrn Conv | Equipment Description: Screener Discharge Conveyor |
| Designation of Equipment: Crusher | Equipment Description: Fintec 1107 Jaw Crusher |
| Designation of Equipment: Main Conv | Equipment Description: Main Conveyor |
| Designation of Equipment: Side Conv | Equipment Description: Side Conveyor |

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Certificate to Operate Control Apparatus and/or Equipment

This five year certificate is being issued under the authority of Chapter 106, P.L. 1967 N.J.S.A.26:2C-9.2. The possession of this document does not relieve you from the obligation of complying with all provisions of the New Jersey Administrative Code, Title 7, Chapter 27.

In addition to the facility specific requirements listed in this permit, the facility must comply with all applicable rules and requirements as well as the information contained in the approved permit. The facility must also comply with any applicable requirements of the N.J.A.C. 7:27-8.1 et. Seq. and other state rules summarized in the General Provisions for Preconstruction Permits, www.state.nj.us/dep/aqpp/applying.html

Pursuant to N.J.A.C. 7:27-8.13(b), the department may modify the conditions of approval of

this certificate at the time of renewal or at any time when the certificate is in force, if deemed necessary to protect human health, welfare or the environment.

You may also be subject to fees for services that are performed by the Department in accordance with the conditions of approval of this permit and 7:27-8.13(e). If you fail to pay a fee, the Department may assess civil administrative penalties and/or revoke this certificate.

In accordance with N.J.S.A. 54:4-3.56 to 3.58, you may be entitled to an exemption from municipal property taxation if your control device is taxed and is considered to be an air pollution control device. A tax exemption application may be obtained at www.state.nj.us/dep/aqpp/downloads/forms/TaxExemptionForm2.pdf.

In accordance with N.J.A.C. 7:27-8.3(d), you shall make this certificate readily available for inspection on the operating premises.

State of New Jersey
CHRIS CHRISTIE
*Governor*
KIM GUADAGNO
*Lt. Governor*
**DEPARTMENT of ENVIRONMENTAL PROTECTION**
Division of Air Quality
Bureau of Air Permits
401 E. State Street, 2nd floor, P.O. Box 420, Mail Code 401-02
Trenton, NJ 08625-0420
BOB MARTIN
*Commissioner*

**Air Pollution Control**
**Preconstruction Permit and Certificate to Operate**
**Construction of a New Source**

**Permit Activity Number: PCP120001** **Program Interest No: 03507**

| Mailing Address | Plant Location |
|---|---|
| JOEL ROGERS<br>VP<br>IMPACT ENVIRONMENTAL CONSULTING INC<br>1000 PAGE AVE<br>Lyndhurst, NJ 07071 | IMPACT RECOVERY & REUSE CTR<br>1000 Page Ave - 2nd Fl<br>Lyndhurst Twp<br>Bergen County, New Jersey |

**Approval Date: 05/17/2012**
**Expiration Date: 05/16/2017**

The New Jersey Department of Environmental Protection (Department) has reviewed the above referenced air pollution control permit application. On the basis of the information provided, the Department concludes that the application satisfies all applicable requirements of the New Jersey Air Pollution Control regulations codified at N.J.A.C. 7:27 et seq. This permit allows for inspection and evaluation of the equipment by the Department to assure conformance with all provisions of N.J.A.C. 7:27 et seq. and any other applicable federal requirements codified at 40 CFR 52, 60, 61 and 63.

The equipment, that is authorized to be installed and operated under this approval, is described in Section A, Source Operations and Section D, Equipment Inventory. Equipment at the facility referenced by this Permit shall be operated in accordance with the Conditions of Approval set forth in Section D, Facility Specific Requirements.

The Department hereby issues this permit and certificate under the authority of chapter 106, P.L. 1967(N.J.S.A 26:2C-9.2). You may construct, reconstruct, install, or modify the above referenced equipment and/or control apparatus consistent with the approval.

The approved Permit is available for download in PDF format which contains the facility's specific requirements (compliance plan) at: http://www.nj.gov/dep/aqpp. After accessing the web site, click on "Approved PCP Permits" listed under "Reports" and then type in your Program Interest (PI) Number, 03507, as instructed on the screen. You will be able to view, print or electronically store your permit. If you have any questions regarding this permit approval, please contact the Department at the Preconstruction Permit Help Line available from

9:00 AM to 4:00 PM daily, where you may speak to someone about any technical questions you may have. The Preconstruction Permit Technical Help Line number is 609-292-6716.

If, in your judgment as an applicant for an air pollution control permit, the Department is imposing any unreasonable Condition of Approval, you may contest the Department's decision and request a contested case hearing pursuant to the Administrative Code at N.J.A.C. 7:27-1.32(a). All requests for contested case hearings must be received in writing by the Department within twenty (20) calendar days of the date you receive this permit approval and must contain the information specified in the Administrative Hearing Request Checklist and Tracking Form.

If you have any non technical questions please use the Bureau's number 609- 292-0834. If you have any questions when filing a General Permit please use the General Permit Help number 609-633-2829.

Approved by:



Michael Adhanom
Preconstruction Permits

# Administrative Hearing Request Checklist and Tracking Form

## I. Document Being Appealed

| Name of the Facility | Facility ID Number | Permit Activity Number | Issuance Date |
|---|---|---|---|
| IMPACT RECOVERY & REUSE CTR | 03507 | PCP120001 | |

## II. Contact Information

| Name of Person Requesting Hearing | Name of Attorney (if applicable) |
|---|---|
| | |
| **Address:** | **Address:** |
| | |
| | |
| **Telephone:** | **Telephone:** |

## III. Please include the following information as part of your request:

A. The date the permittee received the permit decision;
B. Two printed copies of the document being appealed – for submitting to address 1 below;
A PDF copy of the document being appealed on a CD – for submitting to address 2 below
C. The legal and factual questions you are appealing;
D. A statement as to whether or not you raised each legal and factual issues during the permit application process;
E. Suggested revised or alternative permit conditions;
F. An estimate of the time required for the hearing;
G. A request, if necessary, for a barrier-free hearing location for physically disabled persons;
H. A clear indication of any willingness to negotiate a settlement with the Department prior to the Departments processing of your hearing request to the Office of Administrative Law;

Mail this form, completed, signed and dated with all of the information listed above, including attachment, to:

1. New Jersey Department of Environmental Protection
Office of Legal Affairs
Attention: Adjudicatory Hearing Requests
401 E. State Street, P.O. Box 402
Trenton, New Jersey 08625

2. Air Quality Permitting Element
Preconstruction Permits
New Jersey Department of Environmental Protection
401 E. State Street, 2nd Floor, P.O. Box 027
Trenton, New Jersey 08625
Phone: (609) 633-2829

**Signature** **Date**

## Administrative Hearing Request Checklist and Tracking Form

**IV. If you are not the applicant but rather an interested person claiming to be aggrieved by the permit decision, please include the following information:**

1. The date you or your agent received notice of the permit decision (include a copy of that permit decision with your hearing request);
2. Evidence that a copy of the request has been delivered to the applicant for the permit which is the subject of the permit decision;
3. A detailed statement of which findings of fact and/or conclusion of law you are challenging;
4. A description of your participation in any public hearings held in connection with the permit application and copies of any written comments you submitted;
5. Whether you claim a statutory or constitutional right to a hearing, and, if you claim such a right, a reference to the applicable statute or explanation of how your property interests are affected by the permit decision;
6. If the appeal request concerns a CAFRA permit decision, evidence that a copy of the request has been delivered to the clerks of the county and the municipality in which the project which is the subject of the permit decision is located;
7. Suggested revised or alternative permit conditions;
8. An estimate of the time required for the hearing;
9. A request, if necessary, for a barrier-free hearing location for physically disable persons;
10. A clear indication of any willingness to negotiate a settlement with the Department prior to the Department's transmittal of the hearing request to the Office of Administrative Law;

Mail this form, completed, signed and dated with all of the information listed above, including attachment, to:

New Jersey Department of Environmental Protection
Office of Legal Affairs
Attention: Adjudicatory Hearing Requests
401 East State Street, P.O. Box 402
Trenton, New Jersey 08625-0402

Air Quality Permitting Element
Preconstruction Permits
New Jersey Department of Environmental Protection
401 E. State Street, 2nd Floor, P.O. Box 027
Trenton, New Jersey 08625
Phone: (609) 633-2829

_____ _____

**Signature** **Date**

**AIR POLLUTION CONTROL PRECONSTRUCTION PERMIT**

**Table of Contents**

**Facility Name: IMPACT RECOVERY & REUSE CTR**
**Facility ID No.: 03507**
**Permit Activity No.: PCP120001**


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**AIR POLLUTION CONTROL PRECONSTRUCTION PERMIT**

**Section A**

**Facility Name: IMPACT RECOVERY & REUSE CTR**
**Facility ID No.: 03507**
**Permit Activity No.: PCP120001**

## AUTHORIZED SOURCE OPERATIONS

This Preconstruction Permit and the Certificate to Operate for the following equipment is issued pursuant to N.J.A.C. 7:27-8.

**Description of Source Activity**

**Source Operation Type**: Non-metallic mineral processing/Class B recycling

**Source Operation Description**: Portable crushing operation equipped with water sprays for dust suppression and portable screener.

**Source Operation Details**: The sources authorized by this permit shall be operated within the parameters specified in the Equipment, Control Device, and/or Emission Unit/Batch Process Operating Scenario Details of this permit. Operation of the authorized sources within these parameters is required in addition to compliance with the conditions specified in Section D– Facility Specific Requirements.

**AIR POLLUTION CONTROL PRECONSTRUCTION PERMIT**

**Section B**

**Facility Name: IMPACT RECOVERY & REUSE CTR**
**Facility ID No.: 03507**
**Permit Activity No.: PCP120001**

## ACRONYMS

| | |
|---|---|
| BTS | Bureau of Technical Services |
| CEMS | Continuous Emissions Monitor System |
| CFR | Code of Federal Regulations |
| CO | Carbon Monoxide |
| COMS | Continuous Opacity Monitor System |
| EPA | United States Environmental Protection Agency |
| HAP | Hazardous Air Pollutant |
| N.J.A.C. | New Jersey Administrative Code |
| NJDEP | New Jersey Department of Environmental Protection |
| NOx | Oxides of Nitrogen |
| PM-2.5 | All particulate matter having an aerodynamic diameter less than or equal to a nominal 2.5 microns |
| PM-10 | All particulate matter having an aerodynamic diameter less than or equal to a nominal 10 microns |
| PST | Performance Specification Test |
| REO | Regional Enforcement Office - NJDEP |
| $SO_2$ | Sulfur Dioxide |
| TSP | Total Suspended Particulate Matter |
| VOC | Volatile Organic Compounds |

**AIR POLLUTION CONTROL PRECONSTRUCTION PERMIT**

**Section C**

**Facility Name: IMPACT RECOVERY & REUSE CTR**
**Facility ID No.: 03507**
**Permit Activity No.: PCP120001**

## GENERAL PROVISIONS AND AUTHORITIES
## Preconstruction Permits

1. Not withstanding compliance with other provisions of N.J.A.C. 7:27-1 et seq., no person shall cause, suffer, allow or permit to be emitted into the outdoor atmosphere substances in quantities which shall result in air pollution as defined at N.J.A.C. 7:27-5.1. [N.J.A.C. 7:27-5.2(a)]

2. The permittee shall not construct, reconstruct, install, or modify a significant source or control apparatus serving the significant source without first obtaining a preconstruction permit under N.J.A.C. 7:27-8. [N.J.A.C. 7:27-8.3(a)]

3. The permittee shall not operate (nor cause to be operated) a significant source or control apparatus serving the significant source without a valid operating certificate. [N.J.A.C. 7:27-8.3(b)]

4. Permit Revisions:

   The permittee shall not take any action which requires a permit revision, compliance plan change, seven-day-notice change, amendment, or change to a batch plant permit, under any applicable provision at N.J.A.C. 7:27-8.17 through 8.23, without complying with that applicable provision.

   The following summarize N.J.A.C. 7:27-8.18 through 8.21:

   a. The permittee shall file a permit revision request and receive approval from the Department prior to increasing any maximum allowable emission limit, increasing actual emissions, to a rate or concentration greater than a maximum allowable emission, causing the emissions of a new air contaminant, use a new raw material, reconstructing equipment, change the ground level concentration of an air contaminant in an area where the public has access, replace the permitted source, or constructing or installing a new significant source. [N.J.A.C. 7:27-8.18]

   b. The permittee shall file a compliance plan change request and receive approval from the Department prior to decreasing the frequency of testing, monitoring, recordkeeping, or reporting, changing the monitoring method, changing a level, rate, or limit of an operational parameter included in the conditions, or reducing a source's potential to emit. [N.J.A.C. 7:27-8.19]

   c. At least seven days prior to proceeding with a physical or operational change that is outside the scope of activities allowed by this permit, but will not increase emissions over the allowable emissions and will not alter the stack characteristics, the permittee shall file a seven-day-notice change. The permittee

may proceed with the proposed changes seven days after such notice is filed with the Department. [N.J.A.C. 7:27-8.20]

d. The permittee shall file an amendment within 120 days of making any change of the information contained within Section C of this permit (Facility Profile), changing the name, number or designation of any equipment or stack covered by this permit, changing the parameters of a stack in such a way to reduce the ground level concentration of an air contaminant, or correction of a typographical error that will not result in an increase of actual or allowable emissions. [N.J.A.C. 7:27-8.21]

The permittee shall review the provisions of N.J.A.C. 7:27-8.18 through 7:27-8.21 to determine the appropriate type of request to file.

5. The permittee shall make the preconstruction permit or certificate, together with any amendments, seven-day-notices, or other documents related to the permit and certificate, readily available for Department inspection on the operating premises. [N.J.A.C. 7:27-8.3(d)]

6. The permittee shall not use or cause to be used the equipment or control apparatus unless all components connected or attached to, or serving, the equipment or control apparatus, are functioning properly and are in compliance with the preconstruction permit and certificate and all conditions and provisions thereto. [N.J.A.C. 7:27-8.3(e)]

7. A preconstruction permit is not transferable either from the location authorized in the preconstruction permit to another location, or from any one piece of control apparatus or equipment to another piece of control apparatus or equipment. [N.J.A.C. 7:27-8.3(f)]

8. Once a permit or certificate is issued, the permittee is fully responsible for compliance with N.J.A.C. 8:27-8 and with the permit and certificate, including adequate design, construction, and operation of the source, even if employees, contractors, or others work on or operate the permitted source. If the Department issues any other requirement with the force of law, such as an order, which applies to the source, the permittee is also responsible for compliance with that requirement. [N.J.A.C. 7:27-8.3(g)]

9. Preconstruction permits and certificates do not any way relieve the permittee from the obligation to obtain necessary permits from other government agencies and to comply with all other applicable Federal, State, and local rules and regulations. [N.J.A.C. 7:27-8.3(h)]

10. The permittee shall not suffer, allow, or permit any air contaminant detectable by the sense of smell, to be present in the outdoor atmosphere in such quantity and duration which is, or tends to be, injurious to human health or welfare, animal or plant life or property, or would unreasonably interfere with the enjoyment of life or property. This shall not include an air contaminant which occurs only in areas over which the permittee has exclusive use or occupancy. In determining whether an odor unreasonably interferes with the enjoyment of life or property, the Department shall consider all of the relevant facts and circumstances, including, but not limited to, the character, severity, frequency, and duration of the odor, and the number of persons affected thereby. In considering these and other relevant facts and circumstances, no one factor shall be dispositive, but each shall be considered relevant in determining whether an odor interferes with the enjoyment of life or property, and, if so, whether such interference is unreasonable considering all of the circumstances. [N.J.A.C.7:27-8.3(j)]

11. The Department and its representatives have the right to enter and inspect any facility or property in accordance with N.J.A.C. 7:27-1.31. [N.J.A.C. 7:27-8.3(m)]

12. There shall be an affirmative defense to liability for penalties for a violation of a preconstruction permit or certificate occurring as a result of an equipment malfunction, an equipment start-up, an equipment shutdown, or during the performance of necessary maintenance. The affirmative defense shall be asserted and established as required pursuant to P.L. 1993. c.89 (adding N.J.S.A. 26:2C-19.1 through 2C-19.5) and any rules the Department promulgates thereunder, and shall meet all of the requirements thereof. There shall also be an affirmative defense to liabilities for penalties or other sanctions for noncompliance with any technology based emission limitation in this permit or certificate, if the noncompliance was due to an emergency as defined at N.J.A.C. 7:27-22.1, provided that the affirmative defense is asserted and established in compliance with 40 CFR 70.6(g) and meets all requirements thereof. [N.J.A.C. 7:27-8.3(n)]

13. The permittee shall not cause or use the equipment specified in a preconstruction permit in a manner that will result in the emission of any air contaminant not listed in the Facility Specific Requirements in this Preconstruction Permit at a rate equal to or higher than the applicable reporting threshold set forth at N.J.A.C. 7:27-8 Appendix I, Table A or B. [N.J.A.C. 7:27-8.4(k)1]

14. No air contaminant, or category of air contaminant, where accepted by the Department, shall be emitted other than those approved in the preconstruction permit. [N.J.A.C. 7:27-8.13(a)]

15. Any person to whom the Department has issued a preconstruction permit or certificate shall comply with all terms and conditions of any order related to the preconstruction permit or certificate. [N.J.A.C. 7:27-8.13(a)]

16. The permittee shall maintain all records required in the preconstruction permit for a period of five (5) calendar years from the calendar year within which the record was generated. [N.J.A.C. 7:27-8.13(a)]

17. The Department may change the conditions of approval of any approved certificate to operate at the time of renewal of a temporary operating certificate; at the time of approval or renewal of a five-year operating certificate; or at any time during the period a certificate is in effect, if the Department determines that such change is necessary to protect human health or welfare or the environment. [N.J.A.C. 7:27-8.13(b)]

18. Upon request of the Department, the permittee shall submit to the Department information relevant to the operation of equipment and control apparatus including all information specified at N.J.A.C. 7:27-8.13(c). [N.J.A.C. 7:27-8.13(c)]

19. If the conditions of a preconstruction permit or certificate to operate require the Department to incur any of the following charges, the permittee shall reimburse the Department for the full amount of these charges: (1) The charges billed by any phone company for the maintenance of a dedicated telephone line required by this permit or the certificate to operate for the electronic transmission of data; or (2) The charges billed by any laboratory for performing the analysis of audit samples collected pursuant to testing or monitoring required by this permit or the certificate to operate. [N.J.A.C. 7:27-8.13(g)]

20. Any exceedance of the operating requirements or emission concentrations specified in a preconstruction permit shall be reported within three (3) business days, by writing to the Regional Enforcement Office. [N.J.A.C. 7:27-8.13(h)]

21. The permittee shall, when requested by the Department, provide such testing facilities exclusive of instrumentation and sensing devices as may be necessary for the Department to determine the kind and amount of air contaminants emitted from the equipment or control apparatus. The testing facilities shall include the utilities, the structure to hold testing equipment and/or personnel, and any ports in stacks needed to carry out testing required by this permit. During testing by the Department, the equipment and control apparatus shall be operated under such conditions within their capacities as may be requested by the Department. The test facilities may be either permanent or temporary, at the discretion of the person responsible for their provision, and shall conform to all applicable laws, regulations, and rules concerning safe construction and safe practice. Testing facilities, which contain platforms and other means of personnel access, shall conform to OSHA standards. [N.J.A.C. 7:27-8.13(i)]

22. Upon request of the Department, the permittee shall submit to the Department any record relevant to any permit or certificate. Such records shall be submitted to the Department within thirty (30) days of the request by the Department or within a longer time period if approved in writing by the Department. [N.J.A.C. 7:27-8.15(a)]

23. The permittee shall submit any required report in a format and on a schedule approved by the Department. Such report shall be transmitted on paper, on computer disk, or electronically, at the discretion of the Department. [N.J.A.C. 7:27-8.15(b)]

24. Any report submitted to the Department, including but not limited to, a report submitted as an amendment of this permit or the certificate to operate pursuant to N.J.A.C. 7:27-8.3(c) shall include, as an integral part of the report, certifications complying with N.J.A.C. 7:27-1.39. [N.J.A.C. 7:27-8.15(c)]

25. Upon request of the Department, the permittee shall report on forms obtained from the Department the air contaminant actual emissions and information relevant thereto, of any air contaminant or category of air contaminant emitted by the equipment, control apparatus, or source operation. [N.J.A.C. 7:27-8.15(d)]

26. Any emission limit values in a preconstruction permit shall be interpreted to be followed by inherent trailing zeros (0) in the decimal portion of the limit to three significant figures (e.g. a printed limit of “1 lb/hr” means a limit of “1.00 lb/hr”).

27. This listing of requirements reflects the state rules and regulations that apply to a majority of sources. If a specific requirement in a rule or regulation that applies to a permittee is not included in this section or in the Facility Specific Requirements it does not relieve the permittee from the obligation to comply with that regulation.

28. Process monitors must be operated at all times when the associated process equipment is operating except during outage time allowed by Department guidelines/procedures or as outlined in Technical Manual 1005. The Permittee must keep a service log as required.

29. The following Department offices may be referenced in a preconstruction permit. Please use the following addresses when submitting any correspondence to these offices:

Bureau of Technical Services
P. O. Box 437
380 Scotch Road
West Trenton, NJ 08625

Central Regional Enforcement Office
P. O. Box 407
Trenton, NJ 08625-0407

Northern Regional Enforcement Office
7 Ridgedale Avenue
Cedar Knolls, NJ 07927

Southern Regional Enforcement Office
2 Riverside Drive – Suite 201
Camden, NJ 08102

30. In accordance with the Air Pollution Control Act at N.J.S.A. 26:2C-19(e), any operation of the equipment which may cause off-property effect, including odors, shall be immediately reported by calling the NJDEP Environmental Action Hotline at (877) 927-6337.

31. In accordance with N.J.A.C. 7:27-21, facilities are required to submit annual emission statements of their actual emissions if the Potential-to-emit for the entire facility exceeds the following thresholds (including all emissions from the facility, both permitted and unpermitted). Additional information about Emission Statement reports can be obtained by calling (609) 984-5483.

| **AIR CONTAMINANT** | **Threshold in Tons per Year** |
|---|---|
| VOC (Volatile Organic Compounds | 10 |
| NOx (Oxides of Nitrogen) | 25 |
| CO (Carbon Monoxide) | 100 |
| $SO_2$ (Sulfur Dioxide) | 100 |
| TSP (Total Suspended Particulates) | 100 |
| $PM_{2.5}$ (Particulate Matter $\leq$ 2.5 microns) | 100 |
| $PM_{10}$ (Particulate Matter $\leq$ 10 microns) | 100 |
| $NH_3$ (Ammonia) | 100 |
| Lead | 5 |

32. In accordance with N.J.A.C. 7:27-22, facilities are required to submit a Title V Operating Permit application, within one year, if the potential-to-emit for the entire facility exceeds any of the following thresholds (including all emissions from the facility, both permitted and unpermitted). Additional Information about Operating Permits can be obtained by calling the Operating Permit Hotline at (609) 633-8248.

| **AIR CONTAMINANT** | **Threshold in Tons per Year** |
|---|---|
| VOC (Volatile Organic Compounds) | 25 |
| NOx (Oxides of Nitrogen) | 25 |
| CO (Carbon Monoxide) | 100 |
| $SO_2$ (Sulfur Dioxide) | 100 |
| TSP (Total Suspended Particulates) | 100 |
| $PM_{10}$ (Particulate Matter $\leq$ 10 microns) | 100 |
| Lead | 10 |
| Any HAP (Hazardous Air Pollutant) | 10 |
| All HAPs Collectively | 25 |
| Any other Air Contaminant | 100 |

**AIR POLLUTION CONTROL PRECONSTRUCTION PERMIT**

**Section D**

**Facility Name: IMPACT RECOVERY & REUSE CTR**
**Facility ID No.: 03507**
**Permit Activity No.: PCP120001**

## PERMIT INFORMATION

FACILITY SPECIFIC REQUIREMENTS INDEX

FACILITY SPECIFIC REQUIREMENTS

REASON FOR APPLICATION

FACILITY PROFILE (GENERAL)

EQUIPMENT INVENTORY

CONTROL DEVICE INVENTORY

EMISSION POINT INVENTORY

EMISSION UNIT/BATCH PROCESS INVENTORY

**AIR POLLUTION CONTROL PRECONSTRUCTION PERMIT**

**Section D**

**Facility Name: IMPACT RECOVERY & REUSE CTR**
**Facility ID No.: 03507**
**Permit Activity No.: PCP120001**

## FACILITY SPECIFIC REQUIREMENTS INDEX


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|---|---|
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| **Emission Unit 1:** | |
| **OS Summary** | **2** |
| **OS1** | **5** |
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| **OS4** | **7** |
| **OS5** | **8** |
| **OS6** | **9** |

# New Jersey Department of Environmental Protection
## Facility Specific Requirements

**Emission Unit:** **U1 Fintec 1107 Jaw Crusher and Keestrack Pioneer Screener**

**Subject Item:** **CD1 Wet Supression System**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | The water spray system shall be installed and operated at critical processing points where fresh dry aggregate faces are created or dust becomes airborne. Water spray shall be sufficient to dampen the material surfaces to prevent visible emissions. [N.J.A.C. 7:27-8.13(a)] | The operator shall verify that water spray is visible at the spray bar locations at all time while aggregate is being processed. Monitored by visual determination once per shift during operation, based on an instantaneous determination. [N.J.A.C. 7:27- 8.13(d)] | The operator shall record in a bound log the date and nature of maintenance activity on the water spray system necessary to satisfy the operating requirements of this permit. Recordkeeping by manual logging of parameter upon occurrence of event. [N.J.A.C. 7:27- 8.13(d)] | None. |
| 2 | The crushing operation shall cease operation if the water flow rate through the spray nozzles is discontinued. [N.J.A.C. 7:27-8.13(a)] | None. | None. | None. |

# New Jersey Department of Environmental Protection
## Facility Specific Requirements

**Emission Unit:** **U1 Fintec 1107 Jaw Crusher and Keestrack Pioneer Screener**

**Operating Scenario:** **OS Summary**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | Maximum No. of Billable Compliance Inspections <= 4 inspections over the life of the Operating Certificate. The permittee will be invoiced for a service fee per inspection pursuant to N.J.A.C. 7:27-8.6 after the periodic compliance inspection is conducted. [N.J.A.C. 7:27- 8.13(e)] | None. | None. | None. |
| 2 | TSP <= 6.79 tons/yr and over any consecutive 12 month period. [N.J.A.C. 7:27- 8.13(h)] | None. | None. | None. |
| 3 | PM-10 (Total) <= 6.79 tons/yr and over any consecutive 12 month period. [N.J.A.C. 7:27- 8.13(h)] | None. | None. | None. |
| 4 | Hours of Operation <= 5,500 hr/yr and over any consecutive 12-month period. [N.J.A.C. 7:27- 8.13(h)] | Hours of Operation: Monitored by hour/time monitor continuously The diesel engines which power this equipment shall be equipped with and operate a non-resettable hour meter to monitor operating hours of the equipment covered by this permit. [N.J.A.C. 7:27- 8.13(d)] | Hours of Operation: Recordkeeping by manual logging of parameter or storing data in a computer data system each month during operation. The Permittee shall record operating hours each month during operation and during each consecutive 12-month period. [N.J.A.C. 7:27- 8.13(d)3] | None. |
| 5 | The equipment in this permit is subject to the provisions of NSPS Subpart A and Subpart OOO. The facility shall comply with all applicable requirements. [40 CFR 60] | None. | None. | None. |
| 6 | The subpart A requirement under 40 CFR 60.7(a)(1) for notification of the date construction or reconstruction commenced is waived for affected facilities under 40 CFR 60 Subpart OOO. [40 CFR 60.676(h)] | None. | None. | None. |
| 7 | For performance tests involving only Method 9 (40 CFR part 60 Appendix A-4) testing, the owner or operator may reduce the 30-day advance notification of performance test in 40 CFR 60.7(a)(6) and 60.8(d) to a 7-day advance notification. [40 CFR 60.675(g)] | None. | None. | None. |

## New Jersey Department of Environmental Protection
## Facility Specific Requirements

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 8 | The owner or operator of an affected facility shall provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the Administrator (or delegated State or local agency) as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator (or delegated State or local agency) by mutual agreement. [40 CFR 60.8(d)] | None. | None. | None. |
| 9 | When determining compliance with the fugitive emissions standard for any affected facility described under 40 CFR 60.672(b) or 40 CFR 60.672(e)(1) of this subpart, the duration of the Method 9 (40 CFR part 60, Appendix A-4) observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits in Table 3 of this subpart must be based on the average of the five 6-minute averages. [40 CFR 60.675(c)(3)] | None. | None. | None. |
| 10 | Opacity <= 15 % (fugitive- crusher only). [40 CFR 60.672(b)] | Opacity: Monitored by visual determination once initially, based on 6 minute blocks. [40 CFR 60.675(c)(3)] | Opacity: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [40 CFR 60.676(b)(1)] | Conduct a performance test: As per the approved schedule within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup. The owner or operator shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s). . [40 CFR 60.8(a)] |

## New Jersey Department of Environmental Protection
## Facility Specific Requirements

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 11 | Opacity <= 10 % (fugitive- all other affected facilities). [40 CFR 60.672(b)] | Opacity: Monitored by visual determination once initially, based on 6 minute blocks. [40 CFR 60.675(c)(3)] | Opacity: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [40 CFR 60.676(b)(1)] | Conduct a performance test: As per the approved schedule within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup. The owner or operator shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s). . [40 CFR 60.8(a)] |

## New Jersey Department of Environmental Protection
## Facility Specific Requirements

**Emission Unit:** **U1 Fintec 1107 Jaw Crusher and Keestrack Pioneer Screener**

**Operating Scenario:** **OS1 Soil/Stone Screening**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | TSP <= 1.1 lb/hr. [N.J.A.C. 7:27- 8.13(h)1] | None. | None. | None. |
| 2 | PM-10 (Total) <= 1.1 lb/hr. [N.J.A.C. 7:27-8.13(h)1] | None. | None. | None. |

## New Jersey Department of Environmental Protection
## Facility Specific Requirements

**Emission Unit:** **U1 Fintec 1107 Jaw Crusher and Keestrack Pioneer Screener**

**Operating Scenario:** **OS2 Screener Discharge Conveyor**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | TSP <= 0.07 lb/hr. [N.J.A.C. 7:27-8.13(h)1] | None. | None. | None. |
| 2 | PM-10 (Total) <= 0.07 lb/hr. [N.J.A.C. 7:27- 8.13(h)1] | None. | None. | None. |

## New Jersey Department of Environmental Protection
## Facility Specific Requirements

**Emission Unit:** **U1 Fintec 1107 Jaw Crusher and Keestrack Pioneer Screener**

**Operating Scenario:** **OS4 Crushing oversized rock into usable product**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | TSP <= 0.6 lb/hr. [N.J.A.C. 7:27- 8.13(h)1] | None. | None. | None. |
| 2 | PM-10 (Total) <= 0.6 lb/hr. [N.J.A.C. 7:27-8.13(h)1] | None. | None. | None. |

## New Jersey Department of Environmental Protection
## Facility Specific Requirements

**Emission Unit:** **U1 Fintec 1107 Jaw Crusher and Keestrack Pioneer Screener**

**Operating Scenario:** **OS5 Crusher Main Conveyor**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | TSP <= 0.07 lb/hr. [N.J.A.C. 7:27-8.13(h)1] | None. | None. | None. |
| 2 | PM-10 (Total) <= 0.07 lb/hr. [N.J.A.C. 7:27- 8.13(h)1] | None. | None. | None. |

## New Jersey Department of Environmental Protection
## Facility Specific Requirements

**Emission Unit:** **U1 Fintec 1107 Jaw Crusher and Keestrack Pioneer Screener**

**Operating Scenario:** **OS6 Crusher Side Conveyor**

The requirements for this item are identical to those for: U1 OS5

**IMPACT RECOVERY & REUSE CTR (03507)**
**PCP120001**

Date: 5/17/2012

# New Jersey Department of Environmental Protection
# Reason for Application

**Permit Being Modified**

**Permit Class:** **Number:** 0

**Description of Modifications:** Preconstruction Permit for a screener and crusher at Impact Recovery and Reuse Center, a Class B Recycling Facility located at 1000 Page Ave, Lyndhurst, NJ.

**IMPACT RECOVERY & REUSE CTR (03507)**
**PCP120001**

# New Jersey Department of Environmental Protection
## Facility Profile (General)

**Facility Name (AIMS):** Impact Recovery and Reuse Center

**Facility ID (AIMS):** 03507

**Street Address:** 1000 PAGE AVE
SECOND FLR
LYNDHURST, NJ 07071

**Mailing Address:** 1000 PAGE AVE
SECOND FLR
LYNDHURST, NJ 07071

**State Plane Coordinates:**

| | |
|---|---|
| **X-Coordinate:** | 182,655 |
| **Y-Coordinate:** | 218,411 |
| **Units:** | Meters |
| **Datum:** | Unknown |
| **Source Org.:** | DEP-GIS |
| **Source Type:** | Approx. Addr. Match |

**County:** Bergen

**Location Description:**

**Industry:**

| | |
|---|---|
| **Primary SIC:** | |
| **Secondary SIC:** | |
| **NAICS:** | 541620 |

# New Jersey Department of Environmental Protection
## Facility Profile (General)

**Contact Type: Air Permit Information Contact**

**Organization:** Impact Environmental Consulting Inc
**Org. Type:**
**Name:** Jeff Bogoian
**NJ EIN:**
**Title:** Facility Supervisor
**Phone:** (631) 269-8800 x
**Fax:** (631) 269-1599 x
**Other:** (631) 334-2325 x
**Type:** Mobile
**Email:** jbogoian@impactenvironmental.com

**Mailing Address:** 1000 Page Ave
Second Floor
Lyndhurst, NJ 07071

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**Contact Type: Fees/Billing Contact**

**Organization:** Impact Environmental Consulting Inc
**Org. Type:** Private
**Name:** Waid Worden
**NJ EIN:**
**Title:** CFO
**Phone:** (631) 269-8800 x
**Fax:** (631) 269-1599 x
**Other:** ( ) - x
**Type:**
**Email:** wworden@impactenvironmental.com

**Mailing Address:** 170 Keyland Ct
Bohemia, NY 11716

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**Contact Type: On-Site Manager**

**Organization:** Impact Environmental Consulting Inc
**Org. Type:**
**Name:** Jeff Bogoian
**NJ EIN:**
**Title:** Facility Supervisor
**Phone:** (631) 269-8800 x
**Fax:** (631) 269-1599 x
**Other:** (631) 334-2325 x
**Type:** Mobile
**Email:** jbogoian@impactenvironmental.com

**Mailing Address:** 1000 Page Ave
Second Floor
Lyndhurst, NJ 07071

**IMPACT RECOVERY & REUSE CTR (03507)**
**PCP120001**

## New Jersey Department of Environmental Protection
## Facility Profile (General)

**Contact Type: Responsible Official**

**Organization:** Impact Environmental Consulting Inc
**Org. Type:** Private
**Name:** Joel Rogers
**NJ EIN:**
**Title:** Vice President
**Phone:** (631) 269-8800 x
**Fax:** (631) 269-1599 x
**Other:** ( ) - x
**Type:**
**Email:** jrogers@impactenvironmental.com

**Mailing Address:** 1000 Page Ave
Second Floor
Lyndhurst, NJ 07071

**IMPACT RECOVERY & REUSE CTR (03507)** Date: 5/17/2012

**PCP120001**

# New Jersey Department of Environmental Protection
# Equipment Inventory

| Equip. NJID | Facility's Designation | Equipment Description | Equipment Type | Certificate Number | Install Date | Grand-Fathered | Last Mod. (Since 1968) | Equip. Set ID |
|---|---|---|---|---|---|---|---|---|
| E1 | Screener | Pioneer Keestrack Screener | Manufacturing and Materials Handling Equipment | | 1/1/2012 | | | |
| E2 | Scrn Conv | Screener Discharge Conveyor | Manufacturing and Materials Handling Equipment | | 1/1/2012 | | | |
| E4 | Crusher | Fintec 1107 Jaw Crusher | Manufacturing and Materials Handling Equipment | | 1/1/2012 | | | |
| E5 | Main Conv | Main Conveyor | Manufacturing and Materials Handling Equipment | | 1/1/2012 | | | |
| E6 | Side Conv | Side Conveyor | Manufacturing and Materials Handling Equipment | | 1/1/2012 | | | |

**IMPACT RECOVERY & REUSE CTR (03507)** Date: 5/17/2012

**PCP120001**

# New Jersey Department of Environmental Protection
## Control Device Inventory

| CD NJID | Facility's Designation | Description | CD Type | Install Date | Grand-Fathered | Last Mod. (Since 1968) | CD Set ID |
|---|---|---|---|---|---|---|---|
| CD1 | Water Spray | Wet Supression System | Scrubber (Other) | | | | |

**IMPACT RECOVERY & REUSE CTR (03507)**
**PCP120001**

Date: 5/17/2012

## New Jersey Department of Environmental Protection
## Emission Points Inventory

| PT NJID | Facility's Designation | Description | Config. | Equiv. Diam. (in.) | Height (ft.) | Dist. to Prop. Line (ft) | Exhaust Temp. (deg. F) | | | Exhaust Vol. (acfm) | | | Discharge Direction | PT Set ID |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Avg. | Min. | Max. | Avg. | Min. | Max. | | |
| PT2 | Screener | Screener Fugitives | Surface | 45 | 8 | 50 | 70.0 | 0.0 | 110.0 | 0.0 | 0.0 | 0.0 | Up | |
| PT8 | Crusher | Fintec Jaw Crusher Fugitives | Surface | 88 | 8 | 60 | 70.0 | 0.0 | 110.0 | 0.0 | 0.0 | 0.0 | Up | |

**IMPACT RECOVERY & REUSE CTR (03507)**
**PCP120001**

Date: 5/17/2012

## New Jersey Department of Environmental Protection
## Emission Unit/Batch Process Inventory

**U 1 Crush/Scrn Fintec 1107 Jaw Crusher and Keestrack Pioneer Screener**

| UOS NJID | Facility's Designation | UOS Description | Operation Type | Signif. Equip. | Control Device(s) | Emission Point(s) | SCC(s) | Annual Oper. Hours Min. | Annual Oper. Hours Max. | VOC Range | Flow (acfm) Min. | Flow (acfm) Max. | Temp. (deg F) Min. | Temp. (deg F) Max. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OS1 | Screener | Soil/Stone Screening | Normal - Steady State | E1 | | PT2 | | | | | | | | |
| OS2 | Scrn Conv | Screener Discharge Conveyor | Normal - Steady State | E2 | | PT2 | | | | | | | | |
| OS4 | Crusher | Crushing oversized rock into usable product | Normal - Steady State | E4 | CD1 (P) | PT8 | | 3,000.0 | 5,500.0 | | 1,300.0 | 2,000.0 | 900.0 | 1,300.0 |
| OS5 | Main Conv | Crusher Main Conveyor | Normal - Steady State | E5 | | PT8 | | | | | | | | |
| OS6 | Side Conv | Crusher Side Conveyor | Normal - Steady State | E6 | | PT8 | | | | | | | | |

State of New Jersey

CHRIS CHRISTIE
*Governor*

KIM GUADAGNO
*Lt. Governor*

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Mail Code - 401-02B
Water Pollution Management Element
Bureau of Nonpoint Pollution Control
P.O. Box 420 – 401 E. State St.
Trenton, NJ 08625-0420
Tel: (609) 633-7021 / Fax: (609) 777-0432
http://www.state.nj.us/dep/dwq/bnpc_home.htm

BOB MARTIN
*Commissioner*

June 30, 2015

Joel Rodgers
IMPACT ENVIRONMENTAL CONSULTING INC
170 KEYLAND CT
BOHEMIA, NY 11716

Re: RF -Stormwater
NJPDES: NJ0217280 PI ID #: 609544
IMPACT REUSE & RECOVERY CTR
Lyndhurst Twp, Bergen

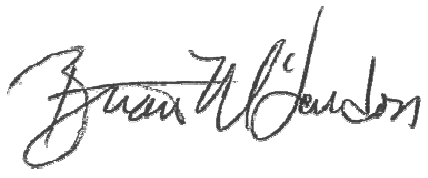
Dear Joel Rodgers:

Enclosed is a **final** New Jersey Pollutant Discharge Elimination System (NJPDES) permit action identified above which has been issued in accordance with N.J.A.C. 7:14A. No written comments were received on the draft action during the comment period, and no provisions of the draft permit have been changed in the final permit. Therefore, the right by you, or any third party, to contest the permit conditions in an adjudicatory hearing is hereby waived pursuant to N.J.A.C. 7:14A-15.13.

As per N.J.A.C. 7:14A-4.2(e)3, any person planning to continue discharging after the expiration date of an existing NJPDES permit shall file an application for renewal at least 180 calendar days prior to the expiration of the existing permit.

Questions or comments regarding the final action should be addressed to Daniel Kuti at (609) 633-7021.

Sincerely,



Brian McLendon, Supervisor
Bureau of Nonpoint Pollution Control

# NEW JERSEY POLLUTANT DISCHARGE ELIMINATION SYSTEM

The New Jersey Department of Environmental Protection hereby grants you a NJPDES permit for the facility/activity named in this document. This permit is the regulatory mechanism used by the Department to help ensure your discharge will not harm the environment. By complying with the terms and conditions specified, you are assuming an important role in protecting New Jersey's valuable water resources. Your acceptance of this permit is an agreement to conform with all of its provisions when constructing, installing, modifying, or operating any facility for the collection, treatment, or discharge of pollutants to waters of the state. If you have any questions about this document, please feel free to contact the Department representative listed in the permit cover letter. Your cooperation in helping us protect and safeguard our state's environment is appreciated.

**Permit Number: NJ0217280**

**Final: Stormwater Discharge New Permit Action**

**Permittee:**
IMPACT ENVIRONMENTAL CONSULTING INC
170 KEYLAND CT
BOHEMIA, NY 11716

**Co-Permittee:**

**Property Owner:**
LAMBDA FINANCIAL
PO BOX 808
Lyndhurst, NJ 07071

**Location Of Activity:**
IMPACT REUSE & RECOVERY CTR
1000 PAGE AVE
Lyndhurst, NJ 07071

| Authorization(s) Covered Under This Approval | Issuance Date | Effective Date | Expiration Date |
|---|---|---|---|
| RF -Stormwater | 07/01/2015 | 08/01/2015 | 07/31/2020 |

**By Authority of:**
**Commissioner's Office**

**DEP AUTHORIZATION**
**Brian McLendon, Supervisor**
**Bureau of Nonpoint Pollution Control**
**Water Pollution Management Element**

(Terms, conditions and provisions attached hereto)

New Jersey Department of Environmental Protection
Division of Water Quality
Bureau of Nonpoint Pollution Control (Stormwater)

# FACT SHEET

This fact sheet sets forth the principal facts and the significant factual, legal, and policy considerations examined during preparation of the draft permit.

**PERMIT ACTION: Stormwater Discharge New Permit Action**

## 1 Name and Address of the Applicant:

Impact Environmental Consulting, Inc.
170 Keyland Ct
Bohemia, NY 11716

## 2 Name and Address of the Facility:

Impact Reuse and Recovery Center
1000 PAGE AVE
Lyndhurst, NJ, 07071

## 3 Name and Classification of the Receiving Water:

Unnamed tributary to the Hackensack River
FW2-NT/SE2(C2)

## 4 Description of the Facility/Site:

Impact Reuse and Recovery Center (Impact) is a permitted Class B Recycling facility of concrete, asphalt, brick, asphalt, asphalt millings, plaster, ceramic, porcelain, tile, terra cotta, block (cinder or concrete). The primary industrial activities at the site include crushing, aggregate storage and use of heavy industrial equipment including front end loaders and dump trucks. The site also has two (2) aboveground fuel tanks, a scrap metal storage container, conveyors and an industrial crusher with a diesel engine. Equipment maintenance is done onsite inside the designated maintenance building. The site was formerly under the ownership of Red Rock Land Development, LLC.

Impact is limited to receiving 250 tons/day of Class B materials with a maximum storage capacity of 8,210 cubic yards of unprocessed Class B materials and 6,538 cubic yards of processed Class B materials. Impact is required to maintain visible vertical and horizontal markers for the storage piles as a condition of their solid waste permit. In addition to this material, as a result of the Department's 2/2/2015 revision of the class B permit, the facility may also accept commingled soils ("BUD soils") subject to a Department preapproval of each source.

The above named applicant has applied for a New Jersey Pollutant Discharge Elimination System (NJPDES) permit **(New Permit)** to the New Jersey Department of Environmental Protection (NJDEP), Bureau Nonpoint Pollution Control. A

location map of the facility is included. The proposed permit regulates stormwater discharges to an unnamed tributary to the Hackensack River, classified as FW2-NT/SE2(C2).

After discussions with representatives of Impact a decision was reached to issue an individual permit. The permit requires the facility to develop and implement a Stormwater Pollution Prevention Plan (SPPP) to control the quality of its stormwater discharges.

## 5 Description of the Receiving Water and Discharge Locations or Local Agency:

The Hackensack River is a riverine non-tidal fresh river classified as FW2-NT/SE2(C2)

## 6 Type and Quantity of the Wastes, Fluids, or Pollutants (as applicable):

The permittee will sample for the following parameters under the proposed NJPDES/DSW permit: Total Suspended Solids (TSS), Total Dissolved Solids (TDS), pH, Total Petroleum Hydrocarbons (TPH), Oil & Grease (O&G), Metals (Al, Cr, Cu, Fe, Ni, Pb, Zn), PCB

The site is limited to the following volumes of Class B recyclable materials under the terms and conditions of its Solid Waste permit

| Description | Total received | Storage | |
|---|---|---|---|
| | Daily maximum allowed | Maximum allowed (unprocessed) | Maximum allowed (processed) |
| Concrete, asphalt, brick, asphalt, asphalt millings, plaster, ceramic, porcelain, tile, terra cotta, block (cinder or concrete) | Not specified | Not specified | Not specified |
| Incidental amounts of rebar, metal, soil and other by-products that adhere to the Class B materials | Not specified | Not specified | Not specified |
| **Total (all categories)** | **250 tons** | **8,210 cubic yards** | **6,538 cubic yards** |

BUD Soils are pre-approved separately from Class B recyclable materials by NJDEP in accordance with the terms of the Class B Permit issued on February 2, 2015.

The facility also utilizes a truck tire wash system at the exit of the site. The wash system uses a water/flocculent mixture to remove sediment buildup on the truck prior to leaving the site. Sediment is washed into a below grade concrete holding area where it can be mechanically moved to a clean out area where the material is removed and loaded into trucks for offsite disposal.

## 7 Summary of Permit Conditions:

The objective of this regulatory action is to issue an individual NJPDES permit under the procedures established in N.J.A.C. 7:14A-15, 16, and 17.

In accordance with the Federal Clean Water Act and its implementing regulations, specifically, discharges permitted prior to February 4, 1987, and discharges associated with industrial activity (40 CFR 122.26), this facility is required to have a permit for its stormwater discharges to surface water. Permit effluent limitations, non-numeric effluent limitations, monitoring requirements, Best Management Practices (BMPs) and other conditions are authorized by the Federal Water

Pollution Control Act (33 U.S.C. 1251 et seq.), and the Water Pollution Control Act (State Act; N.J.S.A. 58:10A-1 et seq). These statutes are implemented by the National Pollutant Discharge Elimination System (NPDES) (40 CFR Part 122) and the New Jersey Pollutant Discharge Elimination System (NJPDES) (N.J.A.C. 7:14A) permit programs.

The terms and conditions of this permit apply exclusively to Class B recycling operations, storage and/or industrial activities that occur within the site boundaries defined as Block 235 and Lots 4 and 5. Under this renewal permit, the permittee will be required to:

1. Prepare and implement the SPPP which includes a Drainage Control Plan
2. Design, implement and maintain drainage control of the facility
3. design, implement and maintain BMPs to meet numeric limits in Part III of this permit and specific design criteria in Part IV of the permit
4. maintain a site Spill Prevention Plan as part of the SPPP (a site SPCC or DPCC satisfies this requirement)
5. Monitor stormwater discharges quarterly

Drainage control is the use of grading, diversionary structures, containment, dedicated storage areas and other methods used to divert stormwater from areas of industrial activity to a permitted outfall. Design criteria establish targets to help the permittee determine if the selected BMPs are effective. An exceedance of a design criteria is not considered to be a violation of the permit. Continued exceedance of design criteria, however, indicates that the selected BMPs are not effective and may require modification or replacement. Additional BMPs may also be required based on monitoring results.

Concerning the proposed new NJPDES permit, the NJDEP is authorized under the federal regulations (40 CFR 122.44) and under NJPDES rules (N.J.A.C. 7:14A-6.2(b) to impose Best Management Practices (BMPs) to control or abate the discharge of pollutants in lieu of numeric effluent limitations in NJPDES permits. BMPs may be imposed when the NJDEP finds numeric effluent limitations to be infeasible or when BMPs are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the State and Federal Acts. Additionally, the NJDEP believes that it is not feasible at this time to establish water quality based effluent limits (WQBEL) for this stormwater discharge. The proposed limitations incorporated in the SPPP are consistent with the NJDEP's and EPA's stormwater permitting philosophy of reducing the amount of pollution created and to prevent pollution from occurring in the first place (See 24 N.J.R. 2352). The SPPP requirements and monitoring requirements operate as limitations and controls on stormwater effluent discharges to prevent stormwater contamination and are intended to achieve Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT). The SPPP proposed will consist of requirements for preparing the SPPP, certifying the preparation and submitting the plan, implementation of the SPPP by a compliance date, certification of implementation of the SPPP, and annual recertification and reporting of the effectiveness of the SPPP. The objective of the SPPP is to prevent stormwater contamination through the elimination and/or minimization of exposure, during and after storm events, of industrial materials, machinery, waste products, and other source materials associated with industrial activity located at the facility, to stormwater that is discharged through separate storm sewers to surface waters.

The number of outfalls to be monitored will be determined during the preparation of the Drainage Control Plan. The types of pollutants are expected to be similar for each of the outfalls. The following summarizes the basis for each pollutant to be monitored as a requirement of the new permit:

Chemical Oxygen Demand

Characterization data submitted with the application indicated elevated levels of COD. COD monitoring will be required to help determine if any further action for control of COD is necessary.

Total Dissolved Solids

The crushing operation has the potential to create fine particulate. In addition, use of heavy equipment has the potential of grinding aggregate to a fine particulate. Monitoring for TDS will be required to help determine if any further action for control of TDS is necessary.

Total Suspended Solids

Impact stores processed and unprocessed aggregate in forms of concrete, asphalt, brick, asphalt, asphalt millings, plaster, ceramic, porcelain, tile, terra cotta, block (cinder or concrete). Storage and processing of these materials is a source for TSS. There will be a benchmark of 100 mg/L for TSS. In lieu of numeric limitations, the site will be required to implement BMPs designed to meet the benchmark. Monitoring for TSS will provide evidence of the effectiveness of site stabilization and materials handling BMPs.

pH

Exposure of stormwater to construction and asphalt debris has a potential to raise the pH of the runoff. Monitoring for pH will be required to help determine if any further action is necessary.

Total Petroleum Hydrocarbons

There will be a numeric effluent limit of 15 mg/L maximum concentration in accordance with N.J.A.C. 7:14A-12.8. The permittee will use an EPA approved method for the analysis of TPH.

Metals

There is a potential for metals from asphalt and construction debris. Sampling for aluminum, chromium, copper, iron, lead, nickel and zinc will be required to help determine if any further action for control of metals is necessary.

PCB

There is a potential for the presences of PCBs contained in construction debris from buildings constructed from the 1940s to the 1970s as well as industrial building debris. Sampling for PCBs is necessary under this permit action and shall be limited to an annual sample.

## 8 Description of Procedures for Reaching a Final Decision on the Draft Action:

These procedures are set forth in N.J.A.C. 7:14A-15, 16, and 17. Included in the public notice are requirements for the submission of comments by a specified date, procedures for requesting a hearing, and other procedures for participation in the final agency decision.

## 9 Name, Bureau, and Phone Number of Contact Person:

Additional information concerning the Draft Permit renewal may be obtained between the hours of 8:30 A.M. and 4:00 P.M., Monday through Friday from **Daniel Kuti**, Bureau of Nonpoint Pollution Control, at (609) 633-7021.

## 10 Limitation Derivation Worksheets (if applicable):

## 11 Permit Summary Table:

**Facility Name:** Red Rock Land Development

**Discharge Type:** Stormwater

| Outfall | Latitude | Longitude |
|---|---|---|
| DSN 001A | To be determined | To be determined |

| **PARAMETER** all values are mg/L unless otherwise stated | **PERMIT APPLICATION DATA DAILY MAX (mg/L)** | **PROMULGATED EFFLUENT LIMITATION GUIDELINES** | **DRAFT PERMIT REQUIREMENTS Monthly Avg./ Daily Max (mg/L)** |
|---|---|---|---|
| | **DSN 001** | | |
| Biochemical Oxygen Demand (BOD-5) | ND | None | None |
| Chemical Oxygen Demand | 32.5 | None | Monitor Only |
| Total Suspended Solids | 145 | None | Monitor Only |
| Total Kjeidahl Nitrogen (as N) | 1.25 | None | None |
| Nitrate plus Nitrite Nitrogen (as N) | 0.03 | None | None |
| Total Phosphorous (as P) | 0.29 | None | None |
| PCB | No data | None | Monitor only |
| Total Petroleum Hydrocarbons | 1.5 | N.J.A.C. 7:14A-12.8 | 10 / 15 |
| Metals (Al, Cr, Cu, Fe, Ni, Pb, Zn) | no data | None | Monitor Only |
| pH range (S.U.) | 8.08 | None | Monitor Only |
| Industrial Activity | | | SPPP[1], Part IV.B in permit requirements |

S.U. is the abbreviation for standard units.

**NOTES**

1 - Stormwater Pollution Prevention Plan (SPPP) is derived from Federal (40 CFR 122.44) and State (N.J.A.C. 7:14A-11.2(a)3 rules and will be developed as a non-numeric effluent limit to replace the numeric limits of the prior permit, and to control parameters not listed above. The following outside areas must be addressed in the SPPP, if applicable:

(1) vehicle fueling and maintenance areas; (2) waste management/handling areas; (3) ISRA clean-up areas; (4) loading docks; (5) storage areas; and (6) any other areas with "stormwater discharges associated with industrial activity" as defined by N.J.A.C. 7:14A-1.2.

## Appendix

### CONTENTS OF THE ADMINISTRATIVE RECORD

The following items are used to establish the basis of the draft permit renewal:

(1) The NJPDES permit NJ0160016
(2) The fact sheet for that Permit
(3) Multi-Sector General Permit (published in the Federal Register on September 29, 1995, September 30, 1998 and October 30, 2000) (NPI)*
(4) Data from the Nationwide Urban Runoff Program (EPA 1983) (NPI)*
(5) N.J.A.C. 7:14A (NPI)*
(6) 40 CFR 122.28 (NPI)*
(7) N.J.S.A. 58:10A-1 et seq (NPI)*
(8) Site visit conducted 2/25/15
(9) USEPA guidance document "Managing your Environmental Responsibilities- Section VIII-PCB Waste Requirements"

*NPI: The document is part of the administrative record, but is not physically included with the record.

# PART I
# GENERAL REQUIREMENTS: NJPDES

## A. General Requirements of all NJPDES Permits

### 1. Requirements Incorporated by Reference

a. The permittee shall comply with all conditions set forth in this permit and with all the applicable requirements incorporated into this permit by reference. The permittee is required to comply with the regulations, including those cited in paragraphs b. through e. following, which are in effect as of the effective date of the final permit.

b. General Conditions

| | |
|---|---|
| Penalties for Violations | N.J.A.C. 7:14-8.1 et seq. |
| Incorporation by Reference | N.J.A.C. 7:14A-2.3 |
| Toxic Pollutants | N.J.A.C. 7:14A-6.2(a)4i |
| Duty to Comply | N.J.A.C. 7:14A-6.2(a)1 & 4 |
| Duty to Mitigate | N.J.A.C. 7:14A-6.2(a)5 & 11 |
| Inspection and Entry | N.J.A.C. 7:14A-2.11(e) |
| Enforcement Action | N.J.A.C. 7:14A-2.9 |
| Duty to Reapply | N.J.A.C. 7:14A-4.2(e)3 |
| Signatory Requirements for Applications and Reports | N.J.A.C. 7:14A-4.9 |
| Effect of Permit/Other Laws | N.J.A.C. 7:14A-6.2(a)6 & 7 & 2.9(c) |
| Severability | N.J.A.C. 7:14A-2.2 |
| Administrative Continuation of Permits | N.J.A.C. 7:14A-2.8 |
| Permit Actions | N.J.A.C. 7:14A-2.7(c) |
| Reopener Clause | N.J.A.C. 7:14A-6.2(a)10 |
| Permit Duration and Renewal | N.J.A.C. 7:14A-2.7(a) & (b) |
| Consolidation of Permit Process | N.J.A.C. 7:14A-15.5 |
| Confidentiality | N.J.A.C. 7:14A-18.2 & 2.11(g) |
| Fee Schedule | N.J.A.C. 7:14A-3.1 |
| Treatment Works Approval | N.J.A.C. 7:14A-22 & 23 |

c. Operation And Maintenance

| | |
|---|---|
| Need to Halt or Reduce not a Defense | N.J.A.C. 7:14A-2.9(b) |
| Proper Operation and Maintenance | N.J.A.C. 7:14A-6.12 |

d. Monitoring And Records

| | |
|---|---|
| Monitoring | N.J.A.C. 7:14A-6.5 |
| Recordkeeping | N.J.A.C. 7:14A-6.6 |
| Signatory Requirements for Monitoring Reports | N.J.A.C. 7:14A-6.9 |

e. Reporting Requirements

| | |
|---|---|
| Planned Changes | N.J.A.C. 7:14A-6.7 |
| Reporting of Monitoring Results | N.J.A.C. 7:14A-6.8 |
| Noncompliance Reporting | N.J.A.C. 7:14A-6.10 & 6.8(h) |
| Hotline/Two Hour & Twenty-four Hour Reporting | N.J.A.C. 7:14A-6.10(c) & (d) |
| Written Reporting | N.J.A.C. 7:14A-6.10(e) &(f) & 6.8(h) |
| Duty to Provide Information | N.J.A.C. 7:14A-2.11, 6.2(a)14 & 18.1 |
| Schedules of Compliance | N.J.A.C. 7:14A-6.4 |
| Transfer | N.J.A.C. 7:14A-6.2(a)8 & 16.2 |

# PART II

# GENERAL REQUIREMENTS: DISCHARGE CATEGORIES

## A. Additional Requirements Incorporated By Reference

**1. No Additional Requirements Incorporated by Reference**

## B. General Conditions

**1. Scope**

a. The issuance of this permit shall not be considered as a waiver of any applicable federal, state, and local rules, regulations and ordinances.

**2. Permit Renewal Requirement**

a. Permit conditions remain in effect and enforceable until and unless the permit is modified, renewed or revoked by the Department.

b. Submit a complete permit renewal application: 180 days before the Expiration Date.

**3. Notification of Non-Compliance**

a. The permittee shall notify the Department of all non-compliance when required in accordance with N.J.A.C. 7:14A-6.10 by contacting the DEP HOTLINE at 1-877-WARNDEP (1-877-927-6337).

b. The permittee shall submit a written report as required by N.J.A.C. 7:14A-6.10 within five days.

**4. Notification of Changes**

a. The permittee shall give written notification to the Department of any planned physical or operational alterations or additions to the permitted facility when the alteration is expected to result in a significant change in the permittee's discharge and/or residuals use or disposal practices including the cessation of discharge in accordance with N.J.A.C. 7:14A-6.7.

b. Prior to any change in ownership, the current permittee shall comply with the requirements of N.J.A.C. 7:14A-16.2, pertaining to the notification of change in ownership.

**5. Access to Information**

a. The permittee shall allow an authorized representative of the Department, upon the presentation of credentials, to enter upon a person's premises, for purposes of inspection, and to access / copy any records that must be kept under the conditions of this permit.

**6. Stormwater Discharge Authorization**

a. The permittee shall discharge stormwater to surface waters and/or ground waters of the State only as authorized herein and consistent with the terms and conditions of this permit. This permit does not authorize any unpermitted discharge of domestic wastewater, non-contact cooling water, leachate, or process water, unless otherwise stated in Part IV of the Permit.

**7. Other Discharges**

a. If, during or after the preparation of the SPPP, it is discovered that the facility generates and discharges to surface waters and/or ground water any domestic wastewater, non-contact cooling water, or process waste water (including leachate and cooling water), not authorized by this permit or any other NJPDES permit, the permittee shall discontinue such discharges and apply for the appropriate NJPDES DSW permit in accordance with the NJPDES rules at N.J.A.C. 7:14A.

**8. Operator Certification**

a. For stormwater only discharges pursuant to N.J.A.C. 7:10A-1.10, the facility operator is exempt from the operator certification requirements unless otherwise required by this permit .

**9. Monitoring Locations**

a. All samples shall be taken at the monitoring points specified in Part IV of this permit and, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water or substance. Sampling points shall not be changed without notification to and the approval of the Department.

**10. Stormwater/Intermittent Discharges**

a. The permittee is required to ensure that samples and measurements taken for the purposes of monitoring are representative of the monitored activity pursuant to N.J.A.C. 7:14A-6.5(a). This includes any regulated intermittent activity or discharge. Therefore, although a discharge may occur on an intermittent basis, it does not exempt the permittee from complying with the conditions of the permit. For example, if a permittee has a monthly monitoring and reporting requirement and the discharge occurs three separate times during the month, the permittee should obtain a sample during at least one of the discharge events occurring during the monitoring period.

i. The permittee should check "No Discharge this monitoring period" on the monitoring report transmittal sheet only if there are no discharge events during the entire reporting period.

**11. Removed Substances/Residuals**

a. This permit does not authorize discharge of solids, sludge, filter backwash or other pollutants removed in the course of treatment or control to the waters of the State unless specifically authorized in this permit. All solids, sludge, filter backwash, or other pollutants removed from, or resulting from the treatment or control of discharges must be disposed of in accordance with all applicable Federal, State, Local and other appropriate agency requirements.

**12. Outfall Tagging and Monitoring Location Tagging**

a. All permittees with discharges that flow through an outfall with a Discharge Serial Number (DSN), shall identify the outfall with an outfall tag or posted sign. The outfall tag or posted sign shall be:

i. legible from twenty-five (25) feet, with a minimum of one (1) inch lettering;

ii. visible to the public from the land and water (if applicable)

iii. located as near to the end of the outfall as possible;

iv. made of durable, weather resistant material; and

v. maintained on a regular basis, such as cleaned and inspected to ensure that the tag is properly attached.

b. The outfall tag shall display, at minimum, the following information:

i. the name of the facility where the discharge originates;

ii. the NJPDES permit number;

iii. the Department Hotline phone number; and

iv. the DSN for that particular outfall.

c. If the monitoring locations are different than the outfall locations, monitoring locations shall also be identified with a tag or posted sign. The tag or posted sign shall be:

i. legible;

ii. made of durable, weather resistant material; and

iii. maintained on a regular basis, such as cleaned and inspected to ensure that the tag is properly attached.

d. The monitoring location tag shall display, at minimum, the following information:

i. the DSN.

## C. Custom Requirement

# PART III
# LIMITS AND MONITORING REQUIREMENTS

::: :: : : :::: :: :: ::: ::: : :: : rrr rr rrrr r

**Monitored Location Group Members**

l ll : :l rr rr r rrr r:rlrl r ll

**Surface Water DMR Reporting Requirements:**

l l.r .r:r:.l r rrr rl. :: :: ::r .r. .. :rr r . r. .l.. r :... .:.r . r:rl rrr:r. r :r . . :rl:r. r r. :. l rr rr r:.r . .. ... . :lrrr :r.r:r llr.r ..r:. rrr:r l:r. r :. rr r .r:.::: .:.l .:r r . r. r.

**Table III - A - 1: Surface Water DMR Limits and Monitoring Requirements**

**PHASE:** l ..rl **PHASE Start Date:** **PHASE End Date:**

| Parameter | Sample Point | Limit | Limit | Units | Limit | Limit | Limit | Units | Frequency | Sample Type |
|---|---|---|---|---|---|---|---|---|---|---|
| :. H<br>:<br>:rr.l rr. :r. rl: : r.rr . rr | :l lll r.r:: rr rr<br>e r ll r<br>.: | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ***** | ::: :: :<br>:r. l.<br>:.. .r l r<br>*** | :<br>:*****<br>:<br>*** | ::: :: :<br>:r. l.<br>:rm .r l r<br>*** | l: | l r.lrrrrr | : rr. |
| :lr l.. rl:: rrrl<br>:ll r. r..r.<br>:<br>:rr.l rr. :r. rl: : r.rr . rr | :l lll r.r:: rr rr<br>e r ll r<br>.: | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ***** | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ::: :: :<br>:. rrr. r<br>:rm .r l r<br>*** | :: r: | l r.lrrrrr | : rr. |
| :lr l.. rl:: rrrl<br>::.rrrl.r.: .: : l.<br>:<br>:rr.l rr. :r. rl: : r.rr . rr | :l lll r.r:: rr rr<br>e r ll r<br>.: | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ***** | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ::: :: :<br>:. rrr. r<br>:rm .r l r<br>*** | :: r: | l r.lrrrrr | : rr. |
| :: r rrr lrl r<br>:H. . rr.rr.r .r<br>:<br>:rr.l rr. :r. rl: : r.rr . rr | :l lll r.r:: rr rr<br>e r ll r<br>.: | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ***** | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | l .<br>:. rrr. r<br>:rm .r l r<br>*** | :: r: | l r.lrrrrr | : rr. |
| ::. rrr .l r l:: rrrl<br>:.rr ::r.<br>:<br>:rr.l rr. :r. rl: : r.rr . rr | :l lll r.r:: rr rr<br>e r ll r<br>.: | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ***** | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ::: :: :<br>:. rrr. r<br>:rm .r l r<br>*** | :: r: | l r.lrrrrr | : rr. |

**Surface Water DMR Reporting Requirements:**

l l.r .r:r:.l r rrr rl. :: :: ::r .r. .. :rr r . r. .l.. r :... .:.r . r:rl rrr:r. r :r. . :rl:r. r r. :. l rr rr r:.r . .. ... . :lrrr :r.r:r llr.r ..r:. rrr:r l:r. r :. rr r .r:.::: .:.l .:r r . r. r.

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**Table III - A - 1: Surface Water DMR Limits and Monitoring Requirements**

**PHASE:** l ..rl **PHASE Start Date:** **PHASE End Date:**

| Parameter | Sample Point | Limit | Limit | Units | Limit | Limit | Limit | Units | Frequency | Sample Type |
|---|---|---|---|---|---|---|---|---|---|---|
| ::r .. rrl:: rrrl<br>:.rr ::l .<br>:<br>:rr.l rr. :r. rl: : r.rr . rr | :l lll r.r:: rr rr<br>e r ll r<br>.: | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ***** | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ::: :: :<br>:. rrr. r<br>:rm .r l r<br>*** | :: r: | l r.lrrrrr | : rr. |
| ::rr. l:: r rrl<br>:.rr :lr.<br>:<br>:rr.l rr. :r. rl: : r.rr . rr | :l lll r.r:: rr rr<br>e r ll r<br>.: | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ***** | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ::: :: :<br>:. rrr. r<br>:rm .r l r<br>*** | :: r: | l r.lrrrrr | : rr. |
| :: rr.l: : rrrl: .rr :: . .<br>:<br>:rr.l rr. :r. rl: : r.rr . rr | :l lll r.r:: rr rr<br>e r ll r<br>.: | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ***** | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ::: :: :<br>:. rrr. r<br>:rm .r l r<br>*** | :: r: | l r.lrrrrr | : rr. |
| ::..l rll:: rrrl<br>:.rr ::..<br>:<br>:rr.l rr. :r. rl: : r.rr . rr | :l lll r.r:: rr rr<br>e r ll r<br>.: | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ***** | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ::: :: :<br>:. rrr. r<br>:rm .r l r<br>*** | :: r: | l r.lrrrrr | : rr. |
| :l .. .l: : r rrl<br>:.rr :l. .<br>:<br>:rr.l rr. :r. rl: : r.rr . rr | :l lll r.r:: rr rr<br>e r ll r<br>.: | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ***** | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ::: :: :<br>:. rrr. r<br>:rm .r l r<br>*** | :: r: | l r.lrrrrr | : rr. |
| :: ll r .. lr l:: rr r l<br>:.rr :: l.<br>:<br>:rr.l rr. :r. rl: : r.rr . rr | :l lll r.r:: rr rr<br>e r ll r<br>.: | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ***** | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ::: :: :<br>:. rrr. r<br>:rm .r l r<br>*** | :: r: | l r.lrrrrr | : rr. |

**Surface Water DMR Reporting Requirements:**

l l.r .r:r:.l r rrr rl. :: :: ::r .r. .. :rr r. r. .l.. r:... .:.r . r:rl rrr:r. r:r. . :rl:r. r r. :. l rr rr r:.r . .. ... . :lrrr :r.r:r llr.r ..r:. rrr:r l:r. r :. rr r .r:.::: .:.l .:r r . r. r.

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**Table III - A - 1: Surface Water DMR Limits and Monitoring Requirements**

**PHASE:** l ..rl **PHASE Start Date:** **PHASE End Date:**

| Parameter | Sample Point | Limit | Limit | Units | Limit | Limit | Limit | Units | Frequency | Sample Type |
|---|---|---|---|---|---|---|---|---|---|---|
| :: rl. .. lr r.. rrr.<br>:).. . r.. lr:.: :)r.<br>: | :l lll r.r:: rr rr<br>e r ll r | :<br>:*****<br>: | :<br>:*****<br>: | ***** | :<br>:*****<br>: | ::: :: :<br>:r . r.l.<br>: . rrr .r | ::: :: :<br>:r. l.<br>:rm .r l r | :: r: | l rr rrr | : rr. |
| :rr.l rr. :r. rl: : r.rr . rr | .: | *** | *** | | *** | *** | *** | | | |

**Surface Water WCR - Quarterly Reporting Requirements:**

l l.r .r:r:.l r rrr rl. :. : :::r .r. .. :rr r. r. .l.. r:... .:.r . r:rl rrr:r. r:r. .: rl:r. r r. :. l rr rr r:.r . .. ... . :lrrr :r.r:r llr.r ..r:. rrr:r l:r. r :. rr r .r:.::: .:.l .:r r . r. r.

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**Table III - A - 2: Surface Water WCR - Quarterly Limits and Monitoring Requirements**

**PHASE:** l ..rl **PHASE Start Date:** **PHASE End Date:**

| Parameter | Sample Point | Compliance Quantity | Units | Sample Type | Monitoring Period |
|---|---|---|---|---|---|
| ::rrr:rl:l rr rr ::. r.r | : rr.. . .rrr.r . | ::: :: : | :: r:: rr r : | :rr.r rrr. | rr.l rr . :r.r l: :r .rr .rr |
| :: .r r:lrr rr<br>:: . r.r: ) r. r. | : rr.. . .rrr.r . | ::: :: : | l: :: : ::: : | :rr.r rrr. | rr.l rr . :r.r l: :r .rr .rr |
| :lr rr r ::. r.r: :lr rr.r . | : rr.. . .rrr.r . | ::: :: : | :H:: :l: : | :rr.r rrr. | rr.l rr . :r.r l: :r .rr .rr |
| ::r.. lrl l:: r rl . r:rr<br>:: .r r:rl :lrr .l.. . | : rr.. . .rrr.r . | ::: :: : | :::: H:l: | :rr.r rrr. | rr.l rr . :r.r l: :r .rr .rr |

**Surface Water WCR - Quarterly Reporting Requirements:**

l l.r .r:r:.l r rrr rl. :. : :::r .r. .. :rr r. r. .l .. r :... .:.r . r:r lrrr :r. r :r. .: rl:r. r r. :. l rr rr r:.r . .. ... . :lrrr :r.r:r llr.r ..r:. rrr :r l:r. r :. rr r .r:.::: .:.l .:r r . r. r.

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**Table III - A - 2: Surface Water WCR - Quarterly Limits and Monitoring Requirements**

**PHASE:** l ..rl **PHASE Start Date:** **PHASE End Date:**

| Parameter | Sample Point | Compliance Quantity | Units | Sample Type | Monitoring Period |
|---|---|---|---|---|---|
| :: .r r:rl :lrr .lr<br>::r llr.r .r . | : rr.. . .rrr.r . | ::: :: : | l: :: : ::: : | :rr.r rrr. | rr.l rr. :r.r l: :r .rr .rr |
| :. H | : rr.. . .rrr.r . | ::: :: : | l::: ::::: | : rr. | rr.l rr. :r.r l: :r .rr .rr |

# PART IV

# SPECIFIC REQUIREMENTS: NARRATIVE

## Notes and Definitions

## A. Footnotes

### 1. Stormwater Notes

a. The following notes refer to the limit and monitoring requirements contained in the tables located in Part III and IV of the permit.

i. The discharge shall not exhibit a visible sheen associated or other discoloration with the regulated activity.

ii. All facilities discharging to surface water are prohibited from discharging foam or causing foam discoloration or odor associated with the regulated activity in accordance with N.J.A.C. 7:14A-12.6.

iii. Grab sample shall be collected at the designated sampling points and shall be collected within 30 minutes of the stormwater discharge or as soon thereafter as practicable. For sampling, follow guidelines in, "NJDEP Field Sampling Procedures".

iv. pH values that are measured below lower pH limit are not in violation if they are not lower than the measured pH of the precipitation collected on site during the storm event. To qualify for this exception, pH of that precipitation shall be reported on the monitoring report form as "Rain" pH.

v. For the purposes of this NJPDES permit, the stormwater discharges regulated by this permit are not process wastewaters.

vi. "Drainage Control" shall be required in all areas where there are stormwater discharges associated with industrial activity. Drainage control can be established using diversionary structures, grading, embankments, collection systems and other similar methods to divert stormwater from the industrial area of the site to a permitted outfall. The site may require several outfalls to establish drainage control. In areas of industrial activity that cannot be diverted to a permitted outfall, the permittee shall convert the area(s) so there is no direct discharge of stormwater to surface water, or cease all industrial activity and eliminate exposure of source material, including source material remaining from past industrial activity.

vii. A "discernible, confined and discrete conveyance" includes, but is not limited to, a pipe, ditch or channel. Examples of such conveyances include storm sewer pipes, drainage ditches, spillways, gullies, swales, gutters, curbs and streets.

## B. Definitions

### 1. Stormwater definitions

a. Unless otherwise stated in this permit, the definitions set forth at N.J.A.C. 7:14A-1.1, N.J.A.C. 7:14A-1.2 and Discharge Monitoring Report (DMR) Instruction Manual are incorporated into this permit.

# Notes and Definitions

i. "Annual Monitoring" means monitoring conducted at a minimum frequency of once every twelve calendar months.

ii. "Design criteria" is a pollutant concentration that the Department has determined that when exceeded represents a level of concern. Design criteria are established as "design goals" for Best Management Practices (BMPs) and/or water treatment, and are not established as numeric effluent limitations. Sampling results exceeding the design criteria will not be deemed violations.

iii. "Outfall" means (a) a point within the facility at which stormwater associated with the facility's industrial activity enters a surface water body from a discernible, confined and discrete conveyance; or (b) a point at which stormwater associated with the facility's industrial activity enters a surface water body from a discernible, confined and discrete conveyance for transport as stormwater to an offsite surface water body.

iv. "Source materials" means any materials or machinery located at the facility and directly or indirectly related to process or other industrial activities which could be a source of pollutants in a stormwater discharge associated with industrial activity that is subject to N.J.A.C. 7:14A-24.7. Source materials include, but are not limited to: raw materials; intermediate products; final products; waste materials; by-products; industrial machinery and fuels; and lubricants, solvents, and detergents that are related to process or other industrial activities. Materials or machinery that are not exposed to stormwater or that are not located at the facility are not "source materials".

## C. Acronyms

### 1. Stormwater Acronyms

a. "BMP"- Best Management Practices

b. "CFR"- Code of Federal Regulations

c. "DMR"- Discharge Monitoring Report

d. "DCP"- Drainage Control Plan

e. "DPCC" - Discharge Prevention Containment and Countermeasure

f. "DSN"- Discharge Serial Number

g. "EDI" - Electronic Discharge Interchange

h. "EDP"- Effective Date of Permit

i. "MRF"- Monitoring Report Form (DMRs and WCRs are MRFs.)

j. "N.J.A.C."- New Jersey Administrative Code

k. "NJPDES"- New Jersey Pollutant Discharge Elimination System

l. "N.J.S.A."- New Jersey Statutes Annotated

m. "SPCC" - Spill Prevention Control and Countermeasure

n. "SPPP"- Stormwater Pollution Prevention Plan

o. "WCR"- Waste Characterization Report

# Stormwater

## A. Permit Overview

### 1. Summary of Stormwater Permit Requirements

a. The terms and conditions of this permit apply exclusively to Class B recycling operations and/or other industrial activities conducted within the boundaries defined as Block 235 Lots 4 & 5.

b. The permittee shall develop, implement, update and maintain a Stormwater Pollution Prevention Plan (SPPP), which includes a Drainage Control Plan (DCP) (see Part IV.B).

c. The permittee shall develop, implement, update and maintain site specific best management practices (BMPs) to achieve the design criteria and effluent limitations as specified in the permit (see Part IV.C).

d. The permittee shall be responsible for supervising and managing the operation and maintenance of the facility, which includes routine inspections of the facility (see Part IV.D).

e. The permittee shall conduct stormwater monitoring in accordance with the permit (see Part IV.E).

f. The permittee shall summarize facility inspections in written reports and submit reports and certifications to ensure compliance with this permit (see Part IV.F).

g. The permittee shall retain records of all monitoring information, maintenance records, and copies of all reports (including the SPPP and soil erosion and sediment control plans) required by this permit (see Part IV.G).

## B. Stormwater Pollution Prevention Plan

### 1. SPPP Minimum Requirements

a. The SPPP shall address all stormwater discharges associated with industrial activity, including source materials, at the facility.

b. The facility shall gain drainage control of the stormwater runoff from all areas of industrial activity, including source materials, in accordance with section B.4 below.

c. The permittee shall include a DCP as a section within the SPPP.

d. The SPPP shall identify the BMPs that are in place to eliminate, reduce, or minimize exposure of industrial activity and source materials to stormwater discharging to surface or ground water.

e. The SPPP shall demonstrate that upon implementation the stormwater discharges associated with industrial activity meet the permit conditions contained in this permit.

f. The SPPP shall address, but is not limited to, the following outside areas:

i. outside vehicle/equipment fueling, maintenance and washing areas, and fuel storage (e.g., diesel fuel);

ii. outside areas used for waste management/handling or storage of equipment (e.g., dumpsters, scrap metals, vehicle parts, drums, and garbage);

iii. pavement and access roads needing repairs and unpaved surfaces with the potential to erode and discharge solids (soils and/or sediments) to surface waters;

iv. catch basins, trench drains and roof drains discharging to surface waters;

# Stormwater

v. loading docks;

vi. spills/leaks/non-stormwater discharges of fluid products, and raw material, vehicle coolants, lubricants and other chemicals;

vii. above ground storage tanks; and

viii. other areas/activities with stormwater discharges to surface water associated with industrial activity as defined by the federal rules (40 CFR 122.26 (b) (14) and contained by reference in the state rules.

g. The SPPP shall identify BMPs to stablize surface soils and reduce sediment transport, using BMPs outlined in the Standards for Soil Erosion and Sediment Control in New Jersey where appropriate, in accordance with the Soil Erosion and Sediment Control Act N.J.S.A. 4:24-39 et seq.

h. The SPPP shall identify production and non-production areas that have a high potential for soil erosion or a known soil erosion problem. Appropriate vegetative, structural, or stabilization measures shall be selected to limit erosion and sediment transport in these areas.

i. The SPPP shall be prepared, implemented, and maintained in accordance with good engineering practices and shall include, at a minimum, all of the items and information identified in Part IV. B, C and "Attachment 1: Contents of the Stormwater Pollution Prevention Plan".

j. The original SPPP shall be retained at the facility for use by the facility and inspection by the Department.

**2. BMP Design Criteria**

a. For monitoring only requirements, BMPs shall be designed, implemented and maintained to achieve the following design criteria upon implementation of the SPPP:

i. COD <= 120 mg/L

ii. TSS <= 100 mg/L

iii. TDS <= 500 mg/L

iv. pH = 6.0 - 9.0 S.U.

v. Copper <= 0.0636 mg/L.

vi. Iron <= 1.0 mg/L.

vii. Lead <= 0.0816 mg/L.

viii. Nickel <= 1.417 mg/L.

ix. Zinc <= 0.065 mg/L.

x. Aluminum <= 0.75 mg/L.

b. If the monitoring results exceed the design criteria (or are outside the range for pH, if applicable), the permittee shall:

i. evaluate potential sources for the specific parameter that did not comply with the design criteria;

ii. identify BMPs (e.g., source control, operational control, stormwater treatment) by which the permittee can further reduce stormwater contamination;

iii. evaluate whether any improvements or changes to the SPPP are warranted to reduce and control this parameter concentration;

iv. update the SPPP with any improvements or changes; and

v. summarize the results in the annual report in accordance with Part IV.F, including remedial actions taken.

c. If the permittee fails to design, implement and maintain the BMPs identified in the SPPP to meet the design criteria, or to make significant progress toward meeting the design criteria, the Department may modify the permit in accordance with N.J.A.C. 7:14A-16.4(b)11.

**3. Effluent Limitations**

a. BMPs shall be designed, implemented and maintained to meet the effluent limitations in the Part III tables upon implementation of the SPPP.

b. If the monitoring results exceed the effluent limitations (or are outside the range for pH, if applicable), the permittee shall:

i. evaluate potential sources for the specific parameter that did not comply with the design criteria;

ii. identify BMPs (e.g., source control, operational control, stormwater treatment) by which the permittee can further reduce stormwater contamination;

iii. evaluate whether any improvements or changes to the SPPP are warranted to reduce and control this parameter concentration;

iv. update the SPPP with any improvements or changes; and

v. summarize the results in the annual report in accordance with Part IV.F, including remedial actions taken.

c. The permittee may be subject to enforcement action by the Department for failure to meet effluent limitations in Part III of the permit.

**4. Drainage Control**

a. Drainage Control shall be established in all areas of industrial activity. In areas of industrial activity that cannot be diverted to a permitted outfall, the permittee shall do one of the following:

i. convert the area(s) to "no discharge" area(s) and manage stormwater collected in the area(s) as industrial wastewater; or

ii. eliminate industrial activity in these areas.

b. To establish drainage control, a facility shall:

i. ensure all "stormwater associated with industrial activity" as defined in N.J.A.C. 7:14A-1.2, is discharged through a regulated outfall(s) to surface water and/or a ground water discharge location;

ii. create a representative monitoring point for each regulated outfall(s) to surface water and/or a ground water discharge location; and

iii. separate the discharge of stormwater not associated with industrial activity (e.g. rooftop runoff, employee parking, open space) from regulated discharges, where practicable.

c. Outfall Stabilization

i. The permittee shall design, implement and maintain BMPs to prevent downstream erosion and sedimentation caused by stormwater, and/or process wastewater runoff at the outfall(s).

ii. At a minimum, the BMPs shall meet the most recent technical standards listed in Standards for Soil Erosion and Sediment Control in New Jersey, Engineering Standards Section titled Standard for Off-Site Stability.

iii. Where erosion at the outfall structure occurs the permittee shall restore the eroded areas to its previous condition.

**5. Drainage Control Plan**

a. The facility shall develop, implement and/or maintain a DCP containing the following:

i. a written narrative; and

ii. a Drainage Control Map.

b. The DCP shall be certified by a New Jersey licensed Professional Engineer.

c. Elevations for the Drainage Control Map shall be measured by a New Jersey licensed surveyor.

d. The written narrative shall describe how the facility will establish drainage control and shall include the following:

i. facility name;

ii. NJPDES permit number (NJ0160016) and Program Interest I.D. number PI 254813;.

iii. an alpha-numeric discharge serial number (e.g., DSN001A, DSN002A, DSN003A) for each surface water monitoring point(s);

iv. an alpha-numeric identifier (e.g. I01I, I02I, I03I) for each ground water monitoring point(s);

v. the latitude and longitude for each monitoring point(s);

vi. the name of all receiving water bodies (for discharges to surface water) and assigned New Jersey Surface Water Quality Standards' classifications;

vii. the name of the receiving aquifer (for discharges to ground water) and assigned New Jersey Ground Water Quality Standards' classification; and

viii. a description of any proposed stormwater treatment;

e. Unless otherwise specified by the Department the Drainage Control Map shall be an appropriate engineering scale, which is legible and clearly depicts the following information when applicable:

i. site boundary;

ii. title block containing tax block and lot number;

iii. north directional arrow;

iv. date prepared and subsequent revisions;

v. final grading of drainage areas, including elevations and flow arrows showing the drainage to regulated outfalls;

vi. location of flow diversion structures, treatment units (i.e. lined and unlined basins);

vii. location of surface water outfalls (regulated and unregulated) and discharge structures;

viii. location of ground water discharge point(s) and discharge structure;

ix. receiving waters and their location;

x. areas of industrial activity (i.e. Maintenance, fueling, equipment cleaning and storage);

xi. access roads;

xii. existing buildings and other structures; and

xiii. employee and customer parking.

**6. Preparation of SPPP**

a. A SPPP shall be prepared to meet the requirements of the permit and certified on a form provided by the Department.

b. The deadline for the preparation of the SPPP and submittals are contained in Part IV.F of the permit.

**7. Implementation of SPPP**

a. The SPPP shall be fully implemented in accordance with the permit and certified on a form provided by the Department.

b. The deadline for the implementation of the SPPP and submittals are contained in Part IV.F of the permit.

## C. Site Specific Best Management Practices

**1. BMP-Storage of Aggregate**

a. All horizontal and vertical markers required as part of the site Solid Waste requirements for processed and unprocessed stockpiles shall be clearly marked and maintained. The location of the markers shall also be included on the SPPP site map.

b. Fine Particulate Aggregate Storage.

i. Fine particulate aggregates, including but not limited to fly ash, lime and asphalt milling fines (this does not include coarse millings or coarse milllings mixed with fine millings), shall be stored in a silo or engineered structure designed to eliminate fugitive emissions and erosion by wind and/or stormwater.

ii. BMPs shall address management of the fine particulate aggregates, including but not limited to, loading/unloading activities, storage and the routine handling of this material.

iii. Spilled materials shall be either cleaned up and managed as a solid waste or returned to storage.

c. Outdoor Aggregate Storage.

i. The permittee shall post horizontal markers for all outdoor aggregate storage piles. The horizontal markers shall have a minimum distance of five (5) feet from the edge of the buffer zones closest to the horizontal markers. Horizontal markers used for compliance with solid waste regulations satisfy this condition provided the markers do not extend in to buffer zones.

ii. BMPs shall be developed, implemented and maintained to prevent migration of aggregate outside of the horizontal markers.

iii. Aggregate outside of the horizontal markers shall be returned to the storage area by the end of each work day and immediately before a known storm event.

iv. Aggregate shall be stored in a manner that prevents overtopping of retaining walls and/or spillage into buffer zones.

**2. BMP - Buffer Zones**

a. All buffers and sediment barriers shall meet the minimum requirements listed in the Standards for Soil Erosion and Sediment Control in New Jersey manual.

b. Permitted outfalls may be located within the buffer zone.

c. Within ninety (90) days of the EDP, the permittee shall establish a temporary buffer zone beginning at the entrance gate extending along the fenceline adjacent to the railroad line then along the south fenceline then west along the property line and ending at the field office. The temporary buffer zone shall be a minimum of eight (8) feet wide. The perimeter haul road may also serve as the buffer zone.

d. Within twelve (12) months of the EDP, the permittee shall establish permanent buffer zones that include permanent buffers or sediment barriers (unless the buffer zone is graded to direct stormwater back within the site boundaries or to a regulated outfall). The permanent buffer zones replace the temporary buffer zone described above.

i. If used, permanent vegetative filter strips or vegetative swales shall be a minimum width of twenty-five (25) feet measured perpendicular from the fenceline or site boundary line.

ii. Permanent sediment barriers shall be designed to prevent stormwater from running underneath or around the barriers.

iii. Permanent sediment barriers shall also include silt fencing on the downstream side of the sediment barrier.

iv. (Reserved).

e. The permittee shall inspect the buffer zones, buffers and barriers after each storm event and at least monthly looking for evidence of breakthrough and/or other failures of the selected BMPs and shall take immediate corrective action. Each inspection shall be recorded on a log and kept on file as part of the site SPPP.

**3. BMP - Mobile Fueling Tanks And Permanent Fueling Areas**

a. Standard operating procedures shall be established to eliminate/minimize the discharge of stormwater exposed to vehicle and/or machinery fuels.

b. Absorbent material shall be located within close proximity of any permanent or remote fueling tank, equipment and/or operation to ensure quick response to spills or leaks from fueling.

c. Standard operating procedures shall be established to ensure overfill protection of mobile and stationery tanks during fuel transfers.

d. Leaks and spills shall be immediately cleaned up and contaminated soils shall be immediately excavated.

e. If the permittee contracts this task to a service contractor, the permittee shall ensure that the service contractor complies with this BMP.

**4. BMP - Dust Control**

a. Spraying of uncontaminated water and other media approved by the Department, for the purpose of dust control, shall not result in a discharge to surface waters.

b. When using media other than fresh water for dust control, the permittee shall keep written Dept. approvals for other dust control media with the SPPP.

**5. BMP-Tracking of Materials**

a. The permittee shall design and implement BMPs to eliminate the tracking of pollutants outside of the site boundaries.

b. BMPs can be dry or wet methods. When used, wet methods shall not result in a water discharge outside of the site boundaries.

c. Use of uncontaminated water and other media approved by the Department for the purpose of preventing tracking of materials, shall not result in a discharge outside of the site boundaries.

d. When using media other than fresh water for preventing tracking of materials, the permittee shall keep written Dept. approvals for other media with the SPPP.

## D. Operations and Maintenance

**1. Facility and BMP Operation and Maintenance**

a. Temporary and/or permanent aggregate storage outside of the site boundaries defined by block 235 lots 4&5 is not covered under the terms and conditions of this permit.

b. Regulated industrial activities outside of the site boundaries defined by block 235 lots 4&5 are not covered under the terms and conditions of this permit.

c. The permittee shall be responsible for supervising and managing the operation and maintenance of this facility. This requires implementing BMPs that must be installed or used by the permittee to achieve compliance with the SPPP. Proper operation and maintenance also requires the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit.

d. The operation and maintenance activities shall be verified through the certification and annual reporting requirements of Part IV.F.

e. Frequent and thorough inspections, at a frequency of at least quarterly, are necessary to ensure adequate functioning of control measures. Inspections are recommended to be conducted during dry periods as well as storm events.

i. Inspections during dry periods allow facilities to identify and address any problems prior to a storm event, thereby minimizing the chance for stormwater contamination.

ii. Inspections during significant storm events ensure that measures are functioning as originally intended and provide an opportunity for facilities to observe what materials and/or activities are exposed to stormwater.

**2. Soil Erosion Sediment Control Plan**

a. For construction activities disturbing one (1) acre or more of total land area, authorization shall be obtained under either a modification to this permit or under NJPDES Permit No. NJ0088323 (Construction Activity Stormwater General Permit), for stormwater from such construction activities that would be discharged to surface waters.

b. Land disturbances that may result in a stormwater discharge authorized by this permit, shall be executed only in accordance with a soil erosion and sediment control plan certified pursuant to N.J.S.A. 4:24-43, or requirements for soil erosion and sediment control established in or pursuant to a municipal ordinance in accordance with N.J.S.A. 4:24-48, whichever is applicable.

c. A copy of this plan shall be retained by the permittee for a period of at least five (5) years after the completion of construction.

## E. Monitoring

**1. Criteria for monitoring a valid storm event**

a. The criteria for a valid storm event is any precipitation that produces a stormwater discharge including discharges from snow melt events.

i. The permittee shall monitor its stormwater discharge during a valid storm event from the outfalls designated in the DCP.

ii. For stormwater that accumulates during a storm event in a containment area impoundment or other device that controls the discharge, the facility shall monitor its stormwater at the time of the discharge.

iii. Wet basin must be monitored whenever there is a discharge.

b. Sampling a Snow Melt Event

i. If the snow melt results in a discharge, the permittee may collect a sample of the snow melt as part of the site monitoring requirements.

ii. Snow melt samples must be representative of the area of industrial activity. Samples may not be collected from snow stockpiles from non-industrial areas of the facility.

iii. The permittee shall only sample one snow melt event per calendar year.

**2. Monitoring Locations**

a. Samples shall be taken in compliance with the specified monitoring locations in Part III.

b. Monitoring locations shall not be changed without notification to and the approval from the Department.

c. Monitoring locations shall be included on the DCP map as detailed in Part IV.B.

### 3. Monitoring Schedule

a. Samples shall be collected in accordance with the sampling frequency established by the Department in Part III.

### 4. Collection and Analysis of Samples

a. Stormwater samples shall be collected within 30 minutes of the stormwater discharge or as soon thereafter as practicable.

b. The facility can collect their own sample.

c. Samples shall be analyzed by a New Jersey certified laboratory (N.J.A.C 7:18).

d. All samples shall be analyzed in accordance with approved U.S. Environmental Protection Agency (EPA) methods contained in 40 CFR Part 136, unless otherwise specified in the footnotes in Part IV.A.

e. The permittee may take samples and have analysis made by a New Jersey Certified laboratory on additional occasions to those specified in this permit. If so, the maximum values of all analytical results taken during the sampling period shall be reported. In addition, if an average value is required to be reported, all sample results shall be used when calculating the average. However, for pH, both minimum and maximum values are reported.

f. If only one analysis for a given parameter is made during any monitoring period specified in this permit, the result of such analysis shall be construed as the maximum value for that parameter, for said monitoring period.

## F. Inspections, Reports and Submissions

### 1. Stormwater Monitoring Report Forms (MRFs)

a. Sampling results shall be summarized and reported in accordance with the requirements contained in Part III of this permit on the appropriate monitoring report forms mailed separately by the Bureau of Permit Management.

b. If the permittee finds that the pre-printed MRFs they receive from the Department contain errors from the monitoring and reporting requirements contained in Part III, the permittee should contact the Bureau of Nonpoint Pollution Control at (609) 633-7021.

c. The permittee is required to monitor its stormwater discharge and submit appropriate MRFs to the Department in accordance with conditions of permit even if pre-printed MRFs contain errors.

d. The permittee shall make hand corrections to the MRFs if corrected forms are not received prior to the monitoring report due date.

### 2. Reporting Storm Event Information

a. In order for the Department to better assess the monitoring results provided by the permittee, the Department requires that storm event information is recorded and reported along with monitoring results.

b. The permittee shall record and submit the following storm event information on the appropriate MRFs provided by the Department:

i. date and approximate time that storm event began;

ii. an estimate of the inches of rainfall or snowfall, which can be based upon such data as recorded by a local weather monitoring station(s) or an on site maintained monitoring station;

iii. storm event duration in hours and/or minutes, as appropriate;

iv. date and time that grab sample was collected;

v. type of storm event (rain or snowmelt); and

vi. pH of rain (optional).

**3. Reporting "No Discharge"**

a. If a discharge does not occur during a particular reporting period, the permittee should check "No Discharge this monitoring period" on the MRF transmittal sheet for each discharge monitoring location which had "no discharge"

b. The Department shall compare all reports of "No Discharge" against information provided by Premium AccuWeather services (https://wwwl.accuweather.com/premium_login.php) to determine if a discharge has occurred.

**4. MRF Submittals**

a. Unless otherwise specified or directed, signed copies of required MRFs shall be submitted postmarked no later than the 25th day of the calendar month following the completed monitoring period to the address given below:

i. New Jersey Department of Environmental Protection
Bureau of Permits Management
P.O. Box 029
Trenton, New Jersey 08625-0029
Attn. Monitoring Reports

b. Submitting MRFs

i. The permittee shall submit quarterly MRFs. The monitoring quarter begins twenty-four (24) months after the EDP.

c. The permittee may also participate in electronic reporting of the MRFs via NJ Online with the Electronic Discharge Interchange (EDI) system. Follow the directions in the NJPDES Monitoring Report Form Manual to participate.

**5. SPPP Preparation Certification and SPPP Implementation Certification Submittal Requirements**

a. A SPPP shall be prepared and certified in accordance with the SPPP Preparation Certification, and implemented and certified in accordance with the SPPP Implementation Certification. The SPPP Preparation Certification and the SPPP Implementation Certification shall be submitted on the Certification Form provided by the Department in accordance with the submittal schedule below:

i. Submit the Generic Certification Form certifying that the SPPP was prepared: within 6 months from the effective date of the permit (EDP).

ii. Submit the Generic Certification Form certifying that the SPPP was implemented: within 18 months from the effective date of the permit (EDP).

iii. This certification form is available on the Department website at http://www.state.nj.us/dep/dwq/forms.htm#stormforms

iv. Copies of the SPPP shall be submitted to the Department's Northern Bureau of Water Compliance and Enforcement and the Bureau of Nonpoint Pollution Control.

v. Submit the SPPP: within 6 months from the effective date of the permit (EDP).

**6. Annual Inspections, Reports, and Recertifications**

a. The permittee shall conduct annual inspections of the facility in accordance with N.J.A.C. 7:14A-24.9(a) to assess all areas contributing to the stormwater discharge authorized by this permit, to evaluate whether the SPPP complies with and is implemented in accordance with this permit, and whether additional measures are needed to meet the conditions of this permit.

b. The permittee shall prepare an annual report.

c. The annual report shall be completed prior to the annual recertification submission date.

d. The annual report shall be retained by the permittee in accordance with Part IV.G for a period of at least five (5) years.

e. Submit an Annual Report: annually, beginning 30 months from the effective date of the permit (EDP).

f. The annual report shall be submitted with the annual recertification. This certification form is available on the Department website at http://www.state.nj.us/dep/dwq/forms.htm#stormforms.

g. The annual report shall summarize the findings of the annual inspection in accordance with a. above, including:

i. The date of the inspection; and

ii. Name(s) and title of the inspector(s).

h. The annual report shall include a summary comparing the MRF data with the design criteria. This summary shall include:

i. An explanation of two (2) or more exceedances of the design criteria for the same parameter;

ii. Changes and/or upgrades to BMPs to meet design criteria, and

iii. A discussion of the effectiveness of the BMP changes and/or upgrades.

i. The permittee shall annually certify on a form provided by the Department that the facility has completed their annual report as specified above and is in compliance with the SPPP and this permit.

i. Submit the Generic Certification Form certifying that the annual inspection was conducted: annually, beginning 30 months from the effective date of the permit (EDP).

ii. Any incident of non-compliance shall be identified in the certification. This shall include the steps being taken to remedy the non-compliance, and to prevent such incidents from recurring.

## G. Record Keeping

**1. Record Keeping Requirements**

a. The permittee shall retain records of all monitoring information, maintenance records, and copies of all reports required by this permit for a period of at least five (5) years.

**2. SPPP Record Keeping Requirements**

a. The SPPP shall be signed by the permittee, and the original shall be retained at the facility for use by the facility and inspection by the Department.

b. The SPPP shall be made available, upon request, to a representative of the Department and to the owner and operator of any municipal separate storm sewer receiving the stormwater discharge.

c. The SPPP shall be made available to the public upon request, except as noted below.

d. The facility may claim any portion of the SPPP as confidential in accordance with the provisions set forth in N.J.A.C. 7:14A-18.2.

**3. Soil Erosion and Sediment Control Plan Record Keeping**

a. If the permittee is required to implement a Soil Erosion and Sediment Control Plan as a result of construction activities or land disturbance greater than or equal to one (1) acre, a copy of the plan shall be retained by the permittee for a period of at least five (5) years after the completion of construction.

## H. Custom Requirement

a. The permittee shall locate the stormdrain discovered during an inspection in January 18, 2005. The permittee shall include the stormdrain on the DCP.

# End-Use Management Plan

Prepared For:

Impact Recovery and Reuse Center
1000 Page Avenue
Lyndhurst, New Jersey
Facility Registration Number: 131888
Permit Number: CBG110002

Prepared By:

Impact Environmental Consulting, Inc.
170 Keyland Court
Bohemia, New York

May 1, 2018

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## Appendices


Appendix 1: Recyclable Material End-Use Markets

Appendix 2: Byproduct Material End-Use Markets


## Lists of Exhibits


Exhibit 1: Facility Permit
Exhibit 2: Impact Recovery & Reuse Center Material Acceptance Plan And Facility Operation Site Plan
Exhibit 3: Lincoln Park West Contract, Permit & Materials Acceptance Protocol
Exhibit 4: Keegan Landfill Permit & Materials Acceptance Protocol
Exhibit 5: GM Linden Contract, Permit & Materials Acceptance Protocol
Exhibit 6: TRC Contract and Permit Authorizations
Exhibit 7: Phase III Contract and Permit Authorizations
Exhibit 8: Kingsland Redevelopment Area Project Permit Authorizations
Exhibit 9: Morris Blanchard Redevelopment Project Permit Authorizations
Exhibit 10: TRC-Walnut Cut Authorization
Exhibit 11: Stag's Leap Authorization
Exhibit 12: Paterson Plank Road Authorization
Exhibit 13: Former Griffin Pipe Products Site Authorization

## I. Introduction

This document presents the procedures and processes that will be followed to recycle materials generated from the Class B recycling operations at the Impact Recovery and Reuse Center ("the facility"), located at 1000 Page Avenue, Lyndhurst, New Jersey. These are revisions to the original permit issued to Redrock Land Development, LLC. The facility operates under a Class B recycling Permit issued in October, 2011 under permit CBG110002 (see **Exhibit 1**). Materials processed at the Facility will be returned into the economic mainstream for recycling and/or for use in the manufacture of products. This document is submitted to comply with the provisions of the New Jersey Recycling Rules as stated in NJAC 7:26A-3.10 (a)2(f).

## II. Operational Overview

Concrete, concrete block, brick, asphalt, cinder block, ceramic, tile, asphalt millings, porcelain, plaster and terra cotta from demolition contractors, manufacturers and municipalities received at the facility contains varying percentages of byproduct soils, rebar and metal. Materials accepted at the Facility are categorized into: recyclables, byproducts that occur incidental with the recyclables and residues. These materials are summarized as follows:

Recyclables

- Concrete
- Concrete block
- Brick
- Asphalt
- Asphalt millings
- Cinder block
- Ceramic
- Porcelain
- Tile
- Plaster

- Terra cotta

Byproducts

- Soil
- Rebar
- Metal
- Materials that adhere to recyclables

Beneficial Use Materials

- Soil (above the New Jersey Residential Direct Contact Soil Remediation Standards) comingled with approved Class B recyclable materials

Residuals

- Plastic
- Wood
- Contaminants

Soil byproducts will be accepted where the soil exists at a volume that is less than 25% as measured using ASTM C1336 modified for measuring content greater than ¼". Contaminants, that are removed from incoming materials to comply with end-market product specifications, are stored at the Facility within a roll-off container for subsequent disposal at a sanitary landfill. The facility is only permitted to accept less than 1% contaminants. Beneficial use materials will be accepted in accordance with the permit conditions 68-79.

The Facility is overseen by Mr. Joseph Staab of the New Jersey Department of Environmental Protection (jstaab@dep.state.nj.us), Department of Solid & Hazardous Waste. The compliance inspector is Ms. Gina Conti (609) 984-6994.

## III. Recyclables End-Use Markets

The recyclable products and the end-markets facilities are identified in **Appendix 1**. In general, these markets include construction and excavation companies in New York, New Jersey and

Pennsylvania that utilize sub-base, road-base and backfilling materials. Backfilling materials include reuse for engineered fill, mine reclamation material, and/or landfill capping media.

Specific information on the end-markets and users is maintained on-site in accordance with Facility permit condition 20A.

## IV. Byproducts End-Use Markets

The byproducts and the end-markets facilities are identified in **Appendix 2**. In general, these markets include construction and excavation companies in New York, New Jersey and Pennsylvania that utilize sub-base, road-base and backfilling materials. Backfilling materials include reuse for engineered fill, mine reclamation material, and/or landfill capping media.

Specific information on the end-markets and users is maintained on-site in accordance with Facility permit condition 20A. Contracts and permit authorization are provided within **Exhibits 3-8**.

## V. Quality Control Engineering

Prior to receiving soils from sources into the facility for processing, an environmental due diligence investigation will be performed on the source to satisfy the requirements of the end-use facilities. Consistent with the requirements, where there is concern that a material may have been impacted from an industrial source or if there is evidence of a potential impact of petroleum products, the soil will be tested. The environmental due diligence source application process will be performed by engineers representing the end-use facilities. The sampling and analysis will be performed in accordance with the operating permits of the end-use facilities. Materials that do not satisfy the end-use facilities' requirements will not be accepted into the facility. Determinations with respect to materials approval for shipment to end-use facilities will be approved by the facilities' quality control engineers in writing.

## VI. Storage and Handling

Operations involving approval and handing of materials is provide in the Material Acceptance Plan (see **Exhibit 2**). Incoming loaded trucks are scaled prior to entering the facility to establish a gross weight. The net weight is calculated by deducting the tare weight from the gross weight. The entire volume of the dropped load is then staged for processing. The staging of separated steel and soil byproducts is performed in the area designated on the attached Facility Operations Site Plan (see **Exhibit 2**).

For processing, the entire load is sized with a 1/2" vibratory screen. The recyclables over 1/2" in size are retained for further processing. The passing soils are stockpiled for end-market use. Beyond this preliminary screening, there is no other processing required to be performed on the soil in order for it to be utilized as the designated end-market raw material. Byproducts will be regularly loaded out to trucks for transport to end-use facilities.

## VII. Engineering Controls

This end-market change will not impact the pre-existing engineering controls developed to protect the environmental quality of the site and surrounding environments. Operations involving the handling, stockpiling and loading of the materials will be in accordance with the New Jersey Discharge Pollution Elimination System permit currently in-force at the Facility.

## VIII. Recordkeeping

Records concerning materials entering the facility will be retained onsite for a period of no less than 5 years. This includes information compiled by the end-use facilities' quality control engineers on environmental due diligence (application and test results), acceptance letters and contract for the end-market products.

Incoming materials will be managed as promulgated for the facility within the Class B Operating Permit. An accounting of the soil transported by truck to end-use facilities will be compiled in a

Raw Material Transport Log. Trucks delivering the soil will carry a transportation charter that will be signed upon arrival and receipt at the end-use facilities. A copy of the executed transportation charters will be retained at the end-use facilities and at the facility.

## Appendices

Appendix 1: Recyclable Material End-Use Markets

Appendix 2: Byproduct Material End-Use Markets

**Appendix 1**

**Recyclable Material End-Use Markets**

| Facility Name | Location | Type of End-us | Recyclable Material |
|---|---|---|---|
| Morris Blanchard Redevelopment Project | Newark, NJ | Brownfield Beneficial Use | Brownfield Beneficial Use |
| ~~Lincoln Park West~~ Closure Project | Jersey City, NJ | Concrete products of open size, road-base, sub-base | Brownfield Beneficial Use |
| GM Linden | Linden, NJ | Brownfield Beneficial Use | Brownfield Beneficial Use |
| TRC | Allentown, PA | Mine Reclamation | Asphalt, asphalt millings, road-base, sub-base |
| Phase III Environmental | Palmerton, PA | Brownfield Beneficial Use | Concrete products of open size, road-base, sub-base |
| Kingsland Redevelopment Area Project | Lyndhurst, NJ | Brownfield Beneficial Use | Brownfield Beneficial Use |
| Keegan Landfill/Waste Management | Kearny, NJ | Landfill Closure/ Beneficial Use | Beneficial Use |
| TRC-Walnut Cut | Danielsville, PA | PA Clean Fill Beneficial Use | Beneficial Use |
| ~~Stag's Leap~~ | Mullica Hill, NJ | Landfill Closure/ Beneficial Use | Beneficial Use |
| Paterson Plank Road | East Rutherford, NJ | Construction Site under LSRP's supervision | Beneficial Use |
| Former Griffin Pipe Products Site | Florence, NJ | Remediation under SRP program | Facility Acceptance Criteria |

**Appendix 2**

**Byproduct Material End-Use Markets**

| Facility Name | Location | Type of End-us | Applicable Standard |
|---|---|---|---|
| Morris Blanchard Redevelopment Project | Newark, NJ | Brownfield Beneficial Use | Facility Acceptance Criteria |
| Lincoln Park West Closure Project | Jersey City, NJ | Concrete products of open size, road-base, sub-base | Facility Acceptance Criteria |
| GM Linden | Linden, NJ | Brownfield Beneficial Use | Facility Acceptance Criteria |
| TRC | Allentown, PA | Mine Reclamation | PA Clean Fill Standard |
| Phase III Environmental | Palmerton, PA | Brownfield Beneficial Use | PA Regulated Fill Standard |
| Kingsland Redevelopment Area Project | Lyndhurst, NJ | Brownfield Beneficial Use | Facility Acceptance Criteria |
| Keegan Landfill/Waste Management | Kearny, NJ | Landfill Closure/ Beneficial Use | Facility Acceptance Criteria |
| TRC-Walnut Cut | Danielsville, PA | PA Clean Fill Beneficial Use | PA Clean Fill Standard |
| ~~Stag's Leap~~ | Mullica Hill, NJ | Landfill Closure/ Beneficial Use | Beneficial Use |
| Paterson Plank Road | East Rutherford, NJ | Construction Site under LSRP's supervision | Beneficial Use |
| Former Griffin Pipe Products Site | Florence, NJ | Remediation under SRP program | Facility Acceptance Criteria |

The contracts and authorizations to accept the non-recycled materials are provided herein as Exhibits 3 through 13.

## Lists of Exhibits


Exhibit 1: Facility Permit

Exhibit 2: Impact Recovery & Reuse Center Material Acceptance Plan And Facility Operation Site Plan

Exhibit 3: Lincoln Park West Contract, Permit & Materials Acceptance Protocol

Exhibit 4: Keegan Landfill Permit & Materials Acceptance Protocol

Exhibit 5: GM Linden Contract, Permit & Materials Acceptance Protocol

Exhibit 6: TRC Contract and Permit Authorizations

Exhibit 7: Phase III Contract and Permit Authorizations

Exhibit 8: Kingsland Redevelopment Area Project Permit Authorizations

Exhibit 9: Morris Blanchard Redevelopment Project Permit Authorizations

Exhibit 10: TRC-Walnut Cut Authorization

Exhibit 11: Stag's Leap Authorization

Exhibit 12: Paterson Plank Road Authorization

Exhibit 13: Former Griffin Pipe Products Site Authorization

Exhibit 1: Facility Permit

State of New Jersey

CHRIS CHRISTIE
*Governor*

KIM GUADAGNO
*Lt. Governor*

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BOB MARTIN
*Commissioner*

Division of Solid & Hazardous Waste
Bureau of Recycling & Hazardous Waste Management
401 East State Street
P.O. Box 420, Mail Code 401-02C
Trenton, NJ 08625-0420
Tel (609) 984-3438 Fax (609) 777-1951/984-0565
www.nj.gov/dep/dshw/recycling

CERTIFIED MAIL 70142120000454102854
RETURN RECEIPT REQUESTED

February 2, 2015

Richard Parrish, President
Impact Environmental Consulting, Inc.
170 Keyland Court
Bohemia, NY 11716

Re: Class B Recycling Center General Approval Renewal with Modification
Impact Environmental Consulting,Inc.
Block 235, Lots 4 & 5
City of Lyndhurst, Bergen County
Facility No. 131888
Permit No.: CBG110003

Dear Mr. Parrish:

Please be advised that the New Jersey Department of Environmental Protection, Division of Solid and Hazardous Waste has reached a final determination to renew & modify Class B Recycling Center General Approval. Enclosed is a copy of the final document.

Should you wish to contest any of the conditions of the enclosed general approval, you must file a request for an adjudicatory hearing within twenty (20) days of the date you receive this decision notice in accordance with the procedures found in N.J.A.C. 7:26A-3.14. A copy of the request should also be mailed to this office.

If you have any questions concerning this matter, please contact Rakesh Patel of my staff at (609) 984-6814, or by email at rakesh.patel@dep.nj.gov

Sincerely,

Guy Watson, Chief
Bureau of Recycling &
Hazardous Waste Management

Enclosures

C: Thomas Farrel, Chief, Bureau of SW Compliance & Enforcement
Ben Salahi, Bureau of SW Compliance & Enforcement
Brian McClendon, Supervisor, Bureau of Non-Point Pollution Control
Ken Ratzman, Chief, Bureau of Air Permits
Richard Wierer, Bergen County Solid Waste Coordinator
Mark Vangieri, Bergen County Recycling Coordinator
Maureen Kelly, Bergen County Health Department
Tom Marturano, NJMC Solid Waste Coordinator
Helen Polito, Lyndhurst Municipal Clerk

State of New Jersey

CHRIS CHRISTIE
*Governor*

KIM GUADAGNO
*Lt. Governor*

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BOB MARTIN
*Commissioner*

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401 East State Street
P.O. Box 420, Mail Code 401-02C
Trenton, NJ 08625-0420
Tel (609) 984-3438 Fax (609) 777-1951/984-0565
www.nj.gov/dep/dshw/recycling

## CLASS B RECYCLING CENTER GENERAL APPROVAL

Under the provisions of N.J.S.A. 13:1E-1 *et seq.* and N.J.S.A. 13:1E-99.11 *et seq.*, known as the Solid Waste Management Act and New Jersey Statewide Mandatory Source Separation and Recycling Act, respectively, and pursuant to N.J.A.C. 7:26A-1 *et seq.*, known as the Recycling Regulations, this approval is hereby issued to:

**Impact Environmental Consulting, Inc.**

| | |
|---|---|
| Facility Type: | Recycling Center for Class B Materials |
| LOT NO.(S): | 4 & 5 |
| BLOCK NO.: | 235 |
| MUNICIPALITY: | Lyndhurst |
| COUNTY: | Bergen |
| FACILITY REGISTRATION NO.: | 131888 |
| Permit No.: | CBG110003 |

This General Approval is subject to compliance with all conditions specified herein and all regulations promulgated by the Department of Environmental Protection (Department).

This General Approval shall not prejudice any claim the State may have to riparian land nor does it allow the registrant to fill or alter, or allow to be filled or altered, in any way, lands that are deemed to be riparian, wetlands, stream encroachment or flood plains, or within the Coastal Area Facility Review Act (CAFRA) zone or are subject to the Pinelands Protection Act of 1979, nor shall it allow the discharge of pollutants to waters of this State without prior acquisition of the necessary grants, permits, or approvals from the Department.

Feb. 2, 2015
Issuance Date

Guy J Watson
Guy Watson, Chief
Bureau of Recycling &
Hazardous Waste Management

May 7, 2017
Expiration Date

Scope of Approval

This General Approval (approval), along with the referenced application documents herein specified, shall constitute the sole approval of Recycling Center operations for Class B Recyclable Material (Concrete, Concrete Block, Brick, Asphalt, Cinder Block, Ceramic, Tile, Asphalt Millings, Porcelain, Plaster, and Terra Cotta) by Impact Environmental Consulting, Inc. (holder) headquartered in Bohemia, New York. Any registration, approval or permit previously issued by Division of Solid and Hazardous Waste, or its predecessor agencies, for the specific activities as described below and as conditioned herein, is hereby superseded.

Regulated Activities at the Facility

Items 1 through 39 of this approval contain the general conditions applicable to all recycling centers. Items 40 through 67 of this approval contain the operating requirements applicable to the Class B recyclable materials handling. Items 68 through 79 of this approval contain general conditions applicable to beneficial use materials handling.

Facility Description

The recycling center is a Class B facility operated by Impact Environmental Consulting, Inc. The recycling center is located on Page Ave. and Schuyler Ave., Block 235, Lots 4 and 5, in Lyndhurst, Bergen County. This regional recycling center receives concrete, concrete block, brick, asphalt, cinder block, ceramic, tile, asphalt millings, porcelain, plaster, and terra cotta from demolition contractors, manufacturers and municipalities. The recycling center also receives beneficial use soils preapproved by the Department that are commingled with other approved Class B recyclable material from demolition and/or redevelopment projects. The recycling center is authorized to accept and process the above materials 7:00 a.m. to 5:00 p.m., Monday through Friday and 7:00 a.m. to 3:00 p.m., Saturday.

The recycling center is also utilized for finished product storage and equipment storage as shown on the site plan.

This modification authorizes following changes to the approval.

1. Modification to the site plan

2. Authorization to accept & process beneficial use soils commingled with other approved Class B recyclable material from demolition and/or redevelopment projects preapproved by the Department through issuance of a Certification of Authority to Operate for Beneficial Use Project.

Approved General Approval Application and Associated Documents

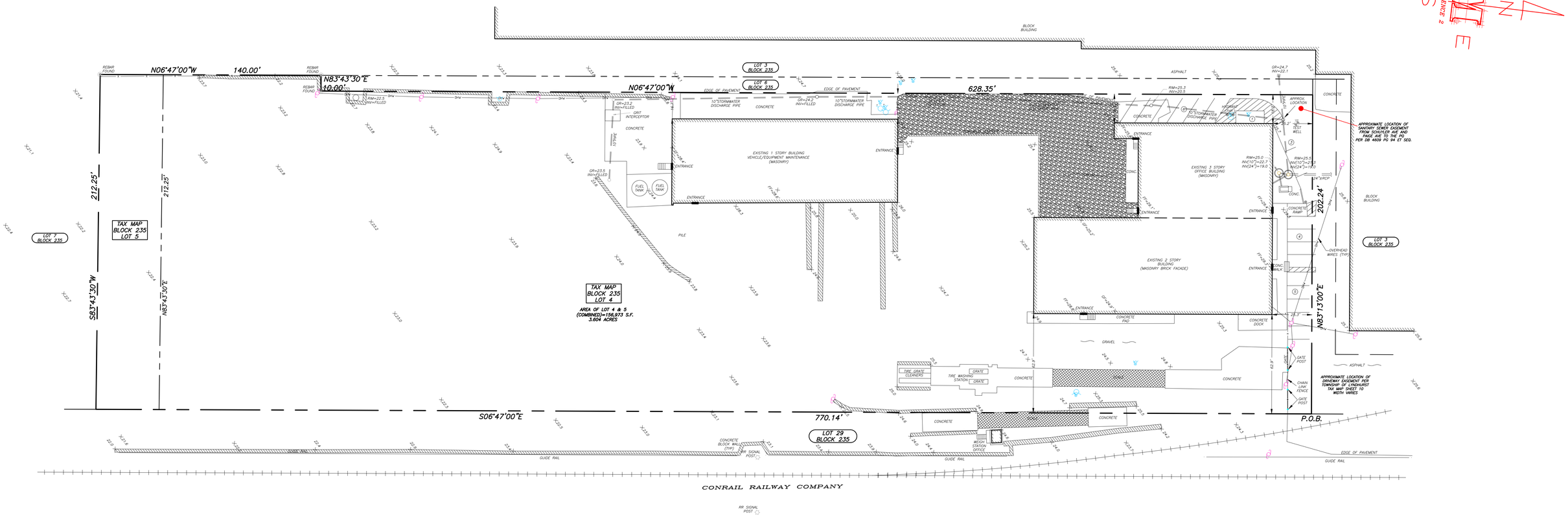
The registrant shall construct and operate the facility in accordance with N.J.A.C. 7:26A-1 *et seq.*, the conditions of this Approval, and the following documents:

(1) Site Plan: Figure # 2-3, 2-3A, 2-4, 2-4A & 2-4B sealed by Joel Rogers, P.E. for Impact Environmental dated October 7th, 2014.

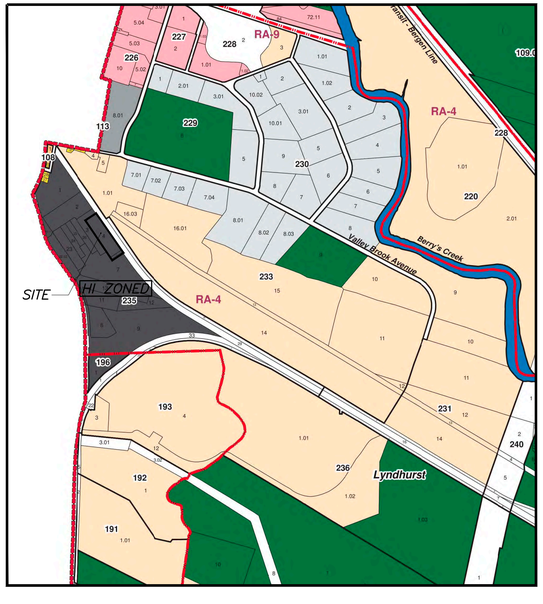
(2) Class B Modification Application dated October 19, 2014 submitted by Impact Environmental and signed by Mr. Richard Parrish, P.G.

(3) Class B Renewal Application dated January 12, 2012 submitted by Impact Environmental and signed by Mr. Richard Parrish, P.G.

In case of conflict, the provisions of N.J.A.C. 7:26A-1 *et seq.* shall have precedence over the conditions of this Approval, and the conditions of this Approval shall have precedence over plans and specifications listed above.




## HACKENSACK MEADOWLANDS DISTRICT MAP




## NOTES:

1. SUBJECT TO EASEMENTS, GRANTS, RESTRICTIONS, RIGHT-OF-WAYS AND CONDITIONS OF RECORD AND SUCH STATE OF FACTS WHICH AN ACCURATE, CURRENT AND COMPLETE ABSTRACT OF TITLE MIGHT DISCLOSE.
2. STREET NAMES AND RIGHT-OF-WAY WIDTHS AND BLOCK AND LOT DESIGNATIONS ARE PER THE CURRENT MUNICIPAL TAX MAPS.
3. EXCEPT AS SPECIFICALLY STATED OR SHOWN ON THIS PLAT, THIS SURVEY DOES NOT PURPORT TO REFLECT MUNICIPAL SETBACK REQUIREMENTS, RESTRICTIVE COVENANTS, SUBDIVISION RESTRICTIONS, ZONING OR OTHER LAND USE REGULATIONS.
4. THIS SURVEY IS BASED ON EXISTING PHYSICAL CONDITIONS FOUND AT THE SITE ON THE DATES OF THE FIELD SURVEY AND ON DEED, FILED, AND UNFILED MAP INFORMATION.
5. SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED OR CONSIDERED AS PART OF THIS SURVEY, NO STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONTAINERS OR FACILITIES THAT MAY AFFECT THE USE OR DEVELOPMENT OF THIS TRACT.
6. ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MARKED WITH AN ORIGINAL OF THE LAND SURVEYORS EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID COPIES.
7. SIGNATURE AND EMBOSSED SEAL SIGNIFY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE ADOPTED BY THE N.J. STATE BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS. CERTIFICATIONS INDICATED HEREON SHALL RUN ONLY TO THE PERSON FOR WHICH THE SURVEY IS PREPARED, AND ON HIS BEHALF TO THE TITLE COMPANY. GOVERNMENTAL AGENCY AND LENDING INSTITUTION LISTED HEREON. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.
8. ELEVATIONS BASED ON NGVD29 AND ESTABLISHED BY RAPID STATIS GPS OBSERVATIONS USING COR STATION "NJIT" CONVERSION TO NGVD29 FROM NAVD88 BY VERTCON PROGRAM. CONTOURS HAVE A 1 FOOT INTERVAL.
9. IN ACCORDANCE WITH N.J.A.C. 13:40-5.1(d), UNDER "LAND SURVEYORS; PREPARATION OF LAND SURVEYS," A WAIVER OF THE RIGHT TO HAVE CORNER MARKERS SET HAS BEEN FILED WITH THIS OFFICE BY THE ULTIMATE USER.

## REFERENCES:

1. TAX MAP FOR THE TOWNSHIP OF LYNDHUSRT, BERGEN COUNTY, NEW JERSEY
2. DEED BOOK 8320 PAGE 334 ET SEQ.
3. "SUBDIVISION OF PROPERTY OF D.L.&W. RAILROAD COMPANY, BOROUGH OF NORTH ARLINGTON AND TOWNSHIP OF LYNDHURST, BERGEN COUNTY, NEW JERSEY" PREPARED BY RONALD B. BROWN, ENGINEER, DATED NOVEMBER 1958, LAST REVISED DECEMBER 1958. THIS IS UNAVAILABLE AT THE BERGEN COUNY CLERK'S OFFICE.
4. TITLE REPORT # CTA2097 BY CECERE TITLE AGENCY, AGENT FOR FIRST AMERICAN TITLE INSURANCE COMPANY.
5. FIELD SURVEY PERFORMED AUGUST 2014.

## ZONING:

PROPOERTY IS CURRENTLY IN THE HEAVY INDUSTRIAL (HI) ZONED LAND

GRAPHIC SCALE
30 0 15 30 60
(IN FEET)
1 INCH = 30 FEET

| REV. | DATE | DESCRIPTION |
|---|---|---|

DRAWN BY : CC
CHECKED BY : DWD
PROJECT No: 14082

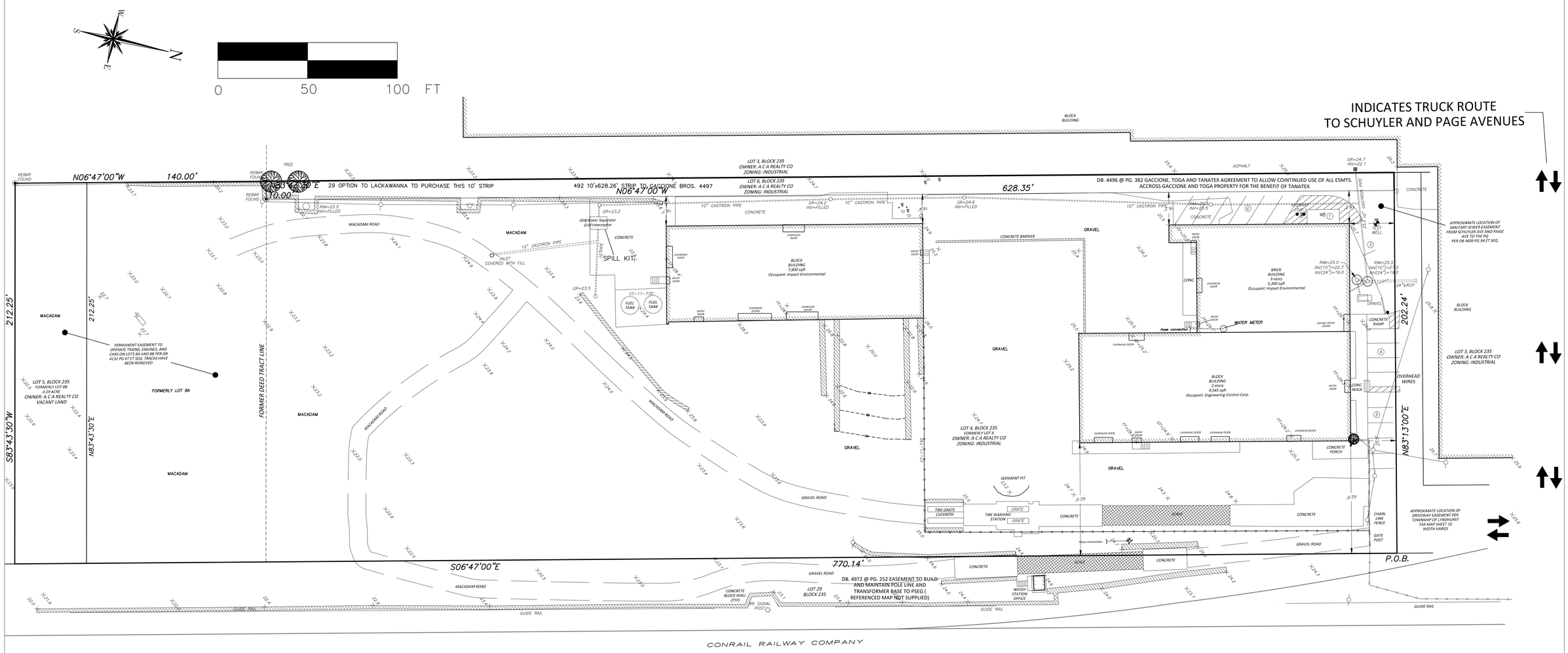
McNALLY ENGINEERING, LLC.

DRAWING TITLE BOUNDARY AND TOPOGRAPHIC SURVEY

IMPACT ENVIRONMENTAL
BLOCK 235 - LOTS 4 & 5
TOWNSHIP OF LYNDHURST
BERGEN COUNTY, NEW JERSEY

McNALLY ENGINEERING, L.L.C.
Certificate of Authorization 24GA27928700, exp. 8/31/16
169 RAMAPO VALLEY ROAD
OAKLAND, NJ 07436
(201) 337-9051

| SCALE : | DATE : | SHEET No.: | DWG. No.: |
|---|---|---|---|
| 1" = 30' | 08/27/14 | 1 OF 1 | SB-1 |




## REFERENCES:

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2. DEED BOOK 8320 PAGE 334 ET SEQ.
3. "SUBDIVISION OF PROPERTY OF D.L.&W. RAILROAD COMPANY, BOROUGH OF NORTH ARLINGTON AND TOWNSHIP OF LYNDHURST, BERGEN COUNTY, NEW JERSEY" PREPARED BY RONALD B. BROWN, ENGINEER, DATED NOVEMBER 1958, LAST REVISED DECEMBER 1958. THIS IS UNAVAILABLE AT THE BERGEN COUNY CLERK'S OFFICE.
4. TITLE REPORT # CTA2097 BY CECERE TITLE AGENCY, AGENT FOR FIRST AMERICAN TITLE INSURANCE COMPANY.
5. BOUNDARY AND TOPOGRAPHIC SURVEY, PREPARED BY MCNALLY ENGINEERING, LLC, SIGNED BY DOUGLAS W. DOOLITTLE, P.E., LSRP, DATED AUGUST 26, 2014.

## LEGEND:

- FACILITY BOUNDARY
- PROPERTY LINE
- TRAIN TRACKS

## NOTES:

1. SUBJECT TO EASEMENTS, GRANTS, RESTRICTIONS, RIGHT-OF-WAYS AND CONDITIONS OF RECORD AND SUCH STATE OF FACTS WHICH AN ACCURATE, CURRENT AND COMPLETE ABSTRACT OF TITLE MIGHT DISCLOSE.
2. STREET NAMES AND RIGHT-OF-WAY WIDTHS AND BLOCK AND LOT DESIGNATIONS ARE PER THE CURRENT MUNICIPAL TAX MAPS.
3. EXCEPT AS SPECIFICALLY STATED OR SHOWN ON THIS PLAT, THIS SURVEY DOES NOT PURPORT TO REFLECT MUNICIPAL SETBACK REQUIREMENTS, RESTRICTIVE COVENANTS, SUBDIVISION RESTRICTIONS, ZONING OR OTHER LAND USE REGULATIONS.
4. SITE CONSISTS OF LOT 4 & 5 OF BLOCK 235, WITH AN AREA OF 156,973 SQFT (3.604 ACRES).

TITLE:

# EXISTING FEATURES

1000 Page Avenue
Lyndhurst, NJ

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | JR |
| DATE: | 10/07/2014 |
| SCALE: | SEE DRAWING |

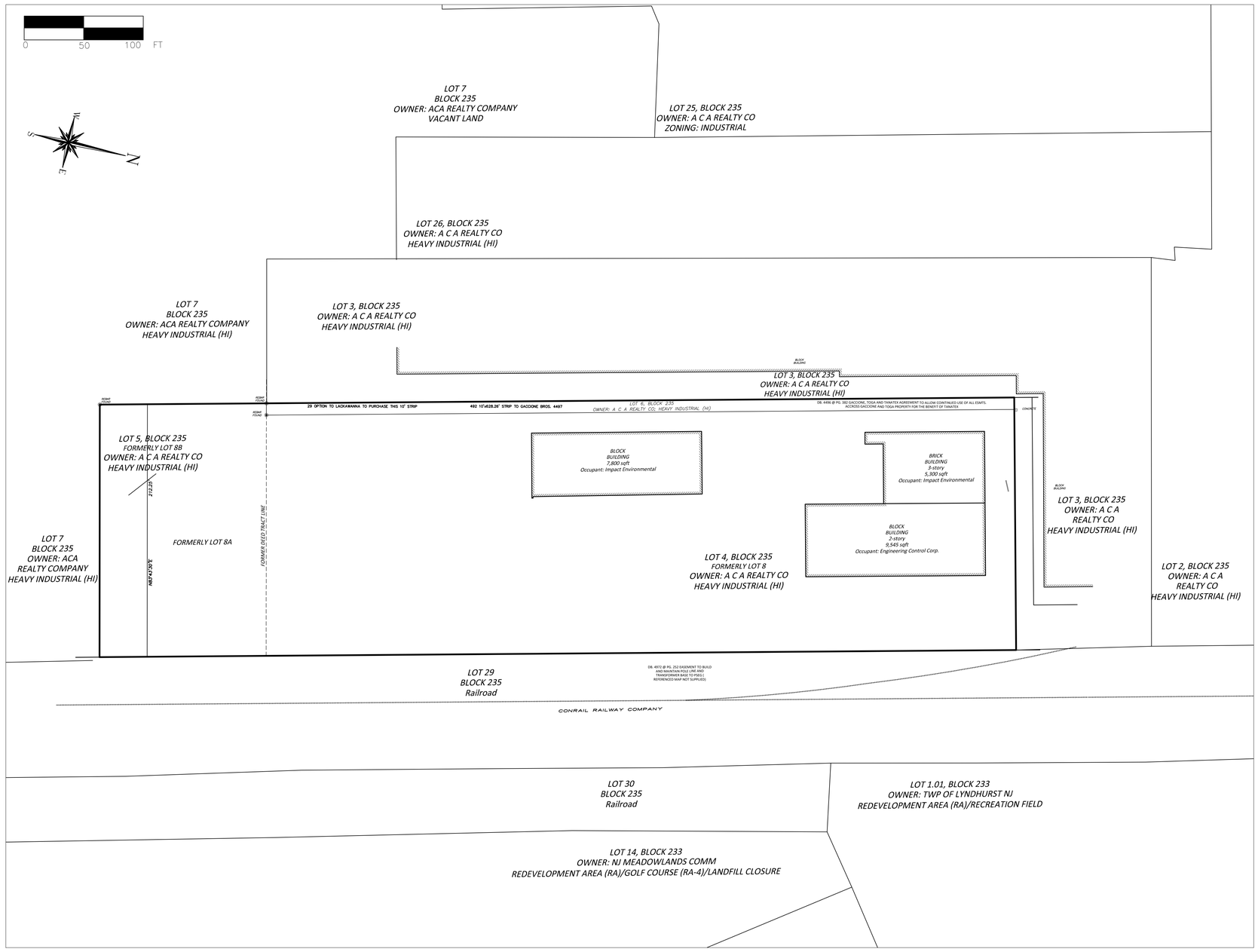
| | |
|---|---|
| PROJECT # | FAC8 |
| FIGURE # | 1 |

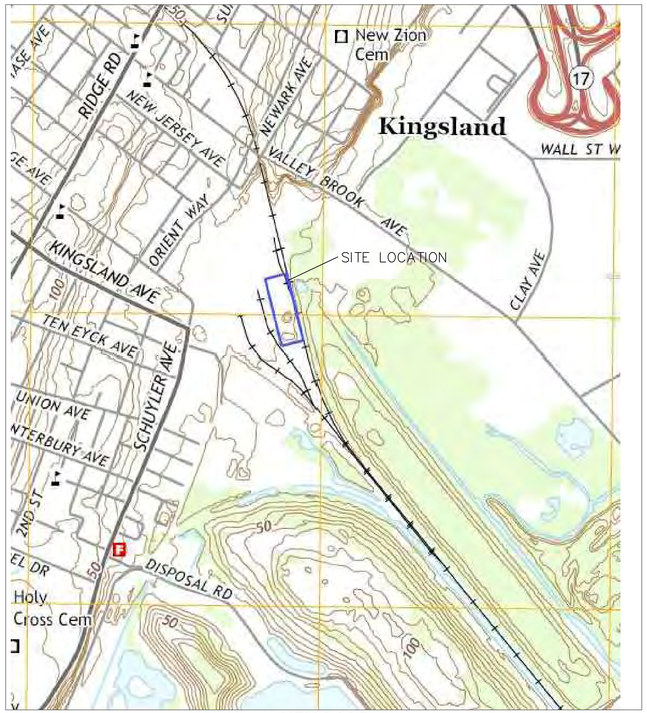
STATE OF NEW JERSEY — No. GE04636400 — PROFESSIONAL ENGINEER

JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400


**IMPACT ENVIRONMENTAL**
170 KEYLAND COURT
BOHEMIA, NEW YORK 11716
TEL (631) 269-8800 FAX (631) 269-1599

1000 PAGE, AVENUE
LYNDHURST, NEW JERSEY 07071
TEL (201) 268-5686 FAX (631) 269-1599




KEY MAP

USGS TOPO MAP, WEEHAWKEN QUADRANGLE, 2014

## ZONING ANALYSIS:

| | |
|---|---|
| ZONE: | 1-3 HEAVY INDUSTRIAL |
| BLOCK: | 235 |
| LOTS: | 4 & 5 |
| EXISTING USE: | OFFICE/RECYCLING YARD |
| PROPOSED USE: | OFFICE/RECYCLING YARD |

| | REQUIRED | EXISTING/PROVIDED |
|---|---|---|
| MINIMUM LOT AREA | ONE ACRE | 156,966.75 SF= 3.6 AC |
| MINIMUM LOT WIDTH | 100 FT | 202.24 FT |
| MINIMUM LOT DEPTH | 150 FT | 770.11 FT |
| MINIMUM FRONT YARD | 35 FT | 25.14 FT (EXISTING) |
| MINIMUM SIDE YARD | 20 FT | 18.14 FT (EXISTING) |
| MINIMUM REAR YARD | 30 FT | +300 FT (EXISTING) |

## REFERENCES:


1. TAX MAP FOR THE TOWNSHIP OF LYNDHURST, BERGEN COUNTY, NEW JERSEY
2. DEED BOOK 8320 PAGE 334 ET SEQ.
3. "SUBDIVISION OF PROPERTY OF D.L.&W. RAILROAD COMPANY, BOROUGH OF NORTH ARLINGTON AND TOWNSHIP OF LYNDHURST, BERGEN COUNTY, NEW JERSEY" PREPARED BY RONALD B. BROWN, ENGINEER, DATED NOVEMBER 1958, LAST REVISED DECEMBER 1958. THIS IS UNAVAILABLE AT THE BERGEN COUNY CLERK'S OFFICE.
4. TITLE REPORT # CTA2097 BY CECERE TITLE AGENCY, AGENT FOR FIRST AMERICAN TITLE INSURANCE COMPANY.
5. BOUNDARY AND TOPOGRAPHIC SURVEY, PREPARED BY MCNALLY ENGINEERING, LLC, SIGNED BY DOUGLAS W. DOOLITTLE, P.E., LSRP, DATED AUGUST 26, 2014.
6. HACKENSACK MEADOWLANDS DISTRIC OFFICIAL ZONING MAP, PREPARED BY NEW JERSEY MEADOWNLANDS COMMISSION, REVISED AND ADOPTED JANUARY 20, 2009.


## LEGEND:

FACILITY BOUNDARY

PROPERTY LINE

## NOTES:

1. THE PROPOSED SITE PLAN DOES NOT INVOLVE ANY CHANGE TO EXISTING BUILDING STRUCTURES, TOTAL GROSS FLOOR AREA, FLOOR AREA RATIO, INTERIORS, TENANTS OR BUILDING ADA COMPLIANT.
2. SITE CONSISTS OF LOT 4 & 5 OF BLOCK 235, WITH AN AREA OF 156,973 SQFT (3.604 ACRES).

TITLE:

# LAND USE AND SURROUNDING PROPERTIES

1000 Page Avenue
Lyndhurst, NJ

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | JR |
| DATE: | 10/07/2014 |
| SCALE: | SEE DRAWING |

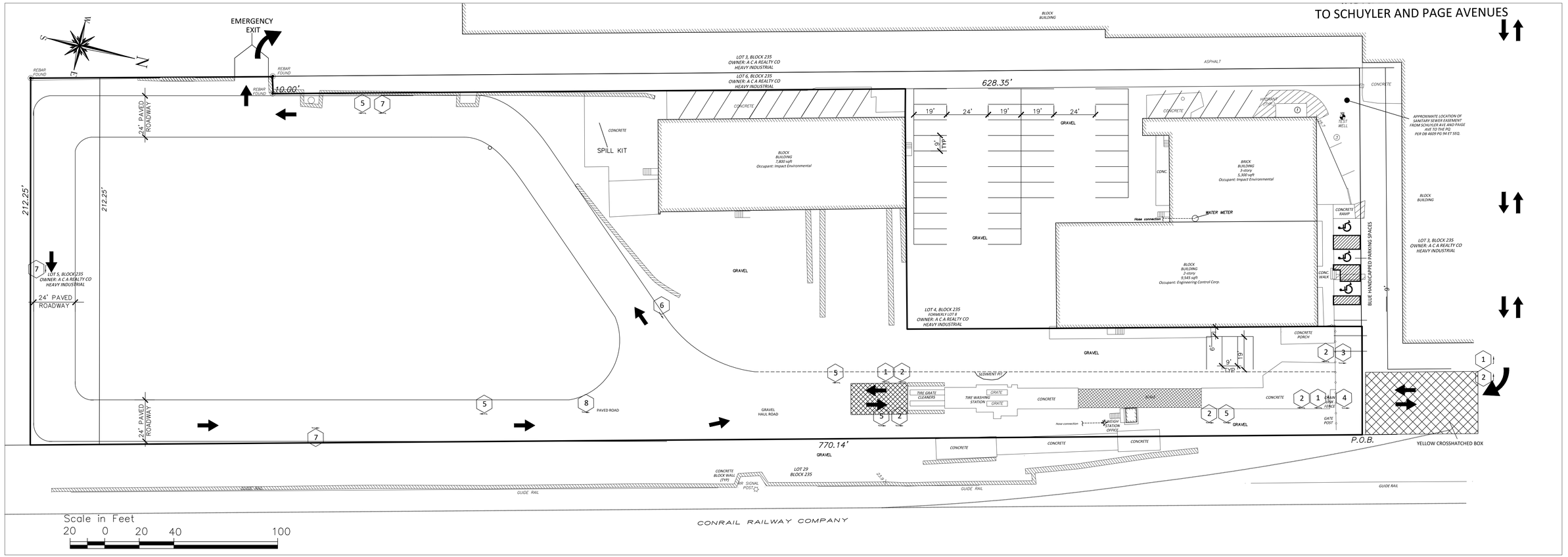
PROJECT # FAC8

FIGURE # 2

JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400


**IMPACT ENVIRONMENTAL**
170 KEYLAND COURT
BOHEMIA, NEW YORK 11716
TEL (631) 269-8800 FAX (631) 269-1599

1000 PAGE, AVENUE
LYNDHURST, NEW JERSEY 07071
TEL (201) 268-5686 FAX (631) 269-1599




## TRAFFIC SIGN DETAILS

1. ONE DIRECTIONAL TRAFFIC DO NOT PROCEED UNTIL BOX CLEAR
2. STOP
3. PASSENGER CAR ENTRANCE ONLY
4. TRUCK ENTRANCE ONLY
5. SPEED LIMIT 5 MPH
6. ONE WAY
7. ONE WAY
8. DO NOT ENTER

## NOTES:

1. ALL TRAFFIC SIGNS WILL BE MOUNTED ON TEMPORARY TRAFFIC SIGN STANDS.
2. ALL ROAD STRIPES AND MARKINGS TO BE MADE WITH LATEX PAINT THAT IS A FAST-DRYING WHITE, OR NON-LEAD YELLOW, READY-MIXED PIGMENTED BINDER EMULSIFIED IN WATER AND CAPABLE OF ANCHORING REFLECTIVE GLASS BEADS THAT ARE SEPARATELY APPLIED. FED-STD-595B COLOR CHIP NO. 33538 FOR YELLOW, 15080 FOR BLUE AND NO. 37886 FOR WHITE. PAINT TO HAVE A MAXIMUM NO-TRACK TIME OF 120 SECONDS WHEN APPLIED IN A WET FILM THICKNESS OF 15 ± 1 MIL, AT 140 °F, AND WITH 12 POUNDS PER GALLON OF GLASS BEADS.

## LEGEND

- PROPERTY LINE
- BOUNDARY OF CLASS B RECYCLING
- JERSEY BARRIER WALL
- TRAIN TRACKS
- TRAFFIC DIRECTION
- PARKING SPACE
- 1 — TRAFFIC SIGN WITH FACING DIRECTION
- CROSSHATCH PAVEMENT MARKING

TITLE:

# TRAFFIC PLANS AND DETAILS

1000 Page Avenue
Lyndhurst, NJ

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | JR |
| DATE: | 10/07/2014 |
| SCALE: | SEE DRAWING |

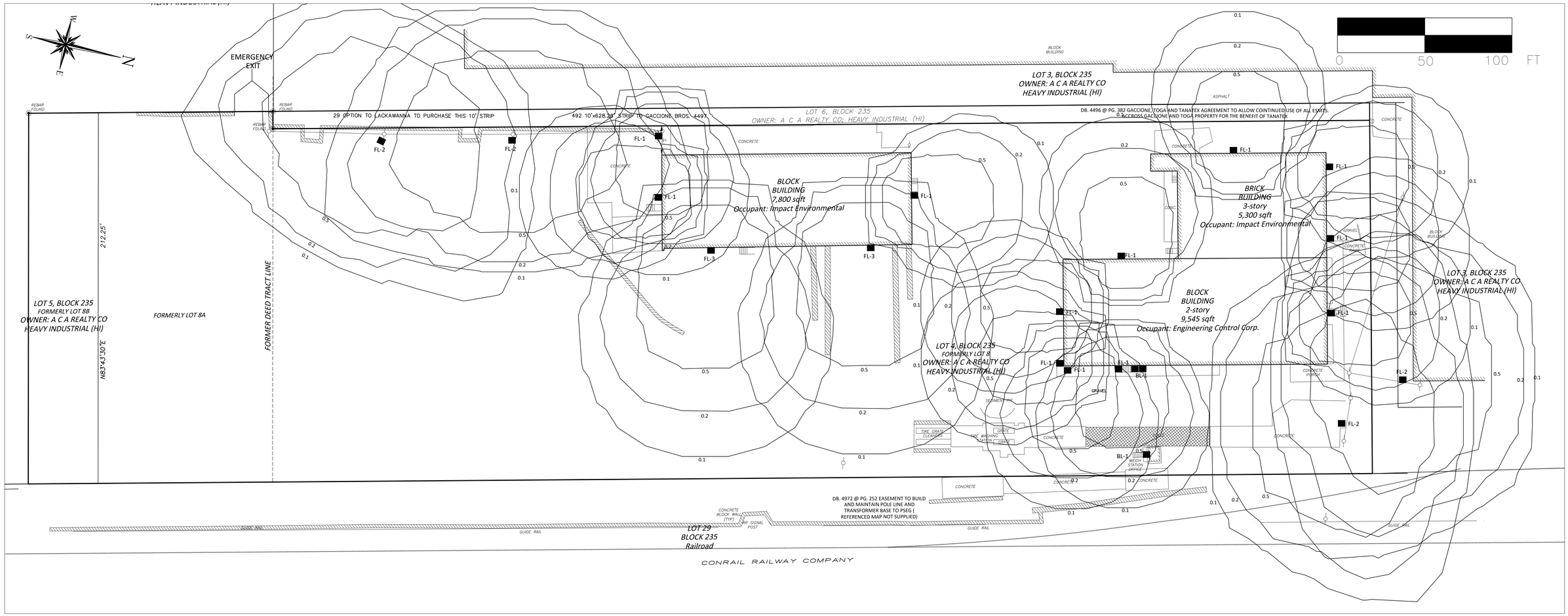
PROJECT # FAC8

FIGURE # 2-1

JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400

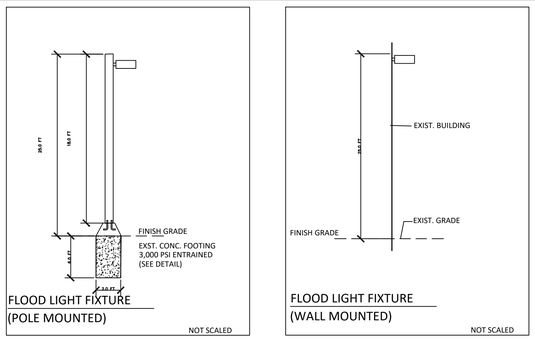

**IMPACT ENVIRONMENTAL**
170 KEYLAND COURT
BOHEMIA, NEW YORK 11716
TEL (631) 269-8800 FAX (631) 269-1599

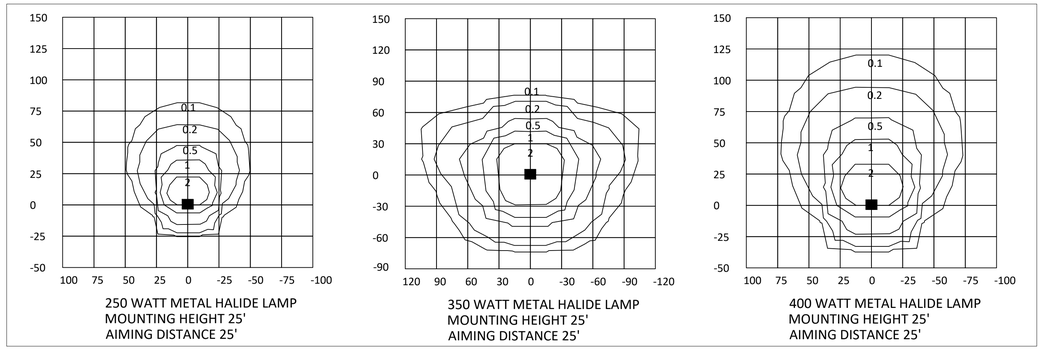
1000 PAGE, AVENUE
LYNDHURST, NEW JERSEY 07071
TEL (201) 268-5686 FAX (631) 269-1599




## LIGHTING SCHEDULE

| MARK | WATTAGE | FLOOD LIGHT | MOUNTING |
|---|---|---|---|
| FL-1 | 250 | WP3H250PSQ Metal Halide | WALL/POLE MOUNTED HEIGHT = 25' AIMING DISTANCE = 25' |
| FL-2 | 350 | ALH 350SFPSQ Metal Halide | POLE MOUNTED HEIGHT = 25' AIMING DISTANCE = 25' |
| FL-3 | 400 | WP4H400 PSQ Metal Halide | WALL MOUNTED HEIGHT = 25' AIMING DISTANCE = 25' |
| BL-1 | 60 | Bulb Light | WALL MOUNTED HEIGHT = 7' |




## NOTES:

1. SITE LIGHTING SHALL BE MAINTAINED BY OPERATOR AS INDICATED ON PLAN.
2. ALL LIGHT FIXTURES SHALL BE NON-GLARE, COLOR CORRECTED LIGHTS AND SHALL BE DIRECTED SO AS NOT TO SHINE ON ADJACENT PROPERTIES.
3. ALL PARKING LIGHTS ARE TO BE PROVIDED WITH BAFFLES TO SHIELD GLARE.
4. ALL LIGHTING IS PROVIDED IN ACCORDANCE WITH RECOMMENDATIONS OF THE CURRENT EDITION OF THE ILLUMINATING ENGINEERING SOCIETY LIGHTING HANDBOOK AND PER CITY OF LYNDHURST AND HMDC ORDINANCE.
5. LIGHTS ARE MANUFACTURED BY RAB LIGHTING, INC. DATA IS ACQUIRED FROM WWW. RABWEB.COM.

TITLE:

# SITE LIGHTING PLAN

1000 Page Avenue
Lyndhurst, NJ

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | JR |
| DATE: | 10/07/2014 |
| SCALE: | SEE DRAWING |

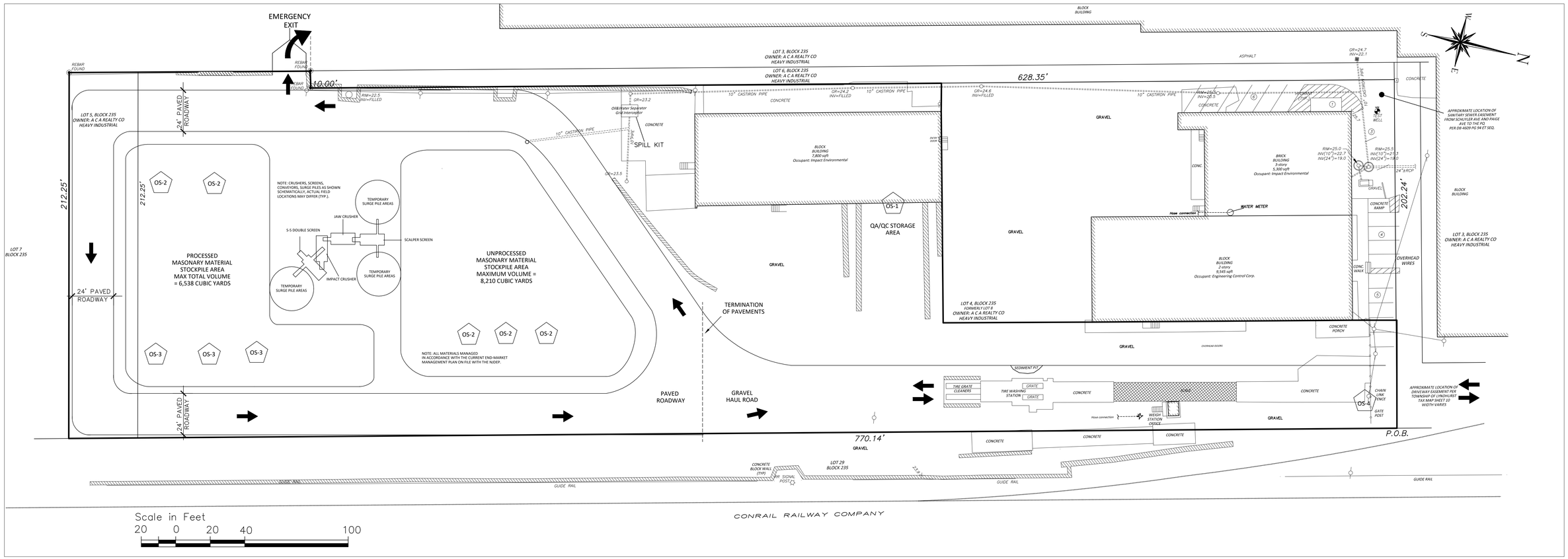
PROJECT # FAC8

FIGURE # 2-2

JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400


**IMPACT ENVIRONMENTAL**
170 KEYLAND COURT
BOHEMIA, NEW YORK 11716
TEL (631) 269-8800 FAX (631) 269-1599

1000 PAGE, AVENUE
LYNDHURST, NEW JERSEY 07071
TEL (201) 268-5686 FAX (631) 269-1599




| UNPROCESSED CLASS B MATERIALS | |
|---|---|
| COMPOSITION | MAXIMUM CAPACITY |
| CONCRETE, CONCRETE BLOCK, ASPHALT MILLINGS, BRICK, PORCELAIN, CERAMICS, CINDER BLOCKS, ASPHALT, TILE, TERRA COTTA, SOIL, CEMENT, CLEAN FILL | AREA VARIES (MAX AREA 13,985 SF AT 1:1 SLOPE WITH 25' HEIGHT). MAXIMUM VOLUME = 8,210 CUBIC YARDS (APPROX. 11,494 TONS AT 1.4 TONS/CUBIC YARD) |

| PROCESSED CLASS B MATERIALS (PRODUCTS) | |
|---|---|
| COMPOSITION | MAXIMUM CAPACITY |
| COMMERCIAL GRADE BLEND, 1-5 BLEND, DENSE GRADED AGGREGATE, 1 ½'' CLEANED CRUSHED AGGREGATE, OVERSIZE CRUSHED CONCRETE, 1''-2'' CRUSHED BRICK, ⅜'' MINUS CRUSHED BRICK, CRUSHED ASPHALT, EMBANKMENT MEDIA, CLEAN FILL, ENGINEERED FILL | STOCKPILE AND TEMPORARY SURGE PILES MAX TOTAL VOLUME: 6,538 CUBIC YARDS (APPROX. 9,153 TONS AT 1.4 TONS/CUBIC YARDS) |

MACHINERY SPECIFICATION

| MODEL No. | MACHINE | LENGTH (FT) | WIDTH (FT) | HEIGHT (FT) | STANDARD WEIGHT (LBS) |
|---|---|---|---|---|---|
| QE341 | SCALPING SCREEN | 50.6 | 47.6 | 14.6 | 63500 |
| QI240 | IMPACT CRUSHER | 48.1 | 18.3 | 13.5 | 86862 |
| QJ341 | JAW CRUSHER | 51.9 | 14.9 | 14.9 | 111069 |
| QA340 | DOUBLESCREEN UNIT | 58.1 | 55.7 | 20.2 | 59304 |

Permit Activity Number: PCP120001

## NOTES:

1. IMPACT REUSE AND RECOVERY CENTER, BLOCK 235, LOTS 4 &5, CITY OF LYNDHURST, BERGEN COUNTY, FACILITY NO. 131888; PERMIT CBG110003. RECYCLING CENTER GENERAL APPROVAL FOR CLASS B RECYCLABLE MATERIALS UNDER PROVISIONS OF NJSA 12:1E-1 ET SEQ. AND NJSA 13:1E-99.11 ET SEQ. KNOWN AS THE SOLID WASTE MANAGEMENT ACT AND NEW JERSEY STATEWIDE MANDATORY SOURCE SEPARATION AND RECYCLING ACT, RESPECTIVELY, AND PURSUANT TO NJAC 7:26A-1 ET SEQ., KNOWN AS THE RECYCLING REGULATIONS.
2. AIR POLLUTION CONTROL PRECONSTRUCTION PERMIT AND CERTIFICATE TO OPERATE CONSTRUCTION OF A NEW SOURCE: PCP120001 ISSUED TO THE IMPACT RECOVERY AND REUSE CENTER (FACILITY ID NO. 03507), MAY 17, 2012 EXPIRES IN FIVE YEARS.
3. STRAWBALES WITH FILTER FABRIC AND GRAVEL ARE PLACED AROUND STORM WATER INLETS. THESE INLETS ARE ALSO CONNECTED WITH UNDERGROUND PIPES.
4. ALL RECYCLABLES AND BYPRODUCTS ARE HANDLED IN ACCORDANCE WITH THE END-USE MANAGEMENT PLAN SUBMITTED ON JULY 31, 2014.
5. ALL MATERIAL STORED IN THE QA/QC STORAGE AREA MUST BE SAMPLED AND TESTED IN ACCORDANCE WITH NJDEP TECHNICAL GUIDANCE AND END-USE FACILITIES' REQUIREMENTS TO DETERMINE END USE.
6. SITE CONSISTING OF LOT 4 & 5 OF BLOCK 235 IS OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN AS SHOWN ON FIRM FLOOD INSURANCE MAP, BERGEN COUNTY, NEW JERSEY FROM FEDERAL EMERGENCY MANAGEMENT AGENCY DATED SEPTEMBER 30, 2005.
7. ALL VEHICULAR USE AREAS (PARKING AREAS AND ROADWAYS) ARE TO BE ESTABLISHED WITH ALL-WEATHER DUSTLESS MATERIAL.
5. EXISTING SITE DATA TAKEN FROM BOUNDARY AND TOPOGRAPHIC SURVEY, PREPARED BY MCNALLY ENGINEERING, LLC, SIGNED BY DOUGLAS W. DOOLITTLE, P.E., LSRP, DATED AUGUST 26, 2014.
6. THERE IS NO ANTICIPATED NEGATIVE IMPACT TO ADJACENT PROPERTIES RESULTING FROM SURFACE RUNOFF.
7. OPERATOR RESERVES THE RIGHT TO RECONFIGURE CRUSHER AND SCREENER AS REQUIRED (TYP.).

## LEGEND

- PROPERTY LINE
- BOUNDARY OF CLASS B RECYCLING
- JERSEY BARRIER WALL
- TRAIN TRACKS
- DRAINAGE PIPE
- TRAFFIC DIRECTION
- OS-1 OPERATIONAL SIGN

TITLE:
# CLASS B OPERATIONAL PLAN

1000 Page Avenue
Lyndhurst, NJ

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | JR |
| DATE: | 10/07/2014 |
| SCALE: | SEE DRAWING |

PROJECT # FAC8
FIGURE # 2-3

JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400


**IMPACT ENVIRONMENTAL**
170 KEYLAND COURT
BOHEMIA, NEW YORK 11716
TEL (631) 269-8800 FAX (631) 269-1599

1000 PAGE, AVENUE
LYNDHURST, NEW JERSEY 07071
TEL (201) 268-5686 FAX (631) 269-1599

**QA/QC Sampling Area**

TESTED:

OS-1

**End-Use Material**

*For (facility)*

TESTED:

OS-2

**Class B Product**

*For (Use)*

TESTED:

OS-3

## NOTES:

END USE MATERIALS TO DIFFERENT END-USE FACILITIES WILL NOT BE MIXED.

QA/QC STORAGE AREA TO BE USED TO TEST MATERIALS REQUIRING CONFIRMATION OF END-USE FACILITY.

ALL TESTING TO BE PERFORMED BY A NEW JERSEY CERTIFIED COMMERCIAL LABORATORY.

OPERATIONAL SIGNS (OS-1 TO OS-3) WILL BEAR UNIQUE SAMPLE IDENTIFICATION NUMBER(S) AND/OR SAMPLING DATE(S).

**IMPACT REUSE AND RECOVERY CENTER**

1000 Page Avenue, Lyndhurst, New Jersey
Normal Hours of Recycling Operation
Monday – Friday: *7:00 a.m. to 5:00 p.m.*
Saturday: *7:00 a.m. to 3:00 p.m.*

This is an approved New Jersey Department of Environmental Protection Recycling Center. The following materials separately or in a commingled manner are the only materials received:

**RECYCLABLE MATERIALS**

- Concrete
- Concrete block
- Brick
- Asphalt
- Asphalt millings
- Cinder block
- Ceramic
- Porcelain
- Tile
- Plaster
- Terra cotta

**INCIDENTAL MATERIALS**

- Soil
- Rebar
- Metal
- Materials that adhere to recyclables

Contaminants such as wood, plastic and garbage must be less than 1% by volume of the load.

**NOTE**: All loads subject to inspection. Do not off-load unless in the presence of an inspector. Loads can be rejected due to size of materials, weight of material or due to the presence of elevated contaminants. All persons offloading shall certify to the amount of material per load, municipality of origin of load, generator of waste, the transport company, transport vehicle license plate and the vehicle driver name by signing the transport manifest (Recyclable Materials Receipt Form) and acknowledgement of receipt of scale ticket.

**IN THE EVENT OF AN EMERGENCY DIAL 911 &**

**Impact Environmental - 631-269-8800**

**NJDEP Action Hotline - 877-927-6337**

OS-4

| | | | |
|---|---|---|---|
| TITLE: **CLASS B OPERATIONAL PLAN DETAILS** | | PROJECT # | FAC8 |
| | | FIGURE # | 2-3A |
| 1000 Page Avenue<br>Lyndhurst, NJ | DRAWN BY: XY<br>CHECKED BY: JR<br>DATE: 10/07/2014<br>SCALE: NOT TO SCALE | JOEL ROGERS, P.E.<br>NJ LICENSE NO.: 24GE04636400 | |

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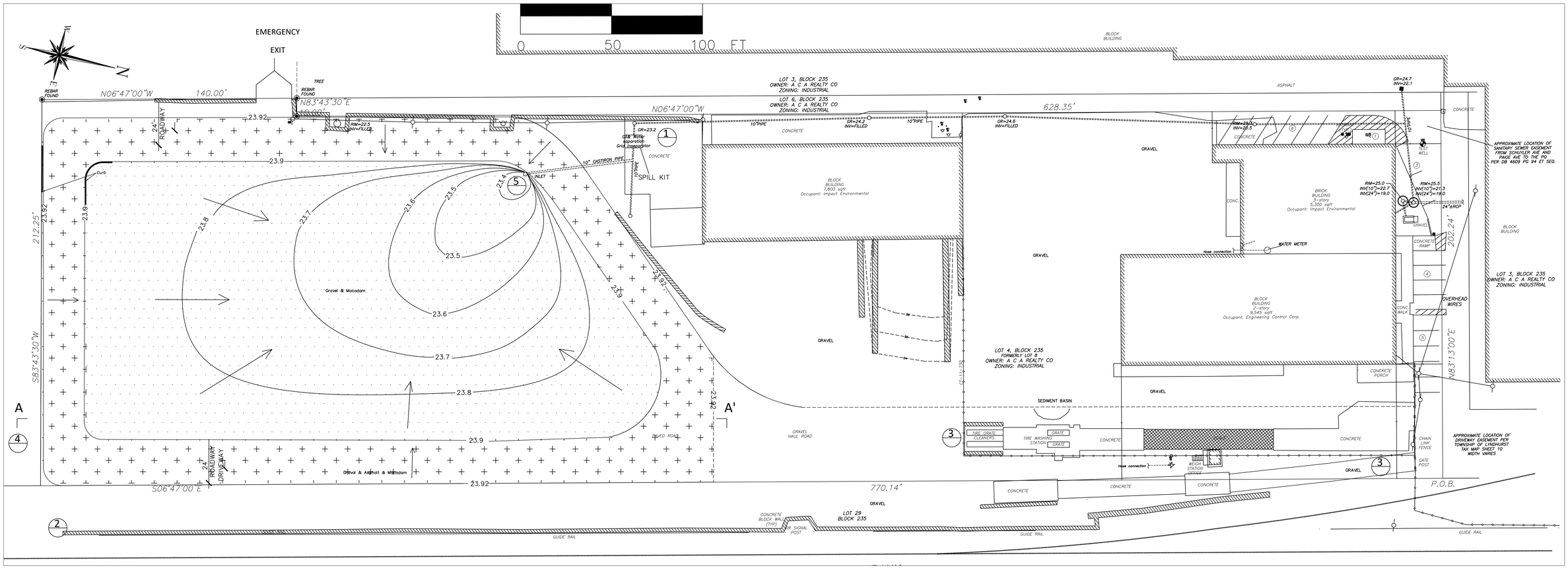


## NOTES:

1. THE FACILITY IS OUTSIDE OF THE 0.2% ANNUAL CHANCE (500-YEAR) FLOODPLAIN ACCORDING TO FIRM FLOOD INSURANCE MAP, BERGEN COUNTY, NEW JERSEY, FROM FEDERAL EMERGENCY MANAGEMENT AGENCY, DATED SEPTEMBER 30, 2005.
2. THE FACILITY CONSISTING OF LOT 4 & 5 OF BLOCK 235 DOES NOT CONTAIN ANY WETLANDS AREAS NOR IS IT WITHIN ANY WETLAND BUFFER ZONES AS TAKEN FROM WETLAND DELINEATION PLANS.
3. FACILITY IS REGULATED UNDER A STORMWATER DISCHARGE PERMIT: NJPDES NJ0217280. THE PERMIT APPLICATION, WHICH IS ADMINISTRATIVELY COMPLETE AND PENDING RESPONSE FROM NJDEP ON TECHNICAL COMPLETENESS, PROVIDES FOR DISCHARGE TO THE EXISTING STORM WATER DRAINAGE SYSTEM THAT IS COMPRISED OF CATCH BASINS THAT DISCHARGE TO AN OIL WATER SEPARATOR/GRIT INTERCEPTOR UNIT VIA 10" CAST IRON CONDUIT. THE OUTFALL FOR THE STORMWATER IS CLASSIFIED AS FW2-NT/SE2(C2).
4. STRAWBALES WITH FILTER FABRIC AND GRAVEL ARE PLACED AROUND STORMWATER INLETS. THESE INLETS ARE ALSO CONNECTED WITH UNDERGROUND PIPES.
5. THERE IS NO ANTICIPATED NEGATIVE IMPACT TO ADJACENT PROPERTIES RESULTING FROM SURFACE RUNOFF.
6. SILT FENCE IS INSTALLED IN FRONT OF CONCRETE BLOCK RETENTION WALLS.
7. MADACAM INSTALLED IN 1,000 SQFT LIFT SECTIONS.
8. ULTRA BASIN GUARD, 24' X 24', OIL AND SEDIMENT MODEL, HELPS COMPLY WITH NPDES, 40 CFR 122.26 (1999) WHEN USED AS BEST MANAGEMENT PRACTICE IN STORM WATER POLLUTION PREVENTION PLANS. LABELED: CAUTION, INLET PROTECTION, DO NOT POLLUTE

## LEGEND

- GR= / INV= ○ — Storm inlet
- (4) — Reference to details
- Gravel & Asphalt & Macadam Pavement
- Gravel & Macadam Pavement
- Stormwater Drainage Direction

TITLE: **STORMWATER DRAINAGE PLAN**

1000 Page Avenue
Lyndhurst, NJ

| | |
|---|---|
| DRAWN BY: | YJ |
| CHECKED BY: | JR |
| DATE: | 10/07/2014 |
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PROJECT # FAC8

PAGE 2-4

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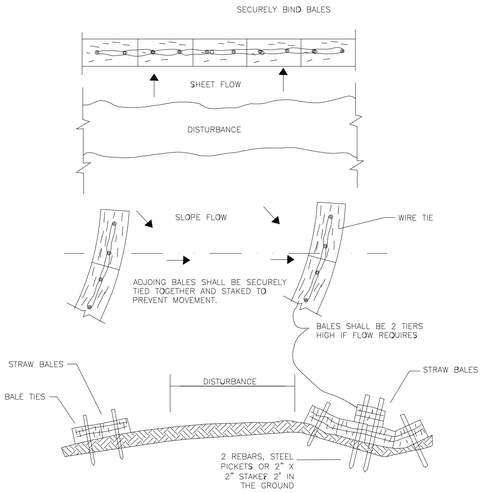
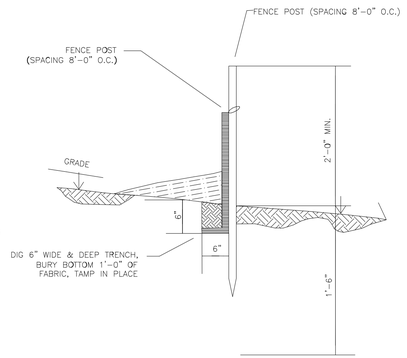
# DETAILS




1 STAW BALE SEDIMENT BARRIER
N.T.S.

NOTES:

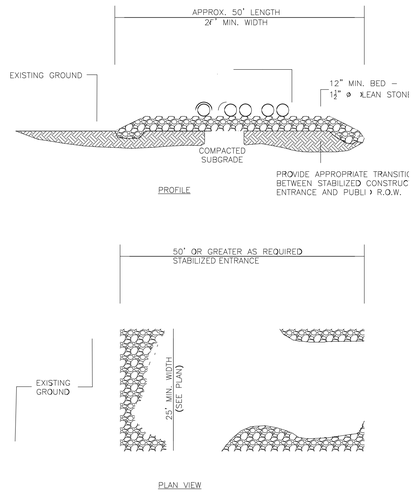
1. THE PRIMARY PURPOSE OF A STRAW BALE SEDIMENT BARRIER IS TO REDUCE VELOCITY AND TRAP SEDIMENT. VELOCITY IS REDUCED, WATER IS IMPOUNDED BEHIND THE BARRIER AND SEDIMENT FALLS OUT OF SUSPENSION.




2 SILT FENCE DETAIL
N.T.S.

NOTES:

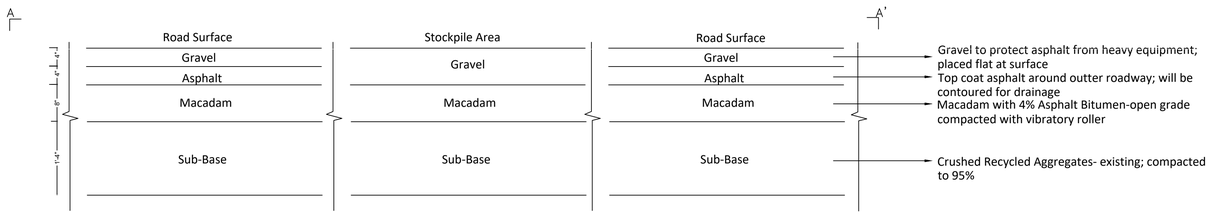
1. THE PRIMARY PURPOSE OF A SILT FENCE IS TO REDUCE VELOCITY AND TRAP SEDIMENT. VELOCITY IS REDUCED, WATER IS IMPOUNDED BEHIND THE BARRIER AND SEDIMENT FALLS OUT OF SUSPENSION.




3 TYPICAL STABILIZED CONSTRUCTION ENTRANCE
N.T.S.

NOTES:

1. USE MIRAFI 600X GEOTEXTILE OR APPROVED EQUAL UNDER ROCK CONSTRUCTION ENTRANCE.
2. THROUGHOUT OPERATION THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKIN OF SEDIMENTS ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE ENTRANCE.
3. ALL SEDIMENTS SPILLED, DROPPED WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMME
4. PERIODIC INSPECTION AND MAINTENANCE SHALL BE COMPLETED AFTER EACH RAIN EVENT.




4 GRAVEL & ASPHALT & MACADAM DETAIL

## RUNOFF CALCULATION

Using Rational Method

**1. Drainage Area:**

Macadam Area: A1=43458.2 ft2

Asphalt Area: A2=24077.4 ft2

A (total)= A1 + A2 = 67535.6 ft2 =1.55 acre

Design area with slope as : 0.002= 0.2%

**2. Determine the runoff coefficient (C):**

asphalt: C 0.7 ~ 0.95

macadam: C 0.35 ~ 0.70

gravel: C 0.35 ~ 0.70

This calculation use:

C (gravel+asphalt+macadam)=0.7

C(gravel+macadam)=0.40

C(total)= (0.40 x A1 + 0.7 x A2 )/A(total) = 0.5

**3. Determine hydraulic path and flow regimes:**

Consider flow in Macadam area as overland flow and flow in asphalt area as Shallow Concentrated Flow

Overland flow length is: Lo=286 ft

Shallow Concentrated flow length is: Lsc=34 ft

**a. Overland flow**

Overland flow length: Lo= 286 ft

This calculation uses the FAA equation

Slop in percent is: S=0.2

Travel time

To= 1.8(1.1-C(total) )x Lo ^0.5/ S^0.33

=36.4 min

**b. Shallow concentrated flow**

Velocity=2.6 ft/s

(Check Table " Average Velocities for Estimating Travel Time for Shallow Concentrated Flow)

Travel time Tsc= Lsc(ft)/60 V(ft/s)

= 34/(60x 2.6 ft/s) = 0.22 min

**4. Time of Concentration (Tc)**

Tc= To + Tsc = 36.4 min + 0.22 min = 36.62 min

**5. Intensity (i)**

i= 1.15 in/hr ( based on 1-year 1 hr Rainfall New Jersey )

i= 1.36 in/hr (based on 2-year 1 hr Rainfall New Jersey)

**6. Peak Discharge (q)**

Q (1 year Storm) = C i A = 0.5 x 1.15 in/hr x 1.55 ac = 0.89 cfs

Q (2 year Storm) = C i A = 0.5 x 1.36 in/hr x 1.55 ac = 1.05 cfs

**7. Existing Inlet Stormwater Pipe**

10 inch cast iron

Using Manning Formula:

Manning Roughness: n=0.011

Slop: S0= 0.002

Pipe Capacity:

Q(FULL) = (1.486/n)*(D)8/3*(S)1/2 =1. 07 cfs > 0.89 cfs

Q(FULL) = (1.486/n)*(D)8/3*(S)1/2 =1. 07 cfs > 1.05 cfs

Existing inlet and stormwater pipe are sufficient for the planned operations.

**Reference:**


[1] Rainfall Frequency Atlas of The United States, U.S. Department of Commerce

[2]Stormwater Design Manual, Boone County, Missouri Stormwater Program

[3]Airport Engineering: Planning Design and Development of 21st Century Airports, by Norman J. Ashford, Salh Mumayiz, Paul H Wright

[4]Figure 3-1 Average Velocities for estimating travel time for shallow concentration, Technical Release 55, Urban Hydrology for Small Watersheds


TITLE: **STORMWATER PLAN DETAILS & CALCULATION**

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Lyndhurst, NJ

| | |
|---|---|
| DRAWN BY: | XY |
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PROJECT # FAC8

FIGURE # 2-4A

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NJ LICENSE NO.: 24GE04636400


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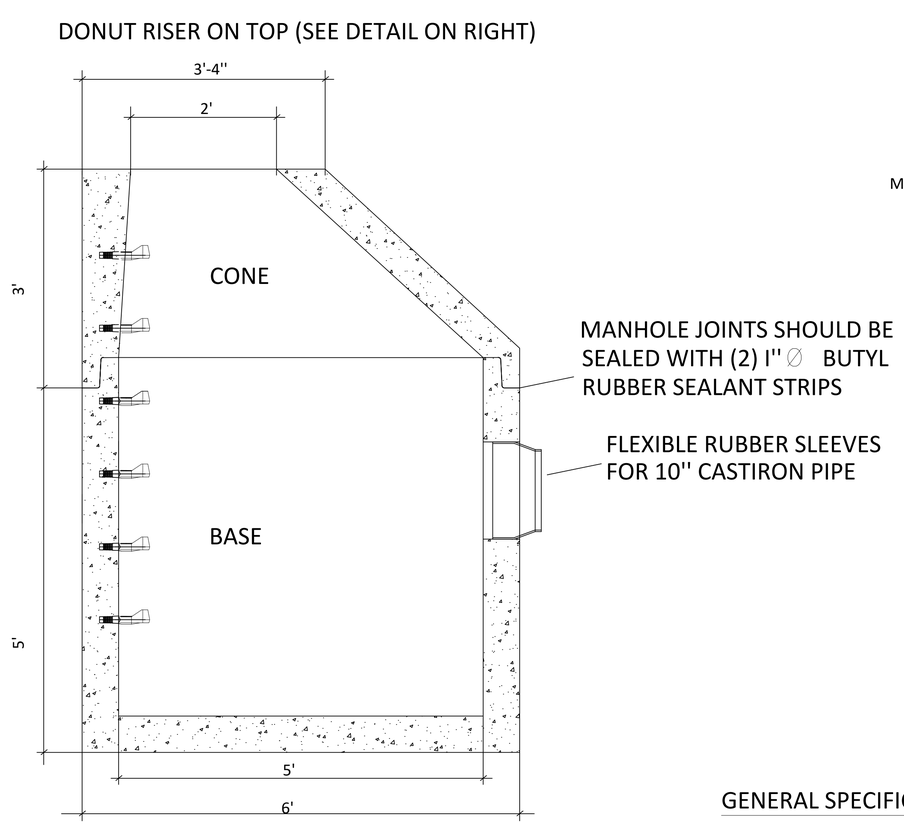


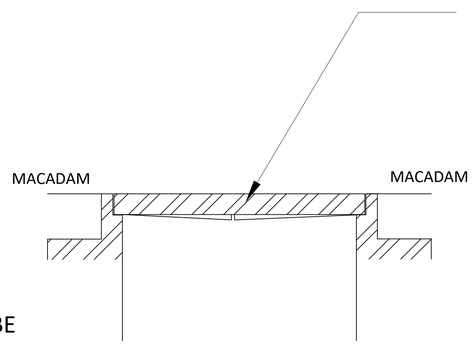


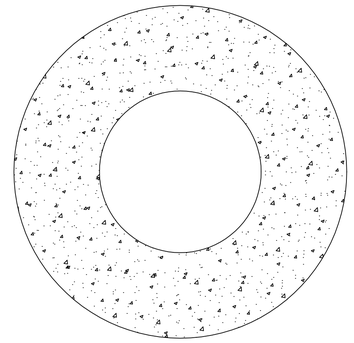

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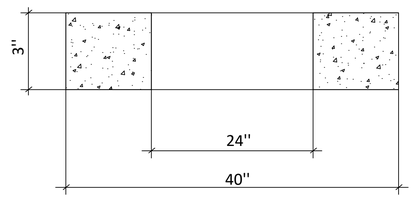


GENERAL SPECIFICATIONS

1) CONCRETE 5000 PSI AFTER 28 DAYS;
2) DESIGNED FOR H-20 WHEEL LOADING
3) CONFORMS TO ASTM-C478 SPECIFICATIONS
4) REINFORCED TO 0.15 IN^2/L.F
5) MANHOLE JOINTS SEALED W/(2) STRIPS OF BUTYL RUBBER
6) ULTRA BASIN GUARD, 24’ X 24’, OIL AND SEDIMENT MODEL, HELPS COMPLY WITH NPDES, 40 CFR 122.26 (1999) WHEN USED AS BEST MANAGEMENT PRACTICE IN STORM WATER POLLUTION PREVENTION PLANS. LABELED: CAUTION, INLET PROTECTION, DO NOT POLLUTE

5 TYPICAL DETAILS OF INLET (TYP.)

CONCRETE VAULT WITH RISER & SEDIMENT TRAP

TITLE: **STORMWATER PLAN DETAILS**

1000 Page Avenue
Lyndhurst, NJ

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | JR |
| DATE: | 10/07/2014 |
| SCALE: | NOT TO SCALE |

PROJECT # FAC8

FIGURE # 2-4B

JOEL ROGERS, P.E.
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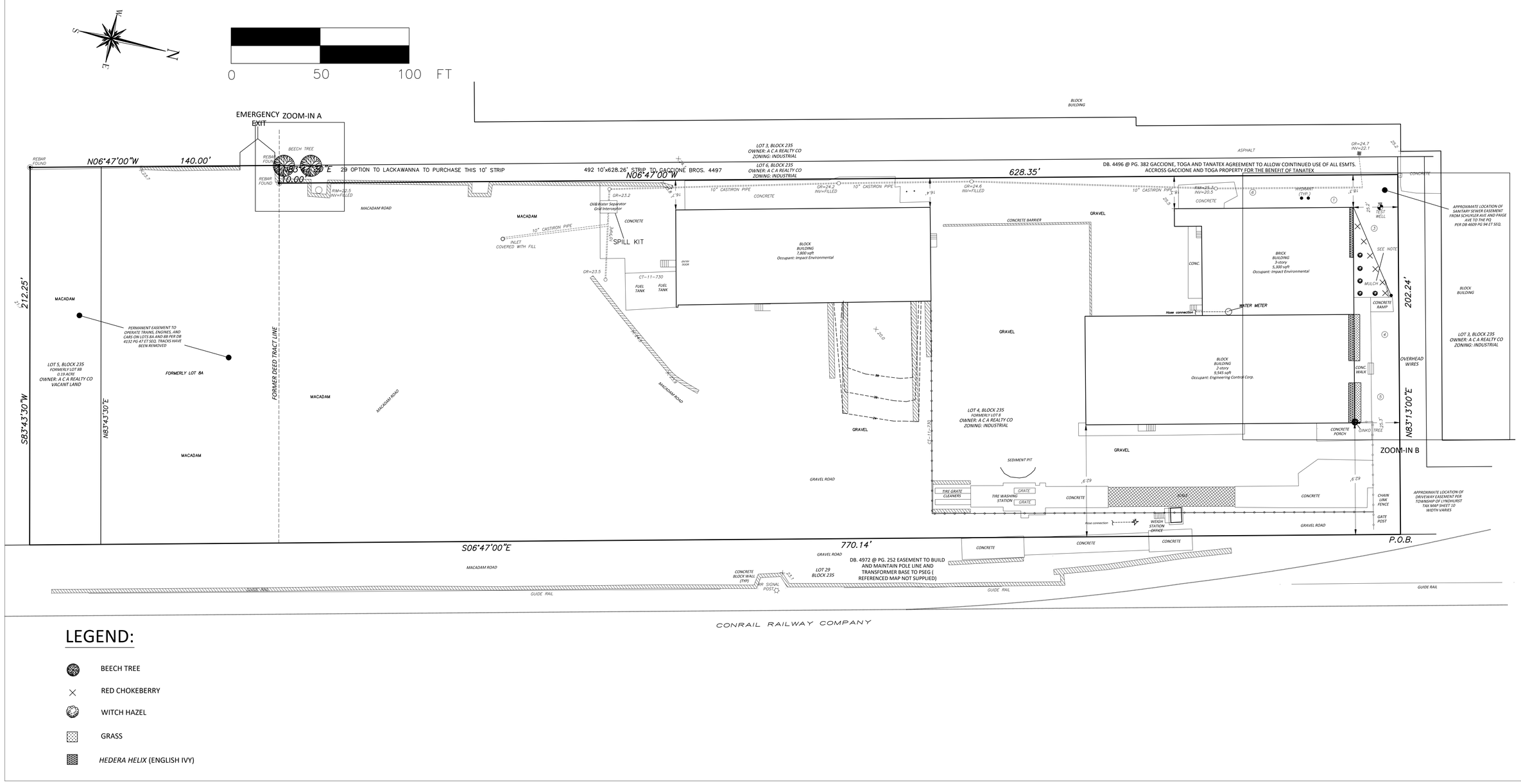


## LEGEND:

- BEECH TREE
- RED CHOKEBERRY
- WITCH HAZEL
- GRASS
- *HEDERA HELIX* (ENGLISH IVY)

## NOTES:

1. AREA TO BE COVERED WITH MULCH.
2. LANDSCAPING TO BE CONDUCTED PER NEW JERSEY MEADOWLANDS COMMISSION RECOMMENDED PLANT LIST FOR DRY CONDITIONS.
3. APPROX. 2,000 SQUARE FOOT OF *HEDERA HELIX* GROWS ON THE BUILDING FACADE.

TITLE:

# LANDSCAPING PLAN

1000 Page Avenue
Lyndhurst, NJ

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | JR |
| DATE: | 10/07/2014 |
| SCALE: | SEE DRAWING |

| | |
|---|---|
| PROJECT # | FAC8 |
| FIGURE # | 2-5 |

JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400


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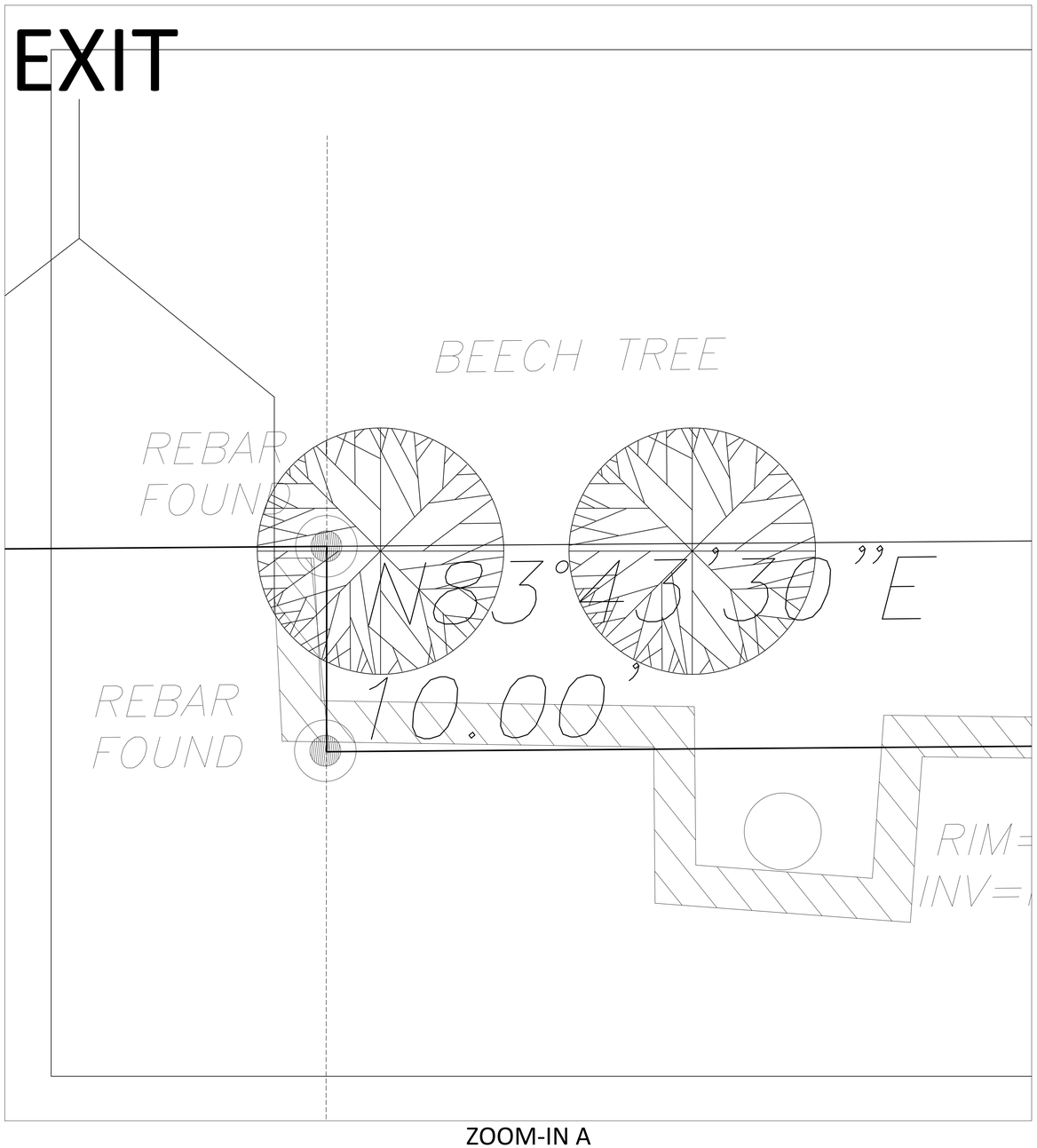
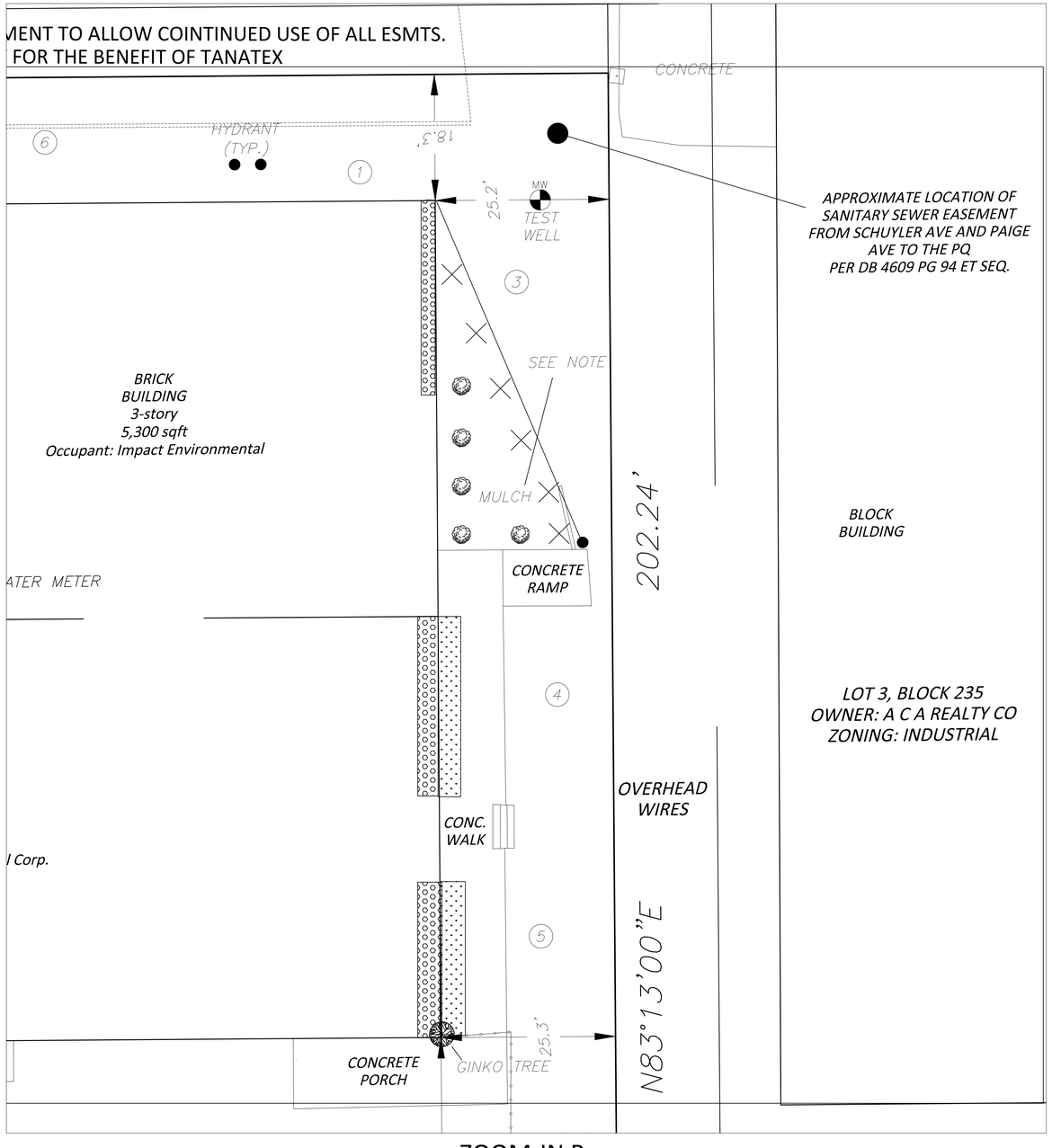



ZOOM-IN A




ZOOM-IN B

## NOTES:

1. AREA TO BE COVERED WITH MULCH.
2. LANDSCAPING TO BE CONDUCTED PER NEW JERSEY MEADOWLANDS COMMISSION RECOMMENDED PLANT LIST FOR DRY CONDITIONS.
3. APPROX. 2,000 SQUARE FOOT OF *HEDERA HELIX* GROWS ON THE BUILDING FACADE.

## LEGEND:

TREE | RED CHOKEBERRY | WITCH HAZEL | GRASS | *HEDERA HELIX* (ENGLISH IVY)

TITLE: **LANDSCAPING PLAN DETAILS**

1000 Page Avenue
Lyndhurst, NJ

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | JR |
| DATE: | 10/07/2014 |
| SCALE: | SEE DRAWING |

PROJECT # FAC8

FIGURE # 2-5A

JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400

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TEL (201) 268-5686 FAX (631) 269-1599

**IMPACT ENVIRONMENTAL CONSULTING INC**
131888 CBG110003 Class B Recycling Ctr General Apprv -Renewal
Requirements Report

**Subject Item: PI 131888 -**

1. All persons issued a general approval to operate a recycling center for Class B, Class C and/or Class D recyclable material pursuant to N.J.A.C. 7:26A-1 et seq. shall comply with all conditions of the approval [N.J.A.C. 7:26A-3.1(a)]
2. The holder of this general approval shall prominently post and maintain a legible sign, at or near the entrance to the recycling center, indicating that the recycling center is an approved New Jersey Department of Environmental Protection recycling center. The sign shall also indicate the following: Hours of operation of the recycling center; Listing of the source separated materials to be received; The size, weight, or other restrictions regarding materials to be received; The maximum amount of contaminants allowed in each load; Warning that loads will be inspected and will be barred from offloading if the contaminant level is exceeded; and Notice that the person offloading shall certify the amount of material per load, municipality of origin of the material and any other information contained on the Recyclable Material Receipt Form [N.J.A.C. 7:26A-3.5(f)]
3. Application for renewal of this general approval shall be submitted at least three months prior to expiration of the current approval and shall comply with all requirements for renewal set forth in N.J.A.C. 7:26A-3.6 et seq. One copy of the application for renewal of the general approval shall be submitted by the applicant to the municipal clerk of the municipality in which the recycling center is located, and to the solid waste or recycling coordinator of the county in which the recycling center is located [N.J.A.C. 7:26A-3.6(a)]
4. The applicant for renewal of this general approval shall certify in writing to the Department that there have been no changes in the operations of the recycling center since the issuance of the general approval in order to renew the approval in its existing form. In the event that there have been changes in the operations of the recycling center or where changes are planned, the application for renewal of a general approval shall be accompanied by a written request to modify the general approval in accordance with N.J.A.C. 7:26A-3.10 [N.J.A.C. 7:26A-3.6(b)]
5. In a case where the holder of this general approval does not comply with N.J.A.C. 7:26A-3.6(a) and (b) and continues to operate without renewal of the general approval, the Department may take enforcement action including the assessment of penalties under N.J.S.A. 13:1E-9; require the holder of this general approval to file an application as a new applicant for a general approval in accordance with N.J.A.C. 7:26A-3.2 and pay the application fee as per N.J.A.C. 7:26A-2; and/or take any other appropriate actions [N.J.A.C. 7:26A-3.6(c)]
6. All persons granted a renewal pursuant to N.J.A.C. 7:26A-3.6(d) shall continue to pay the annual fee as specified in N.J.A.C. 7:26A-2 [N.J.A.C. 7:26A-3.6(h)]
7. The holder of this general approval shall obtain prior approval from the Department for any modification of the general approval [N.J.A.C. 7:26A-3.10(a)]
8. Any change affecting the conditions of this general approval requires the prior approval of the Department [N.J.A.C. 7:26A-3.10(b)1]
9. Any change to the information submitted pursuant to N.J.A.C. 7:26A-3.2(a), 3.4, 3.8, 3.18, 3.19 or 3.20 requires the prior approval of the Department, except that changes in end-market information submitted pursuant to N.J.A.C. 7:26A-3.2(a) 7 shall not require the prior approval of the Department but shall be handled in accordance with N.J.A.C. 7:26A-3.10(f). [N.J.A.C. 7:26A-3.10(b)2]

**Subject Item: PI 131888 -**

10. The holder of this general approval shall notify the Department in writing of the intended modification and shall update the information submitted pursuant to N.J.A.C. 7:26A-3.2(a), 3.4, 3.8, 3.18, 3.19 or 3.20. The holder of this general approval shall also provide written notice to the solid waste or recycling coordinator of the applicable county of any request to modify a general approval. [N.J.A.C. 7:26A-3.10(c)]

11. The holder of this general approval shall not institute the modification until it receives written approval from the Department [N.J.A.C. 7:26A-3.10(e)]

12. Within one week of any change to the end-market information submitted to the Department pursuant to N.J.A.C. 7:26A-3.2(a)7, the holder of this general approval shall submit to the Department a written notification which details any change in the use of the recyclable material transferred from the recycling center to an end-market or in the end-market location to which the recyclable material is transferred. The written notification shall be sent to: New Jersey Department of Environmental Protection, Division of Solid and Hazardous Waste, Bureau of Recycling & Hazardous Waste Management, P.O. Box 414, Mail Code 401-02C, Trenton, New Jersey 08625-0414. [N.J.A.C. 7:26A- 3.10(f)]

13. The Department may revoke this general approval upon a determination that the holder of the general approval has violated any provision of N.J.S.A. 13:1E-1 et seq., the New Jersey Statewide Mandatory Source Separation and Recycling Act, or any rule, regulation or administrative order promulgated pursuant to N.J.S.A. 13:1E-1 et seq. and the New Jersey Statewide Mandatory Source Separation and Recycling Act [N.J.A.C. 7:26A-3.13(a)1]

14. The Department may revoke this general approval upon a determination that the holder of the general approval has violated any solid waste utility law at N.J.S.A. 48:2-1 et seq. or 48:13A-1 et seq., or any rule, regulation or administrative order promulgated pursuant to N.J.S.A. 48:2-1 et seq. or 48:13A-1 et seq [N.J.A.C. 7:26A-3.13(a)2]

15. The Department may revoke this general approval upon a determination that the holder of the general approval has violated any provision of any laws related to pollution of the waters, air or land surfaces of the State or of any other State or Federal environmental laws including criminal laws related to environmental protection [N.J.A.C. 7:26A-3.13(a)3]

16. The Department may revoke this general approval upon a determination that the holder of the general approval has refused or failed to comply with any lawful order of the Department [N.J.A.C. 7:26A-3.13(a)4]

17. The Department may revoke this general approval upon a determination that the holder of the general approval has failed to comply with any of the conditions of this general approval issued by the Department [N.J.A.C. 7:26A-3.13(a)5]

18. The Department may revoke this general approval upon a determination that the holder of the general approval has transferred a general approval to a new owner or operator pursuant to N.J.A.C. 7:26A-3.15 without the prior approval of the Department [N.J.A.C. 7:26A-3.13(a)6]

19. The Department may revoke this general approval upon a determination that the holder of the general approval has failed to obtain any required permit or approval from the Department or other State or Federal agency [N.J.A.C. 7:26A-3.13(a)7]

**Subject Item: PI 131888 -**

20. The Department may revoke this general approval upon a determination that the holder of the general approval has committed any of the acts which are criteria for denial of a general approval set forth in N.J.A.C. 7:26A-3.12. [N.J.A.C. 7:26A-3.13(a)8]

21. This general approval shall not be transferred to a new owner or operator without the Department's prior approval [N.J.A.C. 7:26A-3.15(a)]

22. A written request for permission to allow a transfer of this general approval must be received by the Department at least 60 days in advance of the proposed transfer of ownership or operational control of the recycling center. The request for approval shall include the following: the name, address and social security number of all prospective new owners or operators; a written certification by the proposed transferee that the terms and conditions contained in the general approval will be met by the proposed transferee; and a written agreement between the current owner or operator of the recycling center and the proposed new owner or operator containing a specific future date for transfer of ownership or operational control [N.J.A.C. 7:26A-3.15(a)1]

23. A new owner or operator may commence operations at the recycling center only after the existing approval has been revoked and a new approval is issued to the new owner or operator pursuant to N.J.A.C. 7:26A-3.5 [N.J.A.C. 7:26A-3.15(a)2]

24. The holder of this general approval remains liable for ensuring compliance with all conditions of the approval unless and until the existing approval is revoked and a new approval is issued to the new owner or operator pursuant to N.J.A.C. 7:26A-3.5 [N.J.A.C. 7:26A-3.15(a)3]

25. Compliance with the transfer requirements set forth at N.J.A.C. 7:26A-3.15 shall not relieve the holder of this general approval from the separate responsibility of providing notice of such transfer pursuant to the requirements of any other statutory or regulatory provision [N.J.A.C. 7:26A-3.15(a)4]

26. The transfer of a controlling interest in the stock or assets of the recycling center that is the subject of this general approval shall constitute a transfer of this general approval [N.J.A.C. 7:26A-3.15(b)]

27. The holder of this general approval shall maintain a daily record of the amounts of each recyclable material by type and municipality of origin which are received, stored, processed or transferred each day, expressed in tons, cubic yards, cubic feet or gallons. Those operators specifying this information in cubic yards shall also indicate the conversion ratio of the materials from cubic yards to tons [N.J.A.C. 7:26A-3.17(a)1]

28. The holder of this general approval shall maintain a daily record of the name, address and telephone number of the end-markets for all recyclable materials transported from the recycling center, including the amounts, in tons, cubic yards, cubic feet or gallons, transported to each end-market. Those persons specifying this information in cubic yards shall also indicate the conversion ratio of the materials from cubic yards to tons [N.J.A.C. 7:26A-3.17(a)2]

29. The holder of this general approval shall maintain a daily record of the amount of residue disposed of, expressed in tons, cubic yards, cubic feet or gallons, including the name and New Jersey Department of Environmental Protection solid waste registration number of the solid waste collector/hauler contracted to provide the haulage/disposal service. Those persons specifying the amount of residue in cubic yards shall also indicate the conversion ratio of the residue from cubic yards to tons. [N.J.A.C. 7:26A-3.17(a)3]

**Subject Item: PI 131888 -**

38. The right of entry specified at N.J.A.C. 7:26A-1.7(a) shall be limited to normal operating hours for the purpose of reviewing and copying all applicable records, which shall be made available to the Department during an inspection and submitted to the Department upon request. [N.J.A.C. 7:26-1.7(b)]

39. The facility shall comply with the general operating requirements for all Recycling Centers as provided at N.J.A.C. 7:26A-4.1 [N.J.A.C. 7:26A-4]

**Subject Item: RCBG850400 - Class B Materials Handling**

40. The following source separated Class B recyclable materials, which have been separated at the point of generation from other waste materials or separated at a permitted solid waste facility authorized to separate recyclable materials, may be received, stored, processed or transferred at this recycling center: Concrete, Concrete Block, Cinder Block, Brick, Asphalt, Asphalt Millings, Plaster, Ceramic, Porcelain, Tile, and Terra Cotta. [N.J.A.C. 7:26A-3.5(e)]

41. At no time shall the receipt, storage, processing, or transferring of non-source separated construction and demolition material be allowed at this recycling center. The prohibition of this material shall be strictly enforced and any incident shall be considered a serious violation to the conditions of this Approval. [N.J.A.C. 7:26A-3.5(e)]

42. The recycling center may receive, store, process, or transfer source separated Concrete, Concrete Block, Cinder Block, Brick, Asphalt, Asphalt Millings, Plaster, Ceramic, Porcelain, Tile, or Terra Cotta separately or in a commingled manner. The commingling of any other materials not described above is prohibited. [N.J.A.C. 7:26A-3.5(e)]

43. The maximum amount of contaminants, as defined in N.J.A.C. 7:26A-1.3, allowed in each incoming load of Class B recyclable material shall be limited to 1% by volume. Incidental by-product materials shall not be considered to be contaminants. [N.J.A.C. 7:26A-3.5(e)]

44. Incidental amounts of rebar, metal, soil, and other by-products which adhere to the Class B recyclable materials, as specified in this Approval, and which are returned to the economic mainstream as raw material or products, may be received, stored, processed, or transferred at this recycling center. The receipt of such incidental amounts of these materials need not be separately accounted for, but the storage and end-markets for these materials shall be subject to specific conditions of this Approval. [N.J.A.C. 7:26A-3.5(e)]

45. The holder of this general approval shall operate the recycling center and construct or install associated appurtenances thereto, in accordance with the provisions of N.J.A.C. 7:26A-1 et seq., the conditions of this general approval, and the general approval application documents. [N.J.A.C. 7:26A-3.5(e)]

46. In case of conflict, the conditions of this approval shall have precedence over the general approval application documents, and the most recent revisions and supplemental information approved by the Department shall prevail over prior submittals and designs. [N.J.A.C. 7:26A-3.5(e)]

47. One complete set of the general approval application documents, this general approval, and all records, reports and plans as may be required pursuant to this approval shall be kept on file at the recycling center and shall be available for inspection by authorized representatives of the Department or delegated agents upon presentation of credentials. [N.J.A.C. 7:26A-3.5(e)]

**Subject Item: PI 131888 -**

30. The holder of this general approval shall retain all Recyclable Material Receipt Forms required pursuant to N.J.A.C. 7:26A-3.2(a)16iii for three calendar years following the calendar year for which an annual report is required pursuant to N.J.A.C. 7:26A-3.17(c) [N.J.A.C. 7:26A-3.17(b)]

31. The holder of this general approval shall submit an annual report containing monthly summary statements of the information required pursuant to N.J.A.C. 7:26A-3.17(a) to the New Jersey Department of Environmental Protection, Division of Solid and Hazardous Waste, on or before March 1 of each year, for the previous calendar year. The summaries shall include the following: monthly totals of the amount of recyclable material received from each customer by municipality of origin; monthly totals of the amount of recyclable product transferred to each end-market; and the amount of residue disposed of during each month. [N.J.A.C. 7:26A- 3.17(c)]

32. The holder of this general approval shall certify in writing to the Department that all residue generated at the recycling center has been disposed of in accordance with the solid waste management rules at N.J.A.C. 7:26. The certification shall be submitted annually as part of the annual report [N.J.A.C. 7:26A-3.17(e)]

33. All information submitted to the Department pursuant N.J.A.C. 7:26A shall be handled in accordance with the requirements of the Public Records law, N.J.S.A. 47:1-1 et seq. The Department will hold confidential all end-market information, as well as information pertaining to the municipality of origin of recyclable material, submitted pursuant to N.J.A.C 7:26A-3.2, 3.7, and 3.17 through 3.20 for a period of two years from the date on which the information is submitted to the Department, where specified as confidential by the applicant and where there are no health, safety or environmental concerns which require the release of the information, as determined by the Department. [N.J.A.C. 7:26A-3.17(f)]

34. The holder of this general approval shall provide a recycling tonnage report by February 1 of each year to all municipalities from which recyclable material is received in the previous calendar year. The report shall detail the amount of each source separated recyclable material, expressed in tons or cubic yards, brought to the recycling center, as well as the date on which the recyclable materials were delivered to the recycling center. Those persons specifying this information in cubic yards shall also indicate the conversion ratio of the materials from cubic yards to tons [N.J.A.C. 7:26A-4.4(a)]

35. The recycling center shall not commence operations unless and until it is included in the applicable district solid waste management plan [N.J.A.C. 7:26A-4.2]

36. The construction of the recycling center that is the subject of this general approval shall be in conformance with the New Jersey Uniform Construction Code, N.J.S.A. 52:27D-119 et seq., and the rules promulgated pursuant thereto [N.J.A.C. 7:26A-4.1(b)]

37. The New Jersey Department of Environmental Protection or an authorized representative acting pursuant to the County Environmental Health Act, N.J.S.A. 26:3A2-1 et seq. shall have the right to enter and inspect any building or other portion of the recycling center at any time in order to determine compliance with the provisions of all applicable laws or rules and regulations adopted pursuant thereto. This right to inspect includes, but is not limited to: sampling any materials on site; photographing any portion of the recycling center; investigating an actual or suspected source of pollution of the environment; and, ascertaining compliance or non-compliance with the statutes, rules or regulations of the Department, including conditions of the recycling center approval issued by the Department. [N.J.A.C. 7:26-1.7(a)]

**Subject Item: RCBG850400 - Class B Materials Handling**

48. Hours of operation for receiving, storing, processing, or transferring the source separated recyclable material shall be limited to: 7:00 a.m. to 5:00 p.m., Monday through Friday; 7:00 a.m. to 3:00 p.m., Saturday. [N.J.A.C. 7:26A-3.5(e)]

49. Material deliveries to the recycling center shall be scheduled in such a manner as to minimize truck queuing on the recycling center property. Under no circumstances shall delivery trucks be allowed to back-up or queue onto public roads. [N.J.A.C. 7:26A-3.5(e)]

50. The recycling center may receive no more than 250 tons per day of the recyclable materials. [N.J.A.C. 7:26A-3.5(e)]

51. The total amount of unprocessed Class B recyclable & Beneficial Use material stored on-site shall not exceed 8,210 cubic yards. Unprocessed materials & incoming Beneficial Use material stored on-site shall be stored only in those areas designated for that purpose as indicated on the approved site plan drawing. [N.J.A.C. 7:26A- 3.5(e)]

52. If at any time, the amount of unprocessed Class B & beneficial use material stored on-site exceeds 8,210 cubic yards, the recycling center shall immediately cease receiving any unprocessed Class B & beneficial use material until the amount of these material stored on-site falls below 8,210 cubic yards. [N.J.A.C. 7:26A- 3.5(e)]

53. Unprocessed recyclable material shall not remain on-site, in its unprocessed form, for more than one (1) year. [N.J.A.C. 7:26A-3.9(b)]

54. The total amount of processed Class B recyclable & beneficial use material stored on-site shall not exceed 6,538 cubic yards. Processed Class B & beneficial use materials stored on-site shall be stored only in those areas designated for that purpose as indicated on the approved site plan drawing. [N.J.A.C. 7:26A- 3.5(e)]

55. If at any time, the amount of processed Class B & benefical use material stored on-site exceeds 6,538 cubic yards, the recycling center shall immediately cease processing activities until the amount of these material falls below 6,538 cubic yards. [N.J.A.C. 7:26A- 3.5(e)]

56. All processed material shall be stored separately from residues. [N.J.A.C. 7:26A-3.5(e)]

57. By-products shall be stored in the container(s) or area(s) as depicted on the approved site plan and shall be removed off-site to the end markets as referenced in the approved documents. [N.J.A.C. 7:26A-3.5(e)]

58. Horizontal and vertical control points for the unprocessed and processed materials stockpile areas shall be set and maintained on-site. Horizontal limitation markers shall be set at the corners of the stockpile areas as depicted on the approved site plan. Vertical limitation markers shall be set at locations in close proximity of the stockpile areas and shall clearly establish elevation height of 25 feet above the existing grade for the unprocessed & processed stockpile areas. [N.J.A.C. 7:26A-3.5(e)]

59. Metal pipe or metal rods or the equivalent as approved by the Department shall be used to establish these control points. Within approximately thirty (30) days of the acceptance date of this Approval, a joint site inspection shall be held at the facility between the owner/operator and representatives of the Department for the purpose of establishing the locations of these markers. [N.J.A.C. 7:26A-3.5(e)]

60. Ingress and egress of the facility shall be restricted to Page Avenue only. [N.J.A.C. 7:26A-3.5(e)]

**Subject Item: RCBG850400 - Class B Materials Handling**

61. Methods of effectively controlling dust shall be implemented at the facility in order to prevent offsite migration. [N.J.A.C. 7:26A-3.5(e)]

62. Fire fighting and emergency procedures shall be posted, and shall include the telephone numbers of local fire, police, ambulance, and hospital facilities. If a fire occurs on-site, the facility shall immediately notify the local fire official and report the incident to the N.J.D.E.P. Environmental Action Hotline at 1-877-927-6337. [N.J.A.C. 7:26A-3.5(e)]

63. Any suspected or prohibited hazardous waste, as defined at N.J.A.C. 7:26G-5, found in a load accepted at the recycling center shall not be returned to the generator. Such materials shall be segregated and stored in a secure manner and shall be immediately reported to the N.J.D.E.P. Environmental Action Hotline at 1-877-927-6337. The owner/operator of the recycling center shall secure the name of the collector/hauler suspected of delivering such waste to the facility and related information surrounding the incident, if available, and shall make this information known to N.J.D.E.P. enforcement personnel. [N.J.A.C. 7:26A-3.5(e)]

64. All revisions to the site plan and the approved documents which may be required as a result of the above, shall be submitted to this office for modification to this Approval. [N.J.A.C. 7:26A-3.5(e)]

65. Pursuant to N.J.A.C. 7:26A-3.11(a), the holder of this general approval shall obtain prior approval from the Department for any increase in the design capacity of the facility. The facility shall submit a request to the Department, in writing, for the proposed increase and shall submit updated information pursuant to the requirements of N.J.A.C. 7:26A-3.2(a), 3.4, or 3.8, as applicable. The facility shall also provide written notice of the request to the solid waste or recycling coordinator of the applicable district. [N.J.A.C. 7:26A-3.5(e)]

66. The following equipment or equivalent shall be available for site operations and shall be maintained in operable condition: Ultramax 1000 Crushing Portable Plant, Bobcat, Cat Loader 966F, Cat Excavator 325. [N.J.A.C. 7:26A-3.5(e)3]

67. Within thirty days (30) from the date of this approval, the facility shall contact Bureau of Non Point Pollution Control to determine the appropriate permit required for the recycling operations to comply with the applicable provisions of the Stormwater Management rules at N.J.A.C. 7:8-5 and 6 and the Pollutant Discharge Elimination System rules at N.J.A.C. 7:14A-24 and 25. [N.J.A.C. 7:26A- 3 .2(a)18]

**Subject Item: RCBG1106269 - Beneficial Use Materials Handling**

68. The owner/operator is authorized to accept higher volume of soils (contaminated above the New Jersey Residential Direct Contact Soil Remediation Standards (NJRDCSRS)) comingled with approved Class B recyclable materials (BUD Material) generated from demolition and/or redevelopment projects for processing and shipment to an end use facility, provided beneficial use of the BUD material at the end use facility is preapproved by the Department through a Certificate of Authority to Operate (CAO) a Beneficial Use Project in accordance with N.J.A.C. 7:26-1.7(g). [N.J.A.C. 7:26A- 3 .5(e)]

**Subject Item: RCBG1106269 - Beneficial Use Materials Handling**

69. The owner/operator shall submit a separate application for each project site generating BUD Material. For out-of-state end use sites, the applications shall include additional information in accordance with N.J.A.C. 7:26-1.7(g)8 including but not limited to, a letter from each end use facilities indicating their willingness to accept the BUD Material for beneficial use and corresponding quantity, and a letter from the appropriate regulatory agency of the state where the end use facility is located verifying that the facility is operating in accordance with all applicable rules and regulations and can lawfully accept the material for the declared beneficial use and a current copy of the end use facility's authorization to operate, i.e., a permit. [N.J.A.C. 7:26A- 3 .5(e)]

70. All BUD Material accepted at the facility shall be managed in accordance with the requirements specified in a CAO issued to the facility and conditions of this Approval. [N.J.A.C. 7:26A- 3.5(e)]

71. A log shall be maintained of each incoming and outgoing shipment of BUD Material. The log shall include the following: 1. Name of the Project Site generating the material; 2. NJDEP issued CAO Number; 3. CAO Expiration Date; 4. Date and Time of receipt (incoming); 5. Quantity received; 6. Date and Time of outgoing shipment, 7. Name of the end use facility; and 8. Quantity shipped (outgoing). [N.J.A.C. 7:26- 1.7(a)]

72. In the event that the BUD Material fail to meet the acceptance criteria, the owner/operator shall not accept the material and reject the shipment back to the generator. All rejected shipment shall be entered in the log mentioned above and a written notification shall be sent to the NJDEP, Bureau of Recycling and Hazardous Waste Management. [N.J.A.C. 7:26A- 3.5(e)]

73. All unprocessed and processed BUD Material shall be stored on paved surfaces in designated areas identified in the approved site plans. [N.J.A.C. 7:26A- 3.5(e)]

74. The owner/operator shall not accept shipment of BUD Material from any project prior to the Department's issuance of a CAO specific to the project site and corresponding end use facilities. [N.J.A.C. 7:26A- 3 .5(e)]

75. All incoming shipment of BUD Material shall be processed at the facility as described in the permit modification application dated October 29, 2014 and associated documents. [N.J.A.C. 7:26A- 3.5(e)]

76. The owner/operator shall obtain and maintain all other necessary permits for the management of BUD Material at the facility including, but not limited to, permits from the Department's Division of Air Quality and the Division of Water Quality. [N.J.A.C. 7:26A- 3 .5(e)]

77. In the event of any outgoing shipment of BUD Material being rejected by the end use facility, the owner/operator shall be responsible for proper disposal of the material as solid waste and report to the NJDEP, Bureau of Recycling and Hazardous Waste Management. [N.J.A.C. 7:26A- 3 .5(e)]

78. Appropriate dust control and run-on, run-off controls shall be provided for each processed and unprocessed BUD Material storage areas. [N.J.A.C. 7:26A- 3 .5(e)]

79. Commingled Class B material that have been separated from the BUD soils through processing, shall not be sold as a product in open market. [N.J.A.C. 7:26A- 3 .5(e)]

CHRIS CHRISTIE
*Governor*

KIM GUADAGNO
*Lt. Governor*

State of New Jersey
DEPARTMENT of ENVIRONMENTAL PROTECTION
Division of Air Quality
Bureau of Air Permits
401 E. State Street, 2nd floor, P.O. Box 420, Mail Code 401-02
Trenton, NJ 08625-0420

BOB MARTIN
*Commissioner*

**Air Pollution Control**
**Preconstruction Permit and Certificate to Operate**
**Construction of a New Source**

**Permit Activity Number: PCP120001** **Program Interest No: 03507**

| Mailing Address | Plant Location |
|---|---|
| JOEL ROGERS<br>VP<br>IMPACT ENVIRONMENTAL CONSULTING INC<br>1000 PAGE AVE<br>Lyndhurst, NJ 07071 | IMPACT RECOVERY & REUSE CTR<br>1000 Page Ave - 2nd Fl<br>Lyndhurst Twp<br>Bergen County, New Jersey |

**Approval Date: 05/17/2012**
**Expiration Date: 05/16/2017**

The New Jersey Department of Environmental Protection (Department) has reviewed the above referenced air pollution control permit application. On the basis of the information provided, the Department concludes that the application satisfies all applicable requirements of the New Jersey Air Pollution Control regulations codified at N.J.A.C. 7:27 et seq. This permit allows for inspection and evaluation of the equipment by the Department to assure conformance with all provisions of N.J.A.C. 7:27 et seq. and any other applicable federal requirements codified at 40 CFR 52, 60, 61 and 63.

The equipment, that is authorized to be installed and operated under this approval, is described in Section A, Source Operations and Section D, Equipment Inventory. Equipment at the facility referenced by this Permit shall be operated in accordance with the Conditions of Approval set forth in Section D, Facility Specific Requirements.

The Department hereby issues this permit and certificate under the authority of chapter 106, P.L. 1967(N.J.S.A 26:2C-9.2). You may construct, reconstruct, install, or modify the above referenced equipment and/or control apparatus consistent with the approval.

The approved Permit is available for download in PDF format which contains the facility's specific requirements (compliance plan) at: http://www.nj.gov/dep/aqpp. After accessing the web site, click on "Approved PCP Permits" listed under "Reports" and then type in your Program Interest (PI) Number, 03507, as instructed on the screen. You will be able to view, print or electronically store your permit. If you have any questions regarding this permit approval, please contact the Department at the Preconstruction Permit Help Line available from

# Administrative Hearing Request Checklist and Tracking Form

## I. Document Being Appealed

| Name of the Facility | Facility ID Number | Permit Activity Number | Issuance Date |
|---|---|---|---|
| IMPACT RECOVERY & REUSE CTR | 03507 | PCP120001 | |

## II. Contact Information

| Name of Person Requesting Hearing | Name of Attorney (if applicable) |
|---|---|
| | |
| Address: | Address: |
| | |
| | |
| Telephone: | Telephone: |

## III. Please include the following information as part of your request:

A. The date the permittee received the permit decision;
B. Two printed copies of the document being appealed – for submitting to address 1 below;
A PDF copy of the document being appealed on a CD – for submitting to address 2 below
C. The legal and factual questions you are appealing;
D. A statement as to whether or not you raised each legal and factual issues during the permit application process;
E. Suggested revised or alternative permit conditions;
F. An estimate of the time required for the hearing;
G. A request, if necessary, for a barrier-free hearing location for physically disabled persons;
H. A clear indication of any willingness to negotiate a settlement with the Department prior to the Departments processing of your hearing request to the Office of Administrative Law;

Mail this form, completed, signed and dated with all of the information listed above, including attachment, to:

1. New Jersey Department of Environmental Protection
Office of Legal Affairs
Attention: Adjudicatory Hearing Requests
401 E. State Street, P.O. Box 402
Trenton, New Jersey 08625

2. Air Quality Permitting Element
Preconstruction Permits
New Jersey Department of Environmental Protection
401 E. State Street, 2nd Floor, P.O. Box 027
Trenton, New Jersey 08625
Phone: (609) 633-2829

_____ _____
**Signature** **Date**

AIR POLLUTION CONTROL PRECONSTRUCTION PERMIT

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**Facility Name: IMPACT RECOVERY & REUSE CTR**
**Facility ID No.: 03507**
**Permit Activity No.: PCP120001**


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AIR POLLUTION CONTROL PRECONSTRUCTION PERMIT

**Section B**

**Facility Name: IMPACT RECOVERY & REUSE CTR**
**Facility ID No.: 03507**
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## ACRONYMS

| | |
|---|---|
| BTS | Bureau of Technical Services |
| CEMS | Continuous Emissions Monitor System |
| CFR | Code of Federal Regulations |
| CO | Carbon Monoxide |
| COMS | Continuous Opacity Monitor System |
| EPA | United States Environmental Protection Agency |
| HAP | Hazardous Air Pollutant |
| N.J.A.C. | New Jersey Administrative Code |
| NJDEP | New Jersey Department of Environmental Protection |
| NOx | Oxides of Nitrogen |
| PM-2.5 | All particulate matter having an aerodynamic diameter less than or equal to a nominal 2.5 microns |
| PM-10 | All particulate matter having an aerodynamic diameter less than or equal to a nominal 10 microns |
| PST | Performance Specification Test |
| REO | Regional Enforcement Office - NJDEP |
| $SO_2$ | Sulfur Dioxide |
| TSP | Total Suspended Particulate Matter |
| VOC | Volatile Organic Compounds |

may proceed with the proposed changes seven days after such notice is filed with the Department. [N.J.A.C. 7:27-8.20]

d. The permittee shall file an amendment within 120 days of making any change of the information contained within Section C of this permit (Facility Profile), changing the name, number or designation of any equipment or stack covered by this permit, changing the parameters of a stack in such a way to reduce the ground level concentration of an air contaminant, or correction of a typographical error that will not result in an increase of actual or allowable emissions. [N.J.A.C. 7:27-8.21]

The permittee shall review the provisions of N.J.A.C. 7:27-8.18 through 7:27-8.21 to determine the appropriate type of request to file.

5. The permittee shall make the preconstruction permit or certificate, together with any amendments, seven-day-notices, or other documents related to the permit and certificate, readily available for Department inspection on the operating premises. [N.J.A.C. 7:27-8.3(d)]

6. The permittee shall not use or cause to be used the equipment or control apparatus unless all components connected or attached to, or serving, the equipment or control apparatus, are functioning properly and are in compliance with the preconstruction permit and certificate and all conditions and provisions thereto. [N.J.A.C. 7:27-8.3(e)]

7. A preconstruction permit is not transferable either from the location authorized in the preconstruction permit to another location, or from any one piece of control apparatus or equipment to another piece of control apparatus or equipment. [N.J.A.C. 7:27-8.3(f)]

8. Once a permit or certificate is issued, the permittee is fully responsible for compliance with N.J.A.C. 8:27-8 and with the permit and certificate, including adequate design, construction, and operation of the source, even if employees, contractors, or others work on or operate the permitted source. If the Department issues any other requirement with the force of law, such as an order, which applies to the source, the permittee is also responsible for compliance with that requirement. [N.J.A.C. 7:27-8.3(g)]

9. Preconstruction permits and certificates do not any way relieve the permittee from the obligation to obtain necessary permits from other government agencies and to comply with all other applicable Federal, State, and local rules and regulations. [N.J.A.C. 7:27-8.3(h)]

10. The permittee shall not suffer, allow, or permit any air contaminant detectable by the sense of smell, to be present in the outdoor atmosphere in such quantity and duration which is, or tends to be, injurious to human health or welfare, animal or plant life or property, or would unreasonably interfere with the enjoyment of life or property. This shall not include an air contaminant which occurs only in areas over which the permittee has exclusive use or occupancy. In determining whether an odor unreasonably interferes with the enjoyment of life or property, the Department shall consider all of the relevant facts and circumstances, including, but not limited to, the character, severity, frequency, and duration of the odor, and the number of persons affected thereby. In considering these and other relevant facts aud circumstances, no one factor shall be dispositive, but each shall be considered relevant in determining whether an odor interferes with the enjoyment of life or property, and, if so, whether such interference is unreasonable considering all of the circumstances. [N.J.A.C.7:27-8.3(j)]

21. The permittee shall, when requested by the Department, provide such testing facilities exclusive of instrumentation and sensing devices as may be necessary for the Department to determine the kind and amount of air contaminants emitted from the equipment or control apparatus. The testing facilities shall include the utilities, the structure to hold testing equipment and/or personnel, and any ports in stacks needed to carry out testing required by this permit. During testing by the Department, the equipment and control apparatus shall be operated under such conditions within their capacities as may be requested by the Department. The test facilities may be either permanent or temporary, at the discretion of the person responsible for their provision, and shall conform to all applicable laws, regulations, and rules concerning safe construction and safe practice. Testing facilities, which contain platforms and other means of personnel access, shall conform to OSHA standards. [N.J.A.C. 7:27-8.13(i)]

22. Upon reqnest of the Department, the permittee shall submit to the Department any record relevant to any permit or certificate. Such records shall be submitted to the Department within thirty (30) days of the request by the Department or within a longer time period if approved in writing by the Department. [N.J.A.C. 7:27-8.15(a)]

23. The permittee shall submit any required report in a format and on a schedule approved by the Department. Such report shall be transmitted on paper, on computer disk, or electronically, at the discretion of the Department. [N.J.A.C. 7:27-8.15(b)]

24. Any report submitted to the Department, including but not limited to, a report submitted as an amendment of this permit or the certificate to operate pursuant to N.J.A.C. 7:27-8.3(c) shall include, as an integral part of the report, certifications complying with N.J.A.C. 7:27-1.39. [N.J.A.C. 7:27-8.15(c)]

25. Upon request of the Department, the permittee shall report on forms obtained from the Department the air contaminant actual emissions and information relevant thereto, of any air contaminant or category of air contaminant emitted by the equipment, control apparatus, or source operation. [N.J.A.C. 7:27-8.15(d)]

26. Any emission limit values in a preconstruction permit shall be interpreted to be followed by inherent trailing zeros (0) in the decimal portion of the limit to three significant figures (e.g. a printed limit of "1 lb/hr" means a limit of "1.00 lb/hr").

27. This listing of requirements reflects the state rules and regulations that apply to a majority of sources. If a specific requirement in a rule or regulation that applies to a permittee is not included in this section or in the Facility Specific Requirements it does not relieve the permittee from the obligation to comply with that regulation.

28. Process monitors must be operated at all times when the associated process equipment is operating except during outage time allowed by Department guidelines/procedures or as outlined in Technical Manual 1005. The Permittee must keep a service log as required.

AIR POLLUTION CONTROL PRECONSTRUCTION PERMIT

**Section D**

**Facility Name: IMPACT RECOVERY & REUSE CTR**
**Facility ID No.: 03507**
**Permit Activity No.: PCP120001**

## PERMIT INFORMATION

FACILITY SPECIFIC REQUIREMENTS INDEX

FACILITY SPECIFIC REQUIREMENTS

REASON FOR APPLICATION

FACILITY PROFILE (GENERAL)

EQUIPMENT INVENTORY

CONTROL DEVICE INVENTORY

EMISSION POINT INVENTORY

EMISSION UNIT/BATCH PROCESS INVENTORY

# New Jersey Department of Environmental Protection
## Facility Specific Requirements

**Emission Unit:** U1 Fintec 1107 Jaw Crusher and Keestrack Pioneer Screener

CD1 Wet Supression System

**Subject Item:**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | The water spray system shall be installed and operated at critical processing points where fresh dry aggregate faces are created or dust becomes airborne. Water spray shall be sufficient to dampen the material surfaces to prevent visible emissions. [N.J.A.C. 7:27-8.13(a)] | The operator shall verify that water spray is visible at the spray bar locations at all time while aggregate is being processed. Monitored by visual determination once per shift during operation, based on an instantaneous determination. [N.J.A.C. 7:27- 8.13(d)] | The operator shall record in a bound log the date and nature of maintenance activity on the water spray system necessary to satisfy the operating requirements of this permit. Recordkeeping by manual logging of parameter upon occurrence of event. [N.J.A.C. 7:27- 8.13(d)] | None. |
| 2 | The crushing operation shall cease operation if the water flow rate through the spray nozzles is discontinued. [N.J.A.C. 7:27-8.13(a)] | None. | None. | None. |

# New Jersey Department of Environmental Protection
## Facility Specific Requirements

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 8 | The owner or operator of an affected facility shall provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the Administrator (or delegated State or local agency) as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator (or delegated State or local agency) by mutual agreement. [40 CFR 60.8(d)] | None. | None. | None. |
| 9 | When determining compliance with the fugitive emissions standard for any affected facility described under 40 CFR 60.672(b) or 40 CFR 60.672(e)(1) of this subpart, the duration of the Method 9 (40 CFR part 60, Appendix A-4) observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits in Table 3 of this subpart must be based on the average of the five 6-minute averages. [40 CFR 60.675(c)(3)] | None. | None. | None. |
| 10 | Opacity <= 15 % (fugitive- crusher only). [40 CFR 60.672(b)] | Opacity: Monitored by visual determination once initially, based on 6 minute blocks. [40 CFR 60.675(c)(3)] | Opacity: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [40 CFR 60.676(b)(1)] | Conduct a performance test: As per the approved schedule within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup. The owner or operator shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s). . [40 CFR 60.8(a)] |

## New Jersey Department of Environmental Protection
## Facility Specific Requirements

**Emission Unit:** U1 Fintec 1107 Jaw Crusher and Keestrack Pioneer Screener

**Operating Scenario:** OS1 Soil/Stone Screening

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | TSP <= 1.1 lb/hr. [N.J.A.C. 7:27- 8.13(h)1] | None. | None. | None. |
| 2 | PM-10 (Total) <= 1.1 lb/hr. [N.J.A.C. 7:27-8.13(h)1] | None. | None. | None. |

## New Jersey Department of Environmental Protection
## Facility Specific Requirements

**Emission Unit:** U1 Fintec 1107 Jaw Crusher and Keestrack Pioneer Screener

**Operating Scenario:** OS4 Crushing oversized rock into usable product

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | TSP <= 0.6 lb/hr. [N.J.A.C. 7:27- 8.13(h)1] | None. | None. | None. |
| 2 | PM-10 (Total) <= 0.6 lb/hr. [N.J.A.C. 7:27-8.13(h)1] | None. | None. | None. |

## New Jersey Department of Environmental Protection
## Facility Specific Requirements

**Emission Unit:** U1 Fintec 1107 Jaw Crusher and Keestrack Pioneer Screener
OS6 Crusher Side Conveyor

**Operating Scenario:**

The requirements for this item are identical to those for: U1 OS5

IMPACT RECOVERY & REUSE CTR (03507)
PCP120001

Date: 5/17/2012

# New Jersey Department of Environmental Protection
## Facility Profile (General)

**Facility Name (AIMS):** Impact Recovery and Reuse Center

**Facility ID (AIMS):** 03507

**Street Address:** 1000 PAGE AVE
SECOND FLR
LYNDHURST, NJ 07071

**Mailing Address:** 1000 PAGE AVE
SECOND FLR
LYNDHURST, NJ 07071

**State Plane Coordinates:**

| | |
|---|---|
| X-Coordinate: | 182,655 |
| Y-Coordinate: | 218,411 |
| Units: | Meters |
| Datum: | Unknown |
| Source Org.: | DEP-GIS |
| Source Type: | Approx. Addr. Match |

**County:** Bergen

**Location Description:**

**Industry:**

| | |
|---|---|
| Primary SIC: | |
| Secondary SIC: | |
| NAICS: | 541620 |

## New Jersey Department of Environmental Protection
## Facility Profile (General)

**Contact Type:** Responsible Official

**Organization:** Impact Environmental Consulting Inc

**Org. Type:** Private

**Name:** Joel Rogers

**NJ EIN:**

**Title:** Vice President

**Phone:** (631) 269-8800 x

**Fax:** (631) 269-1599 x

**Other:** ( ) - x

**Type:**

**Email:** jrogers@impactenvironmental.com

**Mailing Address:** 1000 Page Ave
Second Floor
Lyndhurst, NJ 07071

IMPACT RECOVERY & REUSE CTR (03507)
PCP120001

Date: 5/17/2012

## New Jersey Department of Environmental Protection
## Control Device Inventory

| CD NJID | Facility's Designation | Description | CD Type | Install Date | Grand-Fathered | Last Mod. (Since 1968) | CD Set ID |
|---|---|---|---|---|---|---|---|
| CD1 | Water Spray | Wet Supression System | Scrubber (Other) | | | | |

**IMPACT RECOVERY & REUSE CTR (03507)**
**PCP120001**

Date: 5/17/2012

## New Jersey Department of Environmental Protection
## Emission Unit/Batch Process Inventory

**U 1 Crush/Scrn Fintec 1107 Jaw Crusher and Keestrack Pioneer Screener**

| UOS NJID | Facility's Designation | UOS Description | Operation Type | Signif. Equip. | Control Device(s) | Emission Point(s) | SCC(s) | Annual Oper. Hours Min. | Annual Oper. Hours Max. | VOC Range | Flow (acfm) Min. | Flow (acfm) Max. | Temp. (deg F) Min. | Temp. (deg F) Max. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OS1 | Screener | Soil/Stone Screening | Normal - Steady State | E1 | | PT2 | | | | | | | | |
| OS2 | Scrn Conv | Screener Discharge Conveyor | Normal - Steady State | E2 | | PT2 | | | | | | | | |
| OS4 | Crusher | Crushing oversized rock into usable product | Normal - Steady State | E4 | CD1 (P) | PT8 | | 3,000.0 | 5,500.0 | | 1,300.0 | 2,000.0 | 900.0 | 1,300.0 |
| OS5 | Main Conv | Crusher Main Conveyor | Normal - Steady State | E5 | | PT8 | | | | | | | | |
| OS6 | Side Conv | Crusher Side Conveyor | Normal - Steady State | E6 | | PT8 | | | | | | | | |

State of New Jersey

CHRIS CHRISTIE
*Governor*

KIM GUADAGNO
*Lt. Governor*

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Mail Code - 401-02B
Water Pollution Management Element
Bureau of Nonpoint Pollution Control
P.O. Box 420 – 401 E. State St.
Trenton, NJ 08625-0420
Tel: (609) 633-7021 / Fax: (609) 777-0432
http://www.state.nj.us/dep/dwq/bnpc_home.htm

BOB MARTIN
*Commissioner*

June 30, 2015

Joel Rodgers
IMPACT ENVIRONMENTAL CONSULTING INC
170 KEYLAND CT
BOHEMIA, NY 11716

Re: RF -Stormwater
NJPDES: NJ0217280 PI ID #: 609544
IMPACT REUSE & RECOVERY CTR
Lyndhurst Twp, Bergen

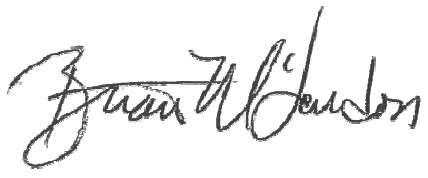
Dear Joel Rodgers:

Enclosed is a **final** New Jersey Pollutant Discharge Elimination System (NJPDES) permit action identified above which has been issued in accordance with N.J.A.C. 7:14A. No written comments were received on the draft action during the comment period, and no provisions of the draft permit have been changed in the final permit. Therefore, the right by you, or any third party, to contest the permit conditions in an adjudicatory hearing is hereby waived pursuant to N.J.A.C. 7:14A-15.13.

As per N.J.A.C. 7:14A-4.2(e)3, any person planning to continue discharging after the expiration date of an existing NJPDES permit shall file an application for renewal at least 180 calendar days prior to the expiration of the existing permit.

Questions or comments regarding the final action should be addressed to Daniel Kuti at (609) 633-7021.

Sincerely,



Brian McLendon, Supervisor
Bureau of Nonpoint Pollution Control

# NEW JERSEY POLLUTANT DISCHARGE ELIMINATION SYSTEM

The New Jersey Department of Environmental Protection hereby grants you a NJPDES permit for the facility/activity named in this document. This permit is the regulatory mechanism used by the Department to help ensure your discharge will not harm the environment. By complying with the terms and conditions specified, you are assuming an important role in protecting New Jersey's valuable water resources. Your acceptance of this permit is an agreement to conform with all of its provisions when constructing, installing, modifying, or operating any facility for the collection, treatment, or discharge of pollutants to waters of the state. If you have any questions about this document, please feel free to contact the Department representative listed in the permit cover letter. Your cooperation in helping us protect and safeguard our state's environment is appreciated.

**Permit Number: NJ0217280**

**Final: Stormwater Discharge New Permit Action**

**Permittee:**
IMPACT ENVIRONMENTAL CONSULTING INC
170 KEYLAND CT
BOHEMIA, NY 11716

**Co-Permittee:**

**Property Owner:**
LAMBDA FINANCIAL
PO BOX 808
Lyndhurst, NJ 07071

**Location Of Activity:**
IMPACT REUSE & RECOVERY CTR
1000 PAGE AVE
Lyndhurst, NJ 07071

| Authorization(s) Covered Under This Approval | Issuance Date | Effective Date | Expiration Date |
|---|---|---|---|
| RF -Stormwater | 07/01/2015 | 08/01/2015 | 07/31/2020 |

**By Authority of:**
**Commissioner's Office**

**DEP AUTHORIZATION**
**Brian McLendon, Supervisor**
**Bureau of Nonpoint Pollution Control**
**Water Pollution Management Element**

(Terms, conditions and provisions attached hereto)

New Jersey Department of Environmental Protection
Division of Water Quality
Bureau of Nonpoint Pollution Control (Stormwater)

# FACT SHEET

This fact sheet sets forth the principal facts and the significant factual, legal, and policy considerations examined during preparation of the draft permit.

**PERMIT ACTION: Stormwater Discharge New Permit Action**

## 1 Name and Address of the Applicant:

Impact Environmental Consulting, Inc.
170 Keyland Ct
Bohemia, NY 11716

## 2 Name and Address of the Facility:

Impact Reuse and Recovery Center
1000 PAGE AVE
Lyndhurst, NJ, 07071

## 3 Name and Classification of the Receiving Water:

Unnamed tributary to the Hackensack River
FW2-NT/SE2(C2)

## 4 Description of the Facility/Site:

Impact Reuse and Recovery Center (Impact) is a permitted Class B Recycling facility of concrete, asphalt, brick, asphalt, asphalt millings, plaster, ceramic, porcelain, tile, terra cotta, block (cinder or concrete). The primary industrial activities at the site include crushing, aggregate storage and use of heavy industrial equipment including front end loaders and dump trucks. The site also has two (2) aboveground fuel tanks, a scrap metal storage container, conveyors and an industrial crusher with a diesel engine. Equipment maintenance is done onsite inside the designated maintenance building. The site was formerly under the ownership of Red Rock Land Development, LLC.

Impact is limited to receiving 250 tons/day of Class B materials with a maximum storage capacity of 8,210 cubic yards of unprocessed Class B materials and 6,538 cubic yards of processed Class B materials. Impact is required to maintain visible vertical and horizontal markers for the storage piles as a condition of their solid waste permit. In addition to this material, as a result of the Department's 2/2/2015 revision of the class B permit, the facility may also accept commingled soils ("BUD soils") subject to a Department preapproval of each source.

The above named applicant has applied for a New Jersey Pollutant Discharge Elimination System (NJPDES) permit **(New Permit)** to the New Jersey Department of Environmental Protection (NJDEP), Bureau Nonpoint Pollution Control. A

location map of the facility is included. The proposed permit regulates stormwater discharges to an unnamed tributary to the Hackensack River, classified as FW2-NT/SE2(C2).

After discussions with representatives of Impact a decision was reached to issue an individual permit. The permit requires the facility to develop and implement a Stormwater Pollution Prevention Plan (SPPP) to control the quality of its stormwater discharges.

## 5 Description of the Receiving Water and Discharge Locations or Local Agency:

The Hackensack River is a riverine non-tidal fresh river classified as FW2-NT/SE2(C2)

## 6 Type and Quantity of the Wastes, Fluids, or Pollutants (as applicable):

The permittee will sample for the following parameters under the proposed NJPDES/DSW permit: Total Suspended Solids (TSS), Total Dissolved Solids (TDS), pH, Total Petroleum Hydrocarbons (TPH), Oil & Grease (O&G), Metals (Al, Cr, Cu, Fe, Ni, Pb, Zn), PCB

The site is limited to the following volumes of Class B recyclable materials under the terms and conditions of its Solid Waste permit

| Description | Total received | Storage | |
|---|---|---|---|
| | Daily maximum allowed | Maximum allowed (unprocessed) | Maximum allowed (processed) |
| Concrete, asphalt, brick, asphalt, asphalt millings, plaster, ceramic, porcelain, tile, terra cotta, block (cinder or concrete) | Not specified | Not specified | Not specified |
| Incidental amounts of rebar, metal, soil and other by-products that adhere to the Class B materials | Not specified | Not specified | Not specified |
| **Total (all categories)** | **250 tons** | **8,210 cubic yards** | **6,538 cubic yards** |

BUD Soils are pre-approved separately from Class B recyclable materials by NJDEP in accordance with the terms of the Class B Permit issued on February 2, 2015.

The facility also utilizes a truck tire wash system at the exit of the site. The wash system uses a water/flocculent mixture to remove sediment buildup on the truck prior to leaving the site. Sediment is washed into a below grade concrete holding area where it can be mechanically moved to a clean out area where the material is removed and loaded into trucks for offsite disposal.

## 7 Summary of Permit Conditions:

The objective of this regulatory action is to issue an individual NJPDES permit under the procedures established in N.J.A.C. 7:14A-15, 16, and 17.

In accordance with the Federal Clean Water Act and its implementing regulations, specifically, discharges permitted prior to February 4, 1987, and discharges associated with industrial activity (40 CFR 122.26), this facility is required to have a permit for its stormwater discharges to surface water. Permit effluent limitations, non-numeric effluent limitations, monitoring requirements, Best Management Practices (BMPs) and other conditions are authorized by the Federal Water

Pollution Control Act (33 U.S.C. 1251 et seq.), and the Water Pollution Control Act (State Act; N.J.S.A. 58:10A-1 et seq). These statutes are implemented by the National Pollutant Discharge Elimination System (NPDES) (40 CFR Part 122) and the New Jersey Pollutant Discharge Elimination System (NJPDES) (N.J.A.C. 7:14A) permit programs.

The terms and conditions of this permit apply exclusively to Class B recycling operations, storage and/or industrial activities that occur within the site boundaries defined as Block 235 and Lots 4 and 5. Under this renewal permit, the permittee will be required to:

1. Prepare and implement the SPPP which includes a Drainage Control Plan
2. Design, implement and maintain drainage control of the facility
3. design, implement and maintain BMPs to meet numeric limits in Part III of this permit and specific design criteria in Part IV of the permit
4. maintain a site Spill Prevention Plan as part of the SPPP (a site SPCC or DPCC satisfies this requirement)
5. Monitor stormwater discharges quarterly

Drainage control is the use of grading, diversionary structures, containment, dedicated storage areas and other methods used to divert stormwater from areas of industrial activity to a permitted outfall. Design criteria establish targets to help the permittee determine if the selected BMPs are effective. An exceedance of a design criteria is not considered to be a violation of the permit. Continued exceedance of design criteria, however, indicates that the selected BMPs are not effective and may require modification or replacement. Additional BMPs may also be required based on monitoring results.

Concerning the proposed new NJPDES permit, the NJDEP is authorized under the federal regulations (40 CFR 122.44) and under NJPDES rules (N.J.A.C. 7:14A-6.2(b) to impose Best Management Practices (BMPs) to control or abate the discharge of pollutants in lieu of numeric effluent limitations in NJPDES permits. BMPs may be imposed when the NJDEP finds numeric effluent limitations to be infeasible or when BMPs are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the State and Federal Acts. Additionally, the NJDEP believes that it is not feasible at this time to establish water quality based effluent limits (WQBEL) for this stormwater discharge. The proposed limitations incorporated in the SPPP are consistent with the NJDEP's and EPA's stormwater permitting philosophy of reducing the amount of pollution created and to prevent pollution from occurring in the first place (See 24 N.J.R. 2352). The SPPP requirements and monitoring requirements operate as limitations and controls on stormwater effluent discharges to prevent stormwater contamination and are intended to achieve Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT). The SPPP proposed will consist of requirements for preparing the SPPP, certifying the preparation and submitting the plan, implementation of the SPPP by a compliance date, certification of implementation of the SPPP, and annual recertification and reporting of the effectiveness of the SPPP. The objective of the SPPP is to prevent stormwater contamination through the elimination and/or minimization of exposure, during and after storm events, of industrial materials, machinery, waste products, and other source materials associated with industrial activity located at the facility, to stormwater that is discharged through separate storm sewers to surface waters.

The number of outfalls to be monitored will be determined during the preparation of the Drainage Control Plan. The types of pollutants are expected to be similar for each of the outfalls. The following summarizes the basis for each pollutant to be monitored as a requirement of the new permit:

Chemical Oxygen Demand

Characterization data submitted with the application indicated elevated levels of COD. COD monitoring will be required to help determine if any further action for control of COD is necessary.

Total Dissolved Solids

The crushing operation has the potential to create fine particulate. In addition, use of heavy equipment has the potential of grinding aggregate to a fine particulate. Monitoring for TDS will be required to help determine if any further action for control of TDS is necessary.

Total Suspended Solids

Impact stores processed and unprocessed aggregate in forms of concrete, asphalt, brick, asphalt, asphalt millings, plaster, ceramic, porcelain, tile, terra cotta, block (cinder or concrete). Storage and processing of these materials is a source for TSS. There will be a benchmark of 100 mg/L for TSS. In lieu of numeric limitations, the site will be required to implement BMPs designed to meet the benchmark. Monitoring for TSS will provide evidence of the effectiveness of site stabilization and materials handling BMPs.

pH

Exposure of stormwater to construction and asphalt debris has a potential to raise the pH of the runoff. Monitoring for pH will be required to help determine if any further action is necessary.

Total Petroleum Hydrocarbons

There will be a numeric effluent limit of 15 mg/L maximum concentration in accordance with N.J.A.C. 7:14A-12.8. The permittee will use an EPA approved method for the analysis of TPH.

Metals

There is a potential for metals from asphalt and construction debris. Sampling for aluminum, chromium, copper, iron, lead, nickel and zinc will be required to help determine if any further action for control of metals is necessary.

PCB

There is a potential for the presences of PCBs contained in construction debris from buildings constructed from the 1940s to the 1970s as well as industrial building debris. Sampling for PCBs is necessary under this permit action and shall be limited to an annual sample.

## 8 Description of Procedures for Reaching a Final Decision on the Draft Action:

These procedures are set forth in N.J.A.C. 7:14A-15, 16, and 17. Included in the public notice are requirements for the submission of comments by a specified date, procedures for requesting a hearing, and other procedures for participation in the final agency decision.

## 9 Name, Bureau, and Phone Number of Contact Person:

Additional information concerning the Draft Permit renewal may be obtained between the hours of 8:30 A.M. and 4:00 P.M., Monday through Friday from **Daniel Kuti**, Bureau of Nonpoint Pollution Control, at (609) 633-7021.

## 10 Limitation Derivation Worksheets (if applicable):

## 11 Permit Summary Table:

**Facility Name:** Red Rock Land Development

**Discharge Type:** Stormwater

| Outfall | Latitude | Longitude |
|---|---|---|
| DSN 001A | To be determined | To be determined |

| **PARAMETER** all values are mg/L unless otherwise stated | **PERMIT APPLICATION DATA DAILY MAX (mg/L)** | **PROMULGATED EFFLUENT LIMITATION GUIDELINES** | **DRAFT PERMIT REQUIREMENTS Monthly Avg./ Daily Max (mg/L)** |
|---|---|---|---|
| | **DSN 001** | | |
| Biochemical Oxygen Demand (BOD-5) | ND | None | None |
| Chemical Oxygen Demand | 32.5 | None | Monitor Only |
| Total Suspended Solids | 145 | None | Monitor Only |
| Total Kjeidahl Nitrogen (as N) | 1.25 | None | None |
| Nitrate plus Nitrite Nitrogen (as N) | 0.03 | None | None |
| Total Phosphorous (as P) | 0.29 | None | None |
| PCB | No data | None | Monitor only |
| Total Petroleum Hydrocarbons | 1.5 | N.J.A.C. 7:14A-12.8 | 10 / 15 |
| Metals (Al, Cr, Cu, Fe, Ni, Pb, Zn) | no data | None | Monitor Only |
| pH range (S.U.) | 8.08 | None | Monitor Only |
| Industrial Activity | | | SPPP[1], Part IV.B in permit requirements |

S.U. is the abbreviation for standard units.

**NOTES**

1 - Stormwater Pollution Prevention Plan (SPPP) is derived from Federal (40 CFR 122.44) and State (N.J.A.C. 7:14A-11.2(a)3 rules and will be developed as a non-numeric effluent limit to replace the numeric limits of the prior permit, and to control parameters not listed above. The following outside areas must be addressed in the SPPP, if applicable:

(1) vehicle fueling and maintenance areas; (2) waste management/handling areas; (3) ISRA clean-up areas; (4) loading docks; (5) storage areas; and (6) any other areas with "stormwater discharges associated with industrial activity" as defined by N.J.A.C. 7:14A-1.2.

## Appendix

### CONTENTS OF THE ADMINISTRATIVE RECORD

The following items are used to establish the basis of the draft permit renewal:

(1) The NJPDES permit NJ0160016
(2) The fact sheet for that Permit
(3) Multi-Sector General Permit (published in the Federal Register on September 29, 1995, September 30, 1998 and October 30, 2000) (NPI)*
(4) Data from the Nationwide Urban Runoff Program (EPA 1983) (NPI)*
(5) N.J.A.C. 7:14A (NPI)*
(6) 40 CFR 122.28 (NPI)*
(7) N.J.S.A. 58:10A-1 et seq (NPI)*
(8) Site visit conducted 2/25/15
(9) USEPA guidance document "Managing your Environmental Responsibilities- Section VIII-PCB Waste Requirements"

*NPI: The document is part of the administrative record, but is not physically included with the record.

# PART I
# GENERAL REQUIREMENTS: NJPDES

## A. General Requirements of all NJPDES Permits

### 1. Requirements Incorporated by Reference

a. The permittee shall comply with all conditions set forth in this permit and with all the applicable requirements incorporated into this permit by reference. The permittee is required to comply with the regulations, including those cited in paragraphs b. through e. following, which are in effect as of the effective date of the final permit.

b. General Conditions

| | |
|---|---|
| Penalties for Violations | N.J.A.C. 7:14-8.1 et seq. |
| Incorporation by Reference | N.J.A.C. 7:14A-2.3 |
| Toxic Pollutants | N.J.A.C. 7:14A-6.2(a)4i |
| Duty to Comply | N.J.A.C. 7:14A-6.2(a)1 & 4 |
| Duty to Mitigate | N.J.A.C. 7:14A-6.2(a)5 & 11 |
| Inspection and Entry | N.J.A.C. 7:14A-2.11(e) |
| Enforcement Action | N.J.A.C. 7:14A-2.9 |
| Duty to Reapply | N.J.A.C. 7:14A-4.2(e)3 |
| Signatory Requirements for Applications and Reports | N.J.A.C. 7:14A-4.9 |
| Effect of Permit/Other Laws | N.J.A.C. 7:14A-6.2(a)6 & 7 & 2.9(c) |
| Severability | N.J.A.C. 7:14A-2.2 |
| Administrative Continuation of Permits | N.J.A.C. 7:14A-2.8 |
| Permit Actions | N.J.A.C. 7:14A-2.7(c) |
| Reopener Clause | N.J.A.C. 7:14A-6.2(a)10 |
| Permit Duration and Renewal | N.J.A.C. 7:14A-2.7(a) & (b) |
| Consolidation of Permit Process | N.J.A.C. 7:14A-15.5 |
| Confidentiality | N.J.A.C. 7:14A-18.2 & 2.11(g) |
| Fee Schedule | N.J.A.C. 7:14A-3.1 |
| Treatment Works Approval | N.J.A.C. 7:14A-22 & 23 |

c. Operation And Maintenance

| | |
|---|---|
| Need to Halt or Reduce not a Defense | N.J.A.C. 7:14A-2.9(b) |
| Proper Operation and Maintenance | N.J.A.C. 7:14A-6.12 |

d. Monitoring And Records

| | |
|---|---|
| Monitoring | N.J.A.C. 7:14A-6.5 |
| Recordkeeping | N.J.A.C. 7:14A-6.6 |
| Signatory Requirements for Monitoring Reports | N.J.A.C. 7:14A-6.9 |

e. Reporting Requirements

| | |
|---|---|
| Planned Changes | N.J.A.C. 7:14A-6.7 |
| Reporting of Monitoring Results | N.J.A.C. 7:14A-6.8 |
| Noncompliance Reporting | N.J.A.C. 7:14A-6.10 & 6.8(h) |
| Hotline/Two Hour & Twenty-four Hour Reporting | N.J.A.C. 7:14A-6.10(c) & (d) |
| Written Reporting | N.J.A.C. 7:14A-6.10(e) &(f) & 6.8(h) |
| Duty to Provide Information | N.J.A.C. 7:14A-2.11, 6.2(a)14 & 18.1 |
| Schedules of Compliance | N.J.A.C. 7:14A-6.4 |
| Transfer | N.J.A.C. 7:14A-6.2(a)8 & 16.2 |

# PART II

# GENERAL REQUIREMENTS: DISCHARGE CATEGORIES

## A. Additional Requirements Incorporated By Reference

**1. No Additional Requirements Incorporated by Reference**

## B. General Conditions

**1. Scope**

a. The issuance of this permit shall not be considered as a waiver of any applicable federal, state, and local rules, regulations and ordinances.

**2. Permit Renewal Requirement**

a. Permit conditions remain in effect and enforceable until and unless the permit is modified, renewed or revoked by the Department.

b. Submit a complete permit renewal application: 180 days before the Expiration Date.

**3. Notification of Non-Compliance**

a. The permittee shall notify the Department of all non-compliance when required in accordance with N.J.A.C. 7:14A-6.10 by contacting the DEP HOTLINE at 1-877-WARNDEP (1-877-927-6337).

b. The permittee shall submit a written report as required by N.J.A.C. 7:14A-6.10 within five days.

**4. Notification of Changes**

a. The permittee shall give written notification to the Department of any planned physical or operational alterations or additions to the permitted facility when the alteration is expected to result in a significant change in the permittee's discharge and/or residuals use or disposal practices including the cessation of discharge in accordance with N.J.A.C. 7:14A-6.7.

b. Prior to any change in ownership, the current permittee shall comply with the requirements of N.J.A.C. 7:14A-16.2, pertaining to the notification of change in ownership.

**5. Access to Information**

a. The permittee shall allow an authorized representative of the Department, upon the presentation of credentials, to enter upon a person's premises, for purposes of inspection, and to access / copy any records that must be kept under the conditions of this permit.

**6. Stormwater Discharge Authorization**

a. The permittee shall discharge stormwater to surface waters and/or ground waters of the State only as authorized herein and consistent with the terms and conditions of this permit. This permit does not authorize any unpermitted discharge of domestic wastewater, non-contact cooling water, leachate, or process water, unless otherwise stated in Part IV of the Permit.

**7. Other Discharges**

a. If, during or after the preparation of the SPPP, it is discovered that the facility generates and discharges to surface waters and/or ground water any domestic wastewater, non-contact cooling water, or process waste water (including leachate and cooling water), not authorized by this permit or any other NJPDES permit, the permittee shall discontinue such discharges and apply for the appropriate NJPDES DSW permit in accordance with the NJPDES rules at N.J.A.C. 7:14A.

**8. Operator Certification**

a. For stormwater only discharges pursuant to N.J.A.C. 7:10A-1.10, the facility operator is exempt from the operator certification requirements unless otherwise required by this permit .

**9. Monitoring Locations**

a. All samples shall be taken at the monitoring points specified in Part IV of this permit and, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water or substance. Sampling points shall not be changed without notification to and the approval of the Department.

**10. Stormwater/Intermittent Discharges**

a. The permittee is required to ensure that samples and measurements taken for the purposes of monitoring are representative of the monitored activity pursuant to N.J.A.C. 7:14A-6.5(a). This includes any regulated intermittent activity or discharge. Therefore, although a discharge may occur on an intermittent basis, it does not exempt the permittee from complying with the conditions of the permit. For example, if a permittee has a monthly monitoring and reporting requirement and the discharge occurs three separate times during the month, the permittee should obtain a sample during at least one of the discharge events occurring during the monitoring period.

i. The permittee should check "No Discharge this monitoring period" on the monitoring report transmittal sheet only if there are no discharge events during the entire reporting period.

**11. Removed Substances/Residuals**

a. This permit does not authorize discharge of solids, sludge, filter backwash or other pollutants removed in the course of treatment or control to the waters of the State unless specifically authorized in this permit. All solids, sludge, filter backwash, or other pollutants removed from, or resulting from the treatment or control of discharges must be disposed of in accordance with all applicable Federal, State, Local and other appropriate agency requirements.

**12. Outfall Tagging and Monitoring Location Tagging**

a. All permittees with discharges that flow through an outfall with a Discharge Serial Number (DSN), shall identify the outfall with an outfall tag or posted sign. The outfall tag or posted sign shall be:

i. legible from twenty-five (25) feet, with a minimum of one (1) inch lettering;

ii. visible to the public from the land and water (if applicable)

iii. located as near to the end of the outfall as possible;

iv. made of durable, weather resistant material; and

v. maintained on a regular basis, such as cleaned and inspected to ensure that the tag is properly attached.

b. The outfall tag shall display, at minimum, the following information:

i. the name of the facility where the discharge originates;

ii. the NJPDES permit number;

iii. the Department Hotline phone number; and

iv. the DSN for that particular outfall.

c. If the monitoring locations are different than the outfall locations, monitoring locations shall also be identified with a tag or posted sign. The tag or posted sign shall be:

i. legible;

ii. made of durable, weather resistant material; and

iii. maintained on a regular basis, such as cleaned and inspected to ensure that the tag is properly attached.

d. The monitoring location tag shall display, at minimum, the following information:

i. the DSN.

## C. Custom Requirement

# PART III
# LIMITS AND MONITORING REQUIREMENTS

:: : :: : : :::: :: :: :: : ::: : :: : rrr rr rrrr r

**Monitored Location Group Members**

l ll : :l rr rr r rrr r:rlrl r ll

**Surface Water DMR Reporting Requirements:**

l l . r .r:r:.l r rrr rl. :: :: ::r .r. .. :rr r . r. .l.. r :... .:.r . r:rl rrr:r. r :r . . :rl:r. r r. :. l rr rr r:. r . .. ... . :lrrr :r.r:r llr.r ..r:. rrr:r l:r. r :. rr r .r:.::: .:.l .:r r . r. r.

**Table III - A - 1: Surface Water DMR Limits and Monitoring Requirements**

**PHASE:** l ..rl **PHASE Start Date:** **PHASE End Date:**

| Parameter | Sample Point | Limit | Limit | Units | Limit | Limit | Limit | Units | Frequency | Sample Type |
|---|---|---|---|---|---|---|---|---|---|---|
| :. H<br>:<br>:rr.l rr. :r. rl: : r.rr . rr | :l lll r.r:: rr rr<br>e r ll r<br>.: | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ***** | ::: :: :<br>:r. l.<br>:.. .r l r<br>*** | :<br>:*****<br>:<br>*** | ::: :: :<br>:r. l.<br>:rm .r l r<br>*** | l: | l r.lrrrrr | : rr. |
| :lr l.. rl:: rrrl<br>:ll r. r..r.<br>:<br>:rr.l rr. :r. rl: : r.rr . rr | :l lll r.r:: rr rr<br>e r ll r<br>.: | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ***** | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ::: :: :<br>:. rrr. r<br>:rm .r l r<br>*** | :: r: | l r.lrrrrr | : rr. |
| :lr l.. rl:: rrrl<br>::.rrrl.r.: .: : l.<br>:<br>:rr.l rr. :r. rl: : r.rr . rr | :l lll r.r:: rr rr<br>e r ll r<br>.: | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ***** | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ::: :: :<br>:. rrr. r<br>:rm .r l r<br>*** | :: r: | l r.lrrrrr | : rr. |
| :: r rrr lrl r<br>:H. . rr.rr . r .r<br>:<br>:rr.l rr. :r. rl: : r.rr . rr | :l lll r.r:: rr rr<br>e r ll r<br>.: | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ***** | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | l .<br>:. rrr. r<br>:rm .r l r<br>*** | :: r: | l r.lrrrrr | : rr. |
| ::. rrr .l r l:: rrrl<br>:.rr ::r.<br>:<br>:rr.l rr. :r. rl: : r.rr . rr | :l lll r.r:: rr rr<br>e r ll r<br>.: | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ***** | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ::: :: :<br>:. rrr. r<br>:rm .r l r<br>*** | :: r: | l r.lrrrrr | : rr. |

**Surface Water DMR Reporting Requirements:**

l l . r .r:r:.l r rrrrl. :: :: ::r .r. .. :rr r . r. .l.. r :... .:.r . r:rl rrr:r. r :r. . :rl:r. r r. :. l rr rr r:. r . .. ... . :lrrr :r.r:r llr.r ..r:. rrr:r l:r. r :. rr r .r:.::: .:.l .:r r . r. r.

**Table III - A - 1: Surface Water DMR Limits and Monitoring Requirements**

**PHASE:** l ..rl **PHASE Start Date:** **PHASE End Date:**

| Parameter | Sample Point | Limit | Limit | Units | Limit | Limit | Limit | Units | Frequency | Sample Type |
|---|---|---|---|---|---|---|---|---|---|---|
| ::r .. rrl:: rrrl<br>:.rr ::l .<br>:<br>:rr.l rr. :r. rl: : r.rr . rr | :l lll r.r:: rr rr<br>e r ll r<br>.: | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ***** | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | :::: :: :<br>:. rrr. r<br>:rm .r l r<br>*** | :: r: | l r.lrrrrr | : rr. |
| ::rr. l:: r rrl<br>:.rr :lr.<br>:<br>:rr.l rr. :r. rl: : r.rr . rr | :l lll r.r:: rr rr<br>e r ll r<br>.: | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ***** | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | :::: :: :<br>:. rrr. r<br>:rm .r l r<br>*** | :: r: | l r.lrrrrr | : rr. |
| :: rr.l: : rrrl: .rr :: . .<br>:<br>:rr.l rr. :r. rl: : r.rr . rr | :l lll r.r:: rr rr<br>e r ll r<br>.: | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ***** | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | :::: :: :<br>:. rrr. r<br>:rm .r l r<br>*** | :: r: | l r.lrrrrr | : rr. |
| :: ..l rll:: rrrl<br>:.rr :: ..<br>:<br>:rr.l rr. :r. rl: : r.rr . rr | :l lll r.r:: rr rr<br>e r ll r<br>.: | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ***** | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | :::: :: :<br>:. rrr. r<br>:rm .r l r<br>*** | :: r: | l r.lrrrrr | : rr. |
| :l .. .l: : r rrl<br>:.rr :l. .<br>:<br>:rr.l rr. :r. rl: : r.rr . rr | :l lll r.r:: rr rr<br>e r ll r<br>.: | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ***** | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | :::: :: :<br>:. rrr. r<br>:rm .r l r<br>*** | :: r: | l r.lrrrrr | : rr. |
| :: ll r .. lr l:: rr r l<br>:.rr :: l.<br>:<br>:rr.l rr. :r. rl: : r.rr . rr | :l lll r.r:: rr rr<br>e r ll r<br>.: | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ***** | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | :::: :: :<br>:. rrr. r<br>:rm .r l r<br>*** | :: r: | l r.lrrrrr | : rr. |

**Surface Water DMR Reporting Requirements:**

l l . r .r:r:.l r rrr rl. :: :: ::r .r. .. :rr r . r. .l.. r :... .:.r . r:rl rrr:r. r :r. . :rl:r. r r. :. l rr rr r:. r . .. ... . :lrrr :r.r:r llr.r ..r:. rrr:r l:r. r :. rr r .r:.::: .:.l .:r r . r. r.

**Table III - A - 1: Surface Water DMR Limits and Monitoring Requirements**

**PHASE:** l ..rl **PHASE Start Date:** **PHASE End Date:**

| Parameter | Sample Point | Limit | Limit | Units | Limit | Limit | Limit | Units | Frequency | Sample Type |
|---|---|---|---|---|---|---|---|---|---|---|
| :: rl. .. lr r.. rrr.<br>:). . . r.. lr:.: :)r.<br>:<br>:rr.l rr. :r. rl: : r.rr . rr | :l lll r.r:: rr rr<br>e r ll r<br>.: | :<br>:*****<br>:<br>*** | :<br>:*****<br>:<br>*** | ***** | :<br>:*****<br>:<br>*** | :::: :: :<br>:r . r.l.<br>: . rrr .r<br>*** | :::: :: :<br>:r. l.<br>:rm .r l r<br>*** | :: r: | l rr rrr | : rr. |

**Surface Water WCR - Quarterly Reporting Requirements:**

l l . r .r:r:.l r rrr rl. :. : :::r .r. .. :rr r. r. .l.. r :... .:.r . r:r lrrr:r. r :r. .: rl:r. r r. :. l rr rr r:. r . .. ... . :lrrr :r.r:r llr.r ..r:. rrr:r l:r. r :. rr r .r:.::: .:.l .:r r . r. r.

**Table III - A - 2: Surface Water WCR - Quarterly Limits and Monitoring Requirements**

**PHASE:** l ..rl **PHASE Start Date:** **PHASE End Date:**

| Parameter | Sample Point | Compliance Quantity | Units | Sample Type | Monitoring Period |
|---|---|---|---|---|---|
| ::rrr:rl:l rr rr ::. r.r | : rr.. . .rrr.r . | ::: :: : | :: r:: rr r : | :rr.r rrr. | rr.l rr. :r.r l: :r .rr . rr |
| :: .r r:lrr rr<br>:: . r.r: ) r. r. | : rr.. . .rrr.r . | ::: :: : | l: :: : ::: : | :rr.r rrr. | rr.l rr. :r.r l: :r .rr . rr |
| :lr rr r ::. r.r: :lr rr.r . | : rr.. . .rrr.r . | ::: :: : | :H:: :l: : | :rr.r rrr. | rr.l rr. :r.r l: :r .rr . rr |
| ::r.. lrl l:: r rl . r:rr<br>:: .r r:rl :lrr . l.. . | : rr.. . .rrr.r . | ::: :: : | ::: : H:l: | :rr.r rrr. | rr.l rr. :r.r l: :r .rr . rr |

**Surface Water WCR - Quarterly Reporting Requirements:**

l l . r .r:r:.l r rrr rl. :. : :::r .r. .. :rr r. r. .l .. r :... .:.r . r:r lrrr :r. r :r. .: rl:r. r r. :. l rr rr r:. r. .. ... . :lrrr :r.r:r llr.r ..r:. rrr :r l:r. r :. rr r .r:.::: .:.l .:r r . r. r.

---

**Table III - A - 2: Surface Water WCR - Quarterly Limits and Monitoring Requirements**

**PHASE:** l ..rl **PHASE Start Date:** **PHASE End Date:**

| Parameter | Sample Point | Compliance Quantity | Units | Sample Type | Monitoring Period |
|---|---|---|---|---|---|
| :: .r r:rl :lrr . lr<br>::r llr.r .r . | : rr.. . .rrr.r . | ::: :: : | l: :: : ::: : | :rr.r rrr. | rr.l rr . :r.r l: :r .rr . rr |
| :. H | : rr.. . .rrr.r . | ::: :: : | l::: ::::: | : rr . | rr.l rr . :r.r l: :r .rr . rr |

# PART IV

# SPECIFIC REQUIREMENTS: NARRATIVE

## Notes and Definitions

## A. Footnotes

### 1. Stormwater Notes

a. The following notes refer to the limit and monitoring requirements contained in the tables located in Part III and IV of the permit.

i. The discharge shall not exhibit a visible sheen associated or other discoloration with the regulated activity.

ii. All facilities discharging to surface water are prohibited from discharging foam or causing foam discoloration or odor associated with the regulated activity in accordance with N.J.A.C. 7:14A-12.6.

iii. Grab sample shall be collected at the designated sampling points and shall be collected within 30 minutes of the stormwater discharge or as soon thereafter as practicable. For sampling, follow guidelines in, "NJDEP Field Sampling Procedures".

iv. pH values that are measured below lower pH limit are not in violation if they are not lower than the measured pH of the precipitation collected on site during the storm event. To qualify for this exception, pH of that precipitation shall be reported on the monitoring report form as "Rain" pH.

v. For the purposes of this NJPDES permit, the stormwater discharges regulated by this permit are not process wastewaters.

vi. "Drainage Control" shall be required in all areas where there are stormwater discharges associated with industrial activity. Drainage control can be established using diversionary structures, grading, embankments, collection systems and other similar methods to divert stormwater from the industrial area of the site to a permitted outfall. The site may require several outfalls to establish drainage control. In areas of industrial activity that cannot be diverted to a permitted outfall, the permittee shall convert the area(s) so there is no direct discharge of stormwater to surface water, or cease all industrial activity and eliminate exposure of source material, including source material remaining from past industrial activity.

vii. A "discernible, confined and discrete conveyance" includes, but is not limited to, a pipe, ditch or channel. Examples of such conveyances include storm sewer pipes, drainage ditches, spillways, gullies, swales, gutters, curbs and streets.

## B. Definitions

### 1. Stormwater definitions

a. Unless otherwise stated in this permit, the definitions set forth at N.J.A.C. 7:14A-1.1, N.J.A.C. 7:14A-1.2 and Discharge Monitoring Report (DMR) Instruction Manual are incorporated into this permit.

# Notes and Definitions

i. "Annual Monitoring" means monitoring conducted at a minimum frequency of once every twelve calendar months.

ii. "Design criteria" is a pollutant concentration that the Department has determined that when exceeded represents a level of concern. Design criteria are established as "design goals" for Best Management Practices (BMPs) and/or water treatment, and are not established as numeric effluent limitations. Sampling results exceeding the design criteria will not be deemed violations.

iii. "Outfall" means (a) a point within the facility at which stormwater associated with the facility's industrial activity enters a surface water body from a discernible, confined and discrete conveyance; or (b) a point at which stormwater associated with the facility's industrial activity enters a surface water body from a discernible, confined and discrete conveyance for transport as stormwater to an offsite surface water body.

iv. "Source materials" means any materials or machinery located at the facility and directly or indirectly related to process or other industrial activities which could be a source of pollutants in a stormwater discharge associated with industrial activity that is subject to N.J.A.C. 7:14A-24.7. Source materials include, but are not limited to: raw materials; intermediate products; final products; waste materials; by-products; industrial machinery and fuels; and lubricants, solvents, and detergents that are related to process or other industrial activities. Materials or machinery that are not exposed to stormwater or that are not located at the facility are not "source materials".

## C. Acronyms

### 1. Stormwater Acronyms

a. "BMP"- Best Management Practices

b. "CFR"- Code of Federal Regulations

c. "DMR"- Discharge Monitoring Report

d. "DCP"- Drainage Control Plan

e. "DPCC" - Discharge Prevention Containment and Countermeasure

f. "DSN"- Discharge Serial Number

g. "EDI" - Electronic Discharge Interchange

h. "EDP"- Effective Date of Permit

i. "MRF"- Monitoring Report Form (DMRs and WCRs are MRFs.)

j. "N.J.A.C."- New Jersey Administrative Code

k. "NJPDES"- New Jersey Pollutant Discharge Elimination System

l. "N.J.S.A."- New Jersey Statutes Annotated

m. "SPCC" - Spill Prevention Control and Countermeasure

n. "SPPP"- Stormwater Pollution Prevention Plan

o. "WCR"- Waste Characterization Report

# Stormwater

## A. Permit Overview

### 1. Summary of Stormwater Permit Requirements

a. The terms and conditions of this permit apply exclusively to Class B recycling operations and/or other industrial activities conducted within the boundaries defined as Block 235 Lots 4 & 5.

b. The permittee shall develop, implement, update and maintain a Stormwater Pollution Prevention Plan (SPPP), which includes a Drainage Control Plan (DCP) (see Part IV.B).

c. The permittee shall develop, implement, update and maintain site specific best management practices (BMPs) to achieve the design criteria and effluent limitations as specified in the permit (see Part IV.C).

d. The permittee shall be responsible for supervising and managing the operation and maintenance of the facility, which includes routine inspections of the facility (see Part IV.D).

e. The permittee shall conduct stormwater monitoring in accordance with the permit (see Part IV.E).

f. The permittee shall summarize facility inspections in written reports and submit reports and certifications to ensure compliance with this permit (see Part IV.F).

g. The permittee shall retain records of all monitoring information, maintenance records, and copies of all reports (including the SPPP and soil erosion and sediment control plans) required by this permit (see Part IV.G).

## B. Stormwater Pollution Prevention Plan

### 1. SPPP Minimum Requirements

a. The SPPP shall address all stormwater discharges associated with industrial activity, including source materials, at the facility.

b. The facility shall gain drainage control of the stormwater runoff from all areas of industrial activity, including source materials, in accordance with section B.4 below.

c. The permittee shall include a DCP as a section within the SPPP.

d. The SPPP shall identify the BMPs that are in place to eliminate, reduce, or minimize exposure of industrial activity and source materials to stormwater discharging to surface or ground water.

e. The SPPP shall demonstrate that upon implementation the stormwater discharges associated with industrial activity meet the permit conditions contained in this permit.

f. The SPPP shall address, but is not limited to, the following outside areas:

i. outside vehicle/equipment fueling, maintenance and washing areas, and fuel storage (e.g., diesel fuel);

ii. outside areas used for waste management/handling or storage of equipment (e.g., dumpsters, scrap metals, vehicle parts, drums, and garbage);

iii. pavement and access roads needing repairs and unpaved surfaces with the potential to erode and discharge solids (soils and/or sediments) to surface waters;

iv. catch basins, trench drains and roof drains discharging to surface waters;

# Stormwater

v. loading docks;

vi. spills/leaks/non-stormwater discharges of fluid products, and raw material, vehicle coolants, lubricants and other chemicals;

vii. above ground storage tanks; and

viii. other areas/activities with stormwater discharges to surface water associated with industrial activity as defined by the federal rules (40 CFR 122.26 (b) (14) and contained by reference in the state rules.

g. The SPPP shall identify BMPs to stablize surface soils and reduce sediment transport, using BMPs outlined in the Standards for Soil Erosion and Sediment Control in New Jersey where appropriate, in accordance with the Soil Erosion and Sediment Control Act N.J.S.A. 4:24-39 et seq.

h. The SPPP shall identify production and non-production areas that have a high potential for soil erosion or a known soil erosion problem. Appropriate vegetative, structural, or stabilization measures shall be selected to limit erosion and sediment transport in these areas.

i. The SPPP shall be prepared, implemented, and maintained in accordance with good engineering practices and shall include, at a minimum, all of the items and information identified in Part IV. B, C and "Attachment 1: Contents of the Stormwater Pollution Prevention Plan".

j. The original SPPP shall be retained at the facility for use by the facility and inspection by the Department.

**2. BMP Design Criteria**

a. For monitoring only requirements, BMPs shall be designed, implemented and maintained to achieve the following design criteria upon implementation of the SPPP:

i. COD <= 120 mg/L

ii. TSS <= 100 mg/L

iii. TDS <= 500 mg/L

iv. pH = 6.0 - 9.0 S.U.

v. Copper <= 0.0636 mg/L.

vi. Iron <= 1.0 mg/L.

vii. Lead <= 0.0816 mg/L.

viii. Nickel <= 1.417 mg/L.

ix. Zinc <= 0.065 mg/L.

x. Aluminum <= 0.75 mg/L.

b. If the monitoring results exceed the design criteria (or are outside the range for pH, if applicable), the permittee shall:

i. evaluate potential sources for the specific parameter that did not comply with the design criteria;

ii. identify BMPs (e.g., source control, operational control, stormwater treatment) by which the permittee can further reduce stormwater contamination;

iii. evaluate whether any improvements or changes to the SPPP are warranted to reduce and control this parameter concentration;

iv. update the SPPP with any improvements or changes; and

v. summarize the results in the annual report in accordance with Part IV.F, including remedial actions taken.

c. If the permittee fails to design, implement and maintain the BMPs identified in the SPPP to meet the design criteria, or to make significant progress toward meeting the design criteria, the Department may modify the permit in accordance with N.J.A.C. 7:14A-16.4(b)11.

**3. Effluent Limitations**

a. BMPs shall be designed, implemented and maintained to meet the effluent limitations in the Part III tables upon implementation of the SPPP.

b. If the monitoring results exceed the effluent limitations (or are outside the range for pH, if applicable), the permittee shall:

i. evaluate potential sources for the specific parameter that did not comply with the design criteria;

ii. identify BMPs (e.g., source control, operational control, stormwater treatment) by which the permittee can further reduce stormwater contamination;

iii. evaluate whether any improvements or changes to the SPPP are warranted to reduce and control this parameter concentration;

iv. update the SPPP with any improvements or changes; and

v. summarize the results in the annual report in accordance with Part IV.F, including remedial actions taken.

c. The permittee may be subject to enforcement action by the Department for failure to meet effluent limitations in Part III of the permit.

**4. Drainage Control**

a. Drainage Control shall be established in all areas of industrial activity. In areas of industrial activity that cannot be diverted to a permitted outfall, the permittee shall do one of the following:

i. convert the area(s) to "no discharge" area(s) and manage stormwater collected in the area(s) as industrial wastewater; or

ii. eliminate industrial activity in these areas.

b. To establish drainage control, a facility shall:

i. ensure all "stormwater associated with industrial activity" as defined in N.J.A.C. 7:14A-1.2, is discharged through a regulated outfall(s) to surface water and/or a ground water discharge location;

ii. create a representative monitoring point for each regulated outfall(s) to surface water and/or a ground water discharge location; and

iii. separate the discharge of stormwater not associated with industrial activity (e.g. rooftop runoff, employee parking, open space) from regulated discharges, where practicable.

c. Outfall Stabilization

i. The permittee shall design, implement and maintain BMPs to prevent downstream erosion and sedimentation caused by stormwater, and/or process wastewater runoff at the outfall(s).

ii. At a minimum, the BMPs shall meet the most recent technical standards listed in Standards for Soil Erosion and Sediment Control in New Jersey, Engineering Standards Section titled Standard for Off-Site Stability.

iii. Where erosion at the outfall structure occurs the permittee shall restore the eroded areas to its previous condition.

**5. Drainage Control Plan**

a. The facility shall develop, implement and/or maintain a DCP containing the following:

i. a written narrative; and

ii. a Drainage Control Map.

b. The DCP shall be certified by a New Jersey licensed Professional Engineer.

c. Elevations for the Drainage Control Map shall be measured by a New Jersey licensed surveyor.

d. The written narrative shall describe how the facility will establish drainage control and shall include the following:

i. facility name;

ii. NJPDES permit number (NJ0160016) and Program Interest I.D. number PI 254813;.

iii. an alpha-numeric discharge serial number (e.g., DSN001A, DSN002A, DSN003A) for each surface water monitoring point(s);

iv. an alpha-numeric identifier (e.g. I01I, I02I, I03I) for each ground water monitoring point(s);

v. the latitude and longitude for each monitoring point(s);

vi. the name of all receiving water bodies (for discharges to surface water) and assigned New Jersey Surface Water Quality Standards' classifications;

vii. the name of the receiving aquifer (for discharges to ground water) and assigned New Jersey Ground Water Quality Standards' classification; and

viii. a description of any proposed stormwater treatment;

e. Unless otherwise specified by the Department the Drainage Control Map shall be an appropriate engineering scale, which is legible and clearly depicts the following information when applicable:

i. site boundary;

ii. title block containing tax block and lot number;

iii. north directional arrow;

iv. date prepared and subsequent revisions;

v. final grading of drainage areas, including elevations and flow arrows showing the drainage to regulated outfalls;

vi. location of flow diversion structures, treatment units (i.e. lined and unlined basins);

vii. location of surface water outfalls (regulated and unregulated) and discharge structures;

viii. location of ground water discharge point(s) and discharge structure;

ix. receiving waters and their location;

x. areas of industrial activity (i.e. Maintenance, fueling, equipment cleaning and storage);

xi. access roads;

xii. existing buildings and other structures; and

xiii. employee and customer parking.

**6. Preparation of SPPP**

a. A SPPP shall be prepared to meet the requirements of the permit and certified on a form provided by the Department.

b. The deadline for the preparation of the SPPP and submittals are contained in Part IV.F of the permit.

**7. Implementation of SPPP**

a. The SPPP shall be fully implemented in accordance with the permit and certified on a form provided by the Department.

b. The deadline for the implementation of the SPPP and submittals are contained in Part IV.F of the permit.

## C. Site Specific Best Management Practices

**1. BMP-Storage of Aggregate**

a. All horizontal and vertical markers required as part of the site Solid Waste requirements for processed and unprocessed stockpiles shall be clearly marked and maintained. The location of the markers shall also be included on the SPPP site map.

b. Fine Particulate Aggregate Storage.

i. Fine particulate aggregates, including but not limited to fly ash, lime and asphalt milling fines (this does not include coarse millings or coarse milllings mixed with fine millings), shall be stored in a silo or engineered structure designed to eliminate fugitive emissions and erosion by wind and/or stormwater.

ii. BMPs shall address management of the fine particulate aggregates, including but not limited to, loading/unloading activities, storage and the routine handling of this material.

iii. Spilled materials shall be either cleaned up and managed as a solid waste or returned to storage.

c. Outdoor Aggregate Storage.

i. The permittee shall post horizontal markers for all outdoor aggregate storage piles. The horizontal markers shall have a minimum distance of five (5) feet from the edge of the buffer zones closest to the horizontal markers. Horizontal markers used for compliance with solid waste regulations satisfy this condition provided the markers do not extend in to buffer zones.

ii. BMPs shall be developed, implemented and maintained to prevent migration of aggregate outside of the horizontal markers.

iii. Aggregate outside of the horizontal markers shall be returned to the storage area by the end of each work day and immediately before a known storm event.

iv. Aggregate shall be stored in a manner that prevents overtopping of retaining walls and/or spillage into buffer zones.

**2. BMP - Buffer Zones**

a. All buffers and sediment barriers shall meet the minimum requirements listed in the Standards for Soil Erosion and Sediment Control in New Jersey manual.

b. Permitted outfalls may be located within the buffer zone.

c. Within ninety (90) days of the EDP, the permittee shall establish a temporary buffer zone beginning at the entrance gate extending along the fenceline adjacent to the railroad line then along the south fenceline then west along the property line and ending at the field office. The temporary buffer zone shall be a minimum of eight (8) feet wide. The perimeter haul road may also serve as the buffer zone.

d. Within twelve (12) months of the EDP, the permittee shall establish permanent buffer zones that include permanent buffers or sediment barriers (unless the buffer zone is graded to direct stormwater back within the site boundaries or to a regulated outfall). The permanent buffer zones replace the temporary buffer zone described above.

i. If used, permanent vegetative filter strips or vegetative swales shall be a minimum width of twenty-five (25) feet measured perpendicular from the fenceline or site boundary line.

ii. Permanent sediment barriers shall be designed to prevent stormwater from running underneath or around the barriers.

iii. Permanent sediment barriers shall also include silt fencing on the downstream side of the sediment barrier.

iv. (Reserved).

e. The permittee shall inspect the buffer zones, buffers and barriers after each storm event and at least monthly looking for evidence of breakthrough and/or other failures of the selected BMPs and shall take immediate corrective action. Each inspection shall be recorded on a log and kept on file as part of the site SPPP.

**3. BMP - Mobile Fueling Tanks And Permanent Fueling Areas**

a. Standard operating procedures shall be established to eliminate/minimize the discharge of stormwater exposed to vehicle and/or machinery fuels.

b. Absorbent material shall be located within close proximity of any permanent or remote fueling tank, equipment and/or operation to ensure quick response to spills or leaks from fueling.

c. Standard operating procedures shall be established to ensure overfill protection of mobile and stationery tanks during fuel transfers.

d. Leaks and spills shall be immediately cleaned up and contaminated soils shall be immediately excavated.

e. If the permittee contracts this task to a service contractor, the permittee shall ensure that the service contractor complies with this BMP.

**4. BMP - Dust Control**

a. Spraying of uncontaminated water and other media approved by the Department, for the purpose of dust control, shall not result in a discharge to surface waters.

b. When using media other than fresh water for dust control, the permittee shall keep written Dept. approvals for other dust control media with the SPPP.

**5. BMP-Tracking of Materials**

a. The permittee shall design and implement BMPs to eliminate the tracking of pollutants outside of the site boundaries.

b. BMPs can be dry or wet methods. When used, wet methods shall not result in a water discharge outside of the site boundaries.

c. Use of uncontaminated water and other media approved by the Department for the purpose of preventing tracking of materials, shall not result in a discharge outside of the site boundaries.

d. When using media other than fresh water for preventing tracking of materials, the permittee shall keep written Dept. approvals for other media with the SPPP.

## D. Operations and Maintenance

**1. Facility and BMP Operation and Maintenance**

a. Temporary and/or permanent aggregate storage outside of the site boundaries defined by block 235 lots 4&5 is not covered under the terms and conditions of this permit.

b. Regulated industrial activities outside of the site boundaries defined by block 235 lots 4&5 are not covered under the terms and conditions of this permit.

c. The permittee shall be responsible for supervising and managing the operation and maintenance of this facility. This requires implementing BMPs that must be installed or used by the permittee to achieve compliance with the SPPP. Proper operation and maintenance also requires the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit.

d. The operation and maintenance activities shall be verified through the certification and annual reporting requirements of Part IV.F.

e. Frequent and thorough inspections, at a frequency of at least quarterly, are necessary to ensure adequate functioning of control measures. Inspections are recommended to be conducted during dry periods as well as storm events.

i. Inspections during dry periods allow facilities to identify and address any problems prior to a storm event, thereby minimizing the chance for stormwater contamination.

ii. Inspections during significant storm events ensure that measures are functioning as originally intended and provide an opportunity for facilities to observe what materials and/or activities are exposed to stormwater.

**2. Soil Erosion Sediment Control Plan**

a. For construction activities disturbing one (1) acre or more of total land area, authorization shall be obtained under either a modification to this permit or under NJPDES Permit No. NJ0088323 (Construction Activity Stormwater General Permit), for stormwater from such construction activities that would be discharged to surface waters.

b. Land disturbances that may result in a stormwater discharge authorized by this permit, shall be executed only in accordance with a soil erosion and sediment control plan certified pursuant to N.J.S.A. 4:24-43, or requirements for soil erosion and sediment control established in or pursuant to a municipal ordinance in accordance with N.J.S.A. 4:24-48, whichever is applicable.

c. A copy of this plan shall be retained by the permittee for a period of at least five (5) years after the completion of construction.

## E. Monitoring

**1. Criteria for monitoring a valid storm event**

a. The criteria for a valid storm event is any precipitation that produces a stormwater discharge including discharges from snow melt events.

i. The permittee shall monitor its stormwater discharge during a valid storm event from the outfalls designated in the DCP.

ii. For stormwater that accumulates during a storm event in a containment area impoundment or other device that controls the discharge, the facility shall monitor its stormwater at the time of the discharge.

iii. Wet basin must be monitored whenever there is a discharge.

b. Sampling a Snow Melt Event

i. If the snow melt results in a discharge, the permittee may collect a sample of the snow melt as part of the site monitoring requirements.

ii. Snow melt samples must be representative of the area of industrial activity. Samples may not be collected from snow stockpiles from non-industrial areas of the facility.

iii. The permittee shall only sample one snow melt event per calendar year.

**2. Monitoring Locations**

a. Samples shall be taken in compliance with the specified monitoring locations in Part III.

b. Monitoring locations shall not be changed without notification to and the approval from the Department.

c. Monitoring locations shall be included on the DCP map as detailed in Part IV.B.

### 3. Monitoring Schedule

a. Samples shall be collected in accordance with the sampling frequency established by the Department in Part III.

### 4. Collection and Analysis of Samples

a. Stormwater samples shall be collected within 30 minutes of the stormwater discharge or as soon thereafter as practicable.

b. The facility can collect their own sample.

c. Samples shall be analyzed by a New Jersey certified laboratory (N.J.A.C 7:18).

d. All samples shall be analyzed in accordance with approved U.S. Environmental Protection Agency (EPA) methods contained in 40 CFR Part 136, unless otherwise specified in the footnotes in Part IV.A.

e. The permittee may take samples and have analysis made by a New Jersey Certified laboratory on additional occasions to those specified in this permit. If so, the maximum values of all analytical results taken during the sampling period shall be reported. In addition, if an average value is required to be reported, all sample results shall be used when calculating the average. However, for pH, both minimum and maximum values are reported.

f. If only one analysis for a given parameter is made during any monitoring period specified in this permit, the result of such analysis shall be construed as the maximum value for that parameter, for said monitoring period.

## F. Inspections, Reports and Submissions

### 1. Stormwater Monitoring Report Forms (MRFs)

a. Sampling results shall be summarized and reported in accordance with the requirements contained in Part III of this permit on the appropriate monitoring report forms mailed separately by the Bureau of Permit Management.

b. If the permittee finds that the pre-printed MRFs they receive from the Department contain errors from the monitoring and reporting requirements contained in Part III, the permittee should contact the Bureau of Nonpoint Pollution Control at (609) 633-7021.

c. The permittee is required to monitor its stormwater discharge and submit appropriate MRFs to the Department in accordance with conditions of permit even if pre-printed MRFs contain errors.

d. The permittee shall make hand corrections to the MRFs if corrected forms are not received prior to the monitoring report due date.

### 2. Reporting Storm Event Information

a. In order for the Department to better assess the monitoring results provided by the permittee, the Department requires that storm event information is recorded and reported along with monitoring results.

b. The permittee shall record and submit the following storm event information on the appropriate MRFs provided by the Department:

i. date and approximate time that storm event began;

ii. an estimate of the inches of rainfall or snowfall, which can be based upon such data as recorded by a local weather monitoring station(s) or an on site maintained monitoring station;

iii. storm event duration in hours and/or minutes, as appropriate;

iv. date and time that grab sample was collected;

v. type of storm event (rain or snowmelt); and

vi. pH of rain (optional).

**3. Reporting "No Discharge"**

a. If a discharge does not occur during a particular reporting period, the permittee should check "No Discharge this monitoring period" on the MRF transmittal sheet for each discharge monitoring location which had "no discharge"

b. The Department shall compare all reports of "No Discharge" against information provided by Premium AccuWeather services (https://wwwl.accuweather.com/premium_login.php) to determine if a discharge has occurred.

**4. MRF Submittals**

a. Unless otherwise specified or directed, signed copies of required MRFs shall be submitted postmarked no later than the 25th day of the calendar month following the completed monitoring period to the address given below:

i. New Jersey Department of Environmental Protection
Bureau of Permits Management
P.O. Box 029
Trenton, New Jersey 08625-0029
Attn. Monitoring Reports

b. Submitting MRFs

i. The permittee shall submit quarterly MRFs. The monitoring quarter begins twenty-four (24) months after the EDP.

c. The permittee may also participate in electronic reporting of the MRFs via NJ Online with the Electronic Discharge Interchange (EDI) system. Follow the directions in the NJPDES Monitoring Report Form Manual to participate.

**5. SPPP Preparation Certification and SPPP Implementation Certification Submittal Requirements**

a. A SPPP shall be prepared and certified in accordance with the SPPP Preparation Certification, and implemented and certified in accordance with the SPPP Implementation Certification. The SPPP Preparation Certification and the SPPP Implementation Certification shall be submitted on the Certification Form provided by the Department in accordance with the submittal schedule below:

i. Submit the Generic Certification Form certifying that the SPPP was prepared: within 6 months from the effective date of the permit (EDP).

ii. Submit the Generic Certification Form certifying that the SPPP was implemented: within 18 months from the effective date of the permit (EDP).

iii. This certification form is available on the Department website at http://www.state.nj.us/dep/dwq/forms.htm#stormforms

iv. Copies of the SPPP shall be submitted to the Department's Northern Bureau of Water Compliance and Enforcement and the Bureau of Nonpoint Pollution Control.

v. Submit the SPPP: within 6 months from the effective date of the permit (EDP).

**6. Annual Inspections, Reports, and Recertifications**

a. The permittee shall conduct annual inspections of the facility in accordance with N.J.A.C. 7:14A-24.9(a) to assess all areas contributing to the stormwater discharge authorized by this permit, to evaluate whether the SPPP complies with and is implemented in accordance with this permit, and whether additional measures are needed to meet the conditions of this permit.

b. The permittee shall prepare an annual report.

c. The annual report shall be completed prior to the annual recertification submission date.

d. The annual report shall be retained by the permittee in accordance with Part IV.G for a period of at least five (5) years.

e. Submit an Annual Report: annually, beginning 30 months from the effective date of the permit (EDP).

f. The annual report shall be submitted with the annual recertification. This certification form is available on the Department website at http://www.state.nj.us/dep/dwq/forms.htm#stormforms.

g. The annual report shall summarize the findings of the annual inspection in accordance with a. above, including:

i. The date of the inspection; and

ii. Name(s) and title of the inspector(s).

h. The annual report shall include a summary comparing the MRF data with the design criteria. This summary shall include:

i. An explanation of two (2) or more exceedances of the design criteria for the same parameter;

ii. Changes and/or upgrades to BMPs to meet design criteria, and

iii. A discussion of the effectiveness of the BMP changes and/or upgrades.

i. The permittee shall annually certify on a form provided by the Department that the facility has completed their annual report as specified above and is in compliance with the SPPP and this permit.

i. Submit the Generic Certification Form certifying that the annual inspection was conducted: annually, beginning 30 months from the effective date of the permit (EDP).

ii. Any incident of non-compliance shall be identified in the certification. This shall include the steps being taken to remedy the non-compliance, and to prevent such incidents from recurring.

## G. Record Keeping

**1. Record Keeping Requirements**

a. The permittee shall retain records of all monitoring information, maintenance records, and copies of all reports required by this permit for a period of at least five (5) years.

**2. SPPP Record Keeping Requirements**

a. The SPPP shall be signed by the permittee, and the original shall be retained at the facility for use by the facility and inspection by the Department.

b. The SPPP shall be made available, upon request, to a representative of the Department and to the owner and operator of any municipal separate storm sewer receiving the stormwater discharge.

c. The SPPP shall be made available to the public upon request, except as noted below.

d. The facility may claim any portion of the SPPP as confidential in accordance with the provisions set forth in N.J.A.C. 7:14A-18.2.

**3. Soil Erosion and Sediment Control Plan Record Keeping**

a. If the permittee is required to implement a Soil Erosion and Sediment Control Plan as a result of construction activities or land disturbance greater than or equal to one (1) acre, a copy of the plan shall be retained by the permittee for a period of at least five (5) years after the completion of construction.

## H. Custom Requirement

a. The permittee shall locate the stormdrain discovered during an inspection in January 18, 2005. The permittee shall include the stormdrain on the DCP.

Exhibit 2: Impact Recovery & Reuse Center Material Acceptance Plan and Facility Operation Site Plan

# Material Acceptance Plan

Prepared For:

Impact Recovery and Reuse Center
1000 Page Avenue
Lyndhurst, New Jersey
Facility Registration Number: 131888
Permit Number: CBG110002

Prepared By:

Impact Environmental Consulting, Inc.
170 Keyland Court
Bohemia, New York

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## Lists of Exhibits


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Exhibit 2: Facility Site Plan
Exhibit 3: Impact Environmental General, Pollution and E&O Insurance Certificate
Exhibit 4: Facility Application
Exhibit 5: Scale Ticket
Exhibit 6: Transportation Charter

## I. Introduction

Defined herein is the Material Acceptance Plan ("MAP") for the receiving operations at Impact Recovery and Reuse (Class B Recycling) Center (the Facility), located at 1000 Page Avenue, Lyndhurst, New Jersey (**Exhibit 1**, Facility Permit). The Facility is permitted to accept and process concrete, concrete block, brick, asphalt, cinder block, ceramic, tile, asphalt millings, porcelain, plaster and terra cotta and incidental soils, rebar and metal. The facility is also permitted to accept beneficial use materials, including soil (above the New Jersey Residential Direct Contact Soil Remediation Standards) comingled with approved Class B recyclable materials. This MAP will identify the administrative procedures and testing methods used to vet material sources considered for acceptance into the Facility.

## II. Description of Facility

The Facility, which occupies 3 acres, is represented on the county tax maps as Block 235, Lots 4 and 5. The Facility is located at 1000 Page Avenue in the Township of Lyndhurst, Bergen County, New Jersey. The property is zoned Heavy Industrial ("HI"). The Facility layout and operational parameters is represented in **Exhibit 2**, Site Plan.

The facility is administered by Mr. Joseph Staab of the New Jersey Department of Environmental Protection (jstaab@dep.state.nj.us), Department of Solid & Hazardous Waste. The compliance inspector is Ms. Gina Conti (609) 984-6994.

## III. Description of Facility Operations

Concrete, concrete block, brick, asphalt, cinder block, ceramic, tile, asphalt millings, porcelain, plaster and terra cotta from demolition contractors, manufacturers and municipalities received at the facility contains varying percentages of byproduct soils, rebar and metal. Soil (above the New Jersey Residential Direct Contact Soil Remediation Standards) comingled with approved Class B recyclable materials are accepted as beneficial use materials. These materials are screened and crushed to create saleable products or materials for beneficial use.

The byproducts are returned into the economic mainstream as a valuable commodity for a variety of end-uses. The end-uses are identified in Tables 1 and 2. Table 1, identifies the end-use and corresponding facilities for steel rebar and metal. Table 2 identifies the end-use and corresponding facilities for beneficial use materials.

**Table 1**

| Facility Name | Location | Type of End-use Market | Applicable Standard |
|---|---|---|---|
| Cirello Iron and Steel | Saddlebrook, NJ | Recycling | None |
| Cinelli Recycling | Jersey City, NJ | Recycling | None |

**Table 2**

| Facility Name | Location | Type of End-us | Recyclable Material |
|---|---|---|---|
| Morris Blanchard Redevelopment Project | Newark, NJ | Brownfield Beneficial Use | Brownfield Beneficial Use |
| Lincoln Park West Closure Project | Jersey City, NJ | Concrete products of open size, road-base, sub-base | Brownfield Beneficial Use |
| GM Linden | Linden, NJ | Brownfield Beneficial Use | Brownfield Beneficial Use |
| TRC | Allentown, PA | Mine Reclamation | Asphalt, asphalt millings, road-base, sub-base |
| Phase III Environmental | Palmerton, PA | Brownfield Beneficial Use | Concrete products of open size, road-base, sub-base |
| Kingsland Redevelopment Area Project | Lyndhurst, NJ | Brownfield Beneficial Use | Brownfield Beneficial Use |
| Keegan Landfill/Waste Management | Kearny, NJ | Landfill Closure/ Beneficial Use | Beneficial Use |
| TRC-Walnut Cut | Danielsville, PA | PA Clean Fill Beneficial Use | Beneficial Use |
| Stag's Leap | Mullica Hill, NJ | Landfill Closure/ Beneficial Use | Beneficial Use |

## IV. Determination of Suitability of Materials

Prior to receiving materials from any source into the Facility for processing, it will be subject to due diligence screening and testing in accordance with the NJDEP document, including N.J.A.C. 7:26D & N.J.A.C. 7:26E, and Guidance for Characterization of Concrete, dated February 18, 2009. Where the screening identifies that the source of the concrete was from an industrial site, testing may be required to confirm that it is not impacted with industrial contaminants.

Prior to receiving materials that contain incidental soils into the Facility for processing, an environmental due diligence investigation will be performed on the source to satisfy the requirements of the End-Use Management Plan on file with the NJDEP. Consistent with the End-Use Management Plan, where there is concern that a material may have been impacted from an industrial source or if there is evidence of a potential impact of petroleum products, the soil will be tested. The environmental due diligence source application process will be performed by a licensed professional engineer. The sampling and analysis will be performed in accordance with the End-Use Management Plan. Soils that do not satisfy the specifications, as applicable by end-market facility, will not be accepted into the Facility.

The Project Engineer charged with making determinations and with performing quality control engineering is Impact Environmental Consulting, Inc. Impact Environmental maintains Professional Errors and Omissions and Pollution Liability Insurance policies (see **Exhibit 3,** Impact Environmental General, Pollution and E&O Insurance Certificate) with an aggregate value of $10,000,000).

### *A. Due Diligence Screening*

Source materials considered for acceptance at the Facility will be subject to a due diligence screening process. Paramount to the screening process will be the collection of source-specific data from the generator. To prompt the proper due diligence oriented questions to produce the desired data, the generator will be required to complete an application (see **Exhibit 4**).

### *B. Physical Testing of Soil or Soil Mixed with Concrete, Brick, Block and Asphalt*

Where necessary, physical testing will be performed to insure that a fill source meets the requirements for the product end-markets. Sampling and analysis for physical parameters will be performed at a frequency of one composite per 5,000 cubic yards. The analysis will be performed in accordance with ASTM Method D-421/422 for gradation.

The results of the test analyses of the Material will be reviewed by the Project Engineer. With respect to the physical analysis, the Project Engineer will compare the gradation of the material to the requirements provided by the end-market facility for attaining proper slope stabilization and compaction.

*C. Chemical Testing*

Chemical testing of the Material will be performed to insure that it meets the requirements of the end-market facility as identified in the End-Market Soil Management Plan. Sampling of the Material will be performed by the Generator, the Project Engineer, or a designated agent, as prescribed in the End-Market Soil Management Plan, or in accordance with a statistically sound sampling plan to insure the representativeness of the data. This sampling can be performed at the point of generation or, if warranted, at the Facility.

With respect to the chemical analysis, the Project Engineer will compare the concentrations of each reported target analyte versus the corresponding analyte-specific threshold value presented in the End-Market Soil Management Plan. The suggested test methods and sampling frequencies are presented in the Table 3 below.

**Table 3**

| **Test Parameters** | **Test Methods** | **Per 1 Sample Set** |
|---|---|---|
| Volatiles | USEPA 8260 | 1 of 5 Grabs |
| Semivolatiles | USEPA 8270 | Composite from 5 Grabs |
| Total Metals | USEPA 6010 | Composite from 5 Grabs |
| PCBs/Pest. | USEPA 8051 | Composite from 5 Grabs |
| TCLP Metals | E1311/SW6010 | Composite from 5 Grabs |

In some cases the Project Engineer may not have enough data for a direct analyte-specific correlation to determine its classification under the End-Market Soil Management Plan. In such cases the Project Engineer may, if the quality control of the sampling and analysis is to a satisfactory level and the results allow for a proper characterization of its chemical nature, make a determination as to its classification as identified in the End-Use Management Plan.

## V. Engineered Fill Uses

Best management practices will be implemented to affirm quality control engineering determinations, and to minimize uncontrolled dispersion of the materials during all aspects of storage and handling. Foremost of these management practices will be to provide appropriate accountability of the materials through the use of engineering and administrative controls.

### *A. Engineering Controls*

Inspection of Incoming Materials

All incoming loads of materials will be visually inspected while on the transport vehicles, and after unloading from the vehicle, by designated Facility safety personnel, herein referenced as the safety team. Materials that exhibit nuisance odor or chemical staining, or that contain visible volumes of deleterious debris will be rejected, thus prompting the initiation of the contingency measures presented below.

If it is suspected that the Material within the truck has been altered, replaced or added to in any way, the applicable contingency plan measures will be followed. When deemed appropriate, a member of the safety team will use a real-time, organic vapor analyzer to monitor the concentration of volatile organic compounds (VOCs) in the air around stockpiles of incoming loads and in the work areas to determine if conditions warrant initiation of the contingency measures.

If the ambient air concentration of total organic vapors at the downwind perimeter of the storage area exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities will be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

If total organic vapor levels at the downwind perimeter of the work area persist at levels in excess of 5 ppm over background all activities will stop and the contingency measures will be initiated.

At a minimum, where monitoring equipment is used, the following information will be logged.

- Instrument type and detection range
- Control settings
- Reading locations
- Atmospheric conditions
- Calibration Records – To be performed a minimum of once per day

Fugitive Particulate (dust)

Where deemed necessary, airborne fugitive particulate emissions at the Facility at the nearest downwind property line will be measured by the safety team on a continuous basis during waste handling activities. The measurements will be made using a portable particulate monitoring device manufactured by the Casella Corporation, or approved alternate. The monitoring device will be capable of detecting airborne particulate (PM-10) at concentrations ranging from 1 to 1000 micrograms per cubic meter (ug/m3). Detected concentrations will be logged within the instrument memory and can be retrieved using Microsoft Windows-based software provided by the manufacturer. Retrieved data can be imported into standard PC-based spreadsheet and database software for analysis and report presentation.

If during handling of materials the total downwind PM-10 particulate level is 150 micrograms per cubic meter (ug/m3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then the handling activities will immediately stop, and the dust suppression techniques presented herein will be employed. Activities will not resume until the mitigating measures result in a net downwind PM-10 particulate concentration below 150 ug/m3.

If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 ug/m3 above the upwind level, work will be stopped and a re-evaluation of activities initiated. Work will resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-IO particulate concentration to within 150 ug/m3 of the upwind level and in preventing visible dust migration.

At a minimum, where the particulate monitoring device is used, the following information will be logged.

- Instrument type and detection range
- Control settings
- Atmospheric conditions
- Calibration Records – To be performed a minimum of once per day

Fugitive dust suppression measures and controls will consist of the following:

- A strict facility-wide speed limit will be set at 15 miles per hour.
- Where necessary, Clean Fill will be wetted using potable water where it is loaded or unloaded from or to a transport vehicle.
- Stockpiles will be covered with plastic polyethylene sheeting during periods of inactivity.
- Excavation and handling activities will be halted where winds exceed 40 miles per hour.
- Where possible, unloading of Clean Fill will be performed within the central portions of the Facility as to provide maximum distance to the property lines.
- Clean Fill handled about the site will be covered while being transported within trucks.

<u>Stormwater</u>

To prevent excessive erosion of materials due to stormwater runoff, materials will not be unloaded at the Facility during periods of significant precipitation (>1 inch per hour). Activities will be performed in accordance with a valid New Jersey Pollution Discharge Elimination System (NJPDES) permit. Stormwater runoff generated at the Facility will be pre-treated through grit interceptor sediment separation chamber prior to discharge to the combined sewer system.

*B. Administrative Controls*

The Facility is subject to random inspections by the Project Engineer and by NJDEP personnel. During such inspections, transportation information and samples of incoming and/or placed materials can be collected and submitted to a laboratory for quality control analysis.

Incoming rate of recyclable materials will be measured post screening and crushing to reduce volume and remove the byproducts. The resulting volume of recyclable materials will be measured as it is placed onto the product piles as a volume as determined by site staff. The volume will be input daily. As stated on the Class B permit, this volume will not exceed 250 tons post processing per day (estimated to represent about 22 loads per day).

<u>Transportation</u>

Transportation vehicles allowed to access the Facility will be covered by an insurance policy with coverage sufficient to cover the costs to execute the measures specified within the contingency plan for a loaded vehicle accident.

Where necessary, trucks scheduled to deliver materials to the Facility will be given a transport charter to act as a transportation manifest. The charters are printed on sequentially numbered four-part carbonless forms that are white, yellow, pink and blue (see **Exhibit 5**). The driver of each truck will complete "Section 1" of each charter before it departs from the material source site. "Section 2" will be fully completed by a representative of the Generator before exiting the site. The Generator will retain one part (white) of the form prior to the truck leaving. "Section 3" of the charter will be completed at the Facility by a representative of the Facility following inspection, weighing and tipping. The Generator will receive the yellow part of the charter and the second part of the weight ticket or load receipt.

The remaining executed parts of the charter will be paired to a numbered two-part weight receipt from a certified scale located at the Facility (see **Exhibit 6**), or a signed load receipt from the Facility. The Facility will retain a duplicate of the weight ticket or load receipt for reconciliation.

Impact Environmental will retain the pink part of the charter and a photocopy of the weight ticket or load receipt. The Facility will retain the blue part of the charter. These documents will be made available for the NJDEP for inspection and/or reconciliation.

The charters of all trucks arriving from the Facility will be reviewed at the scale-house prior to any other activities (i.e. inspection or tipping). If the period of time in which the truck arrived at the facility is greater than three hours from when it was documented on the charter as having left the material source site, the truck will not be accepted and the contingency plan will be enacted. If after enactment of the contingency plan it is determined that the vehicle load can be accepted at the facility, it will be inspected.

Rejected loads of materials arriving at the Facility will be documented in a “Rejection Log”.

## VI. Contingency Plan

A contingency plan has been designed to address conditions that could be encountered that are not authorized under the permit. The plan, which is presented below, identifies; 1) criteria for when the contingency plan is implemented; 2) alternate handling procedures for soils or soil mixtures that cannot be classified as Pennsylvania Clean Fill (or Pennsylvania Regulated Fill, as applicable by end-market facility); 3) alternate disposal facilities for materials that cannot be classified as Pennsylvania Clean Fill (or Pennsylvania Regulated Fill, as applicable by end-market facility); and, 4) key contacts list (including regulatory agencies) in the event of a contingency/accident (vehicle or otherwise).

### *A. Analysis Review Failure Plan*

Where sample analysis determines that the something stockpiled or placed at the Facility is inconsistent with due-diligence screening, the Material will be managed as an Off-Spec Waste and disposed of at one of the alternate disposal facilities identified below. This contingency will prompt oral and written notification by the Project Manager to the individuals on the Key Contact List below.

| **Key Contact** | **Affiliation** | **Telephone Number** |
|---|---|---|
| Mr. Richard Parrish | Impact Environmental | (631) 269-8800 |
| Mr. Jeff Bogoian | Impact Environmental | (631) 269-8800 |
| Mr. Joel Rogers, P.E. | Impact Environmental | (917) 301-5906 |
| Mr. Joseph Staab | NJDEP | (609) 984-2209 |

The alternate disposal facilities have been identified as the Pure Soil Technologies in Jackson, New Jersey and Clean Earth of Carteret of Carteret, New Jersey. Off-Spec Waste moving to the alternate disposal facilities would be tracked and documented in the same manner as the material that was moving into the Facility. However, new transportation charters would be completed as appropriate to the facility for each truck containing Off-Spec Waste.

*B. Rejection Facility – Inspection Rejection*

Where the safety team has determined that a vehicle load contains non-conforming and/or deleterious debris, or suspects that the material within the truck has been altered, replaced or added to in any way, the Project Engineer will be notified.

In such a situation the Project Engineer will document such occurrence, and the vehicle and the load will be returned to the source site. If rejection occurs after tipping at the Facility, the truck will be re-loaded with the same material with the front-end loader permanently stationed at the Facility. If excess material exists due to over-cutting with the loader, the balance of the material will be placed on and covered with plastic sheeting until the responsible transportation company can arrange for its removal back to the source location.

This contingency will prompt oral and written notification by the Project Engineer to the individuals on the Key Contact List below.

| **Key Contact** | **Affiliation** | **Telephone Number** |
|---|---|---|
| Mr. Richard Parrish | Impact Environmental | (631) 269-8800 |
| Mr. Jeff Bogoian | Impact Environmental | (631) 269-8800 |
| Mr. Joseph Staab | NJDEP | (609) 984-2209 |

## Lists of Exhibits


Exhibit 1: Facility Permit
Exhibit 2: Facility Site Plan
Exhibit 3: Impact Environmental General, Pollution and E&O Insurance Certificate
Exhibit 4: Facility Application
Exhibit 5: Scale Ticket
Exhibit 6: Transportation Charter

Exhibit 1: Facility Permit

State of New Jersey

CHRIS CHRISTIE
*Governor*

KIM GUADAGNO
*Lt. Governor*

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BOB MARTIN
*Commissioner*

Division of Solid & Hazardous Waste
Bureau of Recycling & Hazardous Waste Management
401 East State Street
P.O. Box 420, Mail Code 401-02C
Trenton, NJ 08625-0420
Tel (609) 984-3438 Fax (609) 777-1951/984-0565
www.nj.gov/dep/dshw/recycling

CERTIFIED MAIL 70142170000454102854
RETURN RECEIPT REQUESTED

February 2, 2015

Richard Parrish, President
Impact Environmental Consulting, Inc.
170 Keyland Court
Bohemia, NY 11716

Re: Class B Recycling Center General Approval Renewal with Modification
Impact Environmental Consulting,Inc.
Block 235, Lots 4 & 5
City of Lyndhurst, Bergen County
Facility No. 131888
Permit No.: CBG110003

Dear Mr. Parrish:

Please be advised that the New Jersey Department of Environmental Protection, Division of Solid and Hazardous Waste has reached a final determination to renew & modify Class B Recycling Center General Approval. Enclosed is a copy of the final document.

Should you wish to contest any of the conditions of the enclosed general approval, you must file a request for an adjudicatory hearing within twenty (20) days of the date you receive this decision notice in accordance with the procedures found in N.J.A.C. 7:26A-3.14. A copy of the request should also be mailed to this office.

If you have any questions concerning this matter, please contact Rakesh Patel of my staff at (609) 984-6814, or by email at rakesh.patel@dep.nj.gov

Sincerely,

Guy Watson, Chief
Bureau of Recycling &
Hazardous Waste Management

Enclosures

C: Thomas Farrel, Chief, Bureau of SW Compliance & Enforcement
Ben Salahi, Bureau of SW Compliance & Enforcement
Brian McClendon, Supervisor, Bureau of Non-Point Pollution Control
Ken Ratzman, Chief, Bureau of Air Permits
Richard Wierer, Bergen County Solid Waste Coordinator
Mark Vangieri, Bergen County Recycling Coordinator
Maureen Kelly, Bergen County Health Department
Tom Marturano, NJMC Solid Waste Coordinator
Helen Polito, Lyndhurst Municipal Clerk

State of New Jersey

CHRIS CHRISTIE
*Governor*

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

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www.nj.gov/dep/dshw/recycling

# CLASS B RECYCLING CENTER GENERAL APPROVAL

Under the provisions of N.J.S.A. 13:1E-1 *et seq.* and N.J.S.A. 13:1E-99.11 *et seq.*, known as the Solid Waste Management Act and New Jersey Statewide Mandatory Source Separation and Recycling Act, respectively, and pursuant to N.J.A.C. 7:26A-1 *et seq.*, known as the Recycling Regulations, this approval is hereby issued to:

**Impact Environmental Consulting, Inc.**

| | |
|---|---|
| Facility Type: | Recycling Center for Class B Materials |
| LOT NO.(S): | 4 & 5 |
| BLOCK NO.: | 235 |
| MUNICIPALITY: | Lyndhurst |
| COUNTY: | Bergen |
| FACILITY REGISTRATION NO.: | 131888 |
| Permit No.: | CBG110003 |

This General Approval is subject to compliance with all conditions specified herein and all regulations promulgated by the Department of Environmental Protection (Department).

This General Approval shall not prejudice any claim the State may have to riparian land nor does it allow the registrant to fill or alter, or allow to be filled or altered, in any way, lands that are deemed to be riparian, wetlands, stream encroachment or flood plains, or within the Coastal Area Facility Review Act (CAFRA) zone or are subject to the Pinelands Protection Act of 1979, nor shall it allow the discharge of pollutants to waters of this State without prior acquisition of the necessary grants, permits, or approvals from the Department.

Feb. 2, 2015
Issuance Date

Guy J Watson
Guy Watson, Chief
Bureau of Recycling &
Hazardous Waste Management

May 7, 2017
Expiration Date

Scope of Approval

This General Approval (approval), along with the referenced application documents herein specified, shall constitute the sole approval of Recycling Center operations for Class B Recyclable Material (Concrete, Concrete Block, Brick, Asphalt, Cinder Block, Ceramic, Tile, Asphalt Millings, Porcelain, Plaster, and Terra Cotta) by Impact Environmental Consulting, Inc. (holder) headquartered in Bohemia, New York. Any registration, approval or permit previously issued by Division of Solid and Hazardous Waste, or its predecessor agencies, for the specific activities as described below and as conditioned herein, is hereby superseded.

Regulated Activities at the Facility

Items 1 through 39 of this approval contain the general conditions applicable to all recycling centers. Items 40 through 67 of this approval contain the operating requirements applicable to the Class B recyclable materials handling. Items 68 through 79 of this approval contain general conditions applicable to beneficial use materials handling.

Facility Description

The recycling center is a Class B facility operated by Impact Environmental Consulting, Inc. The recycling center is located on Page Ave. and Schuyler Ave., Block 235, Lots 4 and 5, in Lyndhurst, Bergen County. This regional recycling center receives concrete, concrete block, brick, asphalt, cinder block, ceramic, tile, asphalt millings, porcelain, plaster, and terra cotta from demolition contractors, manufacturers and municipalities. The recycling center also receives beneficial use soils preapproved by the Department that are commingled with other approved Class B recyclable material from demolition and/or redevelopment projects. The recycling center is authorized to accept and process the above materials 7:00 a.m. to 5:00 p.m., Monday through Friday and 7:00 a.m. to 3:00 p.m., Saturday.

The recycling center is also utilized for finished product storage and equipment storage as shown on the site plan.

This modification authorizes following changes to the approval.

1. Modification to the site plan

2. Authorization to accept & process beneficial use soils commingled with other approved Class B recyclable material from demolition and/or redevelopment projects preapproved by the Department through issuance of a Certification of Authority to Operate for Beneficial Use Project.

Approved General Approval Application and Associated Documents

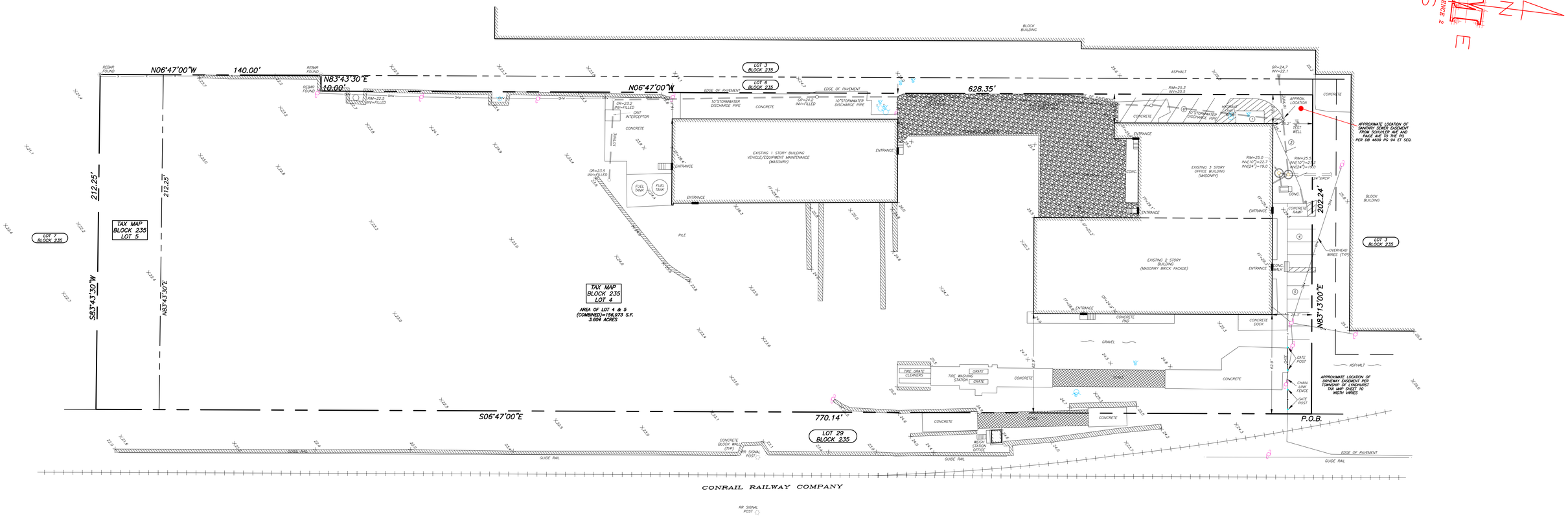
The registrant shall construct and operate the facility in accordance with N.J.A.C. 7:26A-1 *et seq*., the conditions of this Approval, and the following documents:

(1) Site Plan: Figure # 2-3, 2-3A, 2-4, 2-4A & 2-4B sealed by Joel Rogers, P.E. for Impact Environmental dated October 7th, 2014.

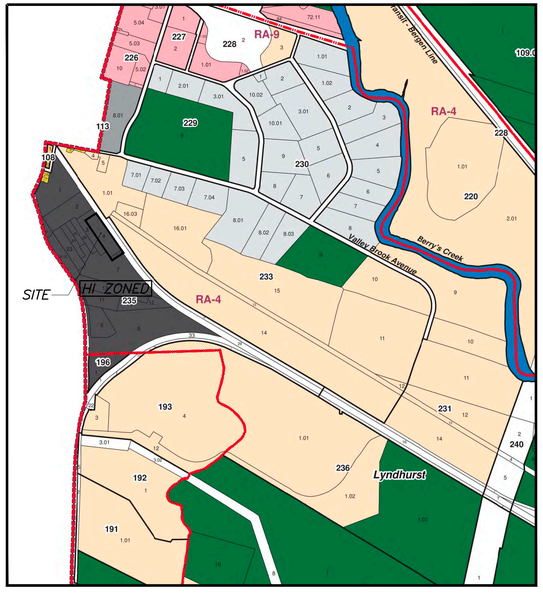
(2) Class B Modification Application dated October 19, 2014 submitted by Impact Environmental and signed by Mr. Richard Parrish, P.G.

(3) Class B Renewal Application dated January 12, 2012 submitted by Impact Environmental and signed by Mr. Richard Parrish, P.G.

In case of conflict, the provisions of N.J.A.C. 7:26A-1 *et seq.* shall have precedence over the conditions of this Approval, and the conditions of this Approval shall have precedence over plans and specifications listed above.




## HACKENSACK MEADOWLANDS DISTRICT MAP




## NOTES:

1. SUBJECT TO EASEMENTS, GRANTS, RESTRICTIONS, RIGHT-OF-WAYS AND CONDITIONS OF RECORD AND SUCH STATE OF FACTS WHICH AN ACCURATE, CURRENT AND COMPLETE ABSTRACT OF TITLE MIGHT DISCLOSE.
2. STREET NAMES AND RIGHT-OF-WAY WIDTHS AND BLOCK AND LOT DESIGNATIONS ARE PER THE CURRENT MUNICIPAL TAX MAPS.
3. EXCEPT AS SPECIFICALLY STATED OR SHOWN ON THIS PLAT, THIS SURVEY DOES NOT PURPORT TO REFLECT MUNICIPAL SETBACK REQUIREMENTS, RESTRICTIVE COVENANTS, SUBDIVISION RESTRICTIONS, ZONING OR OTHER LAND USE REGULATIONS.
4. THIS SURVEY IS BASED ON EXISTING PHYSICAL CONDITIONS FOUND AT THE SITE ON THE DATES OF THE FIELD SURVEY AND ON DEED, FILED, AND UNFILED MAP INFORMATION.
5. SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED OR CONSIDERED AS PART OF THIS SURVEY, NO STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONTAINERS OR FACILITIES THAT MAY AFFECT THE USE OR DEVELOPMENT OF THIS TRACT.
6. ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MARKED WITH AN ORIGINAL OF THE LAND SURVEYORS EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID COPIES.
7. SIGNATURE AND EMBOSSED SEAL SIGNIFY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE ADOPTED BY THE N.J. STATE BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS. CERTIFICATIONS INDICATED HEREON SHALL RUN ONLY TO THE PERSON FOR WHICH THE SURVEY IS PREPARED, AND ON HIS BEHALF TO THE TITLE COMPANY. GOVERNMENTAL AGENCY AND LENDING INSTITUTION LISTED HEREON. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.
8. ELEVATIONS BASED ON NGVD29 AND ESTABLISHED BY RAPID STATIS GPS OBSERVATIONS USING COR STATION "NJIT" CONVERSION TO NGVD29 FROM NAVD88 BY VERTCON PROGRAM. CONTOURS HAVE A 1 FOOT INTERVAL.
9. IN ACCORDANCE WITH N.J.A.C. 13:40-5.1(d), UNDER "LAND SURVEYORS; PREPARATION OF LAND SURVEYS," A WAIVER OF THE RIGHT TO HAVE CORNER MARKERS SET HAS BEEN FILED WITH THIS OFFICE BY THE ULTIMATE USER.

## REFERENCES:

1. TAX MAP FOR THE TOWNSHIP OF LYNDHUSRT, BERGEN COUNTY, NEW JERSEY
2. DEED BOOK 8320 PAGE 334 ET SEQ.
3. "SUBDIVISION OF PROPERTY OF D.L.&W. RAILROAD COMPANY, BOROUGH OF NORTH ARLINGTON AND TOWNSHIP OF LYNDHURST, BERGEN COUNTY, NEW JERSEY" PREPARED BY RONALD B. BROWN, ENGINEER, DATED NOVEMBER 1958, LAST REVISED DECEMBER 1958. THIS IS UNAVAILABLE AT THE BERGEN COUNY CLERK'S OFFICE.
4. TITLE REPORT # CTA2097 BY CECERE TITLE AGENCY, AGENT FOR FIRST AMERICAN TITLE INSURANCE COMPANY.
5. FIELD SURVEY PERFORMED AUGUST 2014.

## ZONING:

PROPOERTY IS CURRENTLY IN THE HEAVY INDUSTRIAL (HI) ZONED LAND

GRAPHIC SCALE
30 0 15 30 60
(IN FEET)
1 INCH = 30 FEET

| REV. | DATE | DESCRIPTION |
|---|---|---|

DRAWN BY : CC
CHECKED BY : DWD
PROJECT No: 14082

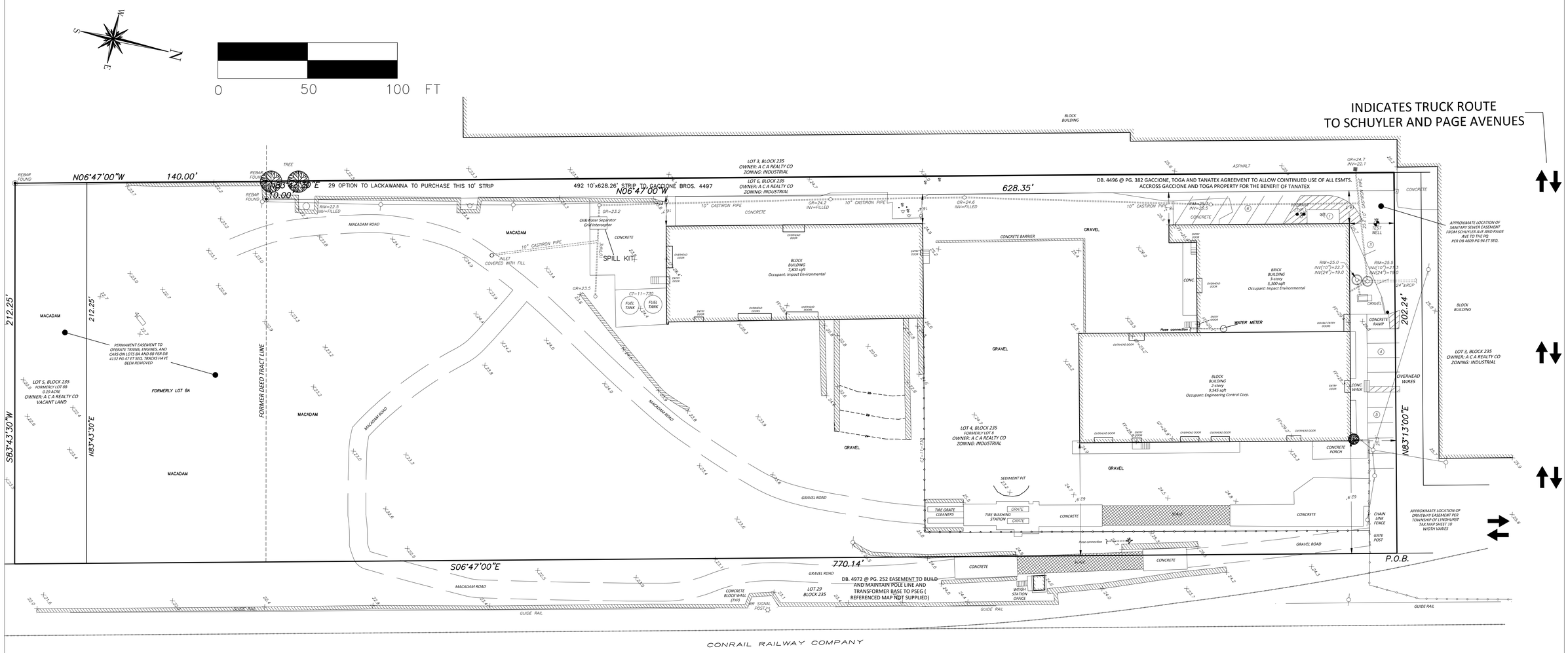
McNALLY ENGINEERING, LLC.

DRAWING TITLE BOUNDARY AND TOPOGRAPHIC SURVEY

IMPACT ENVIRONMENTAL
BLOCK 235 - LOTS 4 & 5
TOWNSHIP OF LYNDHURST
BERGEN COUNTY, NEW JERSEY

McNALLY ENGINEERING, L.L.C.
Certificate of Authorization 24GA27928700, exp. 8/31/16
169 RAMAPO VALLEY ROAD
OAKLAND, NJ 07436
(201) 337-9051

| SCALE : | DATE : | SHEET No.: | DWG. No.: |
|---|---|---|---|
| 1" = 30' | 08/27/14 | 1 OF 1 | SB-1 |

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4. TITLE REPORT # CTA2097 BY CECERE TITLE AGENCY, AGENT FOR FIRST AMERICAN TITLE INSURANCE COMPANY.
5. BOUNDARY AND TOPOGRAPHIC SURVEY, PREPARED BY MCNALLY ENGINEERING, LLC, SIGNED BY DOUGLAS W. DOOLITTLE, P.E., LSRP, DATED AUGUST 26, 2014.

## LEGEND:

- FACILITY BOUNDARY
- PROPERTY LINE
- TRAIN TRACKS

## NOTES:

1. SUBJECT TO EASEMENTS, GRANTS, RESTRICTIONS, RIGHT-OF-WAYS AND CONDITIONS OF RECORD AND SUCH STATE OF FACTS WHICH AN ACCURATE, CURRENT AND COMPLETE ABSTRACT OF TITLE MIGHT DISCLOSE.
2. STREET NAMES AND RIGHT-OF-WAY WIDTHS AND BLOCK AND LOT DESIGNATIONS ARE PER THE CURRENT MUNICIPAL TAX MAPS.
3. EXCEPT AS SPECIFICALLY STATED OR SHOWN ON THIS PLAT, THIS SURVEY DOES NOT PURPORT TO REFLECT MUNICIPAL SETBACK REQUIREMENTS, RESTRICTIVE COVENANTS, SUBDIVISION RESTRICTIONS, ZONING OR OTHER LAND USE REGULATIONS.
4. SITE CONSISTS OF LOT 4 & 5 OF BLOCK 235, WITH AN AREA OF 156,973 SQFT (3.604 ACRES).

TITLE:

# EXISTING FEATURES

1000 Page Avenue
Lyndhurst, NJ

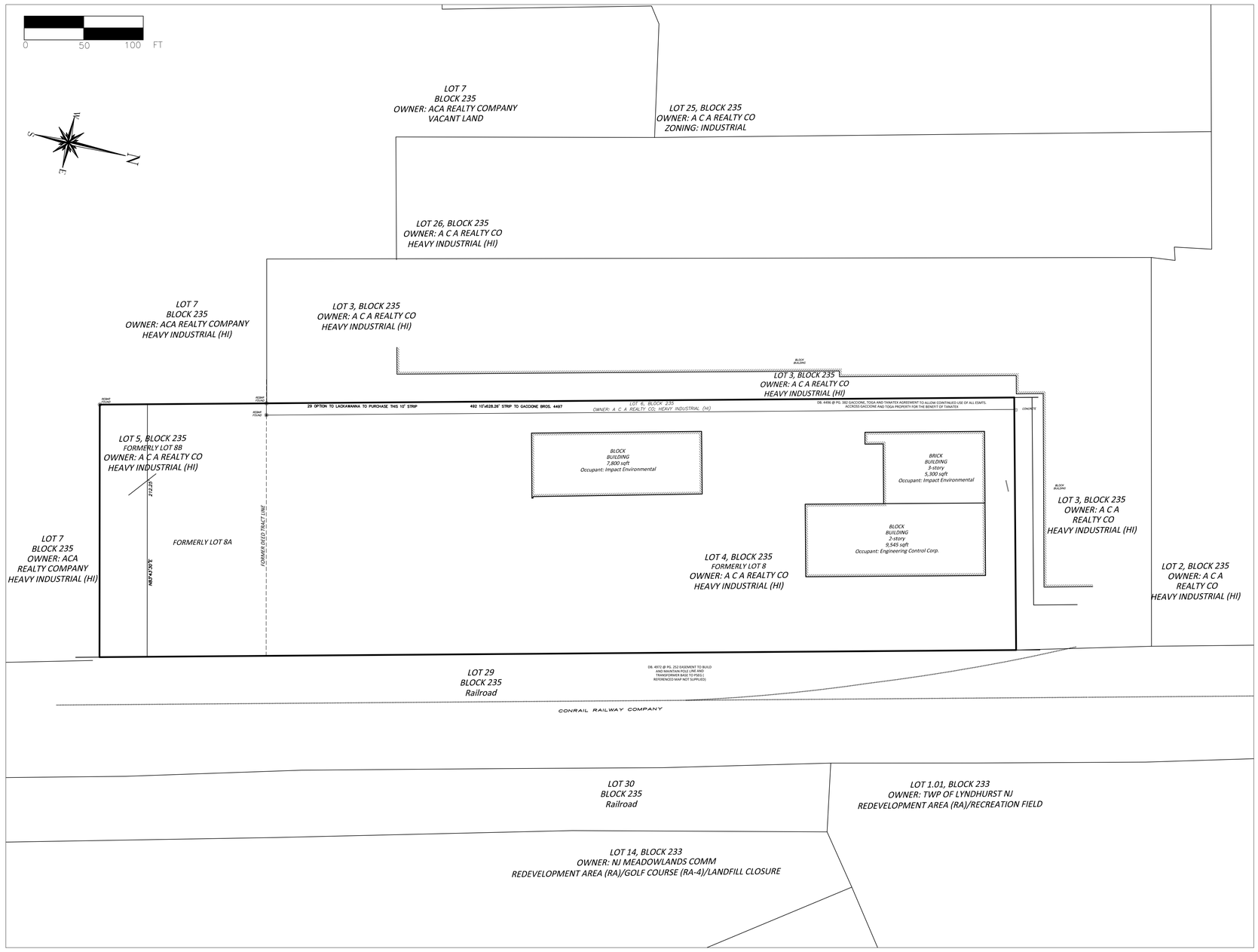
| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | JR |
| DATE: | 10/07/2014 |
| SCALE: | SEE DRAWING |

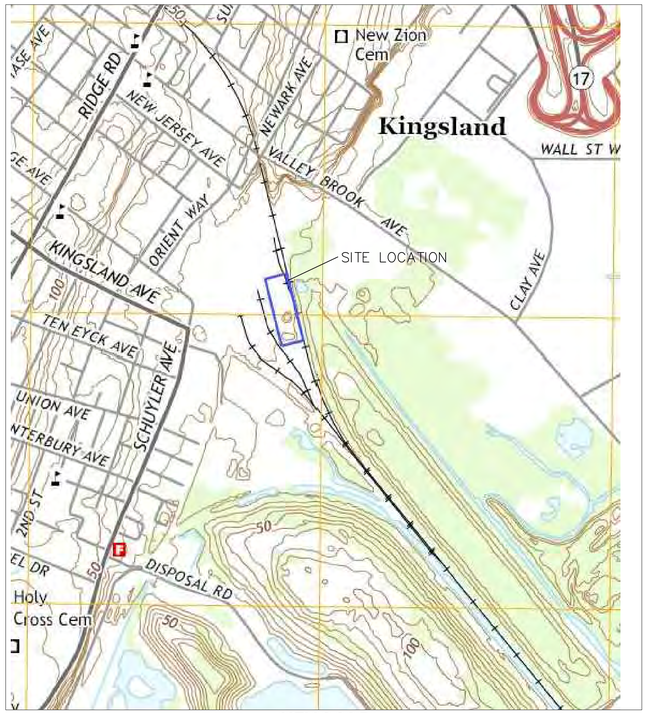
| | |
|---|---|
| PROJECT # | FAC8 |
| FIGURE # | 1 |

JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400


**IMPACT ENVIRONMENTAL**
170 KEYLAND COURT
BOHEMIA, NEW YORK 11716
TEL (631) 269-8800 FAX (631) 269-1599

1000 PAGE, AVENUE
LYNDHURST, NEW JERSEY 07071
TEL (201) 268-5686 FAX (631) 269-1599




KEY MAP

USGS TOPO MAP, WEEHAWKEN QUADRANGLE, 2014

## ZONING ANALYSIS:

| | |
|---|---|
| ZONE: | 1-3 HEAVY INDUSTRIAL |
| BLOCK: | 235 |
| LOTS: | 4 & 5 |
| EXISTING USE: | OFFICE/RECYCLING YARD |
| PROPOSED USE: | OFFICE/RECYCLING YARD |

| | REQUIRED | EXISTING/PROVIDED |
|---|---|---|
| MINIMUM LOT AREA | ONE ACRE | 156,966.75 SF= 3.6 AC |
| MINIMUM LOT WIDTH | 100 FT | 202.24 FT |
| MINIMUM LOT DEPTH | 150 FT | 770.11 FT |
| MINIMUM FRONT YARD | 35 FT | 25.14 FT (EXISTING) |
| MINIMUM SIDE YARD | 20 FT | 18.14 FT (EXISTING) |
| MINIMUM REAR YARD | 30 FT | +300 FT (EXISTING) |

## REFERENCES:


1. TAX MAP FOR THE TOWNSHIP OF LYNDHURST, BERGEN COUNTY, NEW JERSEY
2. DEED BOOK 8320 PAGE 334 ET SEQ.
3. "SUBDIVISION OF PROPERTY OF D.L.&W. RAILROAD COMPANY, BOROUGH OF NORTH ARLINGTON AND TOWNSHIP OF LYNDHURST, BERGEN COUNTY, NEW JERSEY" PREPARED BY RONALD B. BROWN, ENGINEER, DATED NOVEMBER 1958, LAST REVISED DECEMBER 1958. THIS IS UNAVAILABLE AT THE BERGEN COUNY CLERK'S OFFICE.
4. TITLE REPORT # CTA2097 BY CECERE TITLE AGENCY, AGENT FOR FIRST AMERICAN TITLE INSURANCE COMPANY.
5. BOUNDARY AND TOPOGRAPHIC SURVEY, PREPARED BY MCNALLY ENGINEERING, LLC, SIGNED BY DOUGLAS W. DOOLITTLE, P.E., LSRP, DATED AUGUST 26, 2014.
6. HACKENSACK MEADOWLANDS DISTRIC OFFICIAL ZONING MAP, PREPARED BY NEW JERSEY MEADOWNLANDS COMMISSION, REVISED AND ADOPTED JANUARY 20, 2009.


## LEGEND:

FACILITY BOUNDARY

PROPERTY LINE

## NOTES:

1. THE PROPOSED SITE PLAN DOES NOT INVOLVE ANY CHANGE TO EXISTING BUILDING STRUCTURES, TOTAL GROSS FLOOR AREA, FLOOR AREA RATIO, INTERIORS, TENANTS OR BUILDING ADA COMPLIANT.
2. SITE CONSISTS OF LOT 4 & 5 OF BLOCK 235, WITH AN AREA OF 156,973 SQFT (3.604 ACRES).

TITLE:

# LAND USE AND SURROUNDING PROPERTIES

1000 Page Avenue
Lyndhurst, NJ

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | JR |
| DATE: | 10/07/2014 |
| SCALE: | SEE DRAWING |

PROJECT # FAC8

FIGURE # 2

JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400


**IMPACT ENVIRONMENTAL**
170 KEYLAND COURT
BOHEMIA, NEW YORK 11716
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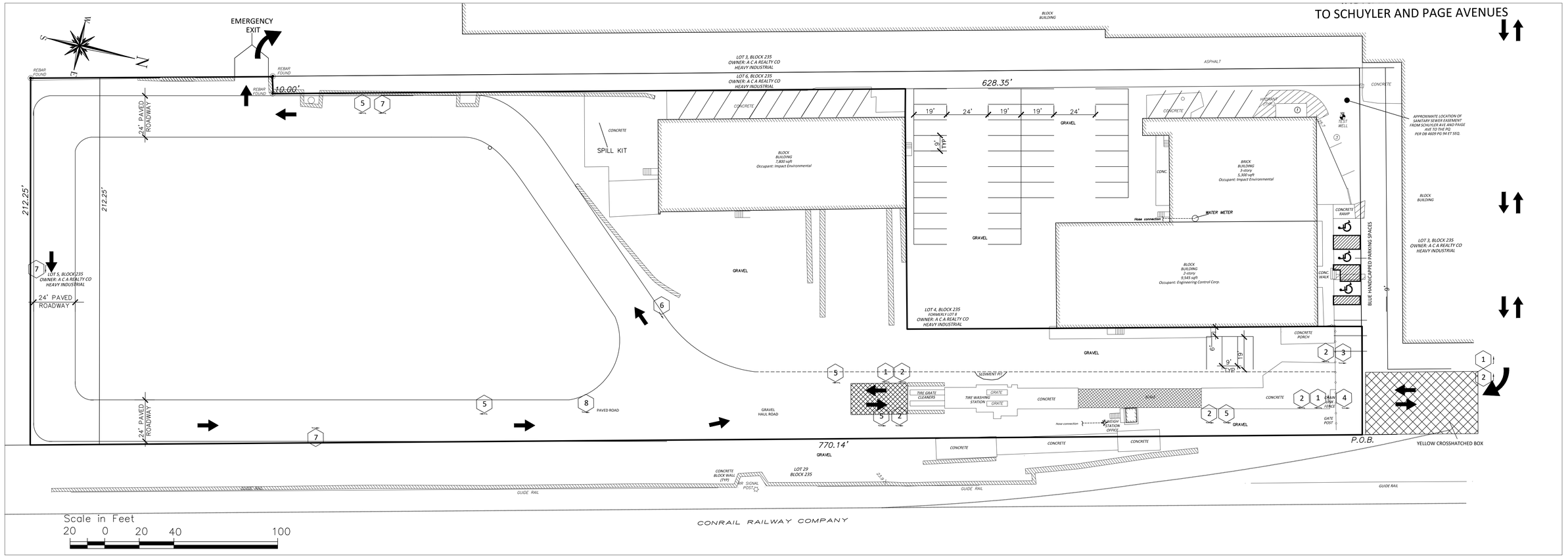
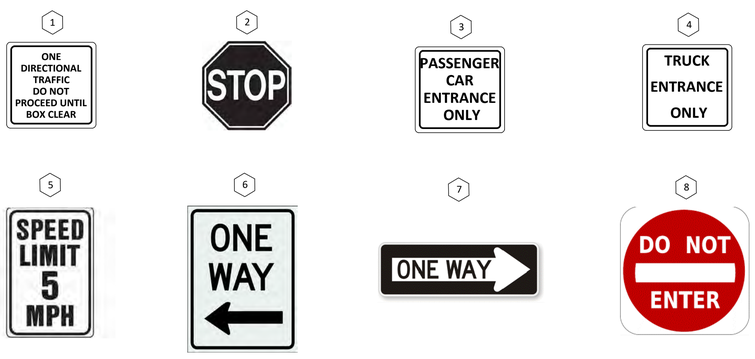
LYNDHURST, NEW JERSEY 07071
TEL (201) 268-5686 FAX (631) 269-1599




## TRAFFIC SIGN DETAILS




## NOTES:

1. ALL TRAFFIC SIGNS WILL BE MOUNTED ON TEMPORARY TRAFFIC SIGN STANDS.
2. ALL ROAD STRIPES AND MARKINGS TO BE MADE WITH LATEX PAINT THAT IS A FAST-DRYING WHITE, OR NON-LEAD YELLOW, READY-MIXED PIGMENTED BINDER EMULSIFIED IN WATER AND CAPABLE OF ANCHORING REFLECTIVE GLASS BEADS THAT ARE SEPARATELY APPLIED. FED-STD-595B COLOR CHIP NO. 33538 FOR YELLOW, 15080 FOR BLUE AND NO. 37886 FOR WHITE. PAINT TO HAVE A MAXIMUM NO-TRACK TIME OF 120 SECONDS WHEN APPLIED IN A WET FILM THICKNESS OF 15 ± 1 MIL, AT 140 °F, AND WITH 12 POUNDS PER GALLON OF GLASS BEADS.

## LEGEND

- PROPERTY LINE
- BOUNDARY OF CLASS B RECYCLING
- JERSEY BARRIER WALL
- TRAIN TRACKS
- TRAFFIC DIRECTION
- PARKING SPACE
- 1 — TRAFFIC SIGN WITH FACING DIRECTION
- CROSSHATCH PAVEMENT MARKING

TITLE: **TRAFFIC PLANS AND DETAILS**

1000 Page Avenue
Lyndhurst, NJ

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | JR |
| DATE: | 10/07/2014 |
| SCALE: | SEE DRAWING |

PROJECT # FAC8

FIGURE # 2-1

JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400

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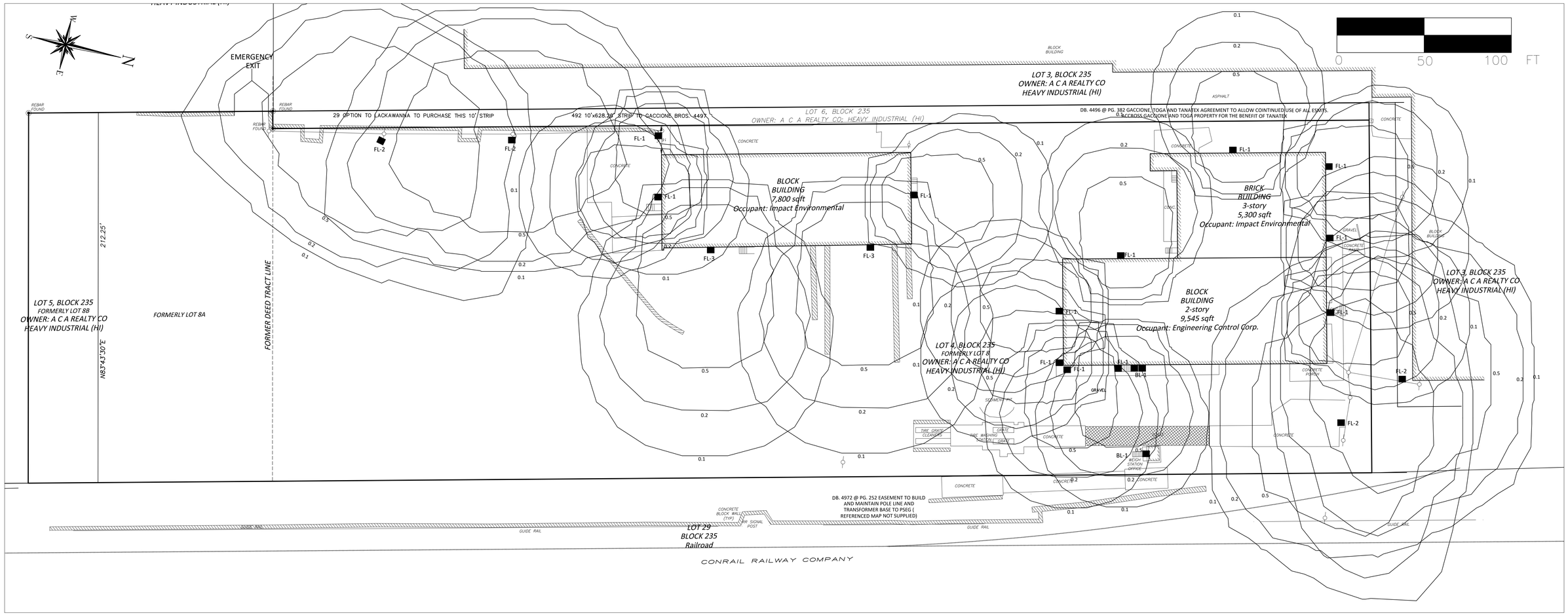
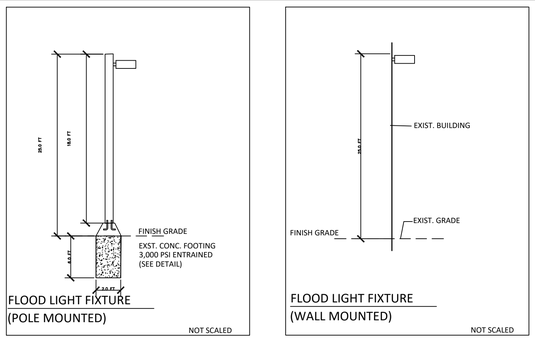
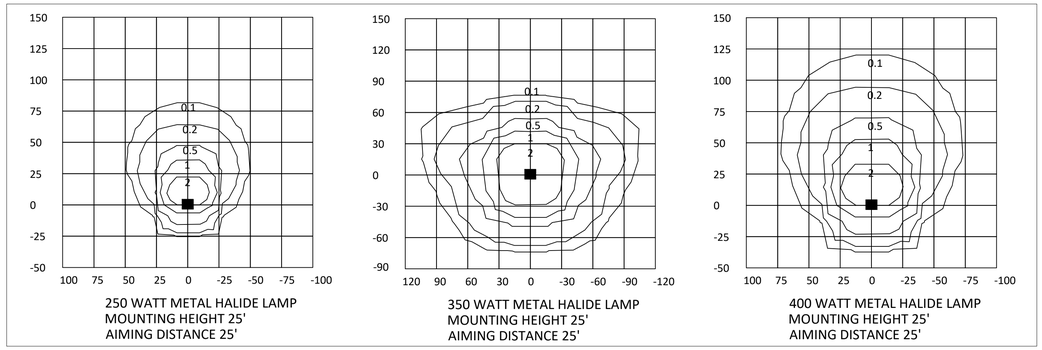



## LIGHTING SCHEDULE

| MARK | WATTAGE | FLOOD LIGHT | MOUNTING |
|---|---|---|---|
| FL-1 | 250 | WP3H250PSQ Metal Halide | WALL/POLE MOUNTED HEIGHT = 25' AIMING DISTANCE = 25' |
| FL-2 | 350 | ALH 350SFPSQ Metal Halide | POLE MOUNTED HEIGHT = 25' AIMING DISTANCE = 25' |
| FL-3 | 400 | WP4H400 PSQ Metal Halide | WALL MOUNTED HEIGHT = 25' AIMING DISTANCE = 25' |
| BL-1 | 60 | Bulb Light | WALL MOUNTED HEIGHT = 7' |




## NOTES:

1. SITE LIGHTING SHALL BE MAINTAINED BY OPERATOR AS INDICATED ON PLAN.
2. ALL LIGHT FIXTURES SHALL BE NON-GLARE, COLOR CORRECTED LIGHTS AND SHALL BE DIRECTED SO AS NOT TO SHINE ON ADJACENT PROPERTIES.
3. ALL PARKING LIGHTS ARE TO BE PROVIDED WITH BAFFLES TO SHIELD GLARE.
4. ALL LIGHTING IS PROVIDED IN ACCORDANCE WITH RECOMMENDATIONS OF THE CURRENT EDITION OF THE ILLUMINATING ENGINEERING SOCIETY LIGHTING HANDBOOK AND PER CITY OF LYNDHURST AND HMDC ORDINANCE.
5. LIGHTS ARE MANUFACTURED BY RAB LIGHTING, INC. DATA IS ACQUIRED FROM WWW. RABWEB.COM.

TITLE:

# SITE LIGHTING PLAN

1000 Page Avenue
Lyndhurst, NJ

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | JR |
| DATE: | 10/07/2014 |
| SCALE: | SEE DRAWING |

PROJECT # FAC8

FIGURE # 2-2

JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400


**IMPACT ENVIRONMENTAL**
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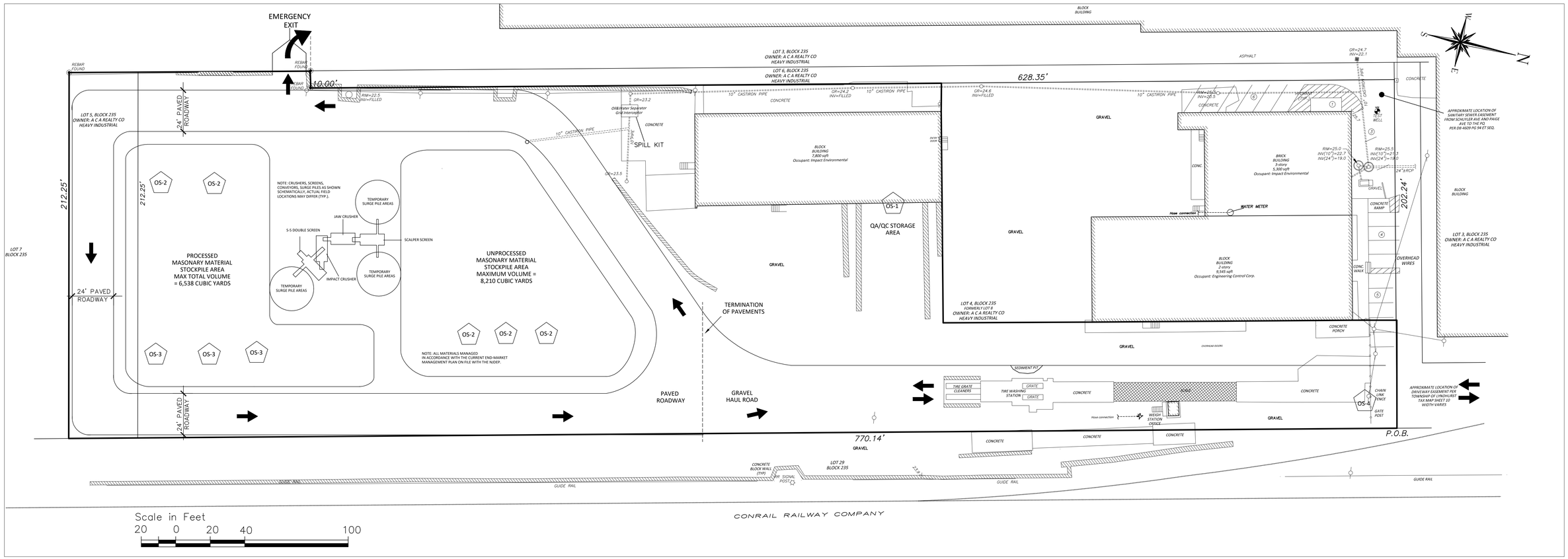


| UNPROCESSED CLASS B MATERIALS | |
|---|---|
| COMPOSITION | MAXIMUM CAPACITY |
| CONCRETE, CONCRETE BLOCK, ASPHALT MILLINGS, BRICK, PORCELAIN, CERAMICS, CINDER BLOCKS, ASPHALT, TILE, TERRA COTTA, SOIL, CEMENT, CLEAN FILL | AREA VARIES (MAX AREA 13,985 SF AT 1:1 SLOPE WITH 25' HEIGHT). MAXIMUM VOLUME = 8,210 CUBIC YARDS (APPROX. 11,494 TONS AT 1.4 TONS/CUBIC YARD) |

| PROCESSED CLASS B MATERIALS (PRODUCTS) | |
|---|---|
| COMPOSITION | MAXIMUM CAPACITY |
| COMMERCIAL GRADE BLEND, 1-5 BLEND, DENSE GRADED AGGREGATE, 1 1/2'' CLEANED CRUSHED AGGREGATE, OVERSIZE CRUSHED CONCRETE, 1''-2'' CRUSHED BRICK, 3/8'' MINUS CRUSHED BRICK, CRUSHED ASPHALT, EMBANKMENT MEDIA, CLEAN FILL, ENGINEERED FILL | STOCKPILE AND TEMPORARY SURGE PILES MAX TOTAL VOLUME: 6,538 CUBIC YARDS (APPROX. 9,153 TONS AT 1.4 TONS/CUBIC YARDS) |

MACHINERY SPECIFICATION

| MODEL No. | MACHINE | LENGTH (FT) | WIDTH (FT) | HEIGHT (FT) | STANDARD WEIGHT (LBS) |
|---|---|---|---|---|---|
| QE341 | SCALPING SCREEN | 50.6 | 47.6 | 14.6 | 63500 |
| QI240 | IMPACT CRUSHER | 48.1 | 18.3 | 13.5 | 86862 |
| QJ341 | JAW CRUSHER | 51.9 | 14.9 | 14.9 | 111069 |
| QA340 | DOUBLESCREEN UNIT | 58.1 | 55.7 | 20.2 | 59304 |

Permit Activity Number: PCP120001

## NOTES:

1. IMPACT REUSE AND RECOVERY CENTER, BLOCK 235, LOTS 4 &5, CITY OF LYNDHURST, BERGEN COUNTY, FACILITY NO. 131888; PERMIT CBG110003. RECYCLING CENTER GENERAL APPROVAL FOR CLASS B RECYCLABLE MATERIALS UNDER PROVISIONS OF NJSA 12:1E-1 ET SEQ. AND NJSA 13:1E-99.11 ET SEQ. KNOWN AS THE SOLID WASTE MANAGEMENT ACT AND NEW JERSEY STATEWIDE MANDATORY SOURCE SEPARATION AND RECYCLING ACT, RESPECTIVELY, AND PURSUANT TO NJAC 7:26A-1 ET SEQ., KNOWN AS THE RECYCLING REGULATIONS.
2. AIR POLLUTION CONTROL PRECONSTRUCTION PERMIT AND CERTIFICATE TO OPERATE CONSTRUCTION OF A NEW SOURCE: PCP120001 ISSUED TO THE IMPACT RECOVERY AND REUSE CENTER (FACILITY ID NO. 03507), MAY 17, 2012 EXPIRES IN FIVE YEARS.
3. STRAWBALES WITH FILTER FABRIC AND GRAVEL ARE PLACED AROUND STORM WATER INLETS. THESE INLETS ARE ALSO CONNECTED WITH UNDERGROUND PIPES.
4. ALL RECYCLABLES AND BYPRODUCTS ARE HANDLED IN ACCORDANCE WITH THE END-USE MANAGEMENT PLAN SUBMITTED ON JULY 31, 2014.
5. ALL MATERIAL STORED IN THE QA/QC STORAGE AREA MUST BE SAMPLED AND TESTED IN ACCORDANCE WITH NJDEP TECHNICAL GUIDANCE AND END-USE FACILITIES' REQUIREMENTS TO DETERMINE END USE.
6. SITE CONSISTING OF LOT 4 & 5 OF BLOCK 235 IS OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN AS SHOWN ON FIRM FLOOD INSURANCE MAP, BERGEN COUNTY, NEW JERSEY FROM FEDERAL EMERGENCY MANAGEMENT AGENCY DATED SEPTEMBER 30, 2005.
7. ALL VEHICULAR USE AREAS (PARKING AREAS AND ROADWAYS) ARE TO BE ESTABLISHED WITH ALL-WEATHER DUSTLESS MATERIAL.
5. EXISTING SITE DATA TAKEN FROM BOUNDARY AND TOPOGRAPHIC SURVEY, PREPARED BY MCNALLY ENGINEERING, LLC, SIGNED BY DOUGLAS W. DOOLITTLE, P.E., LSRP, DATED AUGUST 26, 2014.
6. THERE IS NO ANTICIPATED NEGATIVE IMPACT TO ADJACENT PROPERTIES RESULTING FROM SURFACE RUNOFF.
7. OPERATOR RESERVES THE RIGHT TO RECONFIGURE CRUSHER AND SCREENER AS REQUIRED (TYP.).

## LEGEND

- PROPERTY LINE
- BOUNDARY OF CLASS B RECYCLING
- JERSEY BARRIER WALL
- TRAIN TRACKS
- DRAINAGE PIPE
- TRAFFIC DIRECTION
- OS-1 OPERATIONAL SIGN

TITLE:
# CLASS B OPERATIONAL PLAN

1000 Page Avenue
Lyndhurst, NJ

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | JR |
| DATE: | 10/07/2014 |
| SCALE: | SEE DRAWING |

PROJECT # FAC8
FIGURE # 2-3

JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400


**IMPACT ENVIRONMENTAL**
170 KEYLAND COURT
BOHEMIA, NEW YORK 11716
TEL (631) 269-8800 FAX (631) 269-1599

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LYNDHURST, NEW JERSEY 07071
TEL (201) 268-5686 FAX (631) 269-1599

**QA/QC Sampling Area**

TESTED:

OS-1

**End-Use Material**

*For (facility)*

TESTED:

OS-2

**Class B Product**

*For (Use)*

TESTED:

OS-3

## NOTES:

END USE MATERIALS TO DIFFERENT END-USE FACILITIES WILL NOT BE MIXED.

QA/QC STORAGE AREA TO BE USED TO TEST MATERIALS REQUIRING CONFIRMATION OF END-USE FACILITY.

ALL TESTING TO BE PERFORMED BY A NEW JERSEY CERTIFIED COMMERCIAL LABORATORY.

OPERATIONAL SIGNS (OS-1 TO OS-3) WILL BEAR UNIQUE SAMPLE IDENTIFICATION NUMBER(S) AND/OR SAMPLING DATE(S).

**IMPACT REUSE AND RECOVERY CENTER**

1000 Page Avenue, Lyndhurst, New Jersey
Normal Hours of Recycling Operation
Monday – Friday: *7:00 a.m. to 5:00 p.m.*
Saturday: *7:00 a.m. to 3:00 p.m.*

This is an approved New Jersey Department of Environmental Protection Recycling Center. The following materials separately or in a commingled manner are the only materials received:

**RECYCLABLE MATERIALS**

- Concrete
- Concrete block
- Brick
- Asphalt
- Asphalt millings
- Cinder block
- Ceramic
- Porcelain
- Tile
- Plaster
- Terra cotta

**INCIDENTAL MATERIALS**

- Soil
- Rebar
- Metal
- Materials that adhere to recyclables

Contaminants such as wood, plastic and garbage must be less than 1% by volume of the load.

**NOTE**: All loads subject to inspection. Do not off-load unless in the presence of an inspector. Loads can be rejected due to size of materials, weight of material or due to the presence of elevated contaminants. All persons offloading shall certify to the amount of material per load, municipality of origin of load, generator of waste, the transport company, transport vehicle license plate and the vehicle driver name by signing the transport manifest (Recyclable Materials Receipt Form) and acknowledgement of receipt of scale ticket.

**IN THE EVENT OF AN EMERGENCY DIAL 911 &**

**Impact Environmental - 631-269-8800**

**NJDEP Action Hotline - 877-927-6337**

OS-4

| | | | |
|---|---|---|---|
| TITLE: **CLASS B OPERATIONAL PLAN DETAILS** | | PROJECT # | FAC8 |
| | | FIGURE # | 2-3A |
| 1000 Page Avenue<br>Lyndhurst, NJ | DRAWN BY: XY<br>CHECKED BY: JR<br>DATE: 10/07/2014<br>SCALE: NOT TO SCALE | JOEL ROGERS, P.E.<br>NJ LICENSE NO.: 24GE04636400 | |

**IMPACT ENVIRONMENTAL**
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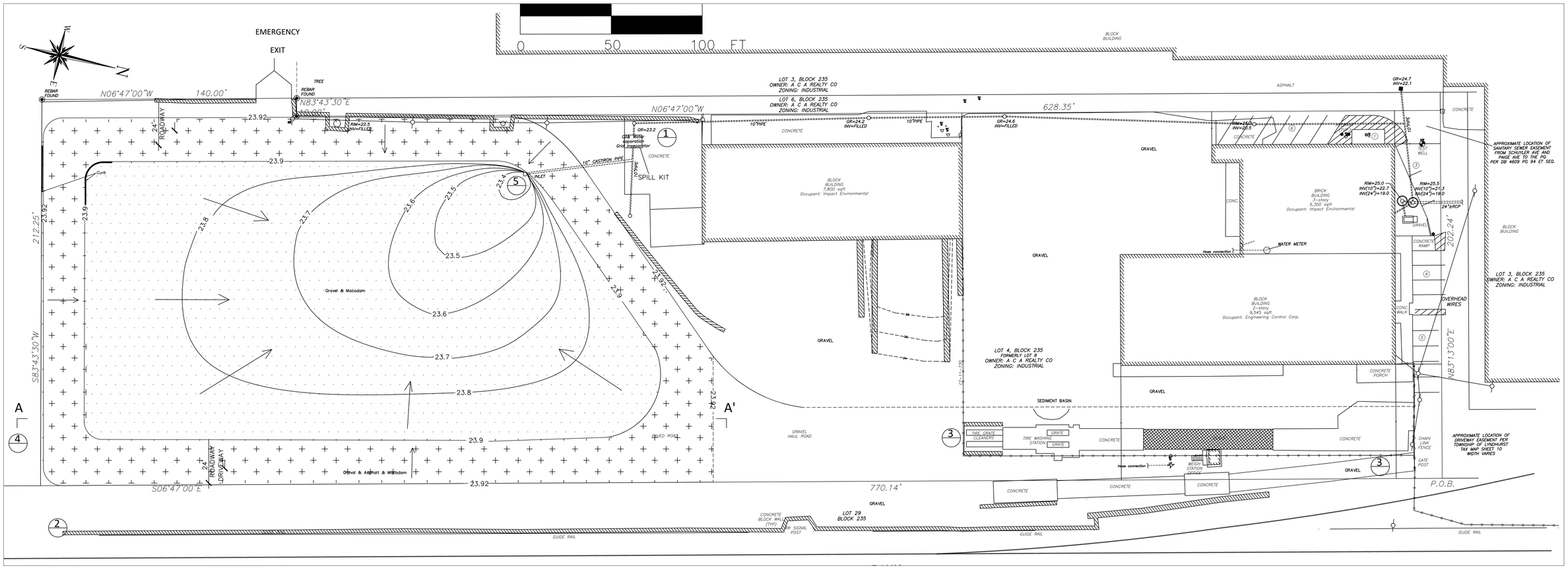


## NOTES:

1. THE FACILITY IS OUTSIDE OF THE 0.2% ANNUAL CHANCE (500-YEAR) FLOODPLAIN ACCORDING TO FIRM FLOOD INSURANCE MAP, BERGEN COUNTY, NEW JERSEY, FROM FEDERAL EMERGENCY MANAGEMENT AGENCY, DATED SEPTEMBER 30, 2005.
2. THE FACILITY CONSISTING OF LOT 4 & 5 OF BLOCK 235 DOES NOT CONTAIN ANY WETLANDS AREAS NOR IS IT WITHIN ANY WETLAND BUFFER ZONES AS TAKEN FROM WETLAND DELINEATION PLANS.
3. FACILITY IS REGULATED UNDER A STORMWATER DISCHARGE PERMIT: NJPDES NJ0217280. THE PERMIT APPLICATION, WHICH IS ADMINISTRATIVELY COMPLETE AND PENDING RESPONSE FROM NJDEP ON TECHNICAL COMPLETENESS, PROVIDES FOR DISCHARGE TO THE EXISTING STORM WATER DRAINAGE SYSTEM THAT IS COMPRISED OF CATCH BASINS THAT DISCHARGE TO AN OIL WATER SEPARATOR/GRIT INTERCEPTOR UNIT VIA 10" CAST IRON CONDUIT. THE OUTFALL FOR THE STORMWATER IS CLASSIFIED AS FW2-NT/SE2(C2).
4. STRAWBALES WITH FILTER FABRIC AND GRAVEL ARE PLACED AROUND STORMWATER INLETS. THESE INLETS ARE ALSO CONNECTED WITH UNDERGROUND PIPES.
5. THERE IS NO ANTICIPATED NEGATIVE IMPACT TO ADJACENT PROPERTIES RESULTING FROM SURFACE RUNOFF.
6. SILT FENCE IS INSTALLED IN FRONT OF CONCRETE BLOCK RETENTION WALLS.
7. MADACAM INSTALLED IN 1,000 SQFT LIFT SECTIONS.
8. ULTRA BASIN GUARD, 24' X 24', OIL AND SEDIMENT MODEL, HELPS COMPLY WITH NPDES, 40 CFR 122.26 (1999) WHEN USED AS BEST MANAGEMENT PRACTICE IN STORM WATER POLLUTION PREVENTION PLANS. LABELED: CAUTION, INLET PROTECTION, DO NOT POLLUTE

## LEGEND

- GR= / INV= ○ — Storm inlet
- (4) — Reference to details
- Gravel & Asphalt & Macadam Pavement
- Gravel & Macadam Pavement
- Stormwater Drainage Direction

TITLE: **STORMWATER DRAINAGE PLAN**

1000 Page Avenue
Lyndhurst, NJ

| | |
|---|---|
| DRAWN BY: | YJ |
| CHECKED BY: | JR |
| DATE: | 10/07/2014 |
| SCALE: | SEE DRAWING |

PROJECT # FAC8

PAGE 2-4

JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400


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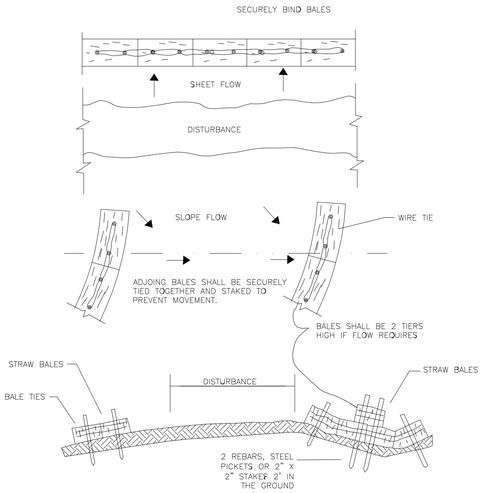
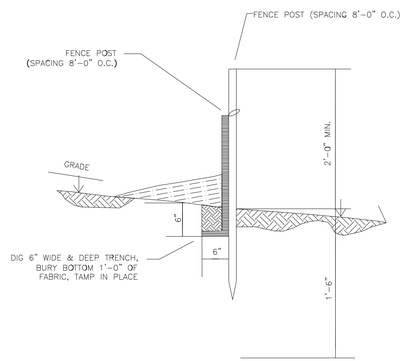
# DETAILS




1 STAW BALE SEDIMENT BARRIER
N.T.S.

NOTES:

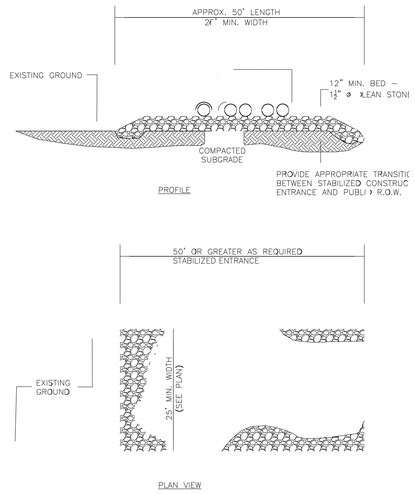
1. THE PRIMARY PURPOSE OF A STRAW BALE SEDIMENT BARRIER IS TO REDUCE VELOCITY AND TRAP SEDIMENT. VELOCITY IS REDUCED, WATER IS IMPOUNDED BEHIND THE BARRIER AND SEDIMENT FALLS OUT OF SUSPENSION.




2 SILT FENCE DETAIL
N.T.S.

NOTES:

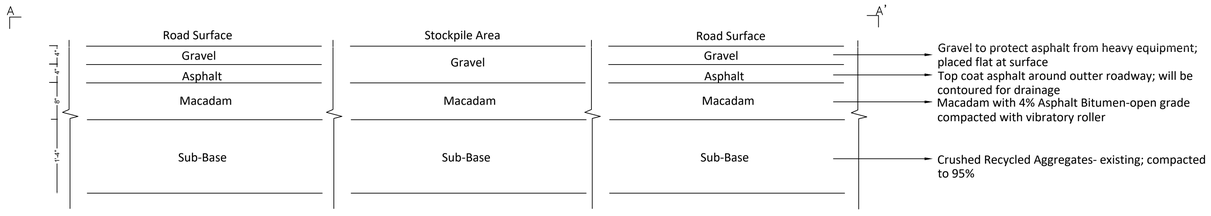
1. THE PRIMARY PURPOSE OF A SILT FENCE IS TO REDUCE VELOCITY AND TRAP SEDIMENT. VELOCITY IS REDUCED, WATER IS IMPOUNDED BEHIND THE BARRIER AND SEDIMENT FALLS OUT OF SUSPENSION.




3 TYPICAL STABILIZED CONSTRUCTION ENTRANCE
N.T.S.

NOTES:

1. USE MIRAFI 600X GEOTEXTILE OR APPROVED EQUAL UNDER ROCK CONSTRUCTION ENTRANCE.
2. THROUGHOUT OPERATION THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKIN OF SEDIMENTS ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE ENTRANCE.
3. ALL SEDIMENTS SPILLED, DROPPED WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMME
4. PERIODIC INSPECTION AND MAINTENANCE SHALL BE COMPLETED AFTER EACH RAIN EVENT.




4 GRAVEL & ASPHALT & MACADAM DETAIL

## RUNOFF CALCULATION

Using Rational Method

**1. Drainage Area:**

Macadam Area: A1=43458.2 ft2

Asphalt Area: A2=24077.4 ft2

A (total)= A1 + A2 = 67535.6 ft2 =1.55 acre

Design area with slope as : 0.002= 0.2%

**2. Determine the runoff coefficient (C):**

asphalt: C 0.7 ~ 0.95

macadam: C 0.35 ~ 0.70

gravel: C 0.35 ~ 0.70

This calculation use:

C (gravel+asphalt+macadam)=0.7

C(gravel+macadam)=0.40

C(total)= (0.40 x A1 + 0.7 x A2 )/A(total) = 0.5

**3. Determine hydraulic path and flow regimes:**

Consider flow in Macadam area as overland flow and flow in asphalt area as Shallow Concentrated Flow

Overland flow length is: Lo=286 ft

Shallow Concentrated flow length is: Lsc=34 ft

**a. Overland flow**

Overland flow length: Lo= 286 ft

This calculation uses the FAA equation

Slop in percent is: S=0.2

Travel time

To= 1.8(1.1-C(total) )x Lo ^0.5/ S^0.33

=36.4 min

**b. Shallow concentrated flow**

Velocity=2.6 ft/s

(Check Table " Average Velocities for Estimating Travel Time for Shallow Concentrated Flow)

Travel time Tsc= Lsc(ft)/60 V(ft/s)

= 34/(60x 2.6 ft/s) = 0.22 min

**4. Time of Concentration (Tc)**

Tc= To + Tsc = 36.4 min + 0.22 min = 36.62 min

**5. Intensity (i)**

i= 1.15 in/hr ( based on 1-year 1 hr Rainfall New Jersey )

i= 1.36 in/hr (based on 2-year 1 hr Rainfall New Jersey)

**6. Peak Discharge (q)**

Q (1 year Storm) = C i A = 0.5 x 1.15 in/hr x 1.55 ac = 0.89 cfs

Q (2 year Storm) = C i A = 0.5 x 1.36 in/hr x 1.55 ac = 1.05 cfs

**7. Existing Inlet Stormwater Pipe**

10 inch cast iron

Using Manning Formula:

Manning Roughness: n=0.011

Slop: S0= 0.002

Pipe Capacity:

Q(FULL) = (1.486/n)*(D)8/3*(S)1/2 =1. 07 cfs > 0.89 cfs

Q(FULL) = (1.486/n)*(D)8/3*(S)1/2 =1. 07 cfs > 1.05 cfs

Existing inlet and stormwater pipe are sufficient for the planned operations.

**Reference:**


[1] Rainfall Frequency Atlas of The United States, U.S. Department of Commerce

[2]Stormwater Design Manual, Boone County, Missouri Stormwater Program

[3]Airport Engineering: Planning Design and Development of 21st Century Airports, by Norman J. Ashford, Salh Mumayiz, Paul H Wright

[4]Figure 3-1 Average Velocities for estimating travel time for shallow concentration, Technical Release 55, Urban Hydrology for Small Watersheds


TITLE: **STORMWATER PLAN DETAILS & CALCULATION**

1000 Page Avenue
Lyndhurst, NJ

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | JR |
| DATE: | 10/07/2014 |
| SCALE: | NOT TO SCALE |

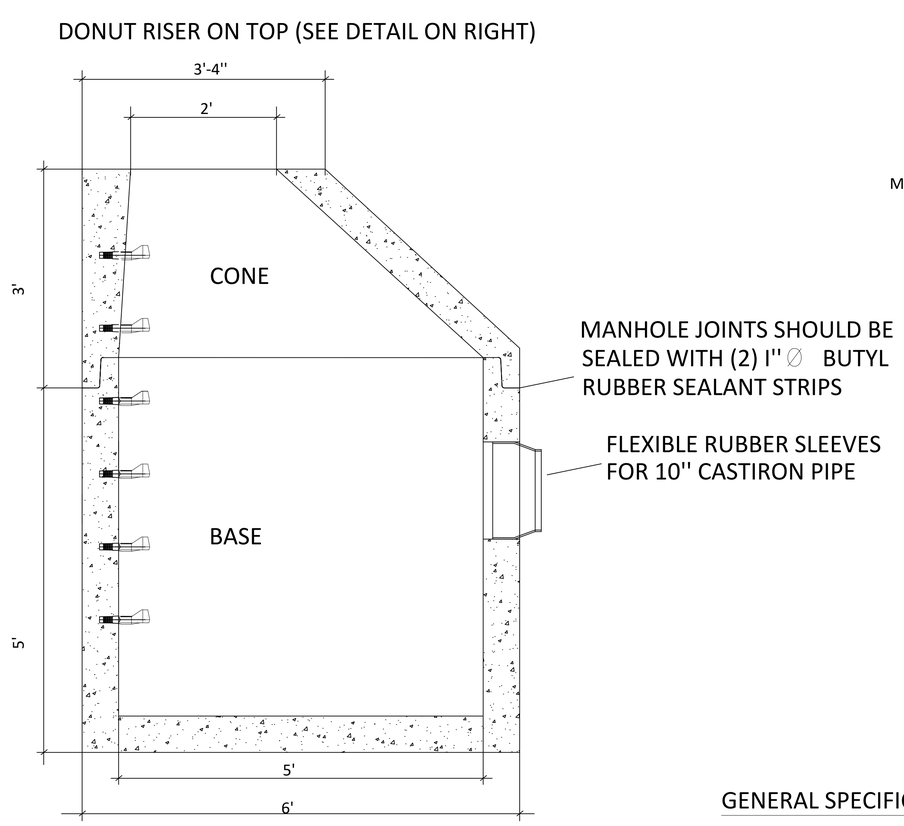
PROJECT # FAC8

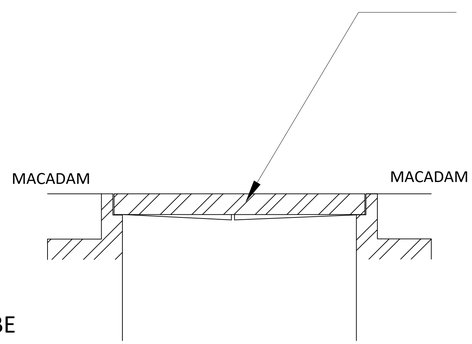
FIGURE # 2-4A

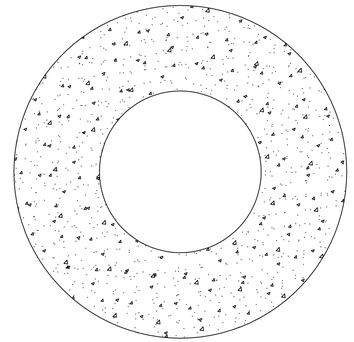
JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400


**IMPACT ENVIRONMENTAL**
170 KEYLAND COURT
BOHEMIA, NEW YORK 11716
TEL (631) 269-8800 FAX (631) 269-1599

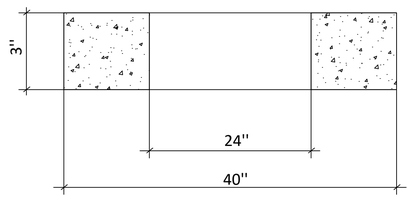
1000 PAGE, AVENUE
LYNDHURST, NEW JERSEY 07071
TEL (201) 268-5686 FAX (631) 269-1599



DONUT RISER




GENERAL SPECIFICATIONS

1) CONCRETE 5000 PSI AFTER 28 DAYS;
2) DESIGNED FOR H-20 WHEEL LOADING
3) CONFORMS TO ASTM-C478 SPECIFICATIONS
4) REINFORCED TO 0.15 IN^2/L.F
5) MANHOLE JOINTS SEALED W/(2) STRIPS OF BUTYL RUBBER
6) ULTRA BASIN GUARD, 24’ X 24’, OIL AND SEDIMENT MODEL, HELPS COMPLY WITH NPDES, 40 CFR 122.26 (1999) WHEN USED AS BEST MANAGEMENT PRACTICE IN STORM WATER POLLUTION PREVENTION PLANS. LABELED: CAUTION, INLET PROTECTION, DO NOT POLLUTE

5 TYPICAL DETAILS OF INLET (TYP.)

CONCRETE VAULT WITH RISER & SEDIMENT TRAP

TITLE: **STORMWATER PLAN DETAILS**

1000 Page Avenue
Lyndhurst, NJ

| | |
|---|---|
| DRAWN BY: | XY |
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| DATE: | 10/07/2014 |
| SCALE: | NOT TO SCALE |

PROJECT # FAC8
FIGURE # 2-4B

JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400

**IMPACT ENVIRONMENTAL**
170 KEYLAND COURT
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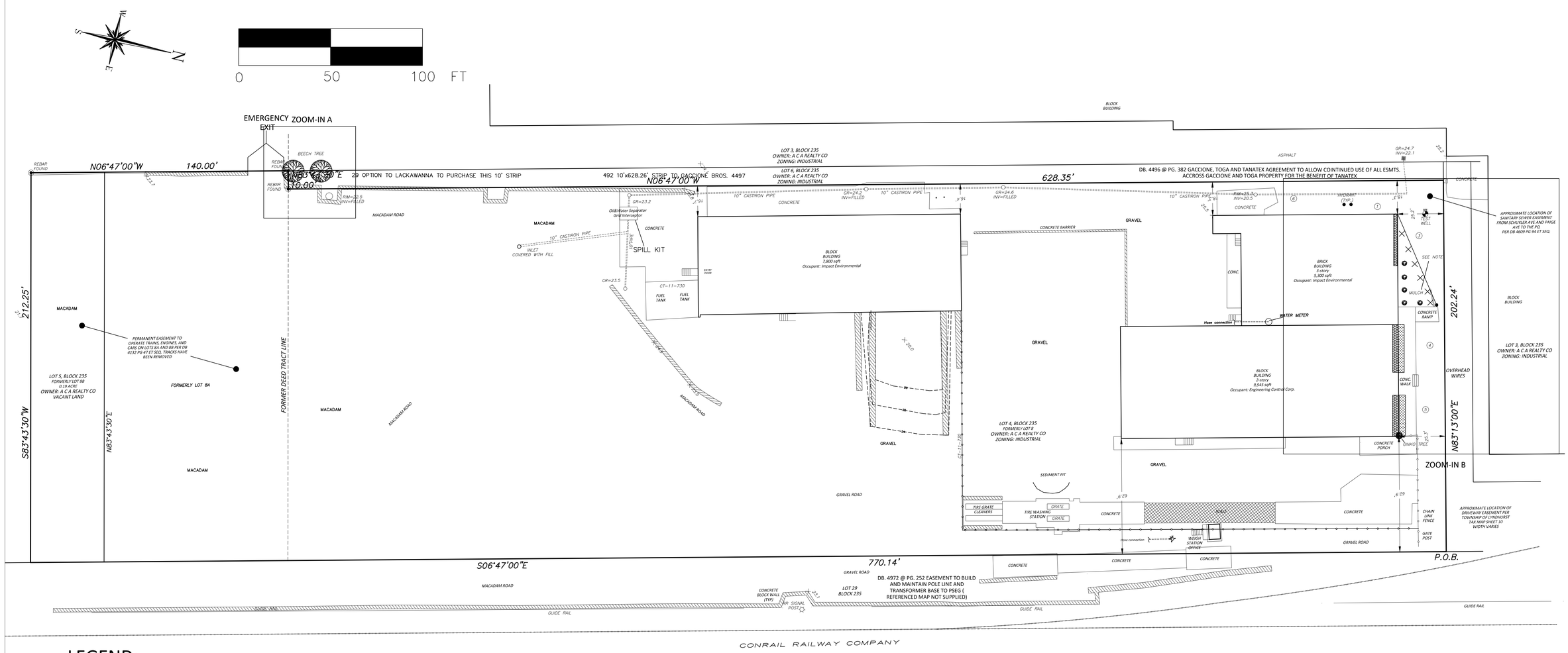
1000 PAGE, AVENUE
LYNDHURST, NEW JERSEY 07071
TEL (201) 268-5686 FAX (631) 269-1599




## LEGEND:

- BEECH TREE
- RED CHOKEBERRY
- WITCH HAZEL
- GRASS
- *HEDERA HELIX* (ENGLISH IVY)

## NOTES:

1. AREA TO BE COVERED WITH MULCH.
2. LANDSCAPING TO BE CONDUCTED PER NEW JERSEY MEADOWLANDS COMMISSION RECOMMENDED PLANT LIST FOR DRY CONDITIONS.
3. APPROX. 2,000 SQUARE FOOT OF *HEDERA HELIX* GROWS ON THE BUILDING FACADE.

TITLE:

# LANDSCAPING PLAN

1000 Page Avenue
Lyndhurst, NJ

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | JR |
| DATE: | 10/07/2014 |
| SCALE: | SEE DRAWING |

PROJECT # FAC8

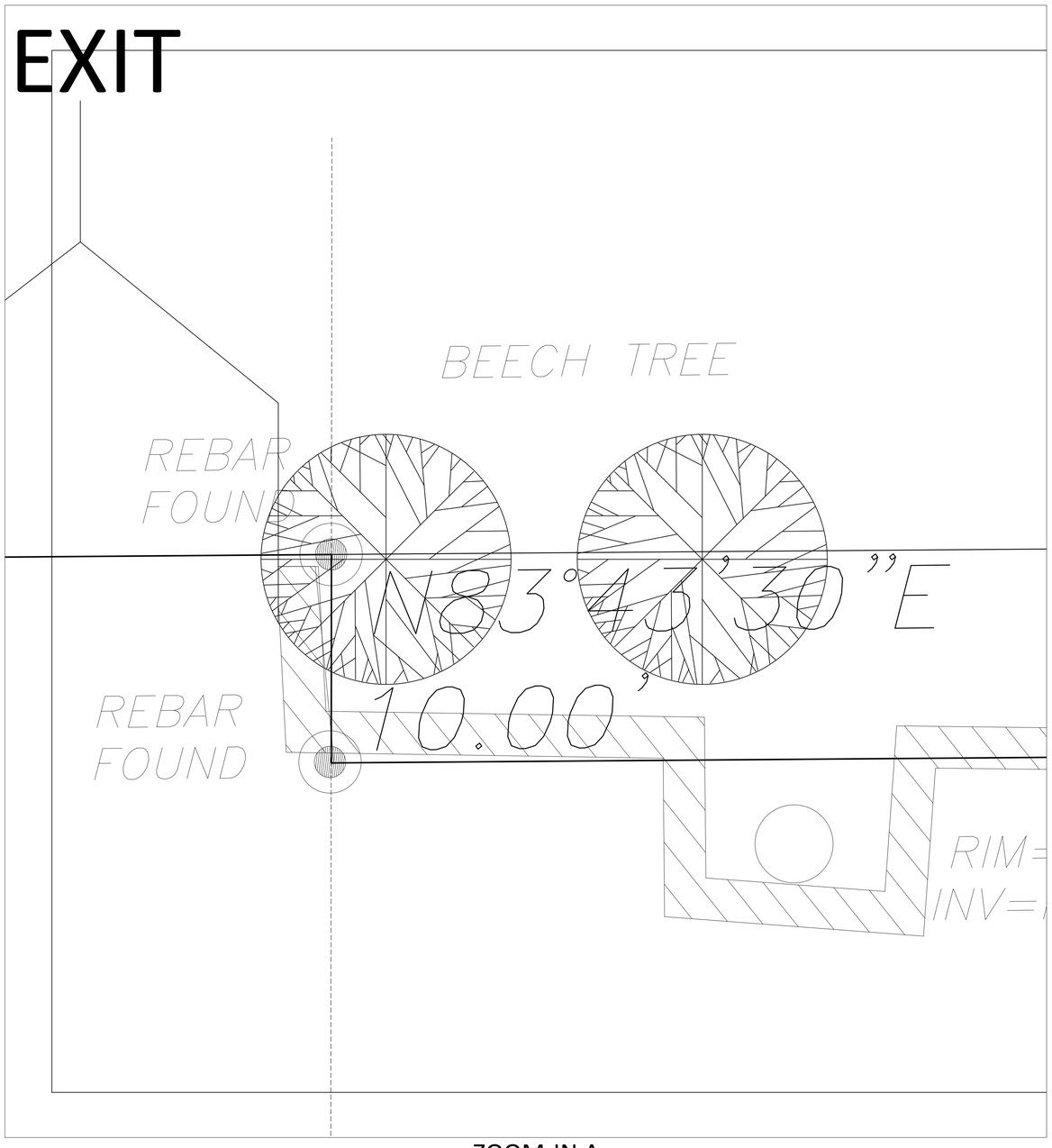
FIGURE # 2-5

JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400

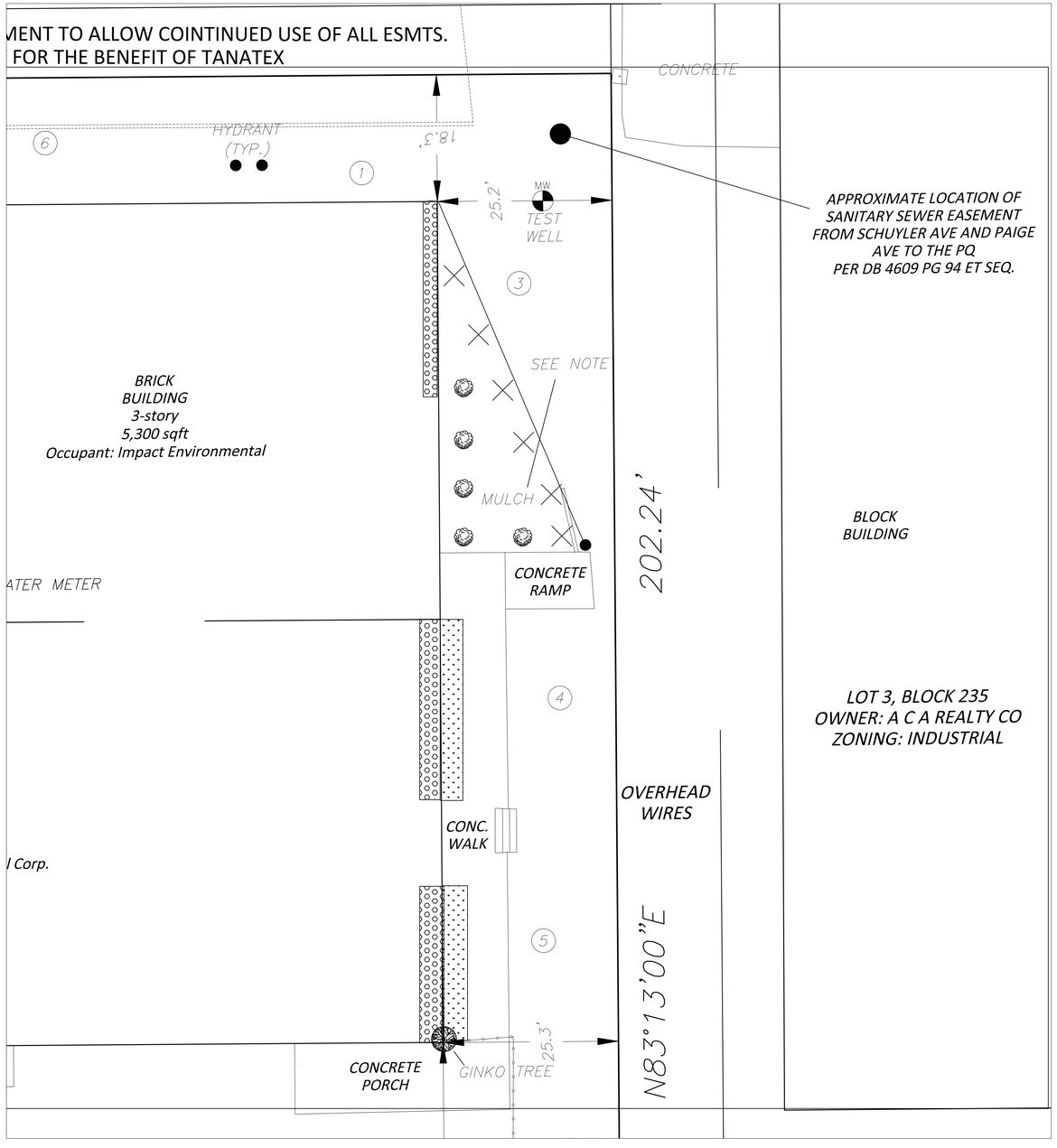

**IMPACT ENVIRONMENTAL**

170 KEYLAND COURT
BOHEMIA, NEW YORK 11716
TEL (631) 269-8800 FAX (631) 269-1599

1000 PAGE, AVENUE
LYNDHURST, NEW JERSEY 07071
TEL (201) 268-5686 FAX (631) 269-1599




ZOOM-IN A




ZOOM-IN B

## NOTES:

1. AREA TO BE COVERED WITH MULCH.
2. LANDSCAPING TO BE CONDUCTED PER NEW JERSEY MEADOWLANDS COMMISSION RECOMMENDED PLANT LIST FOR DRY CONDITIONS.
3. APPROX. 2,000 SQUARE FOOT OF *HEDERA HELIX* GROWS ON THE BUILDING FACADE.

## LEGEND:

TREE | RED CHOKEBERRY | WITCH HAZEL | GRASS | *HEDERA HELIX* (ENGLISH IVY)

TITLE: **LANDSCAPING PLAN DETAILS**

1000 Page Avenue
Lyndhurst, NJ

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | JR |
| DATE: | 10/07/2014 |
| SCALE: | SEE DRAWING |

PROJECT # FAC8

FIGURE # 2-5A

JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400

**IMPACT ENVIRONMENTAL**
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1000 PAGE, AVENUE
LYNDHURST, NEW JERSEY 07071
TEL (201) 268-5686 FAX (631) 269-1599

**IMPACT ENVIRONMENTAL CONSULTING INC**
131888 CBG110003 Class B Recycling Ctr General Apprv -Renewal
Requirements Report

**Subject Item: PI 131888 -**

1. All persons issued a general approval to operate a recycling center for Class B, Class C and/or Class D recyclable material pursuant to N.J.A.C. 7:26A-1 et seq. shall comply with all conditions of the approval [N.J.A.C. 7:26A-3.1(a)]
2. The holder of this general approval shall prominently post and maintain a legible sign, at or near the entrance to the recycling center, indicating that the recycling center is an approved New Jersey Department of Environmental Protection recycling center. The sign shall also indicate the following: Hours of operation of the recycling center; Listing of the source separated materials to be received; The size, weight, or other restrictions regarding materials to be received; The maximum amount of contaminants allowed in each load; Warning that loads will be inspected and will be barred from offloading if the contaminant level is exceeded; and Notice that the person offloading shall certify the amount of material per load, municipality of origin of the material and any other information contained on the Recyclable Material Receipt Form [N.J.A.C. 7:26A-3.5(f)]
3. Application for renewal of this general approval shall be submitted at least three months prior to expiration of the current approval and shall comply with all requirements for renewal set forth in N.J.A.C. 7:26A-3.6 et seq. One copy of the application for renewal of the general approval shall be submitted by the applicant to the municipal clerk of the municipality in which the recycling center is located, and to the solid waste or recycling coordinator of the county in which the recycling center is located [N.J.A.C. 7:26A-3.6(a)]
4. The applicant for renewal of this general approval shall certify in writing to the Department that there have been no changes in the operations of the recycling center since the issuance of the general approval in order to renew the approval in its existing form. In the event that there have been changes in the operations of the recycling center or where changes are planned, the application for renewal of a general approval shall be accompanied by a written request to modify the general approval in accordance with N.J.A.C. 7:26A-3.10 [N.J.A.C. 7:26A-3.6(b)]
5. In a case where the holder of this general approval does not comply with N.J.A.C. 7:26A-3.6(a) and (b) and continues to operate without renewal of the general approval, the Department may take enforcement action including the assessment of penalties under N.J.S.A. 13:1E-9; require the holder of this general approval to file an application as a new applicant for a general approval in accordance with N.J.A.C. 7:26A-3.2 and pay the application fee as per N.J.A.C. 7:26A-2; and/or take any other appropriate actions [N.J.A.C. 7:26A-3.6(c)]
6. All persons granted a renewal pursuant to N.J.A.C. 7:26A-3.6(d) shall continue to pay the annual fee as specified in N.J.A.C. 7:26A-2 [N.J.A.C. 7:26A-3.6(h)]
7. The holder of this general approval shall obtain prior approval from the Department for any modification of the general approval [N.J.A.C. 7:26A-3.10(a)]
8. Any change affecting the conditions of this general approval requires the prior approval of the Department [N.J.A.C. 7:26A-3.10(b)1]
9. Any change to the information submitted pursuant to N.J.A.C. 7:26A-3.2(a), 3.4, 3.8, 3.18, 3.19 or 3.20 requires the prior approval of the Department, except that changes in end-market information submitted pursuant to N.J.A.C. 7:26A-3.2(a) 7 shall not require the prior approval of the Department but shall be handled in accordance with N.J.A.C. 7:26A-3.10(f). [N.J.A.C. 7:26A-3.10(b)2]

**Subject Item: PI 131888 -**

10. The holder of this general approval shall notify the Department in writing of the intended modification and shall update the information submitted pursuant to N.J.A.C. 7:26A-3.2(a), 3.4, 3.8, 3.18, 3.19 or 3.20. The holder of this general approval shall also provide written notice to the solid waste or recycling coordinator of the applicable county of any request to modify a general approval. [N.J.A.C. 7:26A-3.10(c)]

11. The holder of this general approval shall not institute the modification until it receives written approval from the Department [N.J.A.C. 7:26A-3.10(e)]

12. Within one week of any change to the end-market information submitted to the Department pursuant to N.J.A.C. 7:26A-3.2(a)7, the holder of this general approval shall submit to the Department a written notification which details any change in the use of the recyclable material transferred from the recycling center to an end-market or in the end-market location to which the recyclable material is transferred. The written notification shall be sent to: New Jersey Department of Environmental Protection, Division of Solid and Hazardous Waste, Bureau of Recycling & Hazardous Waste Management, P.O. Box 414, Mail Code 401-02C, Trenton, New Jersey 08625-0414. [N.J.A.C. 7:26A- 3.10(f)]

13. The Department may revoke this general approval upon a determination that the holder of the general approval has violated any provision of N.J.S.A. 13:1E-1 et seq., the New Jersey Statewide Mandatory Source Separation and Recycling Act, or any rule, regulation or administrative order promulgated pursuant to N.J.S.A. 13:1E-1 et seq. and the New Jersey Statewide Mandatory Source Separation and Recycling Act [N.J.A.C. 7:26A-3.13(a)1]

14. The Department may revoke this general approval upon a determination that the holder of the general approval has violated any solid waste utility law at N.J.S.A. 48:2-1 et seq. or 48:13A-1 et seq., or any rule, regulation or administrative order promulgated pursuant to N.J.S.A. 48:2-1 et seq. or 48:13A-1 et seq [N.J.A.C. 7:26A-3.13(a)2]

15. The Department may revoke this general approval upon a determination that the holder of the general approval has violated any provision of any laws related to pollution of the waters, air or land surfaces of the State or of any other State or Federal environmental laws including criminal laws related to environmental protection [N.J.A.C. 7:26A-3.13(a)3]

16. The Department may revoke this general approval upon a determination that the holder of the general approval has refused or failed to comply with any lawful order of the Department [N.J.A.C. 7:26A-3.13(a)4]

17. The Department may revoke this general approval upon a determination that the holder of the general approval has failed to comply with any of the conditions of this general approval issued by the Department [N.J.A.C. 7:26A-3.13(a)5]

18. The Department may revoke this general approval upon a determination that the holder of the general approval has transferred a general approval to a new owner or operator pursuant to N.J.A.C. 7:26A-3.15 without the prior approval of the Department [N.J.A.C. 7:26A-3.13(a)6]

19. The Department may revoke this general approval upon a determination that the holder of the general approval has failed to obtain any required permit or approval from the Department or other State or Federal agency [N.J.A.C. 7:26A-3.13(a)7]

**Subject Item: PI 131888 -**

20. The Department may revoke this general approval upon a determination that the holder of the general approval has committed any of the acts which are criteria for denial of a general approval set forth in N.J.A.C. 7:26A-3.12. [N.J.A.C. 7:26A-3.13(a)8]

21. This general approval shall not be transferred to a new owner or operator without the Department's prior approval [N.J.A.C. 7:26A-3.15(a)]

22. A written request for permission to allow a transfer of this general approval must be received by the Department at least 60 days in advance of the proposed transfer of ownership or operational control of the recycling center. The request for approval shall include the following: the name, address and social security number of all prospective new owners or operators; a written certification by the proposed transferee that the terms and conditions contained in the general approval will be met by the proposed transferee; and a written agreement between the current owner or operator of the recycling center and the proposed new owner or operator containing a specific future date for transfer of ownership or operational control [N.J.A.C. 7:26A-3.15(a)1]

23. A new owner or operator may commence operations at the recycling center only after the existing approval has been revoked and a new approval is issued to the new owner or operator pursuant to N.J.A.C. 7:26A-3.5 [N.J.A.C. 7:26A-3.15(a)2]

24. The holder of this general approval remains liable for ensuring compliance with all conditions of the approval unless and until the existing approval is revoked and a new approval is issued to the new owner or operator pursuant to N.J.A.C. 7:26A-3.5 [N.J.A.C. 7:26A-3.15(a)3]

25. Compliance with the transfer requirements set forth at N.J.A.C. 7:26A-3.15 shall not relieve the holder of this general approval from the separate responsibility of providing notice of such transfer pursuant to the requirements of any other statutory or regulatory provision [N.J.A.C. 7:26A-3.15(a)4]

26. The transfer of a controlling interest in the stock or assets of the recycling center that is the subject of this general approval shall constitute a transfer of this general approval [N.J.A.C. 7:26A-3.15(b)]

27. The holder of this general approval shall maintain a daily record of the amounts of each recyclable material by type and municipality of origin which are received, stored, processed or transferred each day, expressed in tons, cubic yards, cubic feet or gallons. Those operators specifying this information in cubic yards shall also indicate the conversion ratio of the materials from cubic yards to tons [N.J.A.C. 7:26A-3.17(a)1]

28. The holder of this general approval shall maintain a daily record of the name, address and telephone number of the end-markets for all recyclable materials transported from the recycling center, including the amounts, in tons, cubic yards, cubic feet or gallons, transported to each end-market. Those persons specifying this information in cubic yards shall also indicate the conversion ratio of the materials from cubic yards to tons [N.J.A.C. 7:26A-3.17(a)2]

29. The holder of this general approval shall maintain a daily record of the amount of residue disposed of, expressed in tons, cubic yards, cubic feet or gallons, including the name and New Jersey Department of Environmental Protection solid waste registration number of the solid waste collector/hauler contracted to provide the haulage/disposal service. Those persons specifying the amount of residue in cubic yards shall also indicate the conversion ratio of the residue from cubic yards to tons. [N.J.A.C. 7:26A-3.17(a)3]

**Subject Item: PI 131888 -**

38. The right of entry specified at N.J.A.C. 7:26A-1.7(a) shall be limited to normal operating hours for the purpose of reviewing and copying all applicable records, which shall be made available to the Department during an inspection and submitted to the Department upon request. [N.J.A.C. 7:26-1.7(b)]

39. The facility shall comply with the general operating requirements for all Recycling Centers as provided at N.J.A.C. 7:26A-4.1 [N.J.A.C. 7:26A-4]

**Subject Item: RCBG850400 - Class B Materials Handling**

40. The following source separated Class B recyclable materials, which have been separated at the point of generation from other waste materials or separated at a permitted solid waste facility authorized to separate recyclable materials, may be received, stored, processed or transferred at this recycling center: Concrete, Concrete Block, Cinder Block, Brick, Asphalt, Asphalt Millings, Plaster, Ceramic, Porcelain, Tile, and Terra Cotta. [N.J.A.C. 7:26A-3.5(e)]

41. At no time shall the receipt, storage, processing, or transferring of non-source separated construction and demolition material be allowed at this recycling center. The prohibition of this material shall be strictly enforced and any incident shall be considered a serious violation to the conditions of this Approval. [N.J.A.C. 7:26A-3.5(e)]

42. The recycling center may receive, store, process, or transfer source separated Concrete, Concrete Block, Cinder Block, Brick, Asphalt, Asphalt Millings, Plaster, Ceramic, Porcelain, Tile, or Terra Cotta separately or in a commingled manner. The commingling of any other materials not described above is prohibited. [N.J.A.C. 7:26A-3.5(e)]

43. The maximum amount of contaminants, as defined in N.J.A.C. 7:26A-1.3, allowed in each incoming load of Class B recyclable material shall be limited to 1% by volume. Incidental by-product materials shall not be considered to be contaminants. [N.J.A.C. 7:26A-3.5(e)]

44. Incidental amounts of rebar, metal, soil, and other by-products which adhere to the Class B recyclable materials, as specified in this Approval, and which are returned to the economic mainstream as raw material or products, may be received, stored, processed, or transferred at this recycling center. The receipt of such incidental amounts of these materials need not be separately accounted for, but the storage and end-markets for these materials shall be subject to specific conditions of this Approval. [N.J.A.C. 7:26A-3.5(e)]

45. The holder of this general approval shall operate the recycling center and construct or install associated appurtenances thereto, in accordance with the provisions of N.J.A.C. 7:26A-1 et seq., the conditions of this general approval, and the general approval application documents. [N.J.A.C. 7:26A-3.5(e)]

46. In case of conflict, the conditions of this approval shall have precedence over the general approval application documents, and the most recent revisions and supplemental information approved by the Department shall prevail over prior submittals and designs. [N.J.A.C. 7:26A-3.5(e)]

47. One complete set of the general approval application documents, this general approval, and all records, reports and plans as may be required pursuant to this approval shall be kept on file at the recycling center and shall be available for inspection by authorized representatives of the Department or delegated agents upon presentation of credentials. [N.J.A.C. 7:26A-3.5(e)]

**Subject Item: PI 131888 -**

30. The holder of this general approval shall retain all Recyclable Material Receipt Forms required pursuant to N.J.A.C. 7:26A-3.2(a)16iii for three calendar years following the calendar year for which an annual report is required pursuant to N.J.A.C. 7:26A-3.17(c) [N.J.A.C. 7:26A-3.17(b)]

31. The holder of this general approval shall submit an annual report containing monthly summary statements of the information required pursuant to N.J.A.C. 7:26A-3.17(a) to the New Jersey Department of Environmental Protection, Division of Solid and Hazardous Waste, on or before March 1 of each year, for the previous calendar year. The summaries shall include the following: monthly totals of the amount of recyclable material received from each customer by municipality of origin; monthly totals of the amount of recyclable product transferred to each end-market; and the amount of residue disposed of during each month. [N.J.A.C. 7:26A- 3.17(c)]

32. The holder of this general approval shall certify in writing to the Department that all residue generated at the recycling center has been disposed of in accordance with the solid waste management rules at N.J.A.C. 7:26. The certification shall be submitted annually as part of the annual report [N.J.A.C. 7:26A-3.17(e)]

33. All information submitted to the Department pursuant N.J.A.C. 7:26A shall be handled in accordance with the requirements of the Public Records law, N.J.S.A. 47:1-1 et seq. The Department will hold confidential all end-market information, as well as information pertaining to the municipality of origin of recyclable material, submitted pursuant to N.J.A.C 7:26A-3.2, 3.7, and 3.17 through 3.20 for a period of two years from the date on which the information is submitted to the Department, where specified as confidential by the applicant and where there are no health, safety or environmental concerns which require the release of the information, as determined by the Department. [N.J.A.C. 7:26A-3.17(f)]

34. The holder of this general approval shall provide a recycling tonnage report by February 1 of each year to all municipalities from which recyclable material is received in the previous calendar year. The report shall detail the amount of each source separated recyclable material, expressed in tons or cubic yards, brought to the recycling center, as well as the date on which the recyclable materials were delivered to the recycling center. Those persons specifying this information in cubic yards shall also indicate the conversion ratio of the materials from cubic yards to tons [N.J.A.C. 7:26A-4.4(a)]

35. The recycling center shall not commence operations unless and until it is included in the applicable district solid waste management plan [N.J.A.C. 7:26A-4.2]

36. The construction of the recycling center that is the subject of this general approval shall be in conformance with the New Jersey Uniform Construction Code, N.J.S.A. 52:27D-119 et seq., and the rules promulgated pursuant thereto [N.J.A.C. 7:26A-4.1(b)]

37. The New Jersey Department of Environmental Protection or an authorized representative acting pursuant to the County Environmental Health Act, N.J.S.A. 26:3A2-1 et seq. shall have the right to enter and inspect any building or other portion of the recycling center at any time in order to determine compliance with the provisions of all applicable laws or rules and regulations adopted pursuant thereto. This right to inspect includes, but is not limited to: sampling any materials on site; photographing any portion of the recycling center; investigating an actual or suspected source of pollution of the environment; and, ascertaining compliance or non-compliance with the statutes, rules or regulations of the Department, including conditions of the recycling center approval issued by the Department. [N.J.A.C. 7:26-1.7(a)]

**Subject Item: RCBG850400 - Class B Materials Handling**

48. Hours of operation for receiving, storing, processing, or transferring the source separated recyclable material shall be limited to: 7:00 a.m. to 5:00 p.m., Monday through Friday; 7:00 a.m. to 3:00 p.m., Saturday. [N.J.A.C. 7:26A-3.5(e)]

49. Material deliveries to the recycling center shall be scheduled in such a manner as to minimize truck queuing on the recycling center property. Under no circumstances shall delivery trucks be allowed to back-up or queue onto public roads. [N.J.A.C. 7:26A-3.5(e)]

50. The recycling center may receive no more than 250 tons per day of the recyclable materials. [N.J.A.C. 7:26A-3.5(e)]

51. The total amount of unprocessed Class B recyclable & Beneficial Use material stored on-site shall not exceed 8,210 cubic yards. Unprocessed materials & incoming Beneficial Use material stored on-site shall be stored only in those areas designated for that purpose as indicated on the approved site plan drawing. [N.J.A.C. 7:26A- 3.5(e)]

52. If at any time, the amount of unproccssed Class B & beneficial use material stored on-site exceeds 8,210 cubic yards, the recycling center shall immediately cease receiving any unprocessed Class B & beneficial use material until the amount of these material stored on-site falls below 8,210 cubic yards. [N.J.A.C. 7:26A- 3.5(e)]

53. Unprocessed recyclable material shall not remain on-site, in its unprocessed form, for more than one (1) year. [N.J.A.C. 7:26A-3.9(b)]

54. The total amount of processed Class B recyclable & beneficial use material stored on-site shall not exceed 6,538 cubic yards. Processed Class B & beneficial use materials stored on-site shall be stored only in those areas designated for that purpose as indicated on the approved site plan drawing. [N.J.A.C. 7:26A- 3.5(e)]

55. If at any time, the amount of processed Class B & benefical use material stored on-site exceeds 6,538 cubic yards, the recycling center shall immediately cease processing activities until the amount of these material falls below 6,538 cubic yards. [N.J.A.C. 7:26A- 3.5(e)]

56. All processed material shall be stored separately from residues. [N.J.A.C. 7:26A-3.5(e)]

57. By-products shall be stored in the container(s) or area(s) as depicted on the approved site plan and shall be removed off-site to the end markets as referenced in the approved documents. [N.J.A.C. 7:26A-3.5(e)]

58. Horizontal and vertical control points for the unprocessed and processed materials stockpile areas shall be set and maintained on-site. Horizontal limitation markers shall be set at the corners of the stockpile areas as depicted on the approved site plan. Vertical limitation markers shall be set at locations in close proximity of the stockpile areas and shall clearly establish elevation height of 25 feet above the existing grade for the unprocessed & processed stockpile areas. [N.J.A.C. 7:26A-3.5(e)]

59. Metal pipe or metal rods or the equivalent as approved by the Department shall be used to establish these control points. Within approximately thirty (30) days of the acceptance date of this Approval, a joint site inspection shall be held at the facility between the owner/operator and representatives of the Department for the purpose of establishing the locations of these markers. [N.J.A.C. 7:26A-3.5(e)]

60. Ingress and egress of the facility shall be restricted to Page Avenue only. [N.J.A.C. 7:26A-3.5(e)]

**Subject Item: RCBG850400 - Class B Materials Handling**

61. Methods of effectively controlling dust shall be implemented at the facility in order to prevent offsite migration. [N.J.A.C. 7:26A-3.5(e)]

62. Fire fighting and emergency procedures shall be posted, and shall include the telephone numbers of local fire, police, ambulance, and hospital facilities. If a fire occurs on-site, the facility shall immediately notify the local fire official and report the incident to the N.J.D.E.P. Environmental Action Hotline at 1-877-927-6337. [N.J.A.C. 7:26A-3.5(e)]

63. Any suspected or prohibited hazardous waste, as defined at N.J.A.C. 7:26G-5, found in a load accepted at the recycling center shall not be returned to the generator. Such materials shall be segregated and stored in a secure manner and shall be immediately reported to the N.J.D.E.P. Environmental Action Hotline at 1-877-927-6337. The owner/operator of the recycling center shall secure the name of the collector/hauler suspected of delivering such waste to the facility and related information surrounding the incident, if available, and shall make this information known to N.J.D.E.P. enforcement personnel. [N.J.A.C. 7:26A-3.5(e)]

64. All revisions to the site plan and the approved documents which may be required as a result of the above, shall be submitted to this office for modification to this Approval. [N.J.A.C. 7:26A-3.5(e)]

65. Pursuant to N.J.A.C. 7:26A-3.11(a), the holder of this general approval shall obtain prior approval from the Department for any increase in the design capacity of the facility. The facility shall submit a request to the Department, in writing, for the proposed increase and shall submit updated information pursuant to the requirements of N.J.A.C. 7:26A-3.2(a), 3.4, or 3.8, as applicable. The facility shall also provide written notice of the request to the solid waste or recycling coordinator of the applicable district. [N.J.A.C. 7:26A-3.5(e)]

66. The following equipment or equivalent shall be available for site operations and shall be maintained in operable condition: Ultramax 1000 Crushing Portable Plant, Bobcat, Cat Loader 966F, Cat Excavator 325. [N.J.A.C. 7:26A-3.5(e)3]

67. Within thirty days (30) from the date of this approval, the facility shall contact Bureau of Non Point Pollution Control to determine the appropriate permit required for the recycling operations to comply with the applicable provisions of the Stormwater Management rules at N.J.A.C. 7:8-5 and 6 and the Pollutant Discharge Elimination System rules at N.J.A.C. 7:14A-24 and 25. [N.J.A.C. 7:26A- 3 .2(a)18]

**Subject Item: RCBG1106269 - Beneficial Use Materials Handling**

68. The owner/operator is authorized to accept higher volume of soils (contaminated above the New Jersey Residential Direct Contact Soil Remediation Standards (NJRDCSRS)) comingled with approved Class B recyclable materials (BUD Material) generated from demolition and/or redevelopment projects for processing and shipment to an end use facility, provided beneficial use of the BUD material at the end use facility is preapproved by the Department through a Certificate of Authority to Operate (CAO) a Beneficial Use Project in accordance with N.J.A.C. 7:26-1.7(g). [N.J.A.C. 7:26A- 3 .5(e)]

**Subject Item: RCBG1106269 - Beneficial Use Materials Handling**

69. The owner/operator shall submit a separate application for each project site generating BUD Material. For out-of-state end use sites, the applications shall include additional information in accordance with N.J.A.C. 7:26-1.7(g)8 including but not limited to, a letter from each end use facilities indicating their willingness to accept the BUD Material for beneficial use and corresponding quantity, and a letter from the appropriate regulatory agency of the state where the end use facility is located verifying that the facility is operating in accordance with all applicable rules and regulations and can lawfully accept the material for the declared beneficial use and a current copy of the end use facility's authorization to operate, i.e., a permit. [N.J.A.C. 7:26A- 3 .5(e)]

70. All BUD Material accepted at the facility shall be managed in accordance with the requirements specified in a CAO issued to the facility and conditions of this Approval. [N.J.A.C. 7:26A- 3.5(e)]

71. A log shall be maintained of each incoming and outgoing shipment of BUD Material. The log shall include the following: 1. Name of the Project Site generating the material; 2. NJDEP issued CAO Number; 3. CAO Expiration Date; 4. Date and Time of receipt (incoming); 5. Quantity received; 6. Date and Time of outgoing shipment, 7. Name of the end use facility; and 8. Quantity shipped (outgoing). [N.J.A.C. 7:26- 1.7(a)]

72. In the event that the BUD Material fail to meet the acceptance criteria, the owner/operator shall not accept the material and reject the shipment back to the generator. All rejected shipment shall be entered in the log mentioned above and a written notification shall be sent to the NJDEP, Bureau of Recycling and Hazardous Waste Management. [N.J.A.C. 7:26A- 3.5(e)]

73. All unprocessed and processed BUD Material shall be stored on paved surfaces in designated areas identified in the approved site plans. [N.J.A.C. 7:26A- 3.5(e)]

74. The owner/operator shall not accept shipment of BUD Material from any project prior to the Department's issuance of a CAO specific to the project site and corresponding end use facilities. [N.J.A.C. 7:26A- 3 .5(e)]

75. All incoming shipment of BUD Material shall be processed at the facility as described in the permit modification application dated October 29, 2014 and associated documents. [N.J.A.C. 7:26A- 3.5(e)]

76. The owner/operator shall obtain and maintain all other necessary permits for the management of BUD Material at the facility including, but not limited to, permits from the Department's Division of Air Quality and the Division of Water Quality. [N.J.A.C. 7:26A- 3 .5(e)]

77. In the event of any outgoing shipment of BUD Material being rejected by the end use facility, the owner/operator shall be responsible for proper disposal of the material as solid waste and report to the NJDEP, Bureau of Recycling and Hazardous Waste Management. [N.J.A.C. 7:26A- 3 .5(e)]

78. Appropriate dust control and run-on, run-off controls shall be provided for each processed and unprocessed BUD Material storage areas. [N.J.A.C. 7:26A- 3 .5(e)]

79. Commingled Class B material that have been separated from the BUD soils through processing, shall not be sold as a product in open market. [N.J.A.C. 7:26A- 3 .5(e)]

CHRIS CHRISTIE
*Governor*

KIM GUADAGNO
*Lt. Governor*

State of New Jersey
DEPARTMENT of ENVIRONMENTAL PROTECTION
Division of Air Quality
Bureau of Air Permits
401 E. State Street, 2nd floor, P.O. Box 420, Mail Code 401-02
Trenton, NJ 08625-0420

BOB MARTIN
*Commissioner*

**Air Pollution Control**
**Preconstruction Permit and Certificate to Operate**
**Construction of a New Source**

**Permit Activity Number: PCP120001** **Program Interest No: 03507**

| Mailing Address | Plant Location |
|---|---|
| JOEL ROGERS<br>VP<br>IMPACT ENVIRONMENTAL CONSULTING INC<br>1000 PAGE AVE<br>Lyndhurst, NJ 07071 | IMPACT RECOVERY & REUSE CTR<br>1000 Page Ave - 2nd Fl<br>Lyndhurst Twp<br>Bergen County, New Jersey |

**Approval Date: 05/17/2012**
**Expiration Date: 05/16/2017**

The New Jersey Department of Environmental Protection (Department) has reviewed the above referenced air pollution control permit application. On the basis of the information provided, the Department concludes that the application satisfies all applicable requirements of the New Jersey Air Pollution Control regulations codified at N.J.A.C. 7:27 et seq. This permit allows for inspection and evaluation of the equipment by the Department to assure conformance with all provisions of N.J.A.C. 7:27 et seq. and any other applicable federal requirements codified at 40 CFR 52, 60, 61 and 63.

The equipment, that is authorized to be installed and operated under this approval, is described in Section A, Source Operations and Section D, Equipment Inventory. Equipment at the facility referenced by this Permit shall be operated in accordance with the Conditions of Approval set forth in Section D, Facility Specific Requirements.

The Department hereby issues this permit and certificate under the authority of chapter 106, P.L. 1967(N.J.S.A 26:2C-9.2). You may construct, reconstruct, install, or modify the above referenced equipment and/or control apparatus consistent with the approval.

The approved Permit is available for download in PDF format which contains the facility's specific requirements (compliance plan) at: http://www.nj.gov/dep/aqpp. After accessing the web site, click on "Approved PCP Permits" listed under "Reports" and then type in your Program Interest (PI) Number, 03507, as instructed on the screen. You will be able to view, print or electronically store your permit. If you have any questions regarding this permit approval, please contact the Department at the Preconstruction Permit Help Line available from

# Administrative Hearing Request Checklist and Tracking Form

## I. Document Being Appealed

| Name of the Facility | Facility ID Number | Permit Activity Number | Issuance Date |
|---|---|---|---|
| IMPACT RECOVERY & REUSE CTR | 03507 | PCP120001 | |

## II. Contact Information

| Name of Person Requesting Hearing | Name of Attorney (if applicable) |
|---|---|
| | |
| Address: | Address: |
| | |
| | |
| Telephone: | Telephone: |

## III. Please include the following information as part of your request:

A. The date the permittee received the permit decision;
B. Two printed copies of the document being appealed – for submitting to address 1 below;
A PDF copy of the document being appealed on a CD – for submitting to address 2 below
C. The legal and factual questions you are appealing;
D. A statement as to whether or not you raised each legal and factual issues during the permit application process;
E. Suggested revised or alternative permit conditions;
F. An estimate of the time required for the hearing;
G. A request, if necessary, for a barrier-free hearing location for physically disabled persons;
H. A clear indication of any willingness to negotiate a settlement with the Department prior to the Departments processing of your hearing request to the Office of Administrative Law;

Mail this form, completed, signed and dated with all of the information listed above, including attachment, to:

1. New Jersey Department of Environmental Protection
Office of Legal Affairs
Attention: Adjudicatory Hearing Requests
401 E. State Street, P.O. Box 402
Trenton, New Jersey 08625

2. Air Quality Permitting Element
Preconstruction Permits
New Jersey Department of Environmental Protection
401 E. State Street, 2nd Floor, P.O. Box 027
Trenton, New Jersey 08625
Phone: (609) 633-2829

_____ _____
**Signature** **Date**

AIR POLLUTION CONTROL PRECONSTRUCTION PERMIT

Table of Contents

**Facility Name: IMPACT RECOVERY & REUSE CTR**
**Facility ID No.: 03507**
**Permit Activity No.: PCP120001**


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AUTHORIZED SOURCE OPERATIONS

**Section B**

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PERMIT INFORMATION

AIR POLLUTION CONTROL PRECONSTRUCTION PERMIT

**Section B**

**Facility Name: IMPACT RECOVERY & REUSE CTR**
**Facility ID No.: 03507**
**Permit Activity No.: PCP120001**

## ACRONYMS

| | |
|---|---|
| BTS | Bureau of Technical Services |
| CEMS | Continuous Emissions Monitor System |
| CFR | Code of Federal Regulations |
| CO | Carbon Monoxide |
| COMS | Continuous Opacity Monitor System |
| EPA | United States Environmental Protection Agency |
| HAP | Hazardous Air Pollutant |
| N.J.A.C. | New Jersey Administrative Code |
| NJDEP | New Jersey Department of Environmental Protection |
| NOx | Oxides of Nitrogen |
| PM-2.5 | All particulate matter having an aerodynamic diameter less than or equal to a nominal 2.5 microns |
| PM-10 | All particulate matter having an aerodynamic diameter less than or equal to a nominal 10 microns |
| PST | Performance Specification Test |
| REO | Regional Enforcement Office - NJDEP |
| $SO_2$ | Sulfur Dioxide |
| TSP | Total Suspended Particulate Matter |
| VOC | Volatile Organic Compounds |

may proceed with the proposed changes seven days after such notice is filed with the Department. [N.J.A.C. 7:27-8.20]

d. The permittee shall file an amendment within 120 days of making any change of the information contained within Section C of this permit (Facility Profile), changing the name, number or designation of any equipment or stack covered by this permit, changing the parameters of a stack in such a way to reduce the ground level concentration of an air contaminant, or correction of a typographical error that will not result in an increase of actual or allowable emissions. [N.J.A.C. 7:27-8.21]

The permittee shall review the provisions of N.J.A.C. 7:27-8.18 through 7:27-8.21 to determine the appropriate type of request to file.

5. The permittee shall make the preconstruction permit or certificate, together with any amendments, seven-day-notices, or other documents related to the permit and certificate, readily available for Department inspection on the operating premises. [N.J.A.C. 7:27-8.3(d)]

6. The permittee shall not use or cause to be used the equipment or control apparatus unless all components connected or attached to, or serving, the equipment or control apparatus, are functioning properly and are in compliance with the preconstruction permit and certificate and all conditions and provisions thereto. [N.J.A.C. 7:27-8.3(e)]

7. A preconstruction permit is not transferable either from the location authorized in the preconstruction permit to another location, or from any one piece of control apparatus or equipment to another piece of control apparatus or equipment. [N.J.A.C. 7:27-8.3(f)]

8. Once a permit or certificate is issued, the permittee is fully responsible for compliance with N.J.A.C. 8:27-8 and with the permit and certificate, including adequate design, construction, and operation of the source, even if employees, contractors, or others work on or operate the permitted source. If the Department issues any other requirement with the force of law, such as an order, which applies to the source, the permittee is also responsible for compliance with that requirement. [N.J.A.C. 7:27-8.3(g)]

9. Preconstruction permits and certificates do not any way relieve the permittee from the obligation to obtain necessary permits from other government agencies and to comply with all other applicable Federal, State, and local rules and regulations. [N.J.A.C. 7:27-8.3(h)]

10. The permittee shall not suffer, allow, or permit any air contaminant detectable by the sense of smell, to be present in the outdoor atmosphere in such quantity and duration which is, or tends to be, injurious to human health or welfare, animal or plant life or property, or would unreasonably interfere with the enjoyment of life or property. This shall not include an air contaminant which occurs only in areas over which the permittee has exclusive use or occupancy. In determining whether an odor unreasonably interferes with the enjoyment of life or property, the Department shall consider all of the relevant facts and circumstances, including, but not limited to, the character, severity, frequency, and duration of the odor, and the number of persons affected thereby. In considering these and other relevant facts aud circumstances, no one factor shall be dispositive, but each shall be considered relevant in determining whether an odor interferes with the enjoyment of life or property, and, if so, whether such interference is unreasonable considering all of the circumstances. [N.J.A.C.7:27-8.3(j)]

21. The permittee shall, when requested by the Department, provide such testing facilities exclusive of instrumentation and sensing devices as may be necessary for the Department to determine the kind and amount of air contaminants emitted from the equipment or control apparatus. The testing facilities shall include the utilities, the structure to hold testing equipment and/or personnel, and any ports in stacks needed to carry out testing required by this permit. During testing by the Department, the equipment and control apparatus shall be operated under such conditions within their capacities as may be requested by the Department. The test facilities may be either permanent or temporary, at the discretion of the person responsible for their provision, and shall conform to all applicable laws, regulations, and rules concerning safe construction and safe practice. Testing facilities, which contain platforms and other means of personnel access, shall conform to OSHA standards. [N.J.A.C. 7:27-8.13(i)]

22. Upon reqnest of the Department, the permittee shall submit to the Department any record relevant to any permit or certificate. Such records shall be submitted to the Department within thirty (30) days of the request by the Department or within a longer time period if approved in writing by the Department. [N.J.A.C. 7:27-8.15(a)]

23. The permittee shall submit any required report in a format and on a schedule approved by the Department. Such report shall be transmitted on paper, on computer disk, or electronically, at the discretion of the Department. [N.J.A.C. 7:27-8.15(b)]

24. Any report submitted to the Department, including but not limited to, a report submitted as an amendment of this permit or the certificate to operate pursuant to N.J.A.C. 7:27-8.3(c) shall include, as an integral part of the report, certifications complying with N.J.A.C. 7:27-1.39. [N.J.A.C. 7:27-8.15(c)]

25. Upon request of the Department, the permittee shall report on forms obtained from the Department the air contaminant actual emissions and information relevant thereto, of any air contaminant or category of air contaminant emitted by the equipment, control apparatus, or source operation. [N.J.A.C. 7:27-8.15(d)]

26. Any emission limit values in a preconstruction permit shall be interpreted to be followed by inherent trailing zeros (0) in the decimal portion of the limit to three significant figures (e.g. a printed limit of "1 lb/hr" means a limit of "1.00 lb/hr").

27. This listing of requirements reflects the state rules and regulations that apply to a majority of sources. If a specific requirement in a rule or regulation that applies to a permittee is not included in this section or in the Facility Specific Requirements it does not relieve the permittee from the obligation to comply with that regulation.

28. Process monitors must be operated at all times when the associated process equipment is operating except during outage time allowed by Department guidelines/procedures or as outlined in Technical Manual 1005. The Permittee must keep a service log as required.

AIR POLLUTION CONTROL PRECONSTRUCTION PERMIT

**Section D**

**Facility Name: IMPACT RECOVERY & REUSE CTR**
**Facility ID No.: 03507**
**Permit Activity No.: PCP120001**

## PERMIT INFORMATION

FACILITY SPECIFIC REQUIREMENTS INDEX

FACILITY SPECIFIC REQUIREMENTS

REASON FOR APPLICATION

FACILITY PROFILE (GENERAL)

EQUIPMENT INVENTORY

CONTROL DEVICE INVENTORY

EMISSION POINT INVENTORY

EMISSION UNIT/BATCH PROCESS INVENTORY

# New Jersey Department of Environmental Protection
## Facility Specific Requirements

**Emission Unit:** U1 Fintec 1107 Jaw Crusher and Keestrack Pioneer Screener

CD1 Wet Supression System

**Subject Item:**

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | The water spray system shall be installed and operated at critical processing points where fresh dry aggregate faces are created or dust becomes airborne. Water spray shall be sufficient to dampen the material surfaces to prevent visible emissions. [N.J.A.C. 7:27-8.13(a)] | The operator shall verify that water spray is visible at the spray bar locations at all time while aggregate is being processed. Monitored by visual determination once per shift during operation, based on an instantaneous determination. [N.J.A.C. 7:27- 8.13(d)] | The operator shall record in a bound log the date and nature of maintenance activity on the water spray system necessary to satisfy the operating requirements of this permit. Recordkeeping by manual logging of parameter upon occurrence of event. [N.J.A.C. 7:27- 8.13(d)] | None. |
| 2 | The crushing operation shall cease operation if the water flow rate through the spray nozzles is discontinued. [N.J.A.C. 7:27-8.13(a)] | None. | None. | None. |

# New Jersey Department of Environmental Protection
## Facility Specific Requirements

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 8 | The owner or operator of an affected facility shall provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the Administrator (or delegated State or local agency) as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator (or delegated State or local agency) by mutual agreement. [40 CFR 60.8(d)] | None. | None. | None. |
| 9 | When determining compliance with the fugitive emissions standard for any affected facility described under 40 CFR 60.672(b) or 40 CFR 60.672(e)(1) of this subpart, the duration of the Method 9 (40 CFR part 60, Appendix A-4) observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits in Table 3 of this subpart must be based on the average of the five 6-minute averages. [40 CFR 60.675(c)(3)] | None. | None. | None. |
| 10 | Opacity <= 15 % (fugitive- crusher only). [40 CFR 60.672(b)] | Opacity: Monitored by visual determination once initially, based on 6 minute blocks. [40 CFR 60.675(c)(3)] | Opacity: Recordkeeping by manual logging of parameter or storing data in a computer data system once initially. [40 CFR 60.676(b)(1)] | Conduct a performance test: As per the approved schedule within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup. The owner or operator shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s). . [40 CFR 60.8(a)] |

## New Jersey Department of Environmental Protection
## Facility Specific Requirements

**Emission Unit:** U1 Fintec 1107 Jaw Crusher and Keestrack Pioneer Screener

**Operating Scenario:** OS1 Soil/Stone Screening

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | TSP <= 1.1 lb/hr. [N.J.A.C. 7:27- 8.13(h)1] | None. | None. | None. |
| 2 | PM-10 (Total) <= 1.1 lb/hr. [N.J.A.C. 7:27-8.13(h)1] | None. | None. | None. |

## New Jersey Department of Environmental Protection
## Facility Specific Requirements

**Emission Unit:** U1 Fintec 1107 Jaw Crusher and Keestrack Pioneer Screener

**Operating Scenario:** OS4 Crushing oversized rock into usable product

| Ref.# | Applicable Requirement | Monitoring Requirement | Recordkeeping Requirement | Submittal/Action Requirement |
|---|---|---|---|---|
| 1 | TSP <= 0.6 lb/hr. [N.J.A.C. 7:27- 8.13(h)1] | None. | None. | None. |
| 2 | PM-10 (Total) <= 0.6 lb/hr. [N.J.A.C. 7:27-8.13(h)1] | None. | None. | None. |

## New Jersey Department of Environmental Protection
## Facility Specific Requirements

**Emission Unit:** U1 Fintec 1107 Jaw Crusher and Keestrack Pioneer Screener
OS6 Crusher Side Conveyor

**Operating Scenario:**

The requirements for this item are identical to those for: U1 OS5

IMPACT RECOVERY & REUSE CTR (03507)
PCP120001

Date: 5/17/2012

# New Jersey Department of Environmental Protection
## Facility Profile (General)

**Facility Name (AIMS):** Impact Recovery and Reuse Center

**Facility ID (AIMS):** 03507

**Street Address:** 1000 PAGE AVE
SECOND FLR
LYNDHURST, NJ 07071

**Mailing Address:** 1000 PAGE AVE
SECOND FLR
LYNDHURST, NJ 07071

**State Plane Coordinates:**

| | |
|---|---|
| X-Coordinate: | 182,655 |
| Y-Coordinate: | 218,411 |
| Units: | Meters |
| Datum: | Unknown |
| Source Org.: | DEP-GIS |
| Source Type: | Approx. Addr. Match |

**County:** Bergen

**Location Description:**

**Industry:**

| | |
|---|---|
| Primary SIC: | |
| Secondary SIC: | |
| NAICS: | 541620 |

## New Jersey Department of Environmental Protection
## Facility Profile (General)

**Contact Type:** Responsible Official

**Organization:** Impact Environmental Consulting Inc

**Org. Type:** Private

**Name:** Joel Rogers

**NJ EIN:**

**Title:** Vice President

**Phone:** (631) 269-8800 x

**Fax:** (631) 269-1599 x

**Other:** ( ) - x

**Type:**

**Email:** jrogers@impactenvironmental.com

**Mailing Address:** 1000 Page Ave
Second Floor
Lyndhurst, NJ 07071

IMPACT RECOVERY & REUSE CTR (03507)
PCP120001

Date: 5/17/2012

## New Jersey Department of Environmental Protection
## Control Device Inventory

| CD NJID | Facility's Designation | Description | CD Type | Install Date | Grand-Fathered | Last Mod. (Since 1968) | CD Set ID |
|---|---|---|---|---|---|---|---|
| CD1 | Water Spray | Wet Supression System | Scrubber (Other) | | | | |

**IMPACT RECOVERY & REUSE CTR (03507)**
**PCP120001**

Date: 5/17/2012

## New Jersey Department of Environmental Protection
## Emission Unit/Batch Process Inventory

**U 1 Crush/Scrn Fintec 1107 Jaw Crusher and Keestrack Pioneer Screener**

| UOS NJID | Facility's Designation | UOS Description | Operation Type | Signif. Equip. | Control Device(s) | Emission Point(s) | SCC(s) | Annual Oper. Hours Min. | Annual Oper. Hours Max. | VOC Range | Flow (acfm) Min. | Flow (acfm) Max. | Temp. (deg F) Min. | Temp. (deg F) Max. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OS1 | Screener | Soil/Stone Screening | Normal - Steady State | E1 | | PT2 | | | | | | | | |
| OS2 | Scrn Conv | Screener Discharge Conveyor | Normal - Steady State | E2 | | PT2 | | | | | | | | |
| OS4 | Crusher | Crushing oversized rock into usable product | Normal - Steady State | E4 | CD1 (P) | PT8 | | 3,000.0 | 5,500.0 | | 1,300.0 | 2,000.0 | 900.0 | 1,300.0 |
| OS5 | Main Conv | Crusher Main Conveyor | Normal - Steady State | E5 | | PT8 | | | | | | | | |
| OS6 | Side Conv | Crusher Side Conveyor | Normal - Steady State | E6 | | PT8 | | | | | | | | |

# State of New Jersey

CHRIS CHRISTIE
*Governor*

KIM GUADAGNO
*Lt. Governor*

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Mail Code 401-02B
Division of Water Quality
Office of Permit Management
P.O. Box 420 - 401 E State St
Trenton, NJ 08625-0420
Phone: (609) 984-4428 / Fax: (609) 777-0432

BOB MARTIN
*Commissioner*


**NJPDES PERMIT APPLICATION**
**NOTICE OF ADMINISTRATIVE COMPLETENESS**

July 11, 2013

JOEL RODGERS
IMPACT ENVIRONMENTAL CONSULTING INC
170 KEYLAND CT
BOHEMIA, NY 11716

Re: Stormwater Discharge New Permit Action
Cat: RF -Stormwater
NJPDES NJ0217280
IMPACT REUSE & RECOVERY CTR
Lyndhurst Twp, Bergen County

Dear Mr. Rodgers:

Upon review of the additional information received on 07/11/2013 the Department has determined your [application/RFA] to be administratively complete. Accordingly, it has been forwarded to the Bureau of Nonpoint Pollution Control for technical review. Any further inquiries concerning technical review of your application or the status of permit issuance should be directed to the Bureau of Nonpoint Pollution Control, which may be contacted by calling (609) 633-7021. When making phone inquiries, please refer to the NJPDES number and subject matter. Please note that during technical review, your reviewer may request further information.

Please be advised that checklists and forms are revised from time to time. Before making any future submissions please contact our website at http://www.nj.gov/dep/dwq/forms.htm or contact the Administrative Review Unit, within the Office of Permit Management at (609) 984-4428, for updated checklists and forms.

Sincerely,

Anita Veal

Anita Veal, AADP
Office of Permit Management

cc: x-Jeff Bogoian, IEC Inc.
Central File-Correspondence MF: 455877 / PI: 609544

# NJPDES Stormwater Permit Application

Impact Reuse and Recovery Center
1000 Page Ave
Lyndhurst, NJ

*Submitted by:*
Impact Environmental Consulting
170 Keyland Ct.,
Bohemia, NY 11716

***June 3, 2013***
***Revised July 11, 2013***

**IMPACT ENVIRONMENTAL**
170 Keyland Court| Bohemia| NY | 11716 | 631.269.8800
welcome to solid ground…
*www.impactenvironmental.com*

June 3,2013
***Revised July 11, 2013***

NJDEP Division of Water Quality
**Bureau of Permit Management – NJPDES Review Unit**
401 East State St, 3rd Floor
Trenton, NJ 08625

RE: NJPDES Stormwater Discharge Permit Application
Impact Reuse and Recovery Center
1000 Page Ave
Lyndhurst, NJ 07071

To Whom it May Concern,

This NJPDES Stormwater Discharge Permit Application is being submitted to NJDEP by Impact Environmental for its facility located at 1000 Page Ave in Lyndhurst, NJ. The site is currently being utilized as a Class B recycling facility.

Facility operations involve stockpiling of concrete, brick and ceramic materials from off site sources. These materials are processed to create a usable product which is marketed in accordance with the End Use Management Plan for the Facility.

As shown on the site plan provided, stormwater is collected in an on-site catch basin where it is discharged to a private stormwater line and eventually to an unnamed tributary on the Hackensack River classified as FW-2-NT/SE2(C2). Stormwater samples were collected from this outfall location. The data is summarized on the application form, and a copy of the lab report has been included as well.

Residual materials including settled sediment and oil are removed from the site when the residuals accumulate to an amount that deems action. To date, only negligible amounts of residuals have been produced. As such, no residuals have been disposed of off-site. Form R of this application outlines Impact Environmental's contingency plan in the event of significant amounts of residuals are removed.

Sincerely,
**IMPACT ENVIRONMENTAL**

Joel Rogers, P.E.
Vice President

Reset Form

NJPDES-1

# State of New Jersey
## Department of Environmental Protection
## Division of Water Quality

## New Jersey Pollutant Discharge Elimination System Permit Application

*Refer to the attached Instructions and the Appropriate Completeness Checklist and Provide All Applicable Information. Please Print or Type. (Attach additional sheets if necessary).*

### 1. Applicant(s)/Operating Entity(ies)

Name Impact Environmental Consulting, Inc.

Mailing Address 170 Keyland Ct

City or Town Bohemia State NY Zip Code 11716

Contact Person Joel Rogers Telephone ( 631 ) 269-8800 E-Mail jrogers@impactenvironmental

Parent Corporation & Place of Incorporation Impact Environmental Consulting, Inc. /New York

Federal Tax Identification Number 11-3132118

### 2. Property/Land Owner(s)

Entity Name Lambda Financial

Mailing Address P.O. Box 808

City or Town Lyndhurst State NJ Zip Code 07071

Contact Person Mark Teo Telephone ( 201 ) 933-6000 x23 E-Mail mark.teo@sigmaplastics.com

### 3. Location of Facility/Site

Name of Facility/Site Impact Reuse and Recovery Center

Street Address/Location 1000 Page Ave

City or Town Lyndhurst State NJ Zip Code 07071

Municipality Lyndhurst County Bergen Block (s) 235 Lot (s) 4+5

### 4. Facility Contact ( Person Familiar with the Facility/Site and this Application)

Name Jeff Bogoian Affiliation Facility QC Engineer

Mailing Address 170 Keyland Ct

City or Town Bohemia State NY Zip Code 11716

Telephone ( 631 ) 269-8800 Fax ( 631 ) 269-1599 E-Mail jbogoian@impactenvironmental.com

Emergency Contact(s) (24hr) Name Jeff Bogoian Phone ( 631 ) 334-2325

Alternate Phone ( 201 ) 268-5686 E-Mail jbogoian@impactenvironmental.com

## 5. Project and Discharge Description ( Under This Application)

Impact Reuse and Recovery Center is a permitted Class B Recycling Facility (Permit No CBG110002). The primary industrial activities at the site include crushing, aggregate storage and use of heavy industrial equipmer including front end loaders and dump trucks. This application is for discharge of stormwater to an outfall at an on-site catch basin and private stormwater line, and eventually to an unnamed tributary of the Hackensack River classified as FW2-NT/SE2(C2).

## 6. Requested NJPDES Permit Action and Other NJPDES Permits

**Table A: Requested Permit Action Under This Application**

| DISCHARGE CATEGORY CODES | NJPDES PERMIT NUMBER | NEW | RENEW | MOD | REVOKE/REISSUE | EXPIR. DATE |
|---|---|---|---|---|---|---|
| RF | | ✓ | | | | |
| | | | | | | |

**Table B: Other NJPDES Permits Associated With This Facility**

| DISCHARGE CATEGORY CODES | NJPDES PERMIT NUMBER | EXPIRATION DATE | PENDING |
|---|---|---|---|
| | | | |
| | | | |

## 7. Favorable Consistency Determination (CD) or WQMP Amendment Approval

**Only For New Facilities, Expansions or Existing Discharge Location Change**

| | Existing Y/N/NA | Applied for Y/N/NA |
|---|---|---|
| Consistency Determination | N | N |
| WQMP Amendment | N | N |

## 8. Other Permits

If any of the following applications have been submitted for this facility/site, complete the applicable information.

| Permit Type | Application No. (if assigned) | Application Status: Approved | Denied Date | Pending Date |
|---|---|---|---|---|
| • Potable Water Supply Well | | | | |
| • Hazardous Waste Management Program | | | | |
| • Prevention of Significant Deterioration (PSD) | | | | |
| • Nonattainment Program, Clean Air Act | | | | |
| • National Emission Standards - Hazardous Pollutants | | | | |
| • Dredge/Fill Permits - Federal Act Section 404 | | | | |
| • Relevant Environmental Permits - Including Federal, State, & Local Approvals - Specify: | Class B solid waste | | | |

## 9. Industrial Classification Code(s):

| SIC Code # | NAICS Code # | Products or Service Provided by Facility/Site |
|---|---|---|
| 4953 | 562920 | Materials Recovery Facilities |
| | | |

## 10. Water Supply/Discharge Information

**RAW WATER SOURCES:** Please check ☑ all that apply.

☑ Public Water Supply: Name of the water utility United Water/Jersey City

☐ Private Wells

☐ Surface Water: Name of the water body(s) _____

A) Is this facility/site connected to a sanitary sewer? Yes ☑ No ☐

If yes, list name, address, and phone number of receiving wastewater treatment plant
Passaic Valley Sewerage Commission - 600 Wilson Avenue,Newark, NJ (973) 344-1800

B) Does this facility discharge to a storm drainage system? Yes ☑ No ☐

If yes, please check ☑: Public ☐ Private ☑

C) Does this facility discharge to surface water? Yes ☑ No ☐

D) Does this facility discharge to ground water? Yes ☐ No ☑

E) For Sewage Treatment Plants:

i) Do you have combined sewers in your sewer service area? Yes ☐ No ☐

ii) Do you have any outfalls in the combined areas? Yes ☐ No ☐

| **11. Monitoring Report Form Recipient Address** (Check if same as No. 1 / No. 2 / No. 3 ✓) | **12. NJPDES Permit Fees** (Check if same as No. 1 ✓ / No. 2 / No. 3 ) |
|---|---|
| Organization name and address:<br>Impact Environmental Consulting, Inc.<br>1000 Page Avenue<br>Lyndhurst, NJ 07071<br>Contact Name: Jeff Bogoian<br>Phone: (201) 268-5686<br>Fax: (201) 269-1599<br>E-Mail jbogoian@impactenvironmental.com | Organization name and address:<br>Impact Environmental Consulting, Inc.<br>170 Keyland Ct<br>Bohemia, NY 11716<br>Contact Name: Waid Worden<br>Phone: 631-269-8800<br>Fax: 631-269-1599<br>E-Mail: wworden@impactenvironmental.com |

## 13. Licensed Operator(s) (If Applicable)

Name N/A N.J. License No. _____

Affiliation _____

Mailing Address _____

City or Town _____ State _____ Zip Code _____

Telephone ( ) _____ Fax ( ) _____ E-Mail _____

## 14. Applicant's Agent (Optional)

The person listed below is authorized to act as agent/representative in all matters pertaining to this application.

Name_____ Position _____

Company _____

Mailing Address_____

City or Town_____ State _____ Zip Code _____

Telephone (  ) _____ Fax (  ) _____ E-Mail _____

_____ _____ _____ _____

Signature of Agent | Date | Signature of Applicant | Date

## 15. Property Owner's Certification (For DGW Permits Only)

I hereby certify that _____owns the property identified in (d.) below. The
(Property Owner's Name)
owner grants permission for the activity to be permitted under this application and authorizes the Department to conduct on-site inspections, if necessary.

| **In addition, I certify: (check "yes" or "no")** | **YES** | **NO** |
|---|---|---|
| **a.** The activity will take place in an easement? | ☐ | ☐ |
| **b.** Part of the entire project (e.g. pipeline, disposal area, wells, etc.) is or will be located within property owned by the State of New Jersey? | ☐ | ☐ |
| **c.** Part of the entire project (e.g. pipeline, disposal area, wells, etc.) is or will be located within property owned by a municipality or county? If yes, contact the Green Acres Program at (609) 984-0500 for a determination. | ☐ | ☐ |

**d.** Lot (s) _____ Block (s) _____

_____ _____

Signature for Owner | Date

_____

Print or Type Name & Position

**Note:** If "yes" to statements a, b, or c, the applicant must provide evidence of obtaining permission from the other property owners (include copy with this application).

## 16. Electronic Communications

Are you interested in receiving com munications related to the issuance of this Permit or Authoriza tion through electronic means? Please refer to the attached *Agreement to Do Business Electronically* on page 8 . Yes ☑ No ☐

## 17. Certification by Applicant

"I certify under penalty of law that this document and all attachments were prepared under m y direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of m y knowledge and belief, true, accurate, and com plete. I am aware that there are sig nificant penalties for submitting false in formation, including the possibility of fine and imprisonment for purposely, knowingly, recklessly, or negligently submitting false information."

_____ 06/17/13 Joel Rogers, Vice President

Signature for Applicant | Date | Print or Type: Name and Position

# INSTRUCTIONS FOR COMPLETING FORM NJPDES - 1

**This form must accompany all NJPDES permit applications and Requests for Authorizations (RFA)** - (excluding RFAs for Stormwater General Permits which use different forms).

1. **Applicant (s)/Operating Entities** - Provide the name, as it is legally referred to, of the operating entity(ies) that is the applicant(s) in your application for the NJPDES permit. An "operating entity" is any firm, public agency, individual, or other entity which, alone or along with other operating entities, has primary management and operational decision-making authority over any part of a facility/site.

   It is the duty of the operating entity(ies) to obtain a NJPDES permit. When a facility/site or activity is owned by one or more entities, but is currently operated by another entity(ies), it is the duty of the operating entity(ies) to obtain a NJPDES permit. If the facility/site named in Item 3 has an operating entity(ies) which is not an applicant submitting your application, attach an additional sheet that contains a statement to that effect and as much Item 1 information as you have about that operating entity(ies).

   Provide the mailing address of the applicant(s). If the mailing address is outside the United States, provide the correct foreign mailing address. Provide the 9-digit Federal Tax Identification Number (also called Federal Identification Number) assigned to the applicant(s) by the IRS for tax reporting purposes. Provide the telephone number and e-mail address of the applicant(s). If the applicant(s) has a parent corporation(s), provide that parent corporation's name, place of incorporation, contact person and contact person's e-mail address.

2. **Property/Land Owner(s)** - Provide the legal name of the owner(s) of the property/land upon which the discharge is controlled and/or taking place. A "Property" includes all contiguous lots and blocks, including vacant land, owned or otherwise under the control of the owner or operating entity of the regulated facility. Provide an owner contact person, telephone number and email address for the contact person. NOTE: For all DGW applications, the property owner where the discharge takes place must also sign item 14.

3. **Location of Facility/Site** - Provide the location of the facility/site. Street number and name must be used (PO Box numbers will not be acceptable). Use the municipality and county where the facility/site is physically located. Do not use local or neighborhood names. Please provide the lot and block numbers.

4. **Facility Contact** - Identify a person the Department can contact for facility/site related information. This person should be familiar with the content of the application. Include a telephone number, fax number and an email address. Also, please provide at least one emergency contact person (available 24 hours/day) with telephone numbers and email addresses.

5. **Project and Discharge Description (Under This Application)** - Provide a brief description of the project relating to this application (e.g., municipal sewage treatment plant, factory, shopping center, school, housing development, restaurant, etc.). For each discharge which is the subject of this application, provide the general type of waste discharged (e.g., sanitary, industrial, sludge, etc.) including non-contact cooling water. If requesting a modification to your permit, state the reason for such.

6. **Requested NJPDES Permitting Action and Other NJPDES Permits** - Under Table A, for each requested permit action under this application, list each discharge activity associated with this facility/site in the left column using the discharge activity category codes listed in the Discharge Activity Category Sheet (i.e., A, A8, CSO, etc.) and check the requested permit action (new, renewal, etc.). Under Table B, list currently held permits and/or pending applications for this facility/site. For existing permits, list permit number(s) and expiration date.

7. **Consistency Determination (CD)** – For new facilities, expansions or existing discharge location changes, submit evidence that a Water Quality Management Plan (WQMP) amendment approval, or favorable CD has been applied for and/or received; or indicate the reasons otherwise.

8. **Other Permits** - This section provides the Department with a facility's permitting status and history. Next to each permit type, list the application number and the date of the approval or denial in the appropriate column. If the application is still pending, place a check in the far right hand column.

9. **Standard Industrial Classification Code** - List, in descending order of priority, up to four 4-digit Standard Industrial Classification (SIC) codes or the North American Industrial Classification System (NAICS) which best reflect the principal products or services provided by the facility/site. The following websites are available to research these codes: http://www.osha.gov/pls/imis/sic_manual.html (SIC only) http://www.census.gov/epcd/naics02/ and http://www.naics.com/search.htm (look at "Crosswalks" on the right side).

10. **Water Supply/Discharge Information** – Provide pertinent information.

11. **Monitoring Report Form (MRF) Recipient** – If you wish to receive MRF notices at a different address than #1, complete #11.

12. **NJPDES Permit Fees Recipient** – If you wish to receive Billing Notices at a different address than #1, complete #12.

13. **Licensed Operator (If Applicable)** - Provide information pertaining to all licensed operator(s) of the treatment work(s).

14. **Applicant's Agent (Optional)** - Identify the person who is authorized to act as agent/representative in all matters pertaining to this application. Both the agent and the authorized official of the applicant must sign.

15. **Property Owner's Certification (For DGW Permits Only)** - Provide this certification for the property where the discharge takes place.

16. **Electronic Communications** – If you wish to do business with the Department through electronic means, please check "yes" and refer to the Agreement to Do Business Electronically on page 8.

17. **Certification by Applicant** - The certification must be made by the applicant(s) for the NJPDES permit. The applicant(s) is the operating entity(ies) for the facility/site (see item 1 instructions).

## WHO MUST SIGN?

A Responsible Official is defined in N.J.A.C. 7:14A – 4.9 in part as follows:

For a corporation: A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation; or the manager of one or more manufacturing, production, or operating facilities, provided:
(1) The manager is authorized to make management decisions that govern the operation of the regulated facility, including having the explicit or implicit duty of recommending major capital investment, initiating and directing comprehensive measures to assure long term compliance with environmental laws and regulations, and ensuring that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; or
(2) The authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

For a partnership or sole proprietorship: A general partner or the proprietor.

For a government agency: A ranking elected official; or the chief executive officer of the agency; or a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator).

A duly authorized representative.

*Should you need assistance in completing the application, please call the appropriate phone number listed below:*

- Discharges to Surface Water (Industrial) (609) 292-4860
- Discharges to Surface Water (Municipal) (609) 292-4860
- Discharges to Surface Water (Stormwater) (609) 633-7021
- Sludge and Residuals Issues (609) 633-3823
- Discharge to Sanitary Sewer (SIU) (609) 633-3823
- Discharges to Ground Water (609) 633-7021

# Discharge Category Codes

For completing the left columns in the NJPDES 1 Form, item 6, tables A and B

| Discharge to Surface Water (DSW) |
|---|
| • **A** Domestic Surface Water Discharge |
| • **CSO** Combined Sewer Overflow |
| • **B** Industrial/Commercial/Thermal DSW |
| • **ABR** General Reclaimed Water for Beneficial Reuse Permit Authorization |
| • **B4B** GW Petroleum Products Cleanup GP |
| • **BGR** General Remediation Clean-up GP |
| • **CG** Non-Contact Cooling Water GP |
| • **BPW** Consolidated Potable Water Treatment Plant GP |
| • **ASC** Consolidated School Permit |
| • **PGP** Pesticide Application Discharge GP |
| **Discharge to Ground Water (DGW)** |
| • **GW** Discharge to Ground Water |
| • **T1** GP Sanitary Subsurface Disposal |
| • **I1** GP Stormwater Basins/Sanitary Landfill |
| • **I2** GP Potable Water Treatment Plant Basins/Drying Beds |
| • **LSI** Lined Surface Impoundment |
| • **K2** GP Dental Facilities Onsite Wastewater Treatment Systems |
| **Discharge to Sanitary Sewer (SIU)** |
| • **L** Discharge to Sanitary Sewer (SIU) |
| **Residuals** |
| • **D** Land Application of Biosolids - Class B |
| • **V** Land Application of Biosolids - Class A |
| • **E** Land Application of Industrial Residuals |
| • **Z** Residuals Transfer Facilities |
| • **04** Residuals Phragmites Reed Beds |
| • **EG** Land Application Food Processing Residual GP |
| • **ZG** Residuals Transfer Facilities GP |
| • **4G** Residuals Phragmites Reed Beds GP |
| • **S4G** Sludge Quality GP – Category 4 |
| **Stormwater Discharges** |
| • **RF** Stormwater |
| **General Stormwater Discharges:** |
| • **CPM** Concrete Products Management GP |
| • **SM** Scrap Metal Processing/Auto Recycling GP |
| • **5G2** Stormwater Basic GP |
| • **5G3** Construction Activity Stormwater GP |
| • **R4** Hot Mix Asphalt Producers GP |
| • **R5** Newark Airport Complex GP |
| • **R7** Wood Recyclers |
| • **R8** Concentrated Animal Feeding Operations (CAFO) GP |
| • **R9** Tier A Municipal Stormwater GP |
| • **R10** Tier B Municipal Stormwater GP |
| • **R11** Public Complex Stormwater GP |
| • **R12** Highway Agency Stormwater GP |
| • **R13** Mining and Quarring Activity GP |

## *Agreement to Do Business Electronically*
## *Division of Water Quality (DWQ) Issuance of NJPDES Permit NJ_____*

1. ***Electronic Communications***: Communications related to the Issuance of this DWQ NJPDES Permit or Authorization under a General Permit may be presented, delivered, stored, retrieved, and transmitted electronically. By signing this agreement, you agree that the New Jersey Department of Environmental Protection (Department) may send communications to you electronically (e.g. by e-mail and/or by notification of posting at one or more websites). The term communications means any notice, record, response or approval, or other type of information that is made available to you or received from you in connection with the Permit or Authorization.
2. ***Limitations:*** This agreement is limited to the processing of the DWQ NJPDES Permit Number cited above and does not extend to other transactions that you may have before the Department nor does it affect transactions offered through the Department's internet portal.
3. ***Agreeing to Do Business Electronically***: The decision whether to do business electronically is yours, and you should consider whether you have the required hardware and software capabilities described below.
4. ***Hardware and Software Requirements***: In order to access and retain an electronic record of communications, you will need: a computer, a valid connection to the Internet, Internet browser software, and a valid Email address. By agreeing to do business electronically, you are confirming to us that you have the means to access, and to print or download, communications.
5. ***Withdrawal of Agreement***: You have the right to withdraw your agreement to do business electronically at any time by notifying the Department via email to NJPDES_ADBE_signup@dep.state.nj.us, in writing by certified mail (return receipt requested) to the address below, or by other means that provide verification of the date of delivery to the Department. Any communications between us during the period after your agreement to doing business electronically, and before our receipt of your withdrawal of such agreement, will be valid and binding on all parties.
6. ***Changes to Your Contact Information***: You must keep the Department informed of any change in your electronic mailing address or other contact information. Such changes must be submitted on an Administrative Update Form available on the Department's website at http://www.state.nj.us/dep/dwq/pdf/adm.pdf.

Impact Reuse and Recovery Center
Facility Name

Jeff Bogoian — Contact Name
Facility QC Engineer — Title


Signature

06/17/13
Date

jbogoian@impactenvironmental.com
E-Mail Address (print carefully)

631-269-8800
Phone Number

Please complete this form in its entirety. The signed form can be scanned and emailed to NJPDES_ADBE_signup@dep.state.nj.us or, alternatively, mailed to:

Mail Code: 401-02B
Permit Administration Section
Division of Water Quality
P.O. Box 420
Trenton, New Jersey 08625-0420

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER QUALITY

***Refer to Appropriate Completeness Checklist and Instructions. Provide All Applicable Information. Please Print or Type (Attach Additional Sheets if Necessary).***

# *SUPPLEMENTAL APPLICATION FORM TO NJPDES-1 FOR NJPDES-DSW PERMITS FOR STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY*

| **1. Facility Name:** Impact Reuse and Recovery Center | **2. NJPDES No. (New application leave blank)** NJ_____ |
|---|---|
| **3. The permit application shall include:** | **A. Site Drainage Map**<br>**B. Copy of applicable portion of a USGS map(s)** |

**4. Stormwater Discharge Location**

For each stormwater outfall and each drainage area not served by a stormwater outfall (DANS), list the name of the receiving water(s). For each stormwater outfall, also list the latitude and longitude to the nearest second.

| Stormwater Outfall or DANS Number (list) | Outfall Latitude (deg, min, sec) | Outfall Longitude (deg, min, sec) | Receiving Water(s) (Name) | For Department Use Only: USEPA Reach Number | For Department Use Only: Watershed Management Area |
|---|---|---|---|---|---|
| SWO-001 | (40 deg,48', 01.44") | (74 deg, 06', 45.56") | Tributary of Hackensack River [FW2-NT/SE2(C2)] | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

**5. Proposed Start Up Date for a New Source or New Discharge (If Applicable):**

**6. Corrective or Enforcement Actions at this Facility**

List below all administrative orders (AO), administrative consent orders (ACO), judicial consent orders (JCO), notices of violations (NOV), complaints filed (COMP), or other (OT) corrective or enforcement action(s) required by any governmental agency(ies) with regard to your operation at this facility concerning water pollution within the previous five years (and in earlier years, for open action(s) still in effect).

| Date on Which Agency Imposed Requirement | Type of Action | Name of Agency | Summary of Required Action |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**7. Improvements**

Complete this table if you are required by federal, state or local authority to meet any implementation schedule for construction, upgrading or operation of wastewater treatment equipment or practices, connection to a domestic treatment works, or any other environmental programs which may affect the discharges described in this application (or attach a copy of any previous submission you have made to USEPA or the Department containing the same information).

| Identification of Conditions, Agreements, etc. | Affected Outfall or DANS Number | Source of Discharge | Brief Description Of Project | Final Compliance Date: Required | Final Compliance Date: Projected |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |

**Facility Name:** Impact Reuse and Recovery Center

## 8. Narrative Description of Pollutant Sources

A. For each stormwater outfall and each DANS, provide an estimate of the area (include units) of impervious surfaces (including paved areas and building roofs) drained, and an estimate of the total surface area drained.

| Stormwater Outfall or DANS Number | Area of Impervious Surface (provide units) | Total Area Drained (provide units) | | Stormwater Outfall or DANS Number | Area of Impervious Surface (provide units) | Total Area Drained (provide units) |
|---|---|---|---|---|---|---|
| SWO-001 | 2500 SY | 11000 SY | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

B. Provide a narrative description of the following on-site features at the facility: significant materials that currently (and in the past, if you have information) have been treated, stored or disposed in a manner to allow exposure to stormwater; method of treatment, storage or disposal of such materials; materials management practices employed currently (and in the past, if you have information) to minimize contact by these materials with stormwater runoff; materials loading and access areas; and the location, manner and frequency in which pesticides, herbicides, soil conditioners and fertilizers are applied.

Impact Reuse and Recovery Center is a permitted Class B Recycling Facility (Permit No CBG110002). The primary industrial activities at the site include crushing, aggregate storage and use of heavy industrial equipment including front end loaders and dump trucks. Class B materials including concrete, brick and block are accepted into the facility, stored in designated stockpiles, then processed to create a usable product which is marketed in accordance with the End Use Management Plan for the facility.

C. For each stormwater outfall and each DANS, provide the location and a description of existing structural and nonstructural control measures to reduce pollutants in stormwater runoff; and a description of the treatment the stormwater receives, including the schedule and type of maintenance for control and treatment measures, and the ultimate disposal of any solid, hazardous, or fluid wastes other than by discharge.

| Stormwater Outfall or DANS Number | Control Measures and Treatment | List Codes From Appendix RF-1 |
|---|---|---|
| SWO-001 | Oil-Water Separator | 6-F |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

**Facility Name:** Impact Reuse and Recovery Center

**9. Nonstormwater Discharges**

A. You must test or evaluate the stormwater outfalls and DANS covered by this application for the presence of nonstormwater discharges which are not authorized by a NJPDES permit. If any such nonstormwater discharges are discharged to surface water from a point source, they must be identified in an accompanying or previously submitted application for an individual NJPDES permit or request for authorization under a general NJPDES permit.

B. Provide a description of the method used, the date of any testing, and the onsite drainage locations that were directly observed during a test.

**10. Significant Leaks or Spills**

Provide existing information you have regarding the history of significant leaks or spills of toxic or hazardous pollutants at the facility, including the approximate date and location of the spill or leak, and the type and amount of material released.

Prior history by previous owners of industrial operations. Preliminary Assessment,Site Investigation, and remedial excavation measures conducted previously by others under ISRA requirements triggered in 2000 and Remediation Agreement among former owners (ISRA Case E20000211).

**11. Discharge Information**

**SEE ALL INSTRUCTIONS BEFORE PROCEEDING (INCLUDING INSTRUCTIONS FOR ITEMS 11A AND 11B). IF THIS APPLICATION IS FOR A NEW SOURCE OR A NEW DISCHARGE, OR IF THIS APPLICATION INCLUDES SAMPLING DATA COLLECTED AT OTHER FACILITIES AS PART OF A GROUP APPLICATION TO USEPA, THEN DO NOT COMPLETE THE "POLLUTANT ANALYSIS SUMMARY" (PAS) IN ITEMS 11A AND 11B. YOU MUST INSTEAD COMPLETE THE "ALTERNATIVE DISCHARGE INFORMATION FORM" (ADI FORM).**

**FOR OTHER APPLICATIONS, YOU MAY COMPLETE EITHER THE "POLLUTANT ANALYSIS SUMMARY" (PAS) IN ITEMS 11A AND 11B, OR THE "ALTERNATIVE DISCHARGE INFORMATION FORM" (ADI FORM).**

## Pollutant Analysis Summary (PAS)

**11A. Storm Event Information:** **Complete the following for each storm event sampled at the facility.**

| Date of Storm Event | Time at the Beginning of the Storm Event |
|---|---|
| 6/3/2013 | 11:00 AM |

| Duration (minutes) | Total Rainfall (inches) | Number of Hours Since Previous Storm Event |
|---|---|---|
| 180 | .27 | 120 |

# Pollutant Analysis Summary (PAS)
(Continued)

**Facility Name:** Impact Reuse and Recovery Center

**11B. Pollutant Information:** **For every stormwater discharge location listed in Item 4, provide the following information, and complete Tables 11B-1, 11B-2, and 11B-3. Also complete the "Certified Laboratory" table in Item 14 below.**

6/3/2013 — *Date of Sampling*

*Stormwater Outfall or DANS Number:* SWO-001 *(from Item 4)*

Unknown — *Time @ Beginning of Discharge*

3:00 — *Time of Sampling*

.27 — *Rainfall at the Time of Sampling (inches)*

**Table 11B-1** Provide the results of one analysis for every pollutant in this table.

| Pollutant | Grab Sample Analysis | Sources of Pollutants |
|---|---|---|
| Biochemical Oxygen Demand (BODs) | 0 mg/L | |
| Chemical Oxygen Demand (COD) | 38 mg/L | |
| Total Suspended Solids (TSS) | 0 mg/L | |
| Total Kjeldahl Nitrogen (as N) | 1.6 mg/L | |
| Nitrate plus Nitrite Nitrogen (as N) | 0 mg/L | |
| Total Phosphorus (as P) | .39 mg/L | |
| ■ Oil and Grease, or ☐ Petroleum Hydrocarbons | 0 mg/L | |
| pH | 8.11 standard units | |

**Table 11B-2** List and provide the results of one analysis for every pollutant that is limited in an effluent guideline to which the facility is subject, and every pollutant specifically limited in the facility's NJPDES-DSW permit for its process wastewater (if the facility is operating under an existing NJPDES-DSW permit).

| Pollutant (and, if available, CAS Number) | Grab Sample Analysis concentration (include units) | Sources of Pollutants |
|---|---|---|
| | | |
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**Note: Copy and Complete this Page for Every Stormwater Discharge Location**

# Pollutant Analysis Summary (PAS)
## (Continued)

**Facility Name:** Impact Reuse and Recovery Center

**Table 11B-3** List each pollutant shown in Appendix RF-2, RF-3, or RF-4 that you know or have reason to believe is present. In some instances, you are not required to analyze a sample for a pollutant you list (see instructions for details).

*Stormwater Outfall or DANS Number:* _____ *(from Item 4)*

☐ If you do not analyze a sample for certain Appendix RF-3 pollutants because you qualify as a "small business" (see instructions for details), check this box and attach sales data for the most recent three years.

| Pollutant (and, if available, CAS Number) | Grab Sample Analysis concentration (include units) | Sources of Pollutants |
|---|---|---|
| | | |
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**Note: Copy and Complete this Page for Every Stormwater Discharge Location**

**Facility Name:** Impact Reuse and Recovery Center

## 12. Toxic Pollutants

List below each toxic pollutant shown in Appendix RF-3 or RF-4 that is a substance or a component of a substance that you currently use or manufacture as an intermediate or final product or byproduct. Also list TCDD (2,3,7,8 tetrachlorodibenzo-p-dioxin) if appropriate (see instructions).

| | |
|---|---|
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## 13. Biological Toxicity Testing Data

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ Yes (identify and describe the tests below) ■ No (go to Item 14)

Attach copies of the laboratory reports for the above described tests, if the test results were not previously submitted to the Department, and the tests were conducted in accordance with the laboratory certification regulations for biological testing, N.J.A.C. 7:18.

## 14. Certified Laboratory

Complete this table for all analyses reported in Item 11 or the Alternative Discharge Information Form (except for group application data submitted to USEPA).

| Name of Certified Laboratory | Telephone Number | Certification Number | Pollutants or Pollutant Categories Analyzed |
|---|---|---|---|
| Phoenix Laboratories | (860) 645-1102 | CT-003 | BOD, COD, TSS, pH, Oil+Grease |
| | | | Phosphorus, Nitrate plus Nitrate Nitrogen |
| | | | Kjeldahl Nitrogen |

## 15. Certification by Applicant

For Impact Environmental Consulting,Inc.

**Name of Applicant/Operating Entity (type or print)**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for purposely, knowingly, recklessly, or negligently submitting false information.

| Name (type or print) | Title (type or print) | |
|---|---|---|
| Joel Rogers | Vice President | |
| **Signature** | **Date** 06/17/2013 | **Phone** (201) 268-5686 ext. 131 |

FACILITY NAME: Impact Reuse and Recovery Center NJPDES PERMIT NO.: _____ (new applicants leave blank) FORM R - 1 INDUSTRIAL

Reset Form

**NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**DIVISION OF WATER QUALITY**
**FORM R GENERATOR – INDUSTRIAL**
**(FOR USE WITH DISCHARGE CATEGORIES I, B, BGR, RF AND I2)**

***Refer to Appropriate Completeness Checklist and Instructions. Provide All Applicable Information.***
***If you need assistance in completing Form R, contact the Bureau of Pretreatment and Residuals at (609) 633-3823.***
***Please Print or Type. (Attach additional sheets if necessary).***

**SUPPLEMENTAL APPLICATION FORM TO NJPDES-1 FOR NJPDES RESIDUAL PERMITS**

# PART A. GENERAL INFORMATION

## A1. Screening Information

Indicate all treatment devices or processes used for treating wastewater. (Check **ALL** that are utilized on-site.)

- ☐ Air Stripping
- ☐ Biological Treatment
- ☐ Carbon Adsorption
- ☐ Centrifuge/Cyclone Separation
- ☐ Chemical Precipitation
- ☐ Chlorination
- ☐ Cyanide Destruction
- ☐ Dissolved Air Flotation
- ☐ Filtration
- ☐ Flocculation
- ☐ Flow equalization
- ■ Grease or Oil Separation (petroleum)
- ☐ Grease Trap (animal/vegetable)
- ☐ Grit Sedimentation
- ☐ Ion Exchange
- ☐ Lagoons / Surface Impoundments
- ☐ Microfiltration
- ☐ Nanofiltration
- ☐ Ozonation
- ☐ pH Neutralization
- ☐ Reverse Osmosis
- ☐ Screening
- ☐ Sedimentation Tank/Clarifier
- ☐ Septic Tank
- ☐ Silver Recovery
- ☐ Solvent Separation
- ☐ Ultrafiltration
- ☐ Other (specify:_____)

☐ None (There is no treatment on-site)

FACILITY NAME: Impact Reuse and Recovery Center NJPDES PERMIT NO.: _____ (new applicants leave blank) FORM R - 2 INDUSTRIAL

## A1. Screening Information continued

***Residual* means a solid waste that consists of the accumulated solids and associated liquids which are by-products of a physical, chemical, biological, or mechanical process or any other process designed to treat wastewater or any other discharges subject to regulation under the State Act. For purposes of this form residual includes, spent activated carbon, screenings, and all types of sludge (such as, sludge from oil/water separators, sludge from potable water treatment plants, sludge from food processing operations, and sludge from the treatment of process wastewater).**

Does/will the facility generate a residual or screenings for use or disposal (including septage from a septic tank) as a by-product of the treatment of the wastewater from any of the above devices for which a NJPDES permit has been issued or a NJPDES application is being made?

☑ Yes ☐ No

Does/will the facility generate a residual or screenings for use or disposal (including septage from a septic tank) as a by-product of the treatment of the wastewater from any of the above devices anywhere on-site regardless as to whether a NJPDES permit has been issued or a NJPDES application is being made?

☐ Yes ☑ No

**If you answered "yes" to either question above, you must complete this form in its entirety, as applicable. Note, an industrial treatment works which generates any sludge on-site is not exempt from the Sludge Quality Assurance Regulations, regardless as to whether or not the sludge is generated under any other NJPDES discharge permitted activity. See N.J.A.C. 7:14C-1.9(f)). If you answered "no" to both questions above, and checked "None (there is no treatment)" on page 1, only complete Part A and a signed certification page (Part C).**

## A2. Facility Information

a. Name of facility: Impact Reuse and Recovery Center

b. NJPDES Permit Number(s): _____

c. Facility contact: Name: Jeff Bogoian
Title: Facility QC Engineer Phone: 631-334-2325
Email (*optional*): jbogoian@impactenvironmental.com

d. Facility location: Street or Route #: 1000 Page Ave
County: Bergen
City or town: Lyndhurst State: NJ Zip: 07071

e. Facility mailing: Street or Route #: 1000 Page Ave
City or town: Lyndhurst State: NJ Zip: 07071

f. Facility design influent flow (wastewater) rate, if applicable: _____mgd

g. Provide a brief description of products that are manufactured or produced and/or services that are rendered at your facility?
Impact Reuse and Recovery Center is a permitted Class B Recycling Facility (Permit No CB11002)
The primary industrial activities at the site inclused crushing, aggregate storage and use of heavy industrial equipment including front end loaders and dump trucks.

FACILITY NAME: Impact Reuse and Recovery Center NJPDES PERMIT NO.: _____ (new applicants leave blank) FORM R - 3 INDUSTRIAL

# PART B. GENERATION OF RESIDUAL

## B1. Residual Amount Generated On Site

a. Is there any domestic (that is, sanitary) flow included in the influent to the industrial wastewater treatment plant?

☐ Yes ☑ No (If yes, percent of total influent flow: _____%)

b. Volume and types of residual and/or grit and screenings generated on-site:

| Residual Description (also enter in Section B3) | Approximate Percent Total Solids | Treatment Process Source (from Section A1 above) | Quantity per Year (dry metric tons) | Classification (hazardous or nonhazardous) |
|---|---|---|---|---|
| Settled Solids | 60 | Oil Separation | <1 | Non-haz |
| Oil | 0 | Oil Separation | <1 | Non-haz |
| | | | | |
| | | | | |
| | | | | |

## B2. Types of Residual Received from Off Site

a. Please indicate if your facility receives, or will receive, the following types of residuals from another facility for treatment, use, or disposal.

| | | | |
|---|---|---|---|
| Potable Water Sludge | ☐ Yes ☑ No | Grease | ☐ Yes ☑ No |
| Food Processing Sludge | ☐ Yes ☑ No | Other Industrial Sludge | ☐ Yes ☑ No |
| Domestic Septage | ☐ Yes ☑ No | Sewage Sludge | ☐ Yes ☑ No |

b. Describe the location(s) where customer residuals are added and indicate on line drawing required in B4 below (attach additional pages if necessary).

_____

_____

_____

## B3. Types of Residual Removed from Your Site

**Where a facility generates different types of residual that are removed separately for use or disposal, separate composite samples for each different type of residual are required to be analyzed and reported pursuant to SQAR.**

For each type of residual identified in B1 above, identify the residual use or disposal practices:

| Residual Description (from Section B1 above) | Use or Disposal Site (name and location) | Quantity to this Site (dry metric tons per year) |
|---|---|---|
| Settled Solids | Phase III Environmental located at 1126 Mauch Chunk Rd, Palmerton, PA | <1 |
| Oil | Oil pumped out using a vacuum truck | <1 |
| | | |
| | | |
| | | |

**FACILITIES THAT DO NOT GENERATE A SLUDGE (FOR EXAMPLE, ONLY GENERATE SPENT CARBON, GRIT AND/OR SCREENINGS FOR DISPOSAL) SKIP TO PART C - ALL OTHER FACILITIES CONTINUE FROM B4**

## B4. Line Drawing

a. Attach a detailed line drawing of sludge flow through the facility that identifies all units where sludge is generated and all sludge treatment units, including all processes used for collecting, dewatering, storing, or treating sludge, and the destination(s) of all liquids and solids leaving each unit (include on the line drawing the point where any chemicals are added and the type of chemical that is added).

b. Provide a narrative description of the line drawing required in B.4.a above, including information on any blending, treatment, or other activities that change the quality of the sludge. The narrative should identify each type of process, operation, or production area which contributes wastewater to the effluent outfall, and a description of the treatment the wastewater receives, including the ultimate disposal of any solid or fluid wastes other than by discharge (attach additional sheets as necessary):

_____

_____

_____

_____

_____

c. For each type of sludge generated, provide a description of residual use and disposal practices:

_____

_____

_____

_____

## B5. Contractor Information

Are any operational or maintenance aspects of this facility related to sludge generation, treatment, use or disposal the responsibility of a contractor (include current contractor(s) for hauling and/or use or disposal)?

☐ Yes ☐ No

If yes, provide the following for each contractor (attach additional pages if necessary).

Name: _____

Street or P.O. Box: _____

City or Town: _____ State: _____ Zip: _____

Phone Number: _____

Responsibilities of contractor (if out-of-state use or disposal, provide permitting authority contact and permit number):

_____

_____

_____

## B6. Sludge Quality Information

**For facilities that have been required to keep records but not report data, provide a summary of all results obtained under the Sludge Quality Assurance Regulations (SQAR, N.J.A.C. 7:14C) for the previous 12-month period. If no data is available, a sample must be taken, analyzed and reported as part of this application as required pursuant to SQAR. Note, hazardous waste is exempt from the analytical requirements of SQAR. Hazardous waste only generators skip to Part C. All others proceed from B6.**

For each type of sludge identified in B3 above, for the following parameters, indicate if the pollutant is known present, suspected present or suspected absent at the facility as a raw product, a constituent in a chemical or as a by-product of any chemical or process. Parameters marked with an '*' are required for Public Water Treatment Systems (See SQAR, Table VIII):

| Parameter | KNOWN PRESENT | SUSPECTED PRESENT | SUSPECTED ABSENT |
|---|---|---|---|
| **SQAR Table I: Primary Metals and Selected Chemical:** | | | |
| Arsenic* | | | |
| Beryllium | | | |
| Cadmium* | | | |
| Calcium | | | |
| Chromium | | | |
| Copper* | | | |
| Lead* | | | |
| Mercury* | | | |
| Molybdenum* | | | |
| Nickel* | | | |

FACILITY NAME: Impact Reuse and Recovery Center NJPDES PERMIT NO.: _____ (new applicants leave blank) FORM R - 6 (INDUSTRIAL

| Parameter | KNOWN PRESENT | SUSPECTED PRESENT | SUSPECTED ABSENT |
|---|---|---|---|
| Potassium* | | | |
| Selenium* | | | |
| Zinc* | | | |
| Phosphorus, Total* | | | |
| Nitrogen, Total Kjeldahl* | | | |
| Nitrogen, Ammonia* | | | |
| Nitrogen, Nitrate* | | | |
| **Table IA: Special SQAR Table 1 Selected Chemical:** | | | |
| Dioxin and Dioxin-like compounds | | | |
| PCBs, Total (209 Congeners) | | | |
| Radium – 226* | | | |
| Radium – 228* | | | |
| Radionuclides: Gamma Spectroscopy* | | | |
| **Table II, Additional Miscellaneous** | | | |
| Antimony | | | |
| Silver | | | |
| Thallium | | | |
| Cyanide | | | |
| **Table III, Volatile Organic Compounds** | | | |
| Acrolein | | | |
| Acrylonitrile | | | |
| Benzene | | | |
| Bromoform* | | | |
| Carbon Tetrachloride | | | |
| Chlorobenzene | | | |
| Chlorodibromomethane* | | | |
| Chloroethane | | | |
| 2-Chloroethylvinyl Ether | | | |
| Chloroform* | | | |
| Dichlorobromomethane* | | | |
| 1,1-Dichloroethane | | | |
| 1,2-Dichloroethane | | | |
| 1,1-Dichloroethylene | | | |
| 1,2-Dichloropropane | | | |
| trans-1,3-Dichloropropene | | | |
| Ethylbenzene | | | |

FACILITY NAME: Impact Reuse and Recovery Center NJPDES PERMIT NO.: _____ (new applicants leave blank) FORM R - 7 INDUSTRIAL

| Parameter | KNOWN PRESENT | SUSPECTED PRESENT | SUSPECTED ABSENT |
|---|---|---|---|
| Methyl Bromide | | | |
| Methyl Chloride | | | |
| Methylene Chloride | | | |
| 1,1,2,2-Tetrachloroethane | | | |
| Tetrachloroethylene | | | |
| Toluene | | | |
| 1,2-trans-Dichloroethylene | | | |
| 1,1,1-Trichloroethane | | | |
| 1,1,2-Trichloroethane | | | |
| Trichloroethylene | | | |
| Vinyl Chloride | | | |
| **Table IV, Acid-extractable:** | | | |
| 2-Chlorophenol, Dry Weight | | | |
| 2,4-Dichlorophenol, Dry Weight | | | |
| 2,4-Dimethylphenol, Dry Weight | | | |
| 4,6-Dinitro-o-cresol, Dry Weight | | | |
| 2,4 Dinitrophenol, Dry Weight | | | |
| 2-Nitrophenol, Dry Weight | | | |
| 4-Nitrophenol, Dry Weight | | | |
| p-chloro-m-cresol, Dry Weight | | | |
| Pentachlorophenol, Dry Weight | | | |
| Phenol, Single Compound, Dry Weight | | | |
| 2,4,6 Trichlorophenol, Dry Weight | | | |
| **Table V, Base-Neutral:** | | | |
| Acenaphthene, Dry Weight | | | |
| Acenaphthylene, Dry Weight | | | |
| Anthracene, Dry Weight | | | |
| Benzidine, Dry Weight | | | |
| Benzo(a)anthracene, Dry Weight | | | |
| Benzo(a)pyrene, Dry Weight | | | |
| 3,4 Benzofluoranthene | | | |
| Benzo(ghi)perylene, Dry Weight | | | |
| Benzo(k)fluoranthene, Dry Weight | | | |
| Bis(2-chloroethoxy) methane, Dry Weight | | | |
| Bis(2-chloroethyl) ether, Dry Weight | | | |
| Bis(2-chloroisopropyl) ether, Dry Weight | | | |
| Bis(2-ethylhexyl) phthalate, Dry Weight | | | |

FACILITY NAME: Impact Reuse and Recovery Center NJPDES PERMIT NO.: _____ (new applicants leave blank) FORM R - 8 INDUSTRIAL

| Parameter | KNOWN PRESENT | SUSPECTED PRESENT | SUSPECTED ABSENT |
|---|---|---|---|
| 4-Bromophenyl phenyl ether, Dry Weight | | | |
| Butyl benzyl phthalate, Dry Weight | | | |
| 2-Chloronaphthalene, Dry Weight | | | |
| 4-Chlorophenyl phenyl ether, Dry Weight | | | |
| Chrysene, Dry Weight | | | |
| Dibenzo(a,h)anthracene, Dry Weight | | | |
| 1,2-Dichlorobenzene, Dry Weight | | | |
| 1,3-Dichlorobenzene, Dry Weight | | | |
| 1,4-Dichlorobenzene, Dry Weight | | | |
| 3,3-Dichlorobenzidine, Dry Weight | | | |
| Diethyl phthalate, Dry Weight | | | |
| Dimethyl phthalate, Dry Weight | | | |
| Di-n-butyl phthalate, Dry Weight | | | |
| 2,4-Dinitrotoluene, Dry Weight | | | |
| 2,6-Dinitrotoluene, Dry Weight | | | |
| Di-n-octyl Phthalate, Dry Weight | | | |
| 1,2-Diphenylhydrazine, Dry Weight | | | |
| Fluoranthene, Dry Weight | | | |
| Fluorene, Dry Weight | | | |
| Hexachlorobenzene, Dry Weight | | | |
| Hexachlorobutadiene, Dry Weight | | | |
| Hexachlorocyclo-pentadiene, Dry Weight | | | |
| Hexachloroethane, Dry Weight | | | |
| Indeno(1,2,3-cd)pyrene, Dry Weight | | | |
| Isophorone, Dry Weight | | | |
| Naphthalene, Dry Weight | | | |
| Nitrobenzene, Dry Weight | | | |
| N-nitrosodimethylamine, Dry Weight | | | |
| N-nitrosodi-n-propylamine, Dry Weight | | | |
| N-nitrosodiphenylamine, Dry Weight | | | |
| Phenanthrene, Dry Weight | | | |
| Pyrene, Dry Weight | | | |
| 1,2,4-Trichlorobenzene, Dry Weight | | | |
| **Table VI, Pesticides and PCBs:** | | | |
| Aldrin, Dry Weight | | | |
| Alpha BHC, Dry Weight | | | |
| Beta BHC, Dry Weight | | | |

FACILITY NAME: Impact Reuse and Recovery Center NJPDES PERMIT NO.: _____ (new applicants leave blank) FORM R - 9 INDUSTRIAL

| Parameter | KNOWN PRESENT | SUSPECTED PRESENT | SUSPECTED ABSENT |
|---|---|---|---|
| Gamma-BHC (lindane), Dry Weight | | | |
| BHC Delta, Dry Weight | | | |
| Chlordane (Tech Mix & Metab.), Dry Weight | | | |
| 4,4'-DDT, Dry Weight | | | |
| 4,4'-DDD, Dry Weight | | | |
| 4,4'-DDE, Dry Weight | | | |
| Dieldrin, Dry Weight | | | |
| Alpha Endosulfan | | | |
| Beta Endosulfan | | | |
| Endosulfan Sulfate, Dry Weight | | | |
| Endrin, Dry Weight | | | |
| Endrin Aldehyde, Dry Weight | | | |
| Heptachlor, Dry Weight | | | |
| Heptachlor Epoxide, Dry Weight | | | |
| PCB-1242, Dry Weight | | | |
| PCB-1254, Dry Weight | | | |
| PCB-1221, Dry Weight | | | |
| PCB-1232, Dry Weight | | | |
| PCB-1248, Dry Weight | | | |
| PCB-1260, Dry Weight | | | |
| PCB-1016, Dry Weight | | | |
| Toxaphene, Dry Weight | | | |
| **Table VII, Conventional and Nonconventional:** | | | |
| Aluminum, Total* | | | |
| Barium, Total | | | |
| Boron, Total | | | |
| Cobalt, Total | | | |
| Iron, Dry Weight* | | | |
| Magnesium, Dry Weight | | | |
| Manganese, Total | | | |
| Strontium, Total | | | |
| Tin, Total | | | |
| Titanium, Total | | | |
| Vanadium, Total | | | |
| Zirconium, Total | | | |
| **Table VIII, Hazardous Substances:** | | | |
| Acetone | | | |

FACILITY NAME: Impact Reuse and Recovery Center NJPDES PERMIT NO.: _____ (new applicants leave blank) FORM R - 10 INDUSTRIAL

| Parameter | KNOWN PRESENT | SUSPECTED PRESENT | SUSPECTED ABSENT |
|---|---|---|---|
| Acetonitrile (Methyl cyanide) | | | |
| Acetophenone | | | |
| 2-Acetylaminofluorene (2-AFF) | | | |
| Acrylamide | | | |
| Allyl chloride | | | |
| 4-Aminobiphenyl | | | |
| Atrazine | | | |
| Benzaldehyde | | | |
| Benzyl alcohol | | | |
| 1,1-Biphenyl | | | |
| Bromochloromethane (chlorobromomethane) | | | |
| Caprolactum | | | |
| Carbazole | | | |
| Carbon Disulfide | | | |
| p-Chloroaniline (4-Chlorobenzenamine) | | | |
| Chlorobenzilate | | | |
| Chloroprene (2-chloro-1,3-butadine) | | | |
| m-Cresol | | | |
| o-Cresol (2-methylphenol) | | | |
| p-Cresol (4-methylphenol) | | | |
| 2,4-D (2,4-dichlorophen-oxyacetic acid) | | | |
| Diallate | | | |
| 1,2-Dibromo-3-chloropropane (DBCP) | | | |
| 1,2-Dibromoethane (Ethylene dibromide) (EDB) | | | |
| trans-1,4-Dichloro-2-butene | | | |
| Dichlorodifluoromethane (CFC 12) | | | |
| Cis-1,2-Dichloroethylene (Cis-1,2-dichloroethene) | | | |
| 2,6-Dichlorophenol | | | |
| 1,3-Dichloropropane (Trimethylene dichloride) | | | |
| 2,2-Dichloropropane (Isopropylidene chloride) | | | |
| 1,1-Dichloropropene | | | |
| cis-1,3-Dichloropropene | | | |
| 0,0-Diethyl 0,2-pyrazinyl phosphorothioate (Thionazin) | | | |
| Dimethoate | | | |
| p-(Dimethylamino) azobenzene | | | |
| 7,12-Dimethyl-benz(a)anthracene | | | |
| 3,3-Dimethylbenzidine | | | |

FACILITY NAME: Impact Reuse and Recovery Center NJPDES PERMIT NO.: _____ (new applicants leave blank) FORM R - 11 INDUSTRIAL

| Parameter | KNOWN PRESENT | SUSPECTED PRESENT | SUSPECTED ABSENT |
|---|---|---|---|
| m-Dinitrobenzene (1,3-dinitrobenzene) | | | |
| Dinoseb (DNBP) | | | |
| Diphenylamine (N-phenylbenzenamine) | | | |
| Disulfoton | | | |
| Ethyl methacrylate | | | |
| Ethyl methanesulfonate | | | |
| Famphur | | | |
| Hexachloropropene | | | |
| 2-Hexanone (Methyl butyl ketone) | | | |
| Isobutyl alcohol | | | |
| Isodrin | | | |
| Isosafrole | | | |
| Kepone | | | |
| Methacrylonitrile | | | |
| Methoxychlor | | | |
| Methyl Acetate | | | |
| Methylapyrilene | | | |
| 3-Methylcholanthrene | | | |
| Methylcyclohexane | | | |
| Methylene Bromide (Dibromomethane) | | | |
| Methyl ethyl ketone (MEK) (2-Butanone) | | | |
| Methyl iodide (Iodomethane) | | | |
| Methyl methacrylate | | | |
| Methyl methanesulfonate | | | |
| 2-Methylnaphthalene | | | |
| Methyl parathion (Parathion methyl) | | | |
| 4-Methyl-2-pentanone: Methyl isobutyl ketone | | | |
| Methyl-tert-butyl-ether (MTBE) | | | |
| 1,4-Naphthoquinone (1,4-Naphthalenedione) | | | |
| 1-Naphthylamine (1-Naphthalenamine) | | | |
| 2-Naphthylamine (2-Naphthalenamine) | | | |
| o-Nitroaniline (2-Nitroaniline) (2-nitrobenzenamine) | | | |
| m-Nitroaniline (3-Nitroaniline) (3-nitrobenzenamine) | | | |
| p-Nitroaniline (4-Nitroaniline) (4-nitrobenzenamine) | | | |
| N-Nitrosodi-n-butylamine | | | |
| N-nitrosodiethylamine | | | |
| N-Nitrosomethylethylamine | | | |

FACILITY NAME: Impact Reuse and Recovery Center NJPDES PERMIT NO.: _____ (new applicants leave blank) FORM R - 12 INDUSTRIAL

| Parameter | KNOWN PRESENT | SUSPECTED PRESENT | SUSPECTED ABSENT |
|---|---|---|---|
| N-Nitrosopiperidine | | | |
| N-nitrosopyrrolidine | | | |
| 5-Nitro-o-toluidine | | | |
| Parathion | | | |
| Pentachlorobenzene | | | |
| Pentachloronitrobenzene | | | |
| Phenacetin | | | |
| p-Phenylenediamine (1,4-Benzenediamine) | | | |
| Phorate | | | |
| Pronamide | | | |
| Propionitrile (Ethyl cyanide) (Propanenitrile) | | | |
| Safrole | | | |
| Silvex (2,4,5-TP) [2- (2,4,5-Trichlorophenoxy) propanoic acid] | | | |
| Styrene | | | |
| Sulfide, Total (as S) | | | |
| Tertiary butyl alcohol (TBA) | | | |
| 2,4,5-T (2,4,5-Trichloro-phenoxyacetic acid) | | | |
| 1,2,4,5-Tetrachlorobenzene | | | |
| 1,1,1,2-Tetrachloroethane | | | |
| 2,3,4,6-Tetrachlorophenol | | | |
| o-Toluidine | | | |
| Trichlorofluoromethane | | | |
| 2,4,5-Trichlorophenol | | | |
| 1,2,3-Trichloropropane | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | | | |
| 0,0,0-Triethyl phosphorothioate | | | |
| sym-Trinitrobenzene (1,3,5-trinitrobenzene) | | | |
| Vinyl acetate | | | |
| Xylene (total) | | | |

## B7. Sludge Sampling Plan

**Each industrial treatment w orks shall develop and maintain on file a sludge sampling plan that details its sampling and analytical procedures (SQAR at N.J.A.C. 7:14C-1.6).**

a. Describe the intended sampling location(s) and the rationale for choosing such location(s). (Where a treatment works generates different types of sludge that are removed separately for use or disposal, or where a treatment works accepts customer sludge or septage, separate sampling points for each different type of sludge need to be established):

b. Describe the sampling equipment to be used (sampling device, container type and size, and container cover):

c. Describe the procedure to be used for cleaning/decontamination of sample containers and sampling equipment (See *New Jersey Sludge Sampling and Analytical Guidance Document*, Chapter 4):

d. Describe in detail the procedure to be used for collecting the sample(s) to ensure the sample obtained for analysis is representative of the sludge removed for use or disposal, include a schedule for days and times of sample collection, the procedures to be used to obtain a representative sample from the chosen sampling point, and the procedures to be used to mix composite samples (See *New Jersey Sludge Sampling and Analytical Guidance Document*, Appendix E):

## B7. Residual Sampling Plan continued

e. Describe the sampling method(s) (that is, Grab v. Composite), the number of samples to be taken per sampling event and the interval between grabs (include sample size by weight or volume.), and the frequency of the sampling event(s). (Note, different parameters or groups of parameters may require different sampling methods and/or locations.):

f. Provide the name of the person who will take the sample(s) and his/her qualifications:

g. Provide the name and address of all laboratories to be employed, including sub-contracting laboratories (if multiple labs, indicate which groups of parameters each lab is responsible for):

## B7. Residual Sampling Plan (continued)

h. The following information is to be developed for use with your selected New Jersey Certified Laboratory. List the parameters or group of parameters expected to present in the sludge (from the list in Part B6), the required frequency of analysis, the analytical methods requested, and sample holding times (see *New Jersey Sludge Sampling and Analytical Guidance Document*, Appendix A, for additional information, including information on Target Reporting Levels):

| PARAMETER | FREQUENCY OF ANALYSIS[1] | ANALYTICAL METHOD | HOLDING TIME |
|---|---|---|---|
| Total Solids, (percent by weight) | | SM Method 2540G | 7 days |
| | | | |
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[1]Based on annual sludge production as follows:
- ≤ 290 dry metric tons per year = Annually
- >290 but < 1,500 dry metric tons per year = Quarterly
- ≥1,500 but < 15,000 dry metric tons per year = Bi-monthly
- ≥15,000 dry metric tons per year = Monthly

## B7. Residual Sampling Plan continued

i. Describe the post-collection sample handling procedures employed to maintain sample integrity. This description should explain how the samples will be preserved and transported, how the holding times will be met, and whether a chain-of-custody is required (See *New Jersey Sludge Sampling and Analytical Guidance Document*, Appendix E):

_____

_____

_____

_____

j. Describe sample documentation procedures, specifically, describe those elements to be included in a field logbook (see *New Jersey Sludge Sampling and Analytical Guidance Document*, Appendix F):

_____

_____

_____

k. Describe how the following elements of the sampling event will be reported to the certified laboratory:

1) chemicals that are added during sludge processing (alum, ferric chloride, lime, organic polymer etc.): _____

2) analytical methods and target reporting levels (see above): _____

3) treatment process conditions or deviations: _____

4) other: _____

l. Provide a description of record-keeping procedures. The description should explain what information will be retained and for how long, and how the information will be stored:

_____

_____

_____

## B8. Additional Information

**Review the following to determine if additional Supplemental Form R applications are required to be submitted with this application.**

**FORM R: SURFACE DISPOSAL**

Supplemental Form R: Surface Disposal must be completed by applicants who own or operate a residual surface disposal site (active or inactive). Surface disposal is considered to be an area of land where residual has been placed for a period of time that exceeds six months.

**For copies of Supplemental Form R applications visit http://www.state.nj.us/dep/dwq/forms_residuals.htm. If you have specific questions or need assistance in completing any Supplemental Form R application, contact the Bureau of Pretreatment and Residuals at (609) 633-3823.**

## PART C: CERTIFICATION

**Read and submit the following certification statement with this application.**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with the system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for purposely, knowingly, recklessly, or negligently submitting false information.

Signature of Officer: _____

Name of Officer: Jeff Bogoian
(type or print)

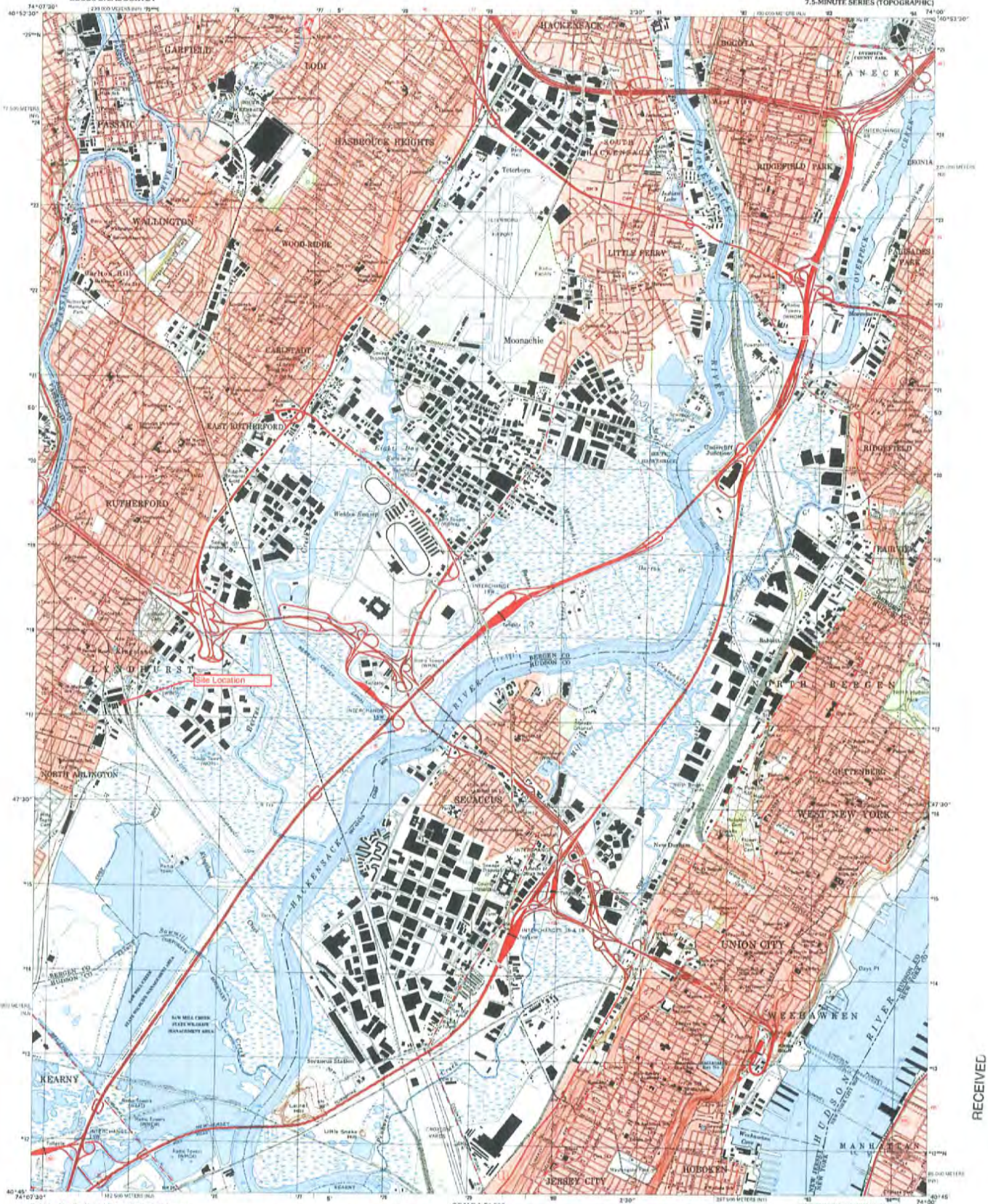
Official Title: Facility QC Engineer

Telephone Number: (631) 334-2325

Date Signed: 7/11/2013

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

# WEEHAWKEN QUADRANGLE
NEW JERSEY-NEW YORK
7.5-MINUTE SERIES (TOPOGRAPHIC)




SCALE 1:24 000

Produced by the United States Geological Survey

Topography compiled 1955. Planimetry derived from imagery taken 1995. Survey control current as of 1967

Selected hydrographic data compiled from NOS Charts 287, 745 and 746 (1966). This information is not intended for navigational purposes

North American Datum of 1983 (NAD 83). Projection and 1 000-meter grid: Universal Transverse Mercator, zone 18
2 500-meter ticks: New Jersey Coordinate System of 1983 and New York coordinate System of 1983 (Long Island zone)

North American Datum of 1927 (NAD 27) is shown by dashed corner ticks. The values of the shift between NAD 83 and NAD 27 for 7.5-minute intersections are obtainable from National Geodetic Survey NADCON software

There may be private inholdings within the boundaries of the National or State reservations shown on this map

Landmark buildings verified 1955

UTM GRID AND 1995 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929
TO CONVERT FROM FEET TO METERS, MULTIPLY BY 0.3048
DEPTH CURVES AND SOUNDINGS IN FEET, DATUM IS MEAN LOWER LOW WATER
THE RELATIONSHIP BETWEEN THE TWO DATUMS IS VARIABLE
SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER
THE MEAN RANGE OF TIDE IS 4.2 FEET IN THE HUDSON RIVER
AND 5.1 FEET IN THE HACKENSACK AND PASSAIC RIVERS

FOR SALE BY U.S. GEOLOGICAL SURVEY, P.O. BOX 25286, DENVER, COLORADO 80225
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

ADJOINING 7.5 QUADRANGLE NAMES

| | | |
|---|---|---|
| 1 | 2 | 3 |
| 4 | | 5 |
| 6 | 7 | 8 |

1 Paterson
2 Hackensack
3 Yonkers
4 Orange
5 Central Park
6 Elizabeth
7 Jersey City
8 Brooklyn

ROAD CLASSIFICATION

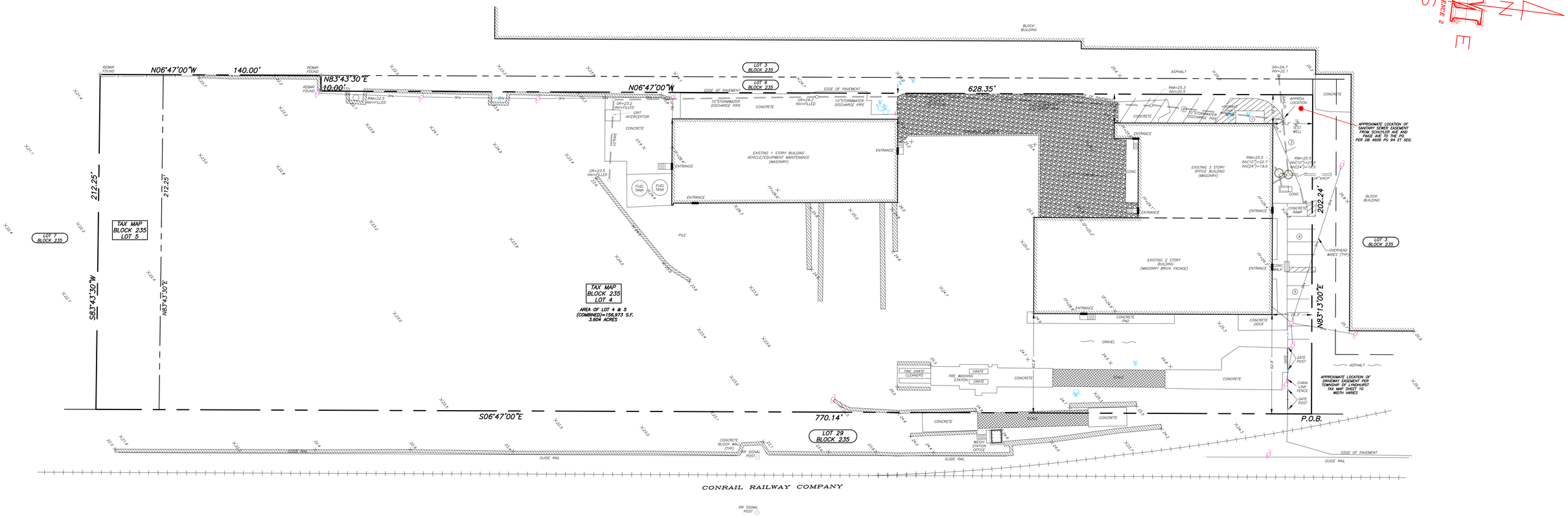
Primary highway, hard surface — Light-duty road, hard or improved surface
Secondary highway, hard surface — Unimproved road
Interstate Route — U.S. Route — State Route

WEEHAWKEN, NJ-NY
1995

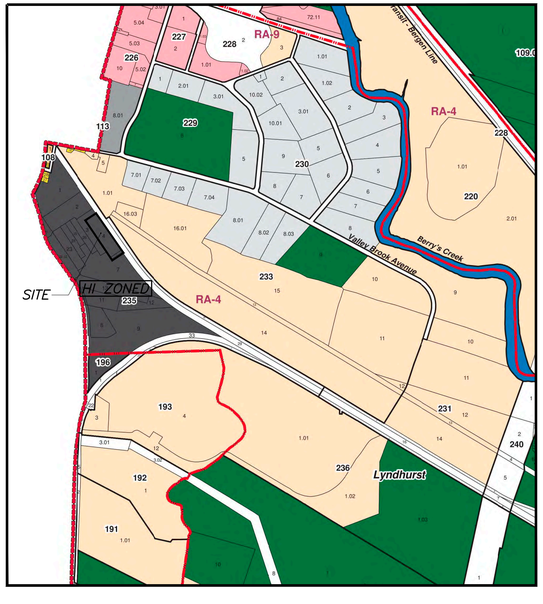
NOAA 61651 84-SERIES VIEW

RECEIVED
OCT 31 1998
USGS/NMD

Exhibit 2: Facility Site Plan




## HACKENSACK MEADOWLANDS DISTRICT MAP




## NOTES:

1. SUBJECT TO EASEMENTS, GRANTS, RESTRICTIONS, RIGHT-OF-WAYS AND CONDITIONS OF RECORD AND SUCH STATE OF FACTS WHICH AN ACCURATE, CURRENT AND COMPLETE ABSTRACT OF TITLE MIGHT DISCLOSE.
2. STREET NAMES AND RIGHT-OF-WAY WIDTHS AND BLOCK AND LOT DESIGNATIONS ARE PER THE CURRENT MUNICIPAL TAX MAPS.
3. EXCEPT AS SPECIFICALLY STATED OR SHOWN ON THIS PLAT, THIS SURVEY DOES NOT PURPORT TO REFLECT MUNICIPAL SETBACK REQUIREMENTS, RESTRICTIVE COVENANTS, SUBDIVISION RESTRICTIONS, ZONING OR OTHER LAND USE REGULATIONS.
4. THIS SURVEY IS BASED ON EXISTING PHYSICAL CONDITIONS FOUND AT THE SITE ON THE DATES OF THE FIELD SURVEY AND ON DEED, FILED, AND UNFILED MAP INFORMATION.
5. SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED OR CONSIDERED AS PART OF THIS SURVEY, NO STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONTAINERS OR FACILITIES THAT MAY AFFECT THE USE OR DEVELOPMENT OF THIS TRACT.
6. ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MARKED WITH AN ORIGINAL OF THE LAND SURVEYORS EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID COPIES.
7. SIGNATURE AND EMBOSSED SEAL SIGNIFY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE ADOPTED BY THE N.J. STATE BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS. CERTIFICATIONS INDICATED HEREON SHALL RUN ONLY TO THE PERSON FOR WHICH THE SURVEY IS PREPARED, AND ON HIS BEHALF TO THE TITLE COMPANY. GOVERNMENTAL AGENCY AND LENDING INSTITUTION LISTED HEREON. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNERS.
8. ELEVATIONS BASED ON NGVD29 AND ESTABLISHED BY RAPID STATIS GPS OBSERVATIONS USING COR STATION "NJIT" CONVERSION TO NGVD29 FROM NAVD88 BY VERTCON PROGRAM. CONTOURS HAVE A 1 FOOT INTERVAL.
9. IN ACCORDANCE WITH N.J.A.C. 13:40-5.1(d), UNDER "LAND SURVEYORS; PREPARATION OF LAND SURVEYS," A WAIVER OF THE RIGHT TO HAVE CORNER MARKERS SET HAS BEEN FILED WITH THIS OFFICE BY THE ULTIMATE USER.

## REFERENCES:

1. TAX MAP FOR THE TOWNSHIP OF LYNDHUSRT, BERGEN COUNTY, NEW JERSEY
2. DEED BOOK 8320 PAGE 334 ET SEQ.
3. "SUBDIVISION OF PROPERTY OF D.L.&W. RAILROAD COMPANY, BOROUGH OF NORTH ARLINGTON AND TOWNSHIP OF LYNDHURST, BERGEN COUNTY, NEW JERSEY" PREPARED BY RONALD B. BROWN, ENGINEER, DATED NOVEMBER 1958, LAST REVISED DECEMBER 1958. THIS IS UNAVAILABLE AT THE BERGEN COUNY CLERK'S OFFICE.
4. TITLE REPORT # CTA2097 BY CECERE TITLE AGENCY, AGENT FOR FIRST AMERICAN TITLE INSURANCE COMPANY.
5. FIELD SURVEY PERFORMED AUGUST 2014.

## ZONING:

PROPOERTY IS CURRENTLY IN THE HEAVY INDUSTRIAL (HI) ZONED LAND

GRAPHIC SCALE
30 0 15 30 60
(IN FEET)
1 INCH = 30 FEET

| REV. | DATE | DESCRIPTION |
|---|---|---|

DRAWN BY : CC
CHECKED BY : DWD
PROJECT No: 14082

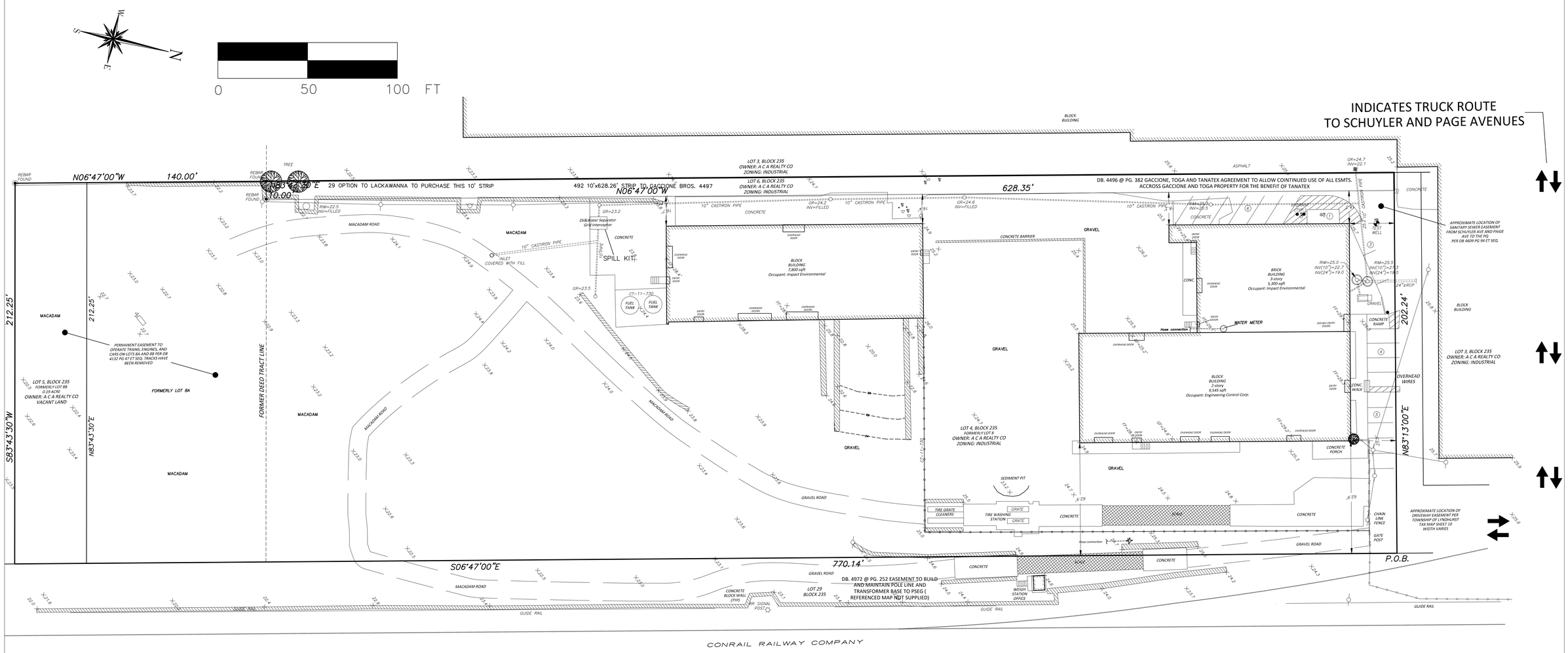
McNALLY ENGINEERING, LLC.

DRAWING TITLE BOUNDARY AND TOPOGRAPHIC SURVEY

IMPACT ENVIRONMENTAL
BLOCK 235 - LOTS 4 & 5
TOWNSHIP OF LYNDHURST
BERGEN COUNTY, NEW JERSEY

McNALLY ENGINEERING, L.L.C.
Certificate of Authorization 24GA27928700, exp. 8/31/16
169 RAMAPO VALLEY ROAD
OAKLAND, NJ 07436
(201) 337-9051

| SCALE : | DATE : | SHEET No.: | DWG. No.: |
|---|---|---|---|
| 1" = 30' | 08/27/14 | 1 OF 1 | SB-1 |




## REFERENCES:

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3. "SUBDIVISION OF PROPERTY OF D.L.&W. RAILROAD COMPANY, BOROUGH OF NORTH ARLINGTON AND TOWNSHIP OF LYNDHURST, BERGEN COUNTY, NEW JERSEY" PREPARED BY RONALD B. BROWN, ENGINEER, DATED NOVEMBER 1958, LAST REVISED DECEMBER 1958. THIS IS UNAVAILABLE AT THE BERGEN COUNY CLERK'S OFFICE.
4. TITLE REPORT # CTA2097 BY CECERE TITLE AGENCY, AGENT FOR FIRST AMERICAN TITLE INSURANCE COMPANY.
5. BOUNDARY AND TOPOGRAPHIC SURVEY, PREPARED BY MCNALLY ENGINEERING, LLC, SIGNED BY DOUGLAS W. DOOLITTLE, P.E., LSRP, DATED AUGUST 26, 2014.

## LEGEND:

- FACILITY BOUNDARY
- PROPERTY LINE
- TRAIN TRACKS

## NOTES:

1. SUBJECT TO EASEMENTS, GRANTS, RESTRICTIONS, RIGHT-OF-WAYS AND CONDITIONS OF RECORD AND SUCH STATE OF FACTS WHICH AN ACCURATE, CURRENT AND COMPLETE ABSTRACT OF TITLE MIGHT DISCLOSE.
2. STREET NAMES AND RIGHT-OF-WAY WIDTHS AND BLOCK AND LOT DESIGNATIONS ARE PER THE CURRENT MUNICIPAL TAX MAPS.
3. EXCEPT AS SPECIFICALLY STATED OR SHOWN ON THIS PLAT, THIS SURVEY DOES NOT PURPORT TO REFLECT MUNICIPAL SETBACK REQUIREMENTS, RESTRICTIVE COVENANTS, SUBDIVISION RESTRICTIONS, ZONING OR OTHER LAND USE REGULATIONS.
4. SITE CONSISTS OF LOT 4 & 5 OF BLOCK 235, WITH AN AREA OF 156,973 SQFT (3.604 ACRES).

TITLE:

# EXISTING FEATURES

1000 Page Avenue
Lyndhurst, NJ

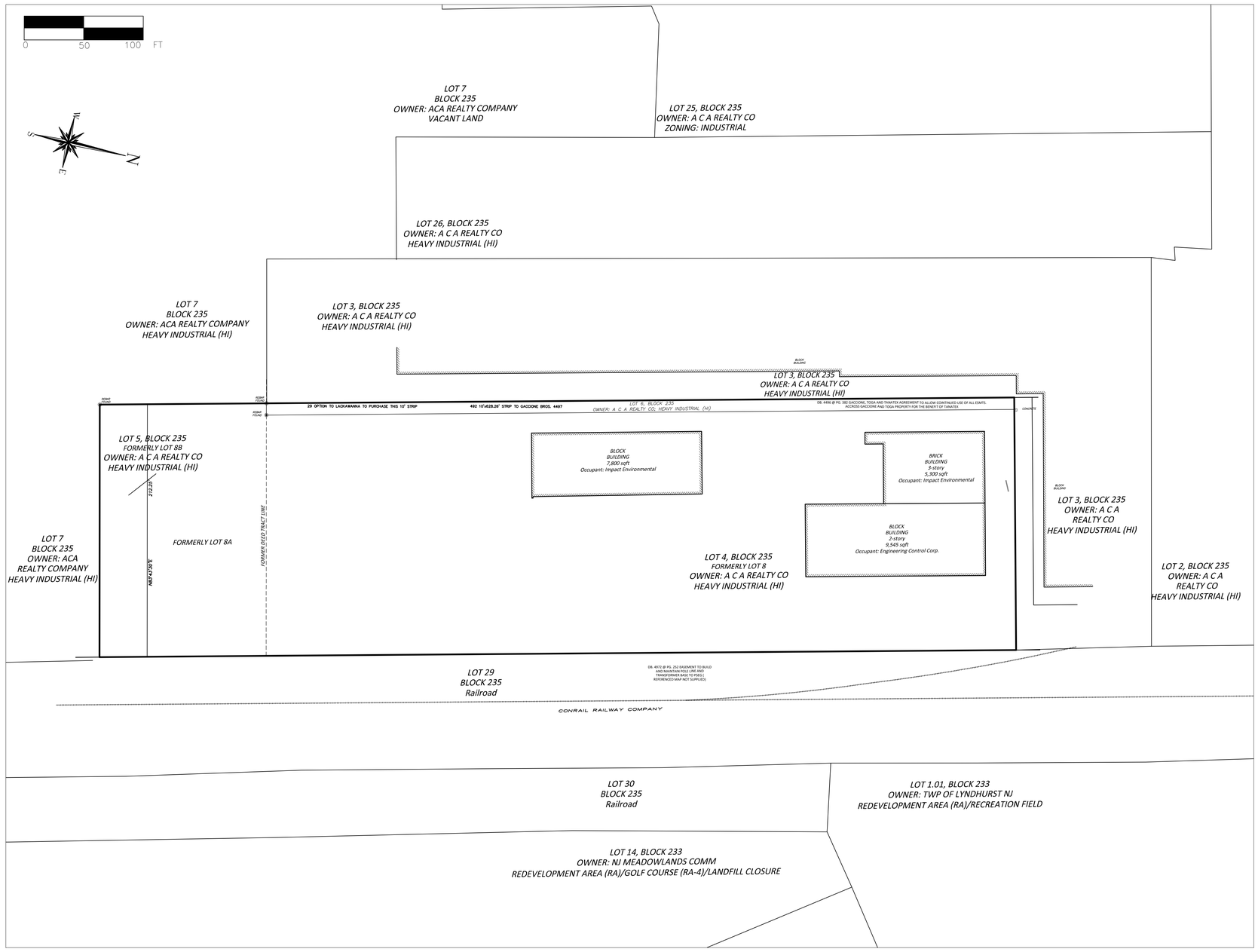
| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | JR |
| DATE: | 10/07/2014 |
| SCALE: | SEE DRAWING |

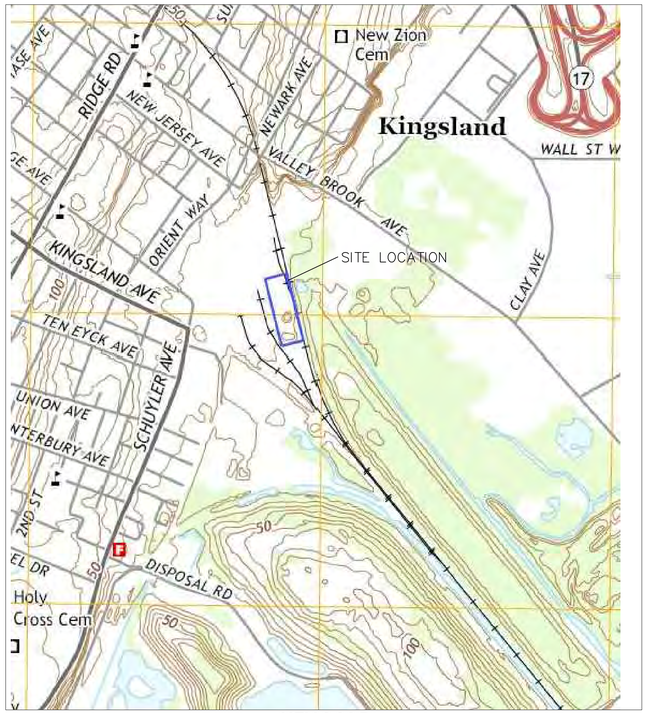
| | |
|---|---|
| PROJECT # | FAC8 |
| FIGURE # | 1 |

JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400


**IMPACT ENVIRONMENTAL**
170 KEYLAND COURT
BOHEMIA, NEW YORK 11716
TEL (631) 269-8800 FAX (631) 269-1599

1000 PAGE, AVENUE
LYNDHURST, NEW JERSEY 07071
TEL (201) 268-5686 FAX (631) 269-1599




KEY MAP

USGS TOPO MAP, WEEHAWKEN QUADRANGLE, 2014

## ZONING ANALYSIS:

| | |
|---|---|
| ZONE: | 1-3 HEAVY INDUSTRIAL |
| BLOCK: | 235 |
| LOTS: | 4 & 5 |
| EXISTING USE: | OFFICE/RECYCLING YARD |
| PROPOSED USE: | OFFICE/RECYCLING YARD |

| | REQUIRED | EXISTING/PROVIDED |
|---|---|---|
| MINIMUM LOT AREA | ONE ACRE | 156,966.75 SF= 3.6 AC |
| MINIMUM LOT WIDTH | 100 FT | 202.24 FT |
| MINIMUM LOT DEPTH | 150 FT | 770.11 FT |
| MINIMUM FRONT YARD | 35 FT | 25.14 FT (EXISTING) |
| MINIMUM SIDE YARD | 20 FT | 18.14 FT (EXISTING) |
| MINIMUM REAR YARD | 30 FT | +300 FT (EXISTING) |

## REFERENCES:


1. TAX MAP FOR THE TOWNSHIP OF LYNDHURST, BERGEN COUNTY, NEW JERSEY
2. DEED BOOK 8320 PAGE 334 ET SEQ.
3. "SUBDIVISION OF PROPERTY OF D.L.&W. RAILROAD COMPANY, BOROUGH OF NORTH ARLINGTON AND TOWNSHIP OF LYNDHURST, BERGEN COUNTY, NEW JERSEY" PREPARED BY RONALD B. BROWN, ENGINEER, DATED NOVEMBER 1958, LAST REVISED DECEMBER 1958. THIS IS UNAVAILABLE AT THE BERGEN COUNY CLERK'S OFFICE.
4. TITLE REPORT # CTA2097 BY CECERE TITLE AGENCY, AGENT FOR FIRST AMERICAN TITLE INSURANCE COMPANY.
5. BOUNDARY AND TOPOGRAPHIC SURVEY, PREPARED BY MCNALLY ENGINEERING, LLC, SIGNED BY DOUGLAS W. DOOLITTLE, P.E., LSRP, DATED AUGUST 26, 2014.
6. HACKENSACK MEADOWLANDS DISTRIC OFFICIAL ZONING MAP, PREPARED BY NEW JERSEY MEADOWNLANDS COMMISSION, REVISED AND ADOPTED JANUARY 20, 2009.


## LEGEND:

FACILITY BOUNDARY

PROPERTY LINE

## NOTES:

1. THE PROPOSED SITE PLAN DOES NOT INVOLVE ANY CHANGE TO EXISTING BUILDING STRUCTURES, TOTAL GROSS FLOOR AREA, FLOOR AREA RATIO, INTERIORS, TENANTS OR BUILDING ADA COMPLIANT.
2. SITE CONSISTS OF LOT 4 & 5 OF BLOCK 235, WITH AN AREA OF 156,973 SQFT (3.604 ACRES).

TITLE:

# LAND USE AND SURROUNDING PROPERTIES

1000 Page Avenue
Lyndhurst, NJ

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | JR |
| DATE: | 10/07/2014 |
| SCALE: | SEE DRAWING |

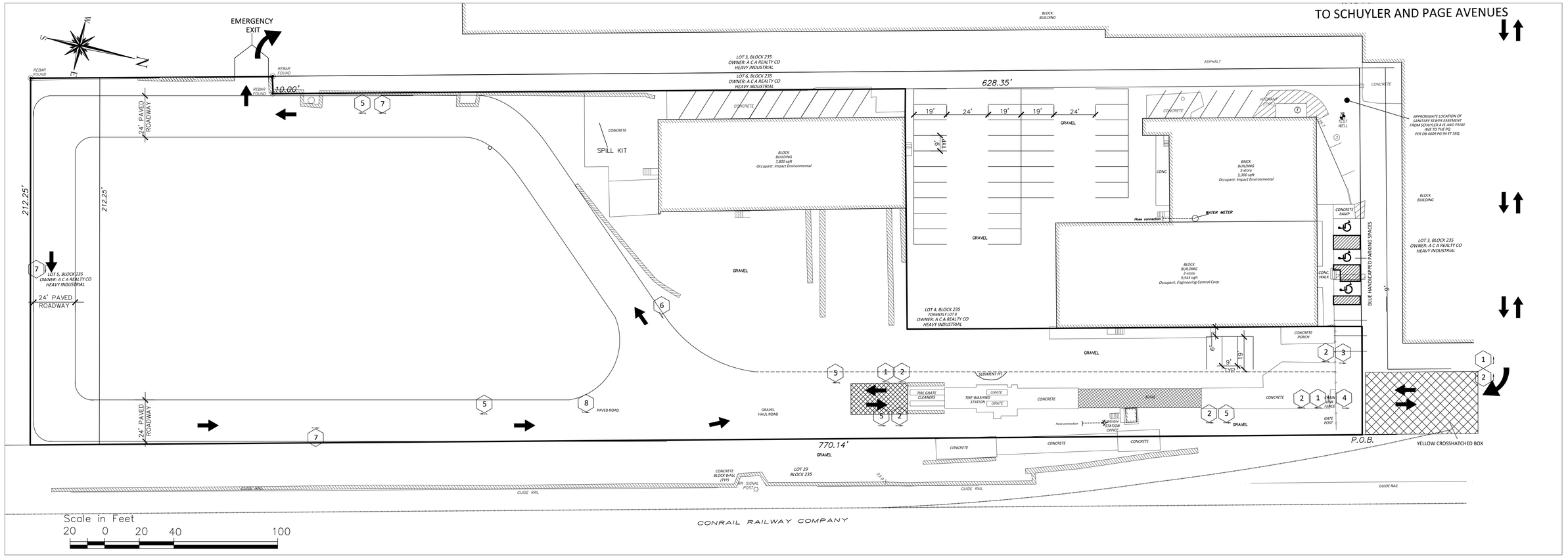
PROJECT # FAC8

FIGURE # 2

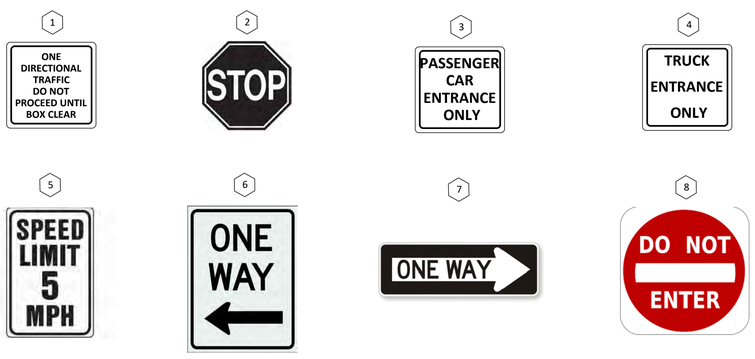
JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400


**IMPACT ENVIRONMENTAL**
170 KEYLAND COURT
BOHEMIA, NEW YORK 11716
TEL (631) 269-8800 FAX (631) 269-1599

1000 PAGE, AVENUE
LYNDHURST, NEW JERSEY 07071
TEL (201) 268-5686 FAX (631) 269-1599




## TRAFFIC SIGN DETAILS




## NOTES:

1. ALL TRAFFIC SIGNS WILL BE MOUNTED ON TEMPORARY TRAFFIC SIGN STANDS.
2. ALL ROAD STRIPES AND MARKINGS TO BE MADE WITH LATEX PAINT THAT IS A FAST-DRYING WHITE, OR NON-LEAD YELLOW, READY-MIXED PIGMENTED BINDER EMULSIFIED IN WATER AND CAPABLE OF ANCHORING REFLECTIVE GLASS BEADS THAT ARE SEPARATELY APPLIED. FED-STD-595B COLOR CHIP NO. 33538 FOR YELLOW, 15080 FOR BLUE AND NO. 37886 FOR WHITE. PAINT TO HAVE A MAXIMUM NO-TRACK TIME OF 120 SECONDS WHEN APPLIED IN A WET FILM THICKNESS OF 15 ± 1 MIL, AT 140 °F, AND WITH 12 POUNDS PER GALLON OF GLASS BEADS.

## LEGEND

- PROPERTY LINE
- BOUNDARY OF CLASS B RECYCLING
- JERSEY BARRIER WALL
- TRAIN TRACKS
- TRAFFIC DIRECTION
- PARKING SPACE
- 1 — TRAFFIC SIGN WITH FACING DIRECTION
- CROSSHATCH PAVEMENT MARKING

TITLE: **TRAFFIC PLANS AND DETAILS**

1000 Page Avenue
Lyndhurst, NJ

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | JR |
| DATE: | 10/07/2014 |
| SCALE: | SEE DRAWING |

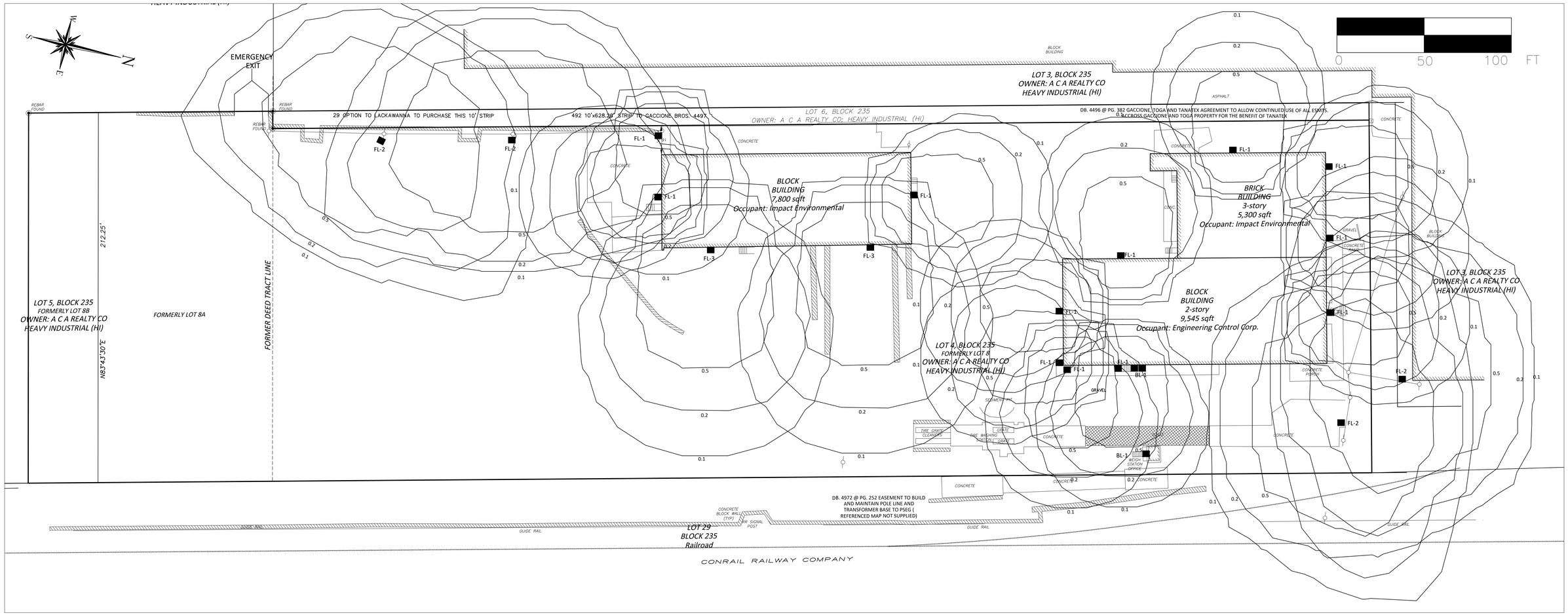
PROJECT # FAC8

FIGURE # 2-1

JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400

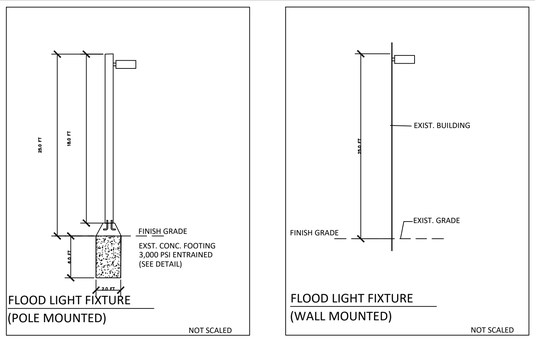
**IMPACT ENVIRONMENTAL**
170 KEYLAND COURT
BOHEMIA, NEW YORK 11716
TEL (631) 269-8800 FAX (631) 269-1599

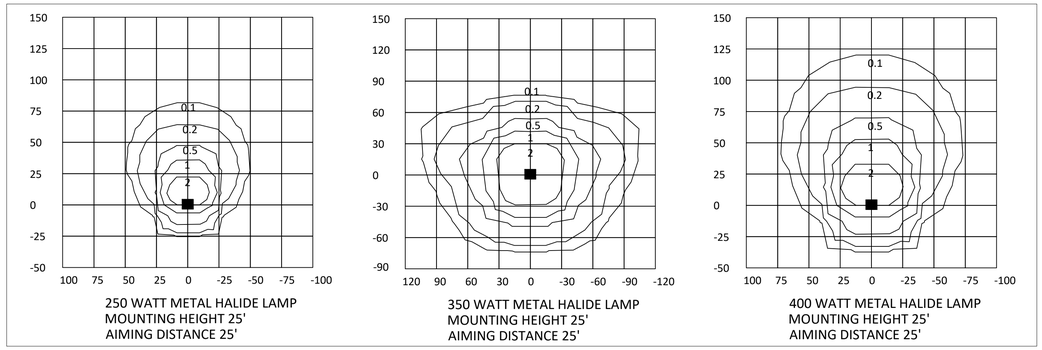
1000 PAGE, AVENUE
LYNDHURST, NEW JERSEY 07071
TEL (201) 268-5686 FAX (631) 269-1599




## LIGHTING SCHEDULE

| MARK | WATTAGE | FLOOD LIGHT | MOUNTING |
|---|---|---|---|
| FL-1 | 250 | WP3H250PSQ Metal Halide | WALL/POLE MOUNTED HEIGHT = 25' AIMING DISTANCE = 25' |
| FL-2 | 350 | ALH 350SFPSQ Metal Halide | POLE MOUNTED HEIGHT = 25' AIMING DISTANCE = 25' |
| FL-3 | 400 | WP4H400 PSQ Metal Halide | WALL MOUNTED HEIGHT = 25' AIMING DISTANCE = 25' |
| BL-1 | 60 | Bulb Light | WALL MOUNTED HEIGHT = 7' |




## NOTES:

1. SITE LIGHTING SHALL BE MAINTAINED BY OPERATOR AS INDICATED ON PLAN.
2. ALL LIGHT FIXTURES SHALL BE NON-GLARE, COLOR CORRECTED LIGHTS AND SHALL BE DIRECTED SO AS NOT TO SHINE ON ADJACENT PROPERTIES.
3. ALL PARKING LIGHTS ARE TO BE PROVIDED WITH BAFFLES TO SHIELD GLARE.
4. ALL LIGHTING IS PROVIDED IN ACCORDANCE WITH RECOMMENDATIONS OF THE CURRENT EDITION OF THE ILLUMINATING ENGINEERING SOCIETY LIGHTING HANDBOOK AND PER CITY OF LYNDHURST AND HMDC ORDINANCE.
5. LIGHTS ARE MANUFACTURED BY RAB LIGHTING, INC. DATA IS ACQUIRED FROM WWW. RABWEB.COM.

TITLE:

# SITE LIGHTING PLAN

1000 Page Avenue
Lyndhurst, NJ

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | JR |
| DATE: | 10/07/2014 |
| SCALE: | SEE DRAWING |

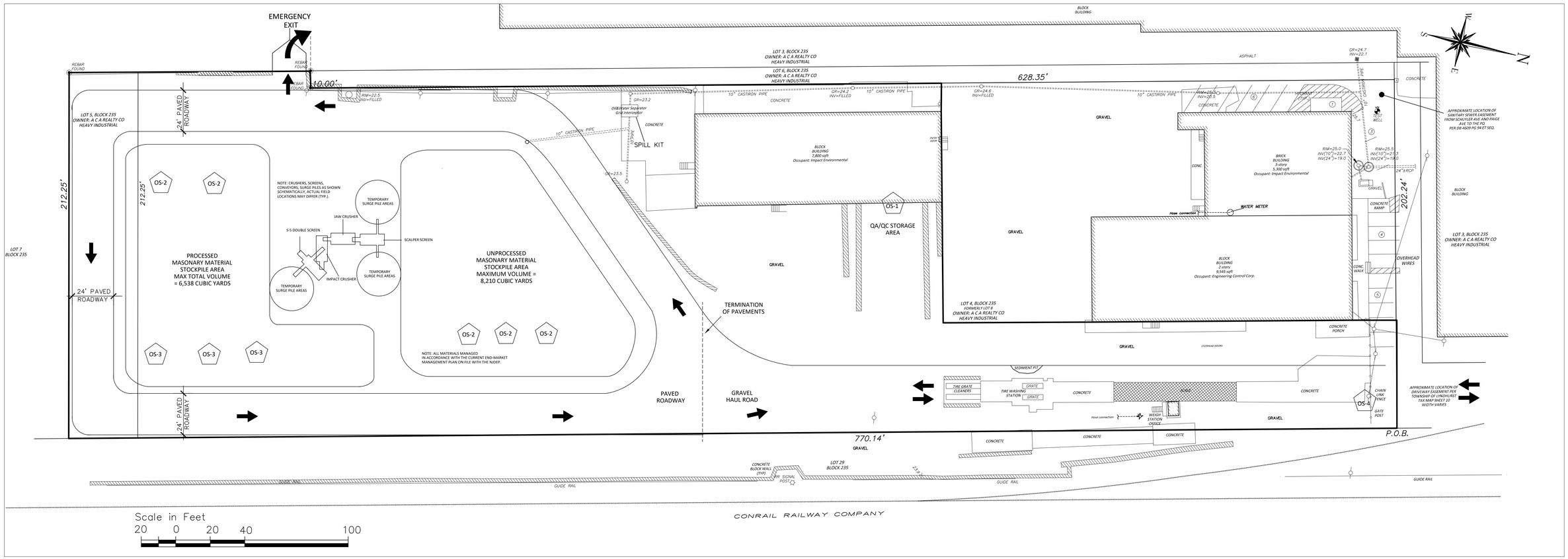
PROJECT # FAC8

FIGURE # 2-2

JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400


**IMPACT ENVIRONMENTAL**
170 KEYLAND COURT
BOHEMIA, NEW YORK 11716
TEL (631) 269-8800 FAX (631) 269-1599

1000 PAGE, AVENUE
LYNDHURST, NEW JERSEY 07071
TEL (201) 268-5686 FAX (631) 269-1599




| UNPROCESSED CLASS B MATERIALS | |
|---|---|
| COMPOSITION | MAXIMUM CAPACITY |
| CONCRETE, CONCRETE BLOCK, ASPHALT MILLINGS, BRICK, PORCELAIN, CERAMICS, CINDER BLOCKS, ASPHALT, TILE, TERRA COTTA, SOIL, CEMENT, CLEAN FILL | AREA VARIES (MAX AREA 13,985 SF AT 1:1 SLOPE WITH 25' HEIGHT). MAXIMUM VOLUME = 8,210 CUBIC YARDS (APPROX. 11,494 TONS AT 1.4 TONS/CUBIC YARD) |

| PROCESSED CLASS B MATERIALS (PRODUCTS) | |
|---|---|
| COMPOSITION | MAXIMUM CAPACITY |
| COMMERCIAL GRADE BLEND, 1-5 BLEND, DENSE GRADED AGGREGATE, 1 1/2'' CLEANED CRUSHED AGGREGATE, OVERSIZE CRUSHED CONCRETE, 1''-2'' CRUSHED BRICK, 3/8'' MINUS CRUSHED BRICK, CRUSHED ASPHALT, EMBANKMENT MEDIA, CLEAN FILL, ENGINEERED FILL | STOCKPILE AND TEMPORARY SURGE PILES MAX TOTAL VOLUME: 6,538 CUBIC YARDS (APPROX. 9,153 TONS AT 1.4 TONS/CUBIC YARDS) |

MACHINERY SPECIFICATION

| MODEL No. | MACHINE | LENGTH (FT) | WIDTH (FT) | HEIGHT (FT) | STANDARD WEIGHT (LBS) |
|---|---|---|---|---|---|
| QE341 | SCALPING SCREEN | 50.6 | 47.6 | 14.6 | 63500 |
| QI240 | IMPACT CRUSHER | 48.1 | 18.3 | 13.5 | 86862 |
| QJ341 | JAW CRUSHER | 51.9 | 14.9 | 14.9 | 111069 |
| QA340 | DOUBLESCREEN UNIT | 58.1 | 55.7 | 20.2 | 59304 |

Permit Activity Number: PCP120001

## NOTES:

1. IMPACT REUSE AND RECOVERY CENTER, BLOCK 235, LOTS 4 &5, CITY OF LYNDHURST, BERGEN COUNTY, FACILITY NO. 131888; PERMIT CBG110003. RECYCLING CENTER GENERAL APPROVAL FOR CLASS B RECYCLABLE MATERIALS UNDER PROVISIONS OF NJSA 12:1E-1 ET SEQ. AND NJSA 13:1E-99.11 ET SEQ. KNOWN AS THE SOLID WASTE MANAGEMENT ACT AND NEW JERSEY STATEWIDE MANDATORY SOURCE SEPARATION AND RECYCLING ACT, RESPECTIVELY, AND PURSUANT TO NJAC 7:26A-1 ET SEQ., KNOWN AS THE RECYCLING REGULATIONS.
2. AIR POLLUTION CONTROL PRECONSTRUCTION PERMIT AND CERTIFICATE TO OPERATE CONSTRUCTION OF A NEW SOURCE: PCP120001 ISSUED TO THE IMPACT RECOVERY AND REUSE CENTER (FACILITY ID NO. 03507), MAY 17, 2012 EXPIRES IN FIVE YEARS.
3. STRAWBALES WITH FILTER FABRIC AND GRAVEL ARE PLACED AROUND STORM WATER INLETS. THESE INLETS ARE ALSO CONNECTED WITH UNDERGROUND PIPES.
4. ALL RECYCLABLES AND BYPRODUCTS ARE HANDLED IN ACCORDANCE WITH THE END-USE MANAGEMENT PLAN SUBMITTED ON JULY 31, 2014.
5. ALL MATERIAL STORED IN THE QA/QC STORAGE AREA MUST BE SAMPLED AND TESTED IN ACCORDANCE WITH NJDEP TECHNICAL GUIDANCE AND END-USE FACILITIES' REQUIREMENTS TO DETERMINE END USE.
6. SITE CONSISTING OF LOT 4 & 5 OF BLOCK 235 IS OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN AS SHOWN ON FIRM FLOOD INSURANCE MAP, BERGEN COUNTY, NEW JERSEY FROM FEDERAL EMERGENCY MANAGEMENT AGENCY DATED SEPTEMBER 30, 2005.
7. ALL VEHICULAR USE AREAS (PARKING AREAS AND ROADWAYS) ARE TO BE ESTABLISHED WITH ALL-WEATHER DUSTLESS MATERIAL.
5. EXISTING SITE DATA TAKEN FROM BOUNDARY AND TOPOGRAPHIC SURVEY, PREPARED BY MCNALLY ENGINEERING, LLC, SIGNED BY DOUGLAS W. DOOLITTLE, P.E., LSRP, DATED AUGUST 26, 2014.
6. THERE IS NO ANTICIPATED NEGATIVE IMPACT TO ADJACENT PROPERTIES RESULTING FROM SURFACE RUNOFF.
7. OPERATOR RESERVES THE RIGHT TO RECONFIGURE CRUSHER AND SCREENER AS REQUIRED (TYP.).

## LEGEND

- PROPERTY LINE
- BOUNDARY OF CLASS B RECYCLING
- JERSEY BARRIER WALL
- TRAIN TRACKS
- DRAINAGE PIPE
- TRAFFIC DIRECTION
- OS-1 OPERATIONAL SIGN

TITLE:
# CLASS B OPERATIONAL PLAN

1000 Page Avenue
Lyndhurst, NJ

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | JR |
| DATE: | 10/07/2014 |
| SCALE: | SEE DRAWING |

PROJECT # FAC8
FIGURE # 2-3

JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400


**IMPACT ENVIRONMENTAL**
170 KEYLAND COURT
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**QA/QC Sampling Area**

TESTED:

OS-1

**End-Use Material**

*For (facility)*

TESTED:

OS-2

**Class B Product**

*For (Use)*

TESTED:

OS-3

## NOTES:

END USE MATERIALS TO DIFFERENT END-USE FACILITIES WILL NOT BE MIXED.

QA/QC STORAGE AREA TO BE USED TO TEST MATERIALS REQUIRING CONFIRMATION OF END-USE FACILITY.

ALL TESTING TO BE PERFORMED BY A NEW JERSEY CERTIFIED COMMERCIAL LABORATORY.

OPERATIONAL SIGNS (OS-1 TO OS-3) WILL BEAR UNIQUE SAMPLE IDENTIFICATION NUMBER(S) AND/OR SAMPLING DATE(S).

**IMPACT REUSE AND RECOVERY CENTER**

1000 Page Avenue, Lyndhurst, New Jersey
Normal Hours of Recycling Operation
Monday – Friday: *7:00 a.m. to 5:00 p.m.*
Saturday: *7:00 a.m. to 3:00 p.m.*

This is an approved New Jersey Department of Environmental Protection Recycling Center. The following materials separately or in a commingled manner are the only materials received:

**RECYCLABLE MATERIALS**

- Concrete
- Concrete block
- Brick
- Asphalt
- Asphalt millings
- Cinder block
- Ceramic
- Porcelain
- Tile
- Plaster
- Terra cotta

**INCIDENTAL MATERIALS**

- Soil
- Rebar
- Metal
- Materials that adhere to recyclables

Contaminants such as wood, plastic and garbage must be less than 1% by volume of the load.

**NOTE**: All loads subject to inspection. Do not off-load unless in the presence of an inspector. Loads can be rejected due to size of materials, weight of material or due to the presence of elevated contaminants. All persons offloading shall certify to the amount of material per load, municipality of origin of load, generator of waste, the transport company, transport vehicle license plate and the vehicle driver name by signing the transport manifest (Recyclable Materials Receipt Form) and acknowledgement of receipt of scale ticket.

**IN THE EVENT OF AN EMERGENCY DIAL 911 &**

**Impact Environmental - 631-269-8800**

**NJDEP Action Hotline - 877-927-6337**

OS-4

| | | | |
|---|---|---|---|
| TITLE: **CLASS B OPERATIONAL PLAN DETAILS** | | PROJECT # | FAC8 |
| | | FIGURE # | 2-3A |
| 1000 Page Avenue<br>Lyndhurst, NJ | DRAWN BY: XY<br>CHECKED BY: JR<br>DATE: 10/07/2014<br>SCALE: NOT TO SCALE | JOEL ROGERS, P.E.<br>NJ LICENSE NO.: 24GE04636400 | |

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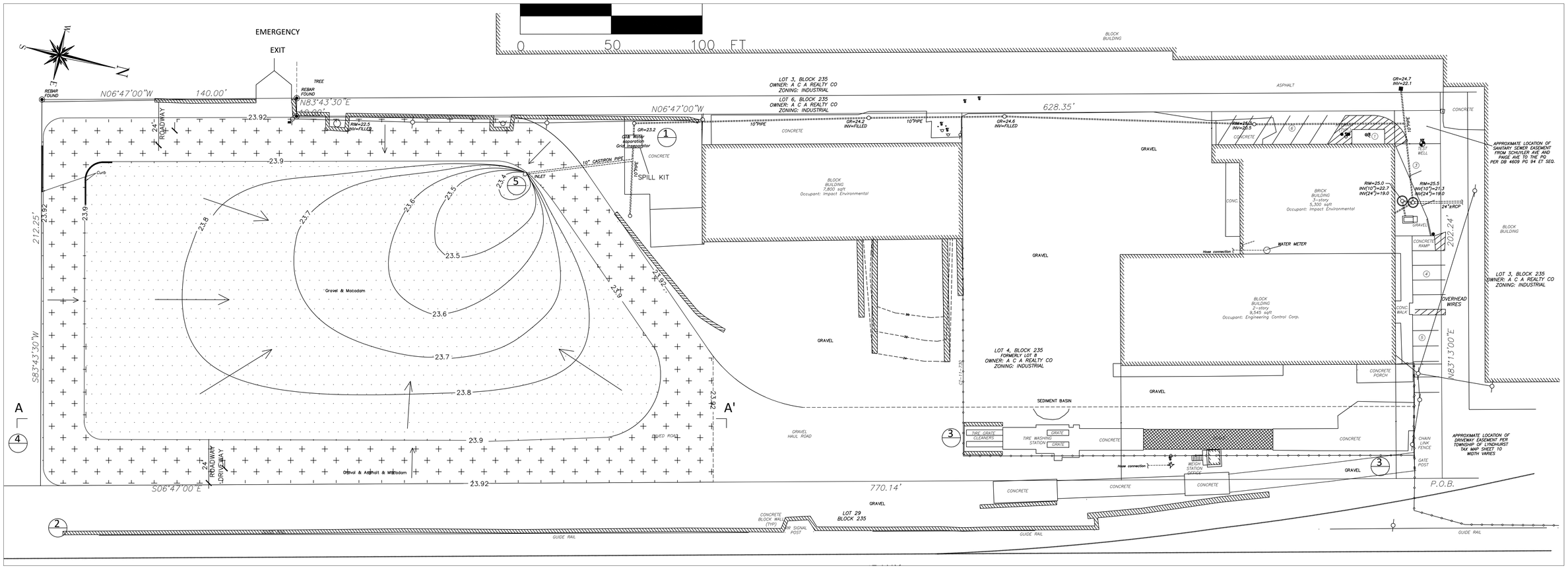


## NOTES:

1. THE FACILITY IS OUTSIDE OF THE 0.2% ANNUAL CHANCE (500-YEAR) FLOODPLAIN ACCORDING TO FIRM FLOOD INSURANCE MAP, BERGEN COUNTY, NEW JERSEY, FROM FEDERAL EMERGENCY MANAGEMENT AGENCY, DATED SEPTEMBER 30, 2005.
2. THE FACILITY CONSISTING OF LOT 4 & 5 OF BLOCK 235 DOES NOT CONTAIN ANY WETLANDS AREAS NOR IS IT WITHIN ANY WETLAND BUFFER ZONES AS TAKEN FROM WETLAND DELINEATION PLANS.
3. FACILITY IS REGULATED UNDER A STORMWATER DISCHARGE PERMIT: NJPDES NJ0217280. THE PERMIT APPLICATION, WHICH IS ADMINISTRATIVELY COMPLETE AND PENDING RESPONSE FROM NJDEP ON TECHNICAL COMPLETENESS, PROVIDES FOR DISCHARGE TO THE EXISTING STORM WATER DRAINAGE SYSTEM THAT IS COMPRISED OF CATCH BASINS THAT DISCHARGE TO AN OIL WATER SEPARATOR/GRIT INTERCEPTOR UNIT VIA 10" CAST IRON CONDUIT. THE OUTFALL FOR THE STORMWATER IS CLASSIFIED AS FW2-NT/SE2(C2).
4. STRAWBALES WITH FILTER FABRIC AND GRAVEL ARE PLACED AROUND STORMWATER INLETS. THESE INLETS ARE ALSO CONNECTED WITH UNDERGROUND PIPES.
5. THERE IS NO ANTICIPATED NEGATIVE IMPACT TO ADJACENT PROPERTIES RESULTING FROM SURFACE RUNOFF.
6. SILT FENCE IS INSTALLED IN FRONT OF CONCRETE BLOCK RETENTION WALLS.
7. MADACAM INSTALLED IN 1,000 SQFT LIFT SECTIONS.
8. ULTRA BASIN GUARD, 24' X 24', OIL AND SEDIMENT MODEL, HELPS COMPLY WITH NPDES, 40 CFR 122.26 (1999) WHEN USED AS BEST MANAGEMENT PRACTICE IN STORM WATER POLLUTION PREVENTION PLANS. LABELED: CAUTION, INLET PROTECTION, DO NOT POLLUTE

## LEGEND

- GR= / INV= ○ — Storm inlet
- (4) — Reference to details
- Gravel & Asphalt & Macadam Pavement
- Gravel & Macadam Pavement
- Stormwater Drainage Direction

TITLE: **STORMWATER DRAINAGE PLAN**

1000 Page Avenue
Lyndhurst, NJ

| | |
|---|---|
| DRAWN BY: | YJ |
| CHECKED BY: | JR |
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PROJECT # FAC8

PAGE 2-4

JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400


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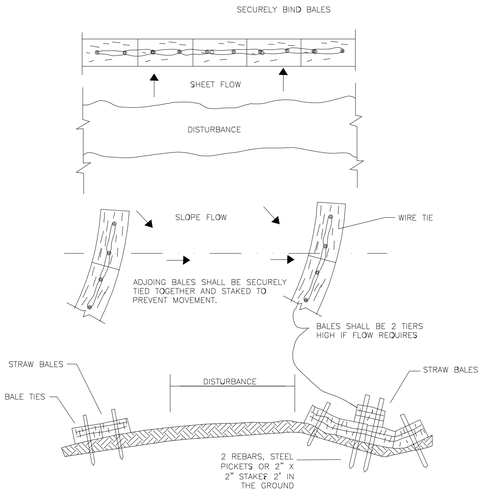
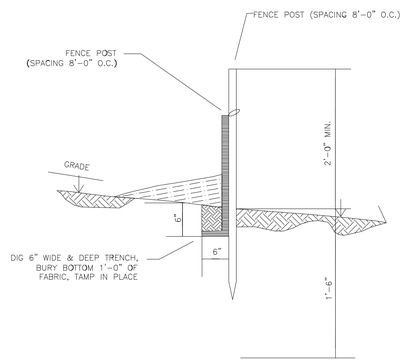
# DETAILS




1 STAW BALE SEDIMENT BARRIER
N.T.S.

NOTES:

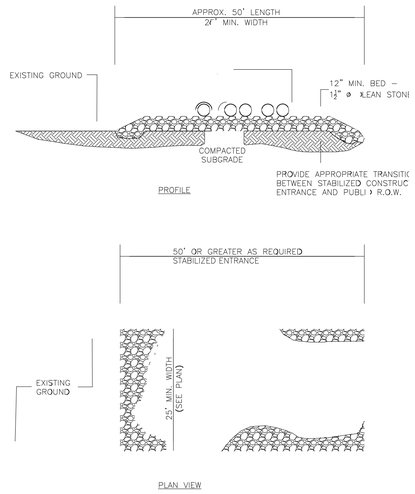
1. THE PRIMARY PURPOSE OF A STRAW BALE SEDIMENT BARRIER IS TO REDUCE VELOCITY AND TRAP SEDIMENT. VELOCITY IS REDUCED, WATER IS IMPOUNDED BEHIND THE BARRIER AND SEDIMENT FALLS OUT OF SUSPENSION.




2 SILT FENCE DETAIL
N.T.S.

NOTES:

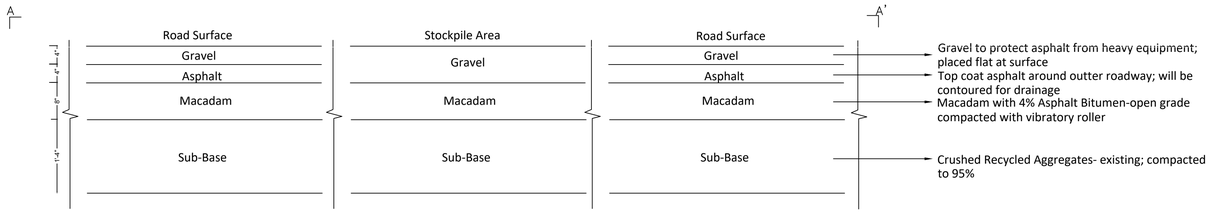
1. THE PRIMARY PURPOSE OF A SILT FENCE IS TO REDUCE VELOCITY AND TRAP SEDIMENT. VELOCITY IS REDUCED, WATER IS IMPOUNDED BEHIND THE BARRIER AND SEDIMENT FALLS OUT OF SUSPENSION.




3 TYPICAL STABILIZED CONSTRUCTION ENTRANCE
N.T.S.

NOTES:

1. USE MIRAFI 600X GEOTEXTILE OR APPROVED EQUAL UNDER ROCK CONSTRUCTION ENTRANCE.
2. THROUGHOUT OPERATION THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKIN OF SEDIMENTS ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE ENTRANCE.
3. ALL SEDIMENTS SPILLED, DROPPED WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMME
4. PERIODIC INSPECTION AND MAINTENANCE SHALL BE COMPLETED AFTER EACH RAIN EVENT.




4 GRAVEL & ASPHALT & MACADAM DETAIL

## RUNOFF CALCULATION

Using Rational Method

**1. Drainage Area:**

Macadam Area: A1=43458.2 ft2

Asphalt Area: A2=24077.4 ft2

A (total)= A1 + A2 = 67535.6 ft2 =1.55 acre

Design area with slope as : 0.002= 0.2%

**2. Determine the runoff coefficient (C):**

asphalt: C 0.7 ~ 0.95

macadam: C 0.35 ~ 0.70

gravel: C 0.35 ~ 0.70

This calculation use:

C (gravel+asphalt+macadam)=0.7

C(gravel+macadam)=0.40

C(total)= (0.40 x A1 + 0.7 x A2 )/A(total) = 0.5

**3. Determine hydraulic path and flow regimes:**

Consider flow in Macadam area as overland flow and flow in asphalt area as Shallow Concentrated Flow

Overland flow length is: Lo=286 ft

Shallow Concentrated flow length is: Lsc=34 ft

**a. Overland flow**

Overland flow length: Lo= 286 ft

This calculation uses the FAA equation

Slop in percent is: S=0.2

Travel time

To= 1.8(1.1-C(total) )x Lo ^0.5/ S^0.33

=36.4 min

**b. Shallow concentrated flow**

Velocity=2.6 ft/s

(Check Table " Average Velocities for Estimating Travel Time for Shallow Concentrated Flow)

Travel time Tsc= Lsc(ft)/60 V(ft/s)

= 34/(60x 2.6 ft/s) = 0.22 min

**4. Time of Concentration (Tc)**

Tc= To + Tsc = 36.4 min + 0.22 min = 36.62 min

**5. Intensity (i)**

i= 1.15 in/hr ( based on 1-year 1 hr Rainfall New Jersey )

i= 1.36 in/hr (based on 2-year 1 hr Rainfall New Jersey)

**6. Peak Discharge (q)**

Q (1 year Storm) = C i A = 0.5 x 1.15 in/hr x 1.55 ac = 0.89 cfs

Q (2 year Storm) = C i A = 0.5 x 1.36 in/hr x 1.55 ac = 1.05 cfs

**7. Existing Inlet Stormwater Pipe**

10 inch cast iron

Using Manning Formula:

Manning Roughness: n=0.011

Slop: S0= 0.002

Pipe Capacity:

Q(FULL) = (1.486/n)*(D)8/3*(S)1/2 =1. 07 cfs > 0.89 cfs

Q(FULL) = (1.486/n)*(D)8/3*(S)1/2 =1. 07 cfs > 1.05 cfs

Existing inlet and stormwater pipe are sufficient for the planned operations.

**Reference:**


[1] Rainfall Frequency Atlas of The United States, U.S. Department of Commerce

[2]Stormwater Design Manual, Boone County, Missouri Stormwater Program

[3]Airport Engineering: Planning Design and Development of 21st Century Airports, by Norman J. Ashford, Salh Mumayiz, Paul H Wright

[4]Figure 3-1 Average Velocities for estimating travel time for shallow concentration, Technical Release 55, Urban Hydrology for Small Watersheds


TITLE: **STORMWATER PLAN DETAILS & CALCULATION**

1000 Page Avenue
Lyndhurst, NJ

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | JR |
| DATE: | 10/07/2014 |
| SCALE: | NOT TO SCALE |

PROJECT # FAC8

FIGURE # 2-4A

JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400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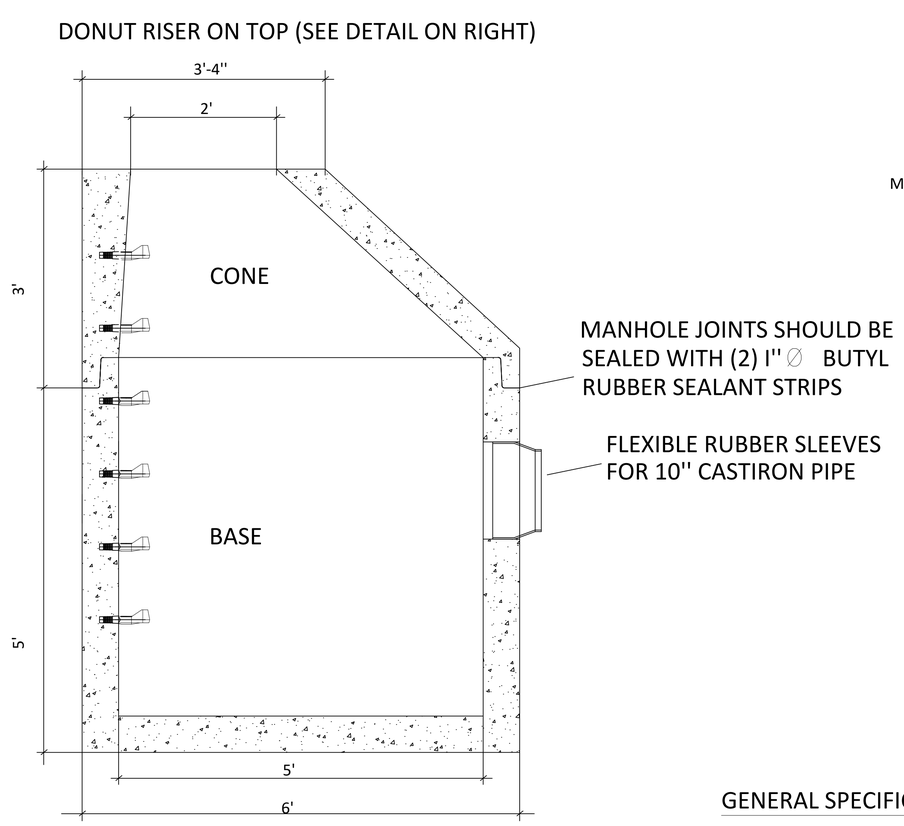


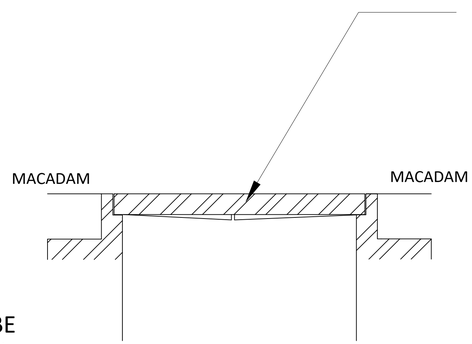


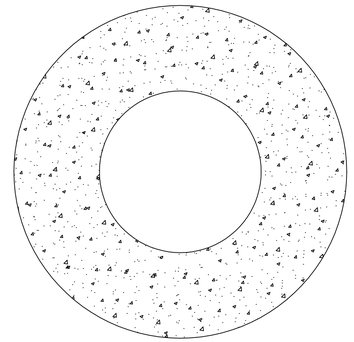

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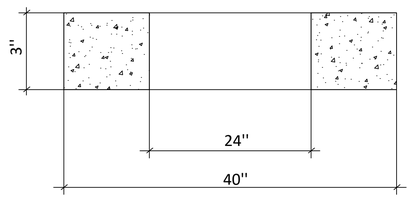


GENERAL SPECIFICATIONS

1) CONCRETE 5000 PSI AFTER 28 DAYS;
2) DESIGNED FOR H-20 WHEEL LOADING
3) CONFORMS TO ASTM-C478 SPECIFICATIONS
4) REINFORCED TO 0.15 IN^2/L.F
5) MANHOLE JOINTS SEALED W/(2) STRIPS OF BUTYL RUBBER
6) ULTRA BASIN GUARD, 24’ X 24’, OIL AND SEDIMENT MODEL, HELPS COMPLY WITH NPDES, 40 CFR 122.26 (1999) WHEN USED AS BEST MANAGEMENT PRACTICE IN STORM WATER POLLUTION PREVENTION PLANS. LABELED: CAUTION, INLET PROTECTION, DO NOT POLLUTE

5 TYPICAL DETAILS OF INLET (TYP.)

CONCRETE VAULT WITH RISER & SEDIMENT TRAP

TITLE: **STORMWATER PLAN DETAILS**

1000 Page Avenue
Lyndhurst, NJ

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | JR |
| DATE: | 10/07/2014 |
| SCALE: | NOT TO SCALE |

PROJECT # FAC8
FIGURE # 2-4B

JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400

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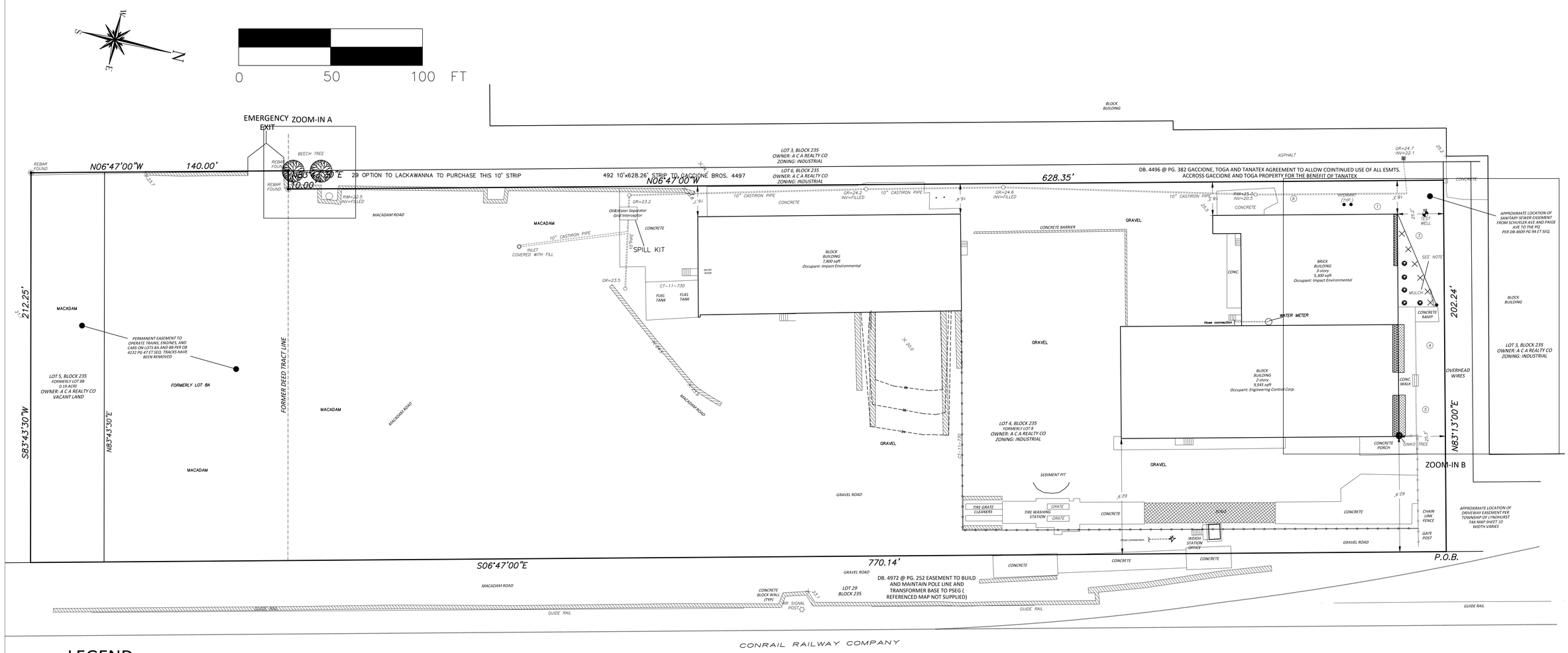


## LEGEND:

- BEECH TREE
- RED CHOKEBERRY
- WITCH HAZEL
- GRASS
- *HEDERA HELIX* (ENGLISH IVY)

## NOTES:

1. AREA TO BE COVERED WITH MULCH.
2. LANDSCAPING TO BE CONDUCTED PER NEW JERSEY MEADOWLANDS COMMISSION RECOMMENDED PLANT LIST FOR DRY CONDITIONS.
3. APPROX. 2,000 SQUARE FOOT OF *HEDERA HELIX* GROWS ON THE BUILDING FACADE.

TITLE:

# LANDSCAPING PLAN

1000 Page Avenue
Lyndhurst, NJ

| | |
|---|---|
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| CHECKED BY: | JR |
| DATE: | 10/07/2014 |
| SCALE: | SEE DRAWING |

PROJECT # FAC8

FIGURE # 2-5

JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400


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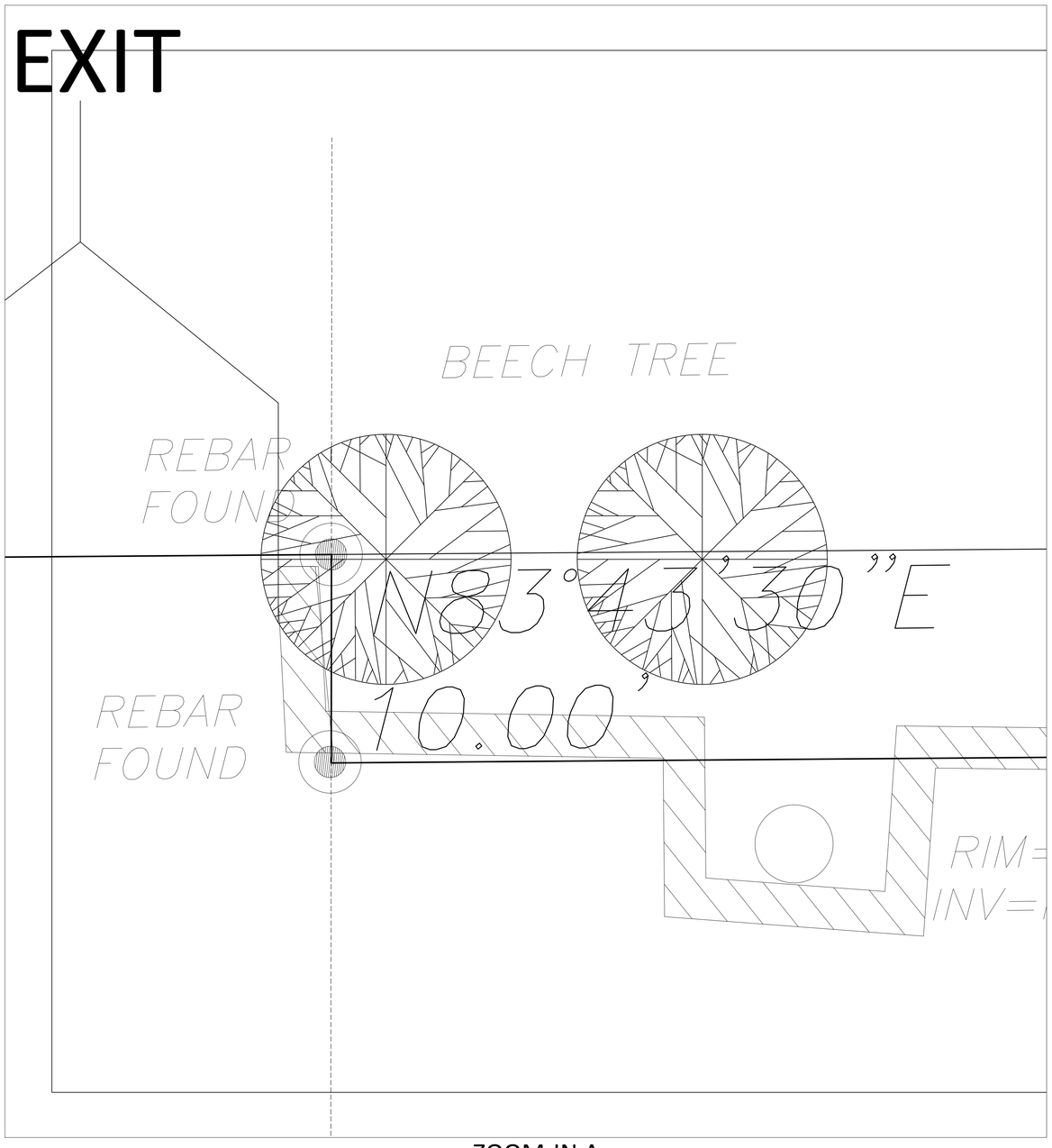
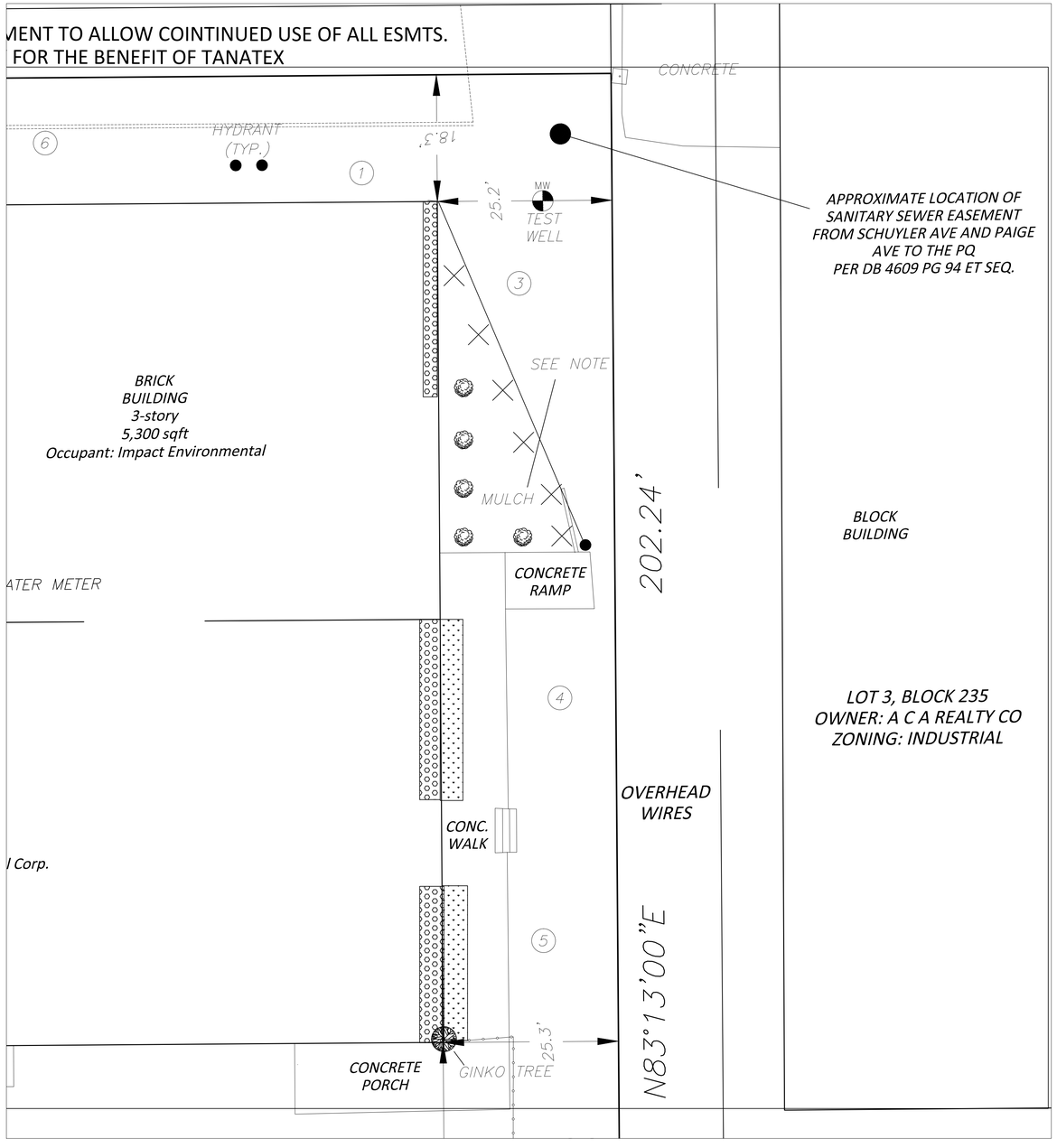



ZOOM-IN A




ZOOM-IN B

## NOTES:

1. AREA TO BE COVERED WITH MULCH.
2. LANDSCAPING TO BE CONDUCTED PER NEW JERSEY MEADOWLANDS COMMISSION RECOMMENDED PLANT LIST FOR DRY CONDITIONS.
3. APPROX. 2,000 SQUARE FOOT OF *HEDERA HELIX* GROWS ON THE BUILDING FACADE.

## LEGEND:

TREE | RED CHOKEBERRY | WITCH HAZEL | GRASS | *HEDERA HELIX* (ENGLISH IVY)

TITLE: **LANDSCAPING PLAN DETAILS**

1000 Page Avenue
Lyndhurst, NJ

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | JR |
| DATE: | 10/07/2014 |
| SCALE: | SEE DRAWING |

PROJECT # FAC8

FIGURE # 2-5A

JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400

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Exhibit 3: Impact Environmental General, Pollution and E&O Insurance Certificate

IMPAENV-01 ATNI

# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 10/13/2014

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

| | |
|---|---|
| PRODUCER (215) 567-6300<br>The Graham Company<br>The Graham Building<br>1 Penn Square West<br>Philadelphia, PA 19102 | CONTACT NAME: Joseph C. Holden<br>PHONE (A/C, No, Ext): 215-567-6300 FAX (A/C, No): 215-933-3988<br>E-MAIL ADDRESS: Holden_Unit@grahamco.com |
| INSURED<br>Impact Environmental Consulting, Inc.<br>170 Keyland Court<br>Bohemia, NY 11716- | INSURER(S) AFFORDING COVERAGE — NAIC #<br>INSURER A : Ironshore Specialty Insurance Co. — 25445<br>INSURER B : Praetorian Insurance Company<br>INSURER C : NY State Fund<br>INSURER D :<br>INSURER E :<br>INSURER F : |

**COVERAGES** **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

| INSR LTR | TYPE OF INSURANCE | ADDL INSR | SUBR WVD | POLICY NUMBER | POLICY EFF (MM/DD/YYYY) | POLICY EXP (MM/DD/YYYY) | LIMITS | | |
|---|---|---|---|---|---|---|---|---|---|
| A | GENERAL LIABILITY<br>X COMMERCIAL GENERAL LIABILITY<br>CLAIMS-MADE X OCCUR<br>GEN'L AGGREGATE LIMIT APPLIES PER:<br>POLICY X PRO-JECT X LOC | | | 000291604 | 5/12/2014 | 5/12/2015 | EACH OCCURRENCE<br>DAMAGE TO RENTED PREMISES (Ea occurrence)<br>MED EXP (Any one person)<br>PERSONAL & ADV INJURY<br>GENERAL AGGREGATE<br>PRODUCTS - COMP/OP AGG | $<br>$<br>$<br>$<br>$<br>$ | 2,000,000<br>500,000<br>25,000<br>1,000,000<br>4,000,000<br>4,000,000 |
| B | AUTOMOBILE LIABILITY<br>X ANY AUTO<br>ALL OWNED AUTOS<br>SCHEDULED AUTOS<br>HIRED AUTOS<br>NON-OWNED AUTOS | | | PICIS0001455 | 5/12/2014 | 5/12/2015 | COMBINED SINGLE LIMIT (Ea accident)<br>BODILY INJURY (Per person)<br>BODILY INJURY (Per accident)<br>PROPERTY DAMAGE (PER ACCIDENT) | $<br>$<br>$<br>$ | 1,000,000 |
| A | UMBRELLA LIAB X OCCUR<br>X EXCESS LIAB CLAIMS-MADE<br>DED RETENTION $ | | | 000291704 | 5/12/2014 | 5/12/2015 | EACH OCCURRENCE<br>AGGREGATE | $<br>$ | 23,000,000<br>23,000,000 |
| C | WORKERS COMPENSATION AND EMPLOYERS' LIABILITY<br>ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y / N<br>If yes, describe under DESCRIPTION OF OPERATIONS below | N / A | | I23062235 | 10/13/2014 | 10/13/2015 | X WC STATU-TORY LIMITS OTH-ER<br>E.L. EACH ACCIDENT<br>E.L. DISEASE - EA EMPLOYEE<br>E.L. DISEASE - POLICY LIMIT | $<br>$<br>$ | Statutory<br>Statutory<br>Statutory |
| A | Professional Liability | | | 000291604 | 5/12/2014 | 5/12/2015 | $2,000,000/$4,000,000 | | Occur/Aggr. |
| A | Pollution Liability | | | 000291604 | 5/12/2014 | 5/12/2015 | $2,000,000/$4,000,000 | | Occur/Aggr. |

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

**CERTIFICATE HOLDER**

EVIDENCE OF COVERAGE
-

**CANCELLATION**

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE



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Exhibit 4: Facility Application

**IMPACT ENVIRONMENTAL** 170 Keyland Court| Bohemia| NY | 11716 | 631.269.8800
welcometosolidground… *www.impactenvironmental.com*

# APPLICATION FORM

## IMPACT REUSE AND RECOVERY CENTER - LYNDHURST, NJ

*(PLEASE PRINT OR TYPE – ATTACH ADDITIONAL SHEETS IF NECESSARY)*

### *PROJECT INFORMATION*

1) NAME, ADDRESS AND TELEPHONE NUMBER OF SOURCE OWNER/GENERATOR:

_____

ADD: _____

TEL: _____

2) SOURCE NAME AND PHYSICAL LOCATION (INCLUDE LOT AND BLOCK):

_____

ADD: _____

BLOCK:_____LOT: _____

3) VOLUME SUBJECT OF THIS APPLICATION: _____ Ton

4) DESCRIBE BOTH CURRENT AND HISTORIC LAND USES OF THE SITE FROM WHICH THE MATERIAL WAS GENERATED, THE DATE(S) THE MATERIAL WAS GENERATED, REASONS FOR THE GENERATION OF MATERIAL AND/OR THE PROCESS BY WHICH THE MATERIAL WAS GENERATED.

| |
|---|
| |

5) DESCRIBE ANY REGULATORY (ENVIRONMENTAL) INVOLVEMENT IN THE PROJECT.

| |
|---|
| |

6) DESCRIBE THE OPERATIONAL CONTROLS TO BE TAKEN DURING THE HANDLING AND TRANSPORTATION OF THE MATERIAL TO MINIMIZE ENVIRONMENTAL AND HUMAN IMPACTS:

7) DEFINE THE TYPE OF SOLID WASTE – IF MIXTURE, INCLUDE EACH COMPONENTS % OF THE WHOLE (INCIDENTAL AMOUNTS OF REBAR, METAL, SOIL AND OTHER BY-PRODUCTS ADHERING TO THE RECYCLABLE MATERIAL ARE ALLOWED):

K CONCRETE & CONCRETE BLOCK _____ %

K CINDER BLOCK _____ %

K BRICK _____ %

K ASPHALT & ASPHALT MILLINGS _____ %

K PLASTER _____ %

K CERAMIC, PORCELAIN, TILE & TERRA COTTA _____ %

K OTHER _____ %, DESCRIBE BELOW:

_____

_____

8) INDICATE THE ITEMS CONSIDERED FOR REFERECE WITH THIS APPLICATION:

- □ A SITE MAP OF THE LOCATION OF THE SITE OF ORIGIN.
- □ A SAMPLING PLAN FOR ALL SAMPLES THAT WILL BE OBTAINED FROM THE PROPOSED MATERIAL, INCLUDING A SITE MAP DEPICTING SAMPLE LOCATIONS, SAMPLING FREQUENCY AND COMPOSTING FREQUENCY.
- □ ALL LABORATORY REPORTS PREPARED BY THE COMMERCIAL TESTING LABORATORY, INCLUSIVE OF CHAIN OF CUSTODY DOCUMENTATION.
- □ ANY TABULATED SUMMARY SPREADSHEETS SUMMARIZING THE DATA ON THE LABORATORY REPORTS.
- □ ALL AVAILABLE ENVIRONMENTAL OR GEOTECHNICAL REPORTS WITH RESPECT TO THE SITE AND OR SITES THAT WHERE THE WASTE WAS GENERATED.

9) NAME, ADDRESS AND TELEPHONE NUMBER OF THE LABORATORY:

_____

ADD: _____

TEL: _____

10) LIST THE SAMPLE NAMES/ID#'S FOR ALL SAMPLES INCLUDED OR REFERENCED WITHIN THE LABORATORY REPORT(S) AND SUBMITTED FOR CONSIDERATION AS PART OF THIS APPLICATION:

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

11) NAME, ADDRESS AND TELEPHONE NUMBER OF THE COMPANY THAT PERFORMED THE SAMPLING:

_____

ADD: _____

TEL: _____

12) IS THE PROPOSED MATERIAL CLASSIFIED AS A HAZARDOUS WASTE BY TOXICITY OR BY DEFINITION?

K YES K NA K NO

13) WAS THE MATERIAL IMPACTED BY ANY POINT POLLUTION SOURCE?

☐ YES K NA K NO

### *CHAIN OF PAYMENT*

IN ORDER, STARTING WITH THE OWNER/GENERATOR AND ENDING WITH THE COMPANY TO BE BILLED FOR LOADS OF WASTE RECEIVED, PROVIDE THE CHAIN OF PAYMENT. THIS INFORMATION WILL NOT BE USED TO CIRCUMVENT ANY PARTIES INVOLVED IN THE TRANSACTION.

OWNER/, NAME AND CONTACT #:

IF APPLICABLE, TIER 1 CONTRACTOR/BROKER, NAME AND CONTACT #:

BILLING ENTITY, NAME AND CONTACT #:

### *CERTIFICATION*

I CERTIFY UNDER PENALTY OF LAW THAT I AM THE OWNER/GENERATOR OF THE SOLID WASTE REFERENCED WITHIN THIS APPLICATION, AND THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED IN THIS DOCUMENT AND ALL ATTACHMENTS AND THAT, BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THAT THE INFORMATION IS TRUE, ACCURATE AND COMPLETE. FURTHER, I BELIEVE THAT THE MATERIAL WAS CHARACTERIZED IN ACCORDANCE WITH NJAC 7:26A, NJAC 7:26E AND GUIDANCE FOR CHARACTERIZATION OF CONCRETE AND CLEAN MATERIAL CERTIFICATION FOR RECYCLING.

I AM AWARE THAT THERE ARE SIGNIFICANT PENALITIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBLITY OF FINES AND IMPRISONMENT. I UNDERSTAND THAT, IN ADDITION TO CRIMINAL PENALITIES, I MAY BE LIABLE FOR A CIVIL ADMINISTRATIVE PENALTY PURSUANT TO APPLICABLE LAW AND THAT SUBMITTING FALSE, INACCURATE, OR INCOMPLETE INFORMATION MAY BE GROUNDS FOR DENIAL, REVOCATION, OR TERMINATION OF ANY SOLID WASTE FACILITY PERMIT, LICENSE, OR OTHER OPERATING AUTHORITY FOR WHICH I MAY BE SEEKING APPROVAL OR NOW HOLD.

NAME AND ADDRESS OF OWNER /GENERATOR (PERSONAL OR CORPORATE):

_____

ADD: _____

PRINTED NAME OF OWNER/GENERATOR: _____

SIGNATURE OF OWNER/GENERATOR: _____ DATED _____

Exhibit 5: Scale Ticket

# IMPACT ENVIRONMENTAL
**Class B Recycling Facility**

1000 Page Avenue
Lyndhurst, New Jersey 07071
631-269-8800

| Manifest #: | Ticket #: |
|---|---|

*welcome to solid ground….*

*Facility Registration #: 121888*
*Permit: CBG070002*

# SCALE TICKET

## Part 1 GENERATOR

| Generator Name, Address and Telephone #: | Source of Material (Description and Address): |
|---|---|

## Part 2 MATERIAL CLASSIFICATION AND WEIGHT

| Classification of Material: | GROSS/TARE/NET (lbs) | NET (tons): |
|---|---|---|
| NOTES: | | |

WEIGHTS

## Part 3 WEIGHT CETIFICATION

**Certification:** By issuing this ticket, I hereby certify that the above named material has been accepted by this facility, and that the weights stated above are accurate. The weights were calculated in accordance with New Jersey's Weights and Measures Program.

Where applicable, I hereby certify that the Transportation Security Seal referenced in the **Scale Operator Notes** section of this ticket was intact upon entrance to this facility, and that I removed the seal upon the removal of the bed cover on the truck.

Name of Scale Operator:

Date and Time In and Out:

Scale Operator Notes:

## Part 4 TRANSPORTER DATA AND CERTIFICATION

Transporter Name, Address and Permit #:

Driver Name and Signature (conditional):

Truck Plate:

By signing this ticket the transport vehicle driver accepts sole responsibility and therefore assumes all liabilities for the gross weight of this divisible load of material scaled and accepted at Impact Environmental Class B Recycling Facility. The driver acknowledges that he or she is solely responsible for compliance with all traffic safety rules and regulations for the operation and maintenance of the vehicle when transporting to, driving in and leaving from Impact Environmental Class B Recycling Facility. Further, the driver represents that he or she will immediately report any incidents of overloading or vehicle equipment failure/hazards associated with the vehicle to the owner of the vehicle, and in doing so will relieve Impact Environmental, its owners, employees and/or all of its affiliated companies to serve any form of notice to the truck owner. Furthermore, driver accepts that he or she will abide by all posted safety procedures at Impact Environmental Class B Recycling Facility and as directed by company staff.

Exhibit 6: Transportation Charter

Number: 12345
Page __ of __

# TRANSPORT CHARTER – NOT FOR USE AS SCALE TICKET

## Part 1 GENERATOR

**Generator Name:**

**Generator Address:**

**Source Location:**

**Source Address:**

**Description of Material/Classification:**

Residual Waste for Beneficial Use

**Associated Testing (Optional):**

**Certification:** By signing in the space below, I hereby certify that the Material coming from the above named source location is being moved with the knowledge and consent of the Generator. I have been authorized on behalf of the Generator to witness the proper removal, loading and off-site management of the Material, and to evidence the same by signing this transport charter. I understand that by signing this form, I am acknowledging that the Material has been tested or demonstrated to be free of contaminants at concentrations in excess of the permitted levels of the Receiving Facility listed on Part 3 of this form. Further, I understand that this form is not evidence of the receipt of the Material at the Receiving Facility. This document bears no form field or area in which to list the weight or volume of material being transported. Consequently, this form can NOT be used to evidence the disposal of the Material. Only a Scale Ticket, issued by the Receiving Facility shall be used to evidence or quantify receipt of Material to the Receiving Facility.

Generator Authorized Agent Name | **Signature of Generator Authorized Agent** | Shipment Date | Shipment Time

## Part 2 TRANSPORTER

Transporter Name, Address and Permit # (if applicable):

Driver Name (PRINT):

Vehicle License #/State:

Truck #:

Expiration Date:

**Certification**: By signing in the space below, I hereby certify that the above named Material was picked up at the Source Location listed in Part 1 above. I understand that I am responsible for any deviation in Source Location. Further, by signing this form, I as Hauler, am solely responsible for the amount and weight of Material that is being transported as well as the methods and means for its travel.

**Certification**: By signing in the space below, I hereby certify that the above named Material was delivered without incident from the Source Location listed in Part 1 above to the Receiving Facility listed below and remained secure and unaltered throughout the entire duration of transportation.

**Driver Signature for Certification** | Delivery Date | **Driver Signature for Certification** | Delivery Date

## Part 3 RECEIVING FACILITY

**Receiving Facility Name:**

**Facility Address:**

Name of Authorized Recipient:

Date of Receipt:

Time of Receipt:

NOTES:

**Certification**: By signing in the space below, I hereby certify that the above named Material arrived at this Receiving Facility on the date listed. I have advised the Driver listed in Part 2 of this form that this charter can NOT be used to evidence the disposal/beneficial use of the Material; only a Scale Ticket, issued by the Receiving Facility shall be used to evidence or quantify receipt of Material to the Receiving Facility.

Name of Receiving Facility Agent | **Signature of Receiving Facility Agent** | Receipt Date

Exhibit 3: Lincoln Park West Contract, Permit & Materials Acceptance Protocol

## INTRODUCTION

Impact Environmental is pleased to submit the following proposal to you for services to be performed between our firms. Our firm has been providing such services for more than twenty years. We are confident that we can satisfy your needs for this project. We look forward to a mutually beneficial relationship.

## PARTIES

This proposal for services has been prepared for Persistent Construction Corporation, herein referred to as PCC, by Impact Environmental Consulting, In., herein referred to as IEC.

This proposal is to act as a legal contract between PCC and IEC. Both parties take the position there are no other parties to this agreement except those indicated within.

## DEFINITIONS

*(1) Subject Property*
The term used to define the property or properties identified as the Lincoln Park West Landfill located in Jersey City, New Jersey.

*(2) Owner*
The term used to define the Hudson County Improvement Authority located at 574 Summit Avenue, 5$^{th}$ Floor, Jersey City, New Jersey 07306.

(3) NJDEP
The New Jersey Department of Environmental Protection

## SCOPE OF SERVICES

Engineering Service

IEC will be the exclusive provider of engineering services performed for the purposes of approving fill sources into the subject property for use in the caping of the former Lincoln Park Landfill on behalf of Owner. IEC will provide PCC with the requisite engineering services for a fee that will be equivalent to $2 per ton of material accepted into the Subject Property by the Owner. Engineering work requested by PCC and performed on sources that are as a result of IEC's engineering services found inappropriate for use at the Subject Property by the Owner, or are approved for use by IEC and the Owner and not delivered to the site by PCC or PCC's customers are subject to a flat application fee of $1,000.

It is understood by PCC that IEC's engineering services at the given rate are exclusive of the collection or analysis of samples. In the event such services are required bt PCC from IEC, the costs and terms of such an arrangement will be subject to a separate contract. It is understood by IEC that PCC is not responsible to pay any Engineering Services Fees or charges where the source of the material is from IEC.

Waste Management Services

Parties agree and understand that materials meeting specific standards established by the Owner needs to be received onto the Subject Property for placement by PCC. Further, both parties acknowledge that no materials shall be considered for placement at the Subject Property without express written consent from the Owner or its appointed representatives.

IEC agrees to pay PCC a fee of $xxx per ton for soil meeting the Owner's alternate NJDEP Non-Residential Direct Contact Soil Remediation Standards limits for the following projects that have been submitted to PCC prior to execution of this contract. These projects are: the MTA East Side Access Project, the MTA Second Avenue Subway Project, the JFK International Airport Terminal Project and the Columbia University Manhattanville Development Project. PCC will not be responsible for any Engineering Service fees from IEC where this rate is applied for materials received at the Subject Property.

IEC agrees to pay PCC a fee of $xxx per ton for soil meeting the Owner's alternate NJDEP Non-Residential Direct Contact Soil Remediation Standards limits that are not listed in the paragraph above. PCC will not be responsible for any Engineering Service fees from IEC where this rate is applied for materials received at the Subject Property.

IEC agrees to pay PCC a fee of $xxx per ton for soil meeting the Owner's NJDEP Residential Direct Contact Soil Remediation Standards limits. PCC will not be responsible for any Engineering Service fees from IEC where this rate is applied for materials received at the Subject Property.

PCC will advise IEC of any perspective material sources it identifies in the market that may be suitable for placement at the Subject Property by forwarding information about said source with analytical data to IEC. Where PCC provides such data to IEC, IEC will treat the information as confidential and not circumvent PCC to contract to deliver the source material to the Subject Property.

IEC will advise PCC of any perspective material sources it identifies in the market that may be suitable for placement at the Subject Property by forwarding information about said source with analytical data to PCC. Where IEC provides such data to PCC, PCC will treat the information as confidential and not circumvent IEC to contract to deliver the source material to the Subject Property.

**PAYMENT TERMS**

All payments due between parties will be net thirty days.

**MISCELLANEOUS PROVISIONS**

Unless otherwise provided, this agreement shall be governed by the laws of the place where the Project is located.

The parties agree that this agreement represents their entire understanding and both incorporates and supersedes any prior discussions, memoranda, representations, and the like, of the parties. This Agreement may be amended, modified or superseded only by a subsequent written agreement.

**OBLIGATIONS AND BENEFITS**

This proposal is valid for a period of thirty (30) calendar days from the signature date shown below. Signing of this proposal will represent an AGREEMENT that shall be binding upon and insure to the benefit to the parties hereto, their successors, heirs, or assigns, as the case may be. IEC and PCC acknowledge that they have read this agreement in its entirely, fully understand its terms and agree to such terms. It is specifically understood that there are no additional or contrary terms or agreements other than those expressly set forth in this written agreement.

| | | | |
|---|---|---|---|
| Client: | Persistent Construction Co. | Vendor: | Impact Environmental Consulting, Inc. |
| By: | Anthony Grano | By: | Richard Parrish, President |
| Signature: | | Signature: | |
| Date: | February 11, 2011 | Date: | February 11, 2011 |

# State of New Jersey

CHRIS CHRISTIE
*Governor*

KIM GUADAGNO
*Lt. Governor*

MAIL CODE 401-02C
ROBERT M. CONFER, CHIEF
BUREAU OF LANDFILL AND HAZARDOUS WASTE PERMITTING
SOLID AND HAZARDOUS WASTE MANAGEMENT PROGRAM
CLIMATE AND ENVIRONMENTAL MANAGEMENT
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
P.O. BOX 420 401 EAST STATE STREET
TRENTON, NJ 08625-0420
Telephone: (609) 984-6985 Telecopier: (609) 633-9839
http://www.state.nj.us/dep/dshw/permitting.htm

BOB MARTIN
*Commissioner*

JAN 03 2011

Thomas DeGise, Hudson County Executive
Division of Parks and Recreation
Lincoln Park Administration Building
Jersey City, NJ 07304

Re: Minor Modification to Closure and Post-Closure Plan Approval
Approval of Revised Material Acceptance Protocol
HUDSON COUNTY LINCOLN PARK LANDFILL
Jersey City, Hudson County
Preferred ID: 230696
Approval No.: LCC100002

Dear Mr. DeGise:

Enclosed please find the modified Landfill Closure and Post-Closure Plan Approval for the above referenced landfill. This modification approves the revised Material Acceptance Protocol (MAP), dated October 2010 revised December 29, 2010 prepared by Paulus Sokolowski and Sartor, LLC (PS&S), for the receipt of subgrade fill material (beneath the two-foot landfill final cover) at the Lincoln Park West Landfill.

Conditions have been incorporated within this Approval that must be complied with in order for the Approval to remain valid. The Department will consider amendment or modification of the specific terms of this Approval if a written request is submitted by certified mail within twenty (20) calendar days of the date of this Approval. Said written request must clearly state the proposed amendment or modification and the factual basis for the request.

In the event you have any questions concerning this matter, please contact Shwu-mei Chen of my staff at (609) 777-0015, or by email at Shwu-mei.Chen@dep.state.nj.us.

Very truly yours,

Robert M. Confer, Chief
Bureau of Landfill & Hazardous Waste Permitting

SC:sc
LC10-8618

Enclosure
c: Mike Gerchman, BLHWP
Suzanne U. Dietrick, Office of Dredging and Sediment Technology
Kimberly Kerkuska, Bureau of Urban Growth and Redevelopment
David Bean, Office of Natural Resource Restoration
Debbie Pinto, Bureau Chief, BSWCE
Mary Siller, Supervisor, BSWCE
Kenneth L. Jennings, Assistant Division Chief
Department of Parks, Engineering & Planning
Division of Parks and Recreation
Lincoln Park Admin. Building
Jersey City, NJ 07304
Norman M. Guerra, Executive Director, Hudson County Improvement Authority
Robert Ferraiuolo, Executive Director, Hudson Regional Health Commission
John T. Bolan, PS&S
67B Mountain Boulevard Extension
PO Box 4039
Warren, NJ 07059

Doc: LCC100002 Pre-82 LF Closure Plan Apprval

# State of New Jersey

CHRIS CHRISTIE
*Governor*

KIM GUADAGNO
*Lt. Governor*

MAIL CODE 401-02C
ROBERT M. CONFER, CHIEF
BUREAU OF LANDFILL AND HAZARDOUS WASTE PERMITTING
SOLID AND HAZARDOUS WASTE MANAGEMENT PROGRAM
CLIMATE AND ENVIRONMENTAL MANAGEMENT
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
P.O. BOX 420 401 EAST STATE STREET
TRENTON, NJ 08625-0420
Telephone: (609) 984-6985 Telecopier: (609) 633-9839
http://www.state.nj.us/dep/dshw/permitting.htm

BOB MARTIN
*Commissioner*

## CLOSURE/POST-CLOSURE PLAN APPROVAL

Under the provisions of N.J.S.A. 13:1E-1 et seq. known as the Solid Waste Management Act, this Solid Waste Closure Plan Approval is hereby issued to:

## HUDSON COUNTY

| | |
|---|---|
| FACILITY: | Hudson County Lincoln Park Landfill |
| PREFERRED ID: | 230696 |
| APPROVAL NO.: | LCC100002 |
| BLOCK & LOT NOS.: | Block 1702.1, Lot 1 |
| MUNICIPALITY: | Jersey City |
| COUNTY: | Hudson |

This Approval is subject to compliance with all conditions specified herein and all regulations promulgated by the Department of Environmental Protection.

This Approval shall not prejudice any claim the State may have to riparian land, nor does it permit the registrant to fill or alter or allow to be filled or altered, in any way, lands that are deemed to be riparian, wetlands, stream encroachment areas or flood plains, or that are within the Coastal Area Facility Review Act (CAFRA) zone or are subject to the Pinelands Protection Act of 1979, nor shall it allow the discharge of pollutants to waters of this state without prior acquisition of the necessary grants, permits or approvals from the Department of Environmental Protection.

Issue Date: May 20, 2009

Modified: October 25, 2010

JAN 03 2011

Modified: _____

Robert M. Confer, Chief
Bureau of Landfill & Hazardous Waste Permitting

Description

This Closure and Post-Closure Plan Approval allows Hudson County to implement the closure of the landfill and start the post-closure care according to the approved Landfill Disruption and Closure Plan. The landfill comprises a northern portion (Area A) and a southern portion (Area B). The Plan includes the development of a nine-hole golf course in Area A and construction of a wetland restoration area in Area B. Waste in Area B will be excavated and relocated to Area A before the construction of the wetland restoration project. All relocated waste from Area B will remain within the landfill footprint of Area A. A final cover will be placed above the waste before the construction of the golf course project in Area A.

October 25, 2010 Modification

This modification approves the acceptance protocol for the receipt of subgrade fill material to be placed beneath the final cover at the Lincoln Park West Landfill. The fill material must meet the Non-Residential Direct Contact Soil Remediation Standards (NRDCSRS) and the requirements set forth in the NJDEP June 2008 document, "Guidance for Beneficial Use of Soil and Non-Soil Material in the Remediation of Contaminated Sites and Closure of Solid Waste Landfills".

This Modification

This modification approves the revised acceptance protocol for the receipt of subgrade fill material to be placed beneath the final cover at the Lincoln Park West Landfill. The allowable concentration limits for Benzo(a)anthracene, Benzo(a)pyrene, Dibenz(a, h)anthracene and Ideno(1,2,3-cd)pyrene were increased to levels above the NRDCSRS based on the levels of these contaminants already present at the landfill. The new limits were determined by adding 75% of the difference between the NRDCSRS and the landfill averages to the NRDCSRS. The acceptance criteria for other contaminants remain the NRDCSRS.

Approved Closure and Post-Closure Plan and Associated Documents

The owner shall close and maintain the landfill in accordance with N.J.A.C. 7:26-2A.9, the conditions of this Approval, and the following documents, which are the approved Closure Plan and the submitted modification application documents:

a. Solid Waste Facility Permit Application Form signed on December 17, 2008 by Thomas DeGise, Hudson County Executive.

b. Document entitled "County of Hudson, Landfill Disruption and Closure Plan, Revised April 2009, Lincoln Park West Landfill, Jersey City, New Jersey, HMM No. 251658" prepared by Hatch Mott MacDonald.

c. Set of 23 drawings with Title sheet and eight (8) sheets entitled "Lincoln Park West Landfill Disruption and Closure Project", signed and sealed by M. Brendan Mullen of Hatch Mott MacDonald on April 30, 2009, and 14 sheets entitled "Lincoln Park West Golf Course", signed and sealed by Sanjay M. Patel of PS&S on April 10, 2009.

d. Document entitled "Material Acceptance Protocol, Lincoln Park West Golf Landfill Closure, Jersey City, New Jersey", dated October 2010 prepared by Paulus Sokolowski and Sartor, LLC.

e. Letter dated December 29, 2010, signed by John T. Bolan of PS&S, attached with Table 1 "Lincoln Park West Landfill SVOC Soil Sample Results compared to NJDEP 2009 NRSRS (in parts per billion [ppb])" and Table 2 "Lincoln Park West Landfill Calculation of Alternative Acceptance Criteria".

In case of conflict, the provisions of N.J.A.C. 7:26-1 *et seq.* shall have precedence over the conditions of this Approval, and the conditions of this Approval shall have precedence over plans and specifications listed above.

Attachment

The conditions of this Approval are found in the attached document entitled "HUDSON CNTY LINCOLN PARK LANDFILL 230696 LCC100002 SW Landfill (Class C) Closure-Closure Plan Minor Modification Requirements Report."

# HUDSON CNTY LINCOLN PARK LANDFILL

230696 LCC100002 SW Landfill (Class C) Closure -Closure Plan Minor Modification Requirements Report

**Subject Item: PI 230696 -**

1. The disposal of all solid waste resulting from closure activities shall be in conformance with the requirements of N.J.A.C. 7:26-2.11. Waste within the southern portion of the landfill (Area B) shall be excavated where practical to do so and relocated to the northern portion of the landfill (Area A). All relocated waste shall remain within the footprint of Area A beneath the final cover. [N.J.A.C. 7:26-2A.8(j)]
2. The owner shall close and maintain the landfill in accordance with N.J.A.C. 7:26-2A.9, the conditions of this Approval, and the approved Closure and Post-Closure Care Plan as referenced herein. [N.J.A.C. 7:26-2A.9(d)8]
3. A minimum of 6 inches of clean soil shall be placed over any exposed waste at the end of each workday or more frequently if odors or vectors are a problem. A minimum of 12 inches of clean soil shall be applied to all waste exposed for any period exceeding 24 hours and extending up to six months. Thereafter, a minimum of 2 feet of final cover as approved herein shall be applied and maintained over the waste material. [N.J.A.C. 7:26-2A.8(j)]
4. In case of conflict, the provisions of N.J.A.C. 7:26-1 et seq. shall have precedence over the conditions of this Approval, and the conditions of this Approval shall have precedence over plans and specifications listed above. [N.J.A.C. 7:26-2A.9(d)8]
5. Methods of effectively controlling dust shall be implemented in order to prevent offsite migration. [N.J.A.C. 7:26-2A.8(j)]
6. The final cover in Area A shall completely isolate the landfilled solid waste from the surrounding environment and shall consist of twelve inches of intermediate cover, followed by six inches of clean imported fill and six inches of vegetative topsoil. The intermediate cover, imported fill and vegetative topsoil shall meet the New Jersey Residential Direct Contact Soil Remediation Standards. The final cover shall be graded in accordance with the approved Closure Plan. There shall not be any future use of the landfill that may result in the alteration of the final cover, subsequent to closure activities, without review and approval by the Department. [N.J.A.C. 7:26-2A.9(e)2ii]
7. Noise control measures shall be implemented so that noise levels generated by site activities do not exceed the standards set forth by the New Jersey Noise Control Regulations under N.J.A.C. 7:29-1.2. [N.J.A.C. 7:26-2A.8(j)]
8. The disruption of waste during closure operations shall be conducted in accordance with N.J.A.C.-2.A.8(j). [N.J.A.C. 7:26-2A.8(j)]
9. The disruption activities shall not cause any air contaminant to be emitted in violation of N.J.A.C. 7:27-5.2(a). Malodorous emissions shall be controlled by the use of daily cover. In the event that this is not satisfactory, a suitable deodorant shall be used. Malodorous solid waste shall be covered immediately after excavation, unloading or re-deposition with a minimum of six inches of cover material or approved alternative material. [N.J.A.C. 7:26-2A.8(j)4]
10. Vectors shall be controlled by the application of cover soil. If vectors persist, a control program shall be implemented in compliance with the requirements of the New Jersey Pesticide Control Code, N.J.A.C. 7:30, by an applicator of pesticides, certified in accordance with the New Jersey Pesticide Control Code, N.J.A.C. 7:30. [N.J.A.C. 7:26-2A.8(j)]
11. An adequate water supply and adequate fire-fighting equipment shall be maintained at the facility or be readily available to extinguish any and all types of fires. The telephone numbers of local fire, police, ambulance and hospital facilities shall be known in advance. [N.J.A.C. 7:26-2A.8(j)]

**Subject Item: PI 230696 -**

12. In the event that chemical or hazardous waste materials are encountered during the disruption, operations shall cease immediately and the area shall be secured. The contractor shall notify the Department by calling the Environmental Action Hot Line at 1-877-WARN DEP and take all necessary precautions for the safe removal and disposal of the waste to an approved facility under the direction of the department. [N.J.A.C. 7:26-2A.8(b)4]

13. The contractor shall follow the Occupational Safety and Health Administration (OSHA) standards and the Health and Safety Plan submitted as part of the application during all on-site activities for the safety of employees and for others entering the site. A copy of the operating procedures shall be posted on-site. On-site air monitoring (OVA, HNU, etc.) shall be provided to ensure worker safety during all disruption activities. [N.J.A.C. 7:26-2A.9]

14. The Bureau of Solid Waste Compliance and Enforcement shall be notified at (609) 292-6305 at least 72 hours prior to initiation of any disruption activities. [N.J.A.C. 7:26-2A.9]

15. Departmental inspectors shall have the right to enter and inspect the facility at any time. The right to inspect includes, but is not limited to: a. Sampling materials on site; b. Photographing any portion of the facility; c. Investigating an actual or suspected source of pollution of the environment; d. Ascertaining compliance or non-compliance with the statutes, rules or regulations of the Department, including conditions of any permit or approval issued by the Department; and e. Reviewing and copying all applicable records, which shall be furnished upon request and made available at all reasonable times for inspection. [N.J.A.C. 7:26-2A.8(j)]

16. Soil erosion and sediment control shall be achieved in accordance with the Soil Erosion and Sediment Control Plan certified by the Hudson-Essex-Passaic Soil Conservation District. The plan shall be certified by the District prior to the start of construction. [N.J.A.C. 7:26-2A.9(e)]

17. All closure work, including the excavation and relocation of the waste in the southern portion of the landfill (Area B) and implementation of the golf course project over the northern portion of the landfill (Area A), as approved herein, shall be completed within a period of 80 weeks from initiation of construction activities. The Bureau of Landfill and Hazardous Waste Permitting shall be notified in writing at least 72 hours prior to the initiation of any disruption activities. [N.J.A.C. 7:26-2A.9(e)4]

18. Failure to comply with any or all conditions of this Approval will result in the NJDEP seeking relief under the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq. Specifically, each day of failure to so comply shall constitute a separate violation on the basis of which a penalty shall be assessed pursuant to N.J.S.A. 13:1E-9 and may subject the facility to regulation as a solid waste facility pursuant to N.J.S.A. 13:1E-1 et seq. and N.J.A.C. 7:26-1 et seq. [N.J.A.C. 7:26-2A.8(j)]

19. Within six (6) months of completion of closure activities at the landfill, the owner and/or operator of the landfill shall obtain and submit to the Department an as-built certification by a New Jersey licensed professional engineer, certifying that the provisions of the Closure and Post-Closure Plan have been implemented for the entire landfill as designed and approved, with exceptions noted. [N.J.A.C. 7:26-2A.9(d)10]

20. No work performed under this Approval shall be considered complete until an engineer's certification has been submitted to and accepted by the Solid and Hazardous Waste Management Program as required herein. In the event that said certification is not received or is not accepted, the work shall be considered incomplete. [N.J.A.C. 7:26-2A.9(d)]

**HUDSON CNTY LINCOLN PARK LANDFILL**
230696 LCC100002 SW Landfill (Class C) Closure -Closure Plan Minor Modification
Requirements Report

**Subject Item: PI 230696 -**

21. The issuance of this Approval and the conditions of operation identified herein shall not be interpreted as relieving the applicant of his responsibility to secure and maintain all other applicable federal, State and local permits or similar forms of authorization relating to the construction and/or operation of this facility. [N.J.A.C. 7:26-2A.8(j)]

22. This authorization is not transferable. [N.J.A.C. 7:26-2A.8(j)]

23. Upon closure of the sanitary landfill, a detailed description of the landfill shall be recorded, along with the deed, with the appropriate recording office. The description shall include the general types, locations, and depths of wastes on the site, the depth and types of cover material, the dates the landfill was in use and all such other information as may be of interest to potential landowners, and shall remain in the record in perpetuity. A copy of the recorded deed description shall be submitted to the Solid and Hazardous Waste Management Program within six (6) months of closure of the landfill. The deed shall also provide notice that any future disruption of the closed landfill shall require prior approval from the Department in accordance with N.J.A.C. 7:26-2A.8(j). [N.J.A.C. 7:26-2A.9(c)]

24. A methane gas survey shall be performed around the perimeter of the landfill buffer zone on a quarterly basis. The survey shall be performed with a hand-held portable explosimeter or equivalent and the minimum sampling depth shall be three feet below the ground surface or above the water table, whichever is higher. The maximum interval between sampling points shall be 300 feet. Anytime methane is detected at a sampling point, additional points at 25 foot intervals (both away from and along the landfill perimeter from the original point) shall be sampled to delineate the methane. Such delineation sampling shall continue until no methane is detected. The survey shall occur in the afternoon of days when atmospheric barometric pressure is falling and not rising. The barometric pressures shall be reported in two-hour intervals over a period of twelve hours prior to sampling. A reading at 24 hours before the monitoring event shall also be reported. The survey results, including the barometric pressure readings, shall be submitted to the Solid and Hazardous Waste Management Program during the months of January, April, July and October. [N.J.A.C. 7:26-2A.8(h)9]

25. The landfill shall be maintained and monitored in accordance with the Post-Closure Maintenance Schedule included in the approved Closure and Post-Closure Care Plan. The Post-Closure Maintenance Schedule includes the following post-closure tasks: (a) Maintenance of final cover system and ensuring conformance of the site to surroundings; (b) Runoff control maintenance; (c) Groundwater monitoring and well maintenance; (d) Gas monitoring; and (e) Maintenance and inspection of the fence, gate and access road. [N.J.A.C. 7:26-2A.9(e)]

26. A ground water monitoring system shall be maintained and the ground water shall be monitored in conformance with the Post-Closure Groundwater Monitoring Program included in the approved Closure and Post-Closure Care Plan. Monitoring results shall be reported to the Solid and Hazardous Waste Management Program within thirty (30) days of the monitoring event. [N.J.A.C. 7:26-2A.9(e)]

27. In the event some isolated waste pockets within Area B are not excavated or relocated, a two-foot soil cap shall be placed on any remaining waste. The two-foot soil cap shall meet the New Jersey Residential Direct Contact Soil Remediation Standards. The locations of these waste pockets shall be identified in the closure certification documents and included in the deed notice. [N.J.A.C. 7:26-2A.7(i)]

**HUDSON CNTY LINCOLN PARK LANDFILL**

230696 LCC100002 SW Landfill (Class C) Closure -Closure Plan Minor Modification Requirements Report

**Subject Item: PI 230696 -**

28. The owner is authorized to accept virgin clean fill, recycled masonry, construction fill, fill from recycling facilities and processed dredge material (PDM) for use as subgrade fill material below the two-foot environmental cap. Acceptance of such material shall be in accordance with the approved Materials Acceptance Protocol (MAP), the AUD issued by the Department's Office of Dredging & Sediment Technology, and the Department's "Guidance for Beneficial Use of Soil and Non-Soil Material in the Remediation of Contaminated Sites and Closure of Solid Waste Landfills" and "Guidance for Characterization of Concrete and Clean Materials Certification for Recycling."

    Under no circumstances may any material accepted contain contaminants that exceed the Non-Residential Direct Contact Soil Remediation Standards, with the exception of the following: Benzo(a)anthracene shall not exceed 8,786 ppb; Benzo(a)pyrene shall not exceed 5,719 ppb; Dibenz(a, h)anthracene shall not exceed 627 ppb; and Ideno(1,2,3-cd)pyrene shall not exceed 4,048 ppb.

    The owner shall document the evaluation, receipt and placement of each material as detailed in the MAP. The owner shall submit to the Solid & Hazardous Waste Management Program monthly reports of site activities and the MAP documentation shall be included in the closure as-built report. [N.J.A.C. 7:26-2A]

29. Periodic inspection of the final cover, runoff controls, groundwater monitoring wells and access controls shall be conducted in accordance with the Post-Closure Maintenance Schedule included in the approved Closure and Post-Closure Care Plan. The inspection results shall be submitted to the Solid and Hazardous Waste Management Program during the months of January, April, July and October. [N.J.A.C. 7:26-2A.8]

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JON S. CORZINE
*Governor*

MARK N. MAURIELLO
*Acting Commissioner*

SOLID AND HAZARDOUS WASTE MANAGEMENT PROGRAM
BUREAU OF LANDFILL & HAZARDOUS WASTE PERMITTING
P.O. BOX 414 401 E. STATE STREET
TRENTON, NEW JERSEY 08625-0414
TELEPHONE: 609-984-6985 TELECOPIER: 609-633-9839
http://www.state.nj.us/dep/dshw

MAY 2 0 2009

Thomas DeGise, Hudson County Executive
Division of Parks and Recreation
Lincoln Park Administration Building
Jersey City, NJ 07304

Re: Closure and Post-Closure Plan Approval
HUDSON COUNTY LINCOLN PARK LANDFILL
(LINCOLN PARK WEST LANDFILL)
Jersey City, Hudson County
Preferred ID: 230696
Approval No.: LCC080001

Dear Mr. DeGise:

Enclosed please find a Landfill Closure and Post-Closure Plan Approval for the above referenced landfill. The landfill comprises a northern portion (Area A) and a southern portion (Area B). The landfill closure plan includes the development of a nine-hole golf course in Area A and construction of a wetland restoration area in Area B.

Conditions have been incorporated within this Approval that must be complied with in order for the Approval to remain valid. The Department will consider amendment or modification of the specific terms of this Approval if a written request is submitted by certified mail within twenty (20) calendar days of the date of this Approval. Said written request must clearly state the proposed amendment or modification and the factual basis for the request.

In the event you have any questions concerning this matter, please contact Shwu-mei Chen of my staff at (609) 777-0015, or by email at Shwu-mei.Chen@dep.state.nj.us.

Very truly yours,

Robert M. Confer, Chief
Bureau of Landfill & Hazardous Waste Permitting

SC:sc
LC09-6168/6284

c: Mike Gerchman, BLHWP
John King, Bureau of Urban Growth and Redevelopment
Kimberly Kerkuska, Bureau of Urban Growth and Redevelopment
David Bean, Office of Natural Resource Restoration
Rai Belonzi, Bureau Chief, BSWCE
Mary Siller, Supervisor, BSWCE
Kenneth L. Jennings, Assistant Division Chief, Department of Parks, Engineering & Planning, Division of Parks and Recreation, Lincoln Park Admin. Building, Jersey City, NJ 07304
Norman M. Guerra, Executive Director, Hudson County Improvement Authority
Robert Ferraiuolo, Executive Director, Hudson Regional Health Commission
M. Brendan Mullen, Hatch Mott MacDonald, 27 Bleeker Street, Millburn, NJ 07041

Doc: LCC080001 Pre-82 LF Closure Plan Apprval

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JON S. CORZINE
*Governor*

MARK N. MAURIELLO
*Acting Commissioner*

SOLID AND HAZARDOUS WASTE MANAGEMENT PROGRAM
BUREAU OF LANDFILL & HAZARDOUS WASTE PERMITTING
P.O. BOX 414 401 E. STATE STREET
TRENTON, NEW JERSEY 08625-0414
TELEPHONE: 609-984-6985 TELECOPIER: 609-633-9839
http://www.state.nj.us/dep/dshw

## CLOSURE/POST-CLOSURE PLAN APPROVAL

Under the provisions of N.J.S.A. 13:1E-1 et seq. known as the Solid Waste Management Act, this Solid Waste Closure Plan Approval is hereby issued to:

### HUDSON COUNTY

| | |
|---|---|
| FACILITY: | Hudson County Lincoln Park Landfill |
| PREFERRED ID: | 230696 |
| APPROVAL NO.: | LCC080001 |
| BLOCK & LOT NOS.: | Block 1702.1, Lot 1 |
| MUNICIPALITY: | Jersey City |
| COUNTY: | Hudson |

This Approval is subject to compliance with all conditions specified herein and all regulations promulgated by the Department of Environmental Protection.

This Approval shall not prejudice any claim the State may have to riparian land, nor does it permit the registrant to fill or alter or allow to be filled or altered, in any way, lands that are deemed to be riparian, wetlands, stream encroachment areas or flood plains, or that are within the Coastal Area Facility Review Act (CAFRA) zone or are subject to the Pinelands Protection Act of 1979, nor shall it allow the discharge of pollutants to waters of this state without prior acquisition of the necessary grants, permits or approvals from the Department of Environmental Protection.

MAY 2 0 2009
Issuance Date

Robert M. Confer, Chief
Bureau of Landfill & Hazardous Waste Permitting

Description

This Closure and Post-Closure Plan Approval allows the Hudson County to implement the closure of the landfill and start the post-closure care according to the approved Landfill Disruption and Closure Plan. The landfill comprises a northern portion (Area A) and a southern portion (Area B). The Plan includes the development of a nine-hole golf course in Area A and construction of a wetland restoration area in Area B. Waste in Area B will be excavated and relocated to Area A before the construction of the wetland restoration project. All relocated waste from Area B will remain within the landfill footprint of Area A. A final cover will be placed above the waste before the construction of the golf course project in Area A.

Approved Closure and Post-Closure Plan and Associated Documents

The owner shall close and maintain the landfill in accordance with N.J.A.C. 7:26-2A.9, the conditions of this Approval, and the following documents, which are the approved Closure Plan:

a. Solid Waste Facility Permit Application Form signed on December 17, 2008 by Thomas DeGise, Hudson County Executive.

b. Document entitled "County of Hudson, Landfill Disruption and Closure Plan, Revised April 2009, Lincoln Park West Landfill, Jersey City, New Jersey, HMM No. 251658" prepared by Hatch Mott MacDonald.

c. Set of 23 drawings with Title sheet and eight (8) sheets entitled "Lincoln Park West Landfill Disruption and Closure Project", signed and sealed by M. Brendan Mullen of Hatch Mott MacDonald on April 30, 2009, and 14 sheets entitled "Lincoln Park West Golf Course", signed and sealed by Sanjay M. Patel of PS&S on April 10, 2009.

In case of conflict, the provisions of N.J.A.C. 7:26-1 *et seq.* shall have precedence over the conditions of this Approval, and the conditions of this Approval shall have precedence over plans and specifications listed above.

Attachment

The conditions of this Approval are found in the attached document entitled "HUDSON CNTY LINCOLN PARK LANDFILL 230696 LCC080001 SW Landfill (Class C) Closure-Closure Plan Approval Requirements Report."

**Subject Item: PI 230696 -**

1. The disposal of all solid waste resulting from closure activities shall be in conformance with the requirements of N.J.A.C. 7:26-2.11. Waste within the southern portion of the landfill (Area B) shall be excavated where practical to do so and relocated to the northern portion of the landfill (Area A). All relocated waste shall remain within the footprint of Area A beneath the final cover. [N.J.A.C. 7:26-2A.8(j)]
2. The owner shall close and maintain the landfill in accordance with N.J.A.C. 7:26-2A.9, the conditions of this Approval, and the approved Closure and Post-Closure Care Plan as referenced herein. [N.J.A.C. 7:26-2A.9(d)8]
3. A minimum of 6 inches of clean soil shall be placed over any exposed waste at the end of each workday or more frequently if odors or vectors are a problem. A minimum of 12 inches of clean soil shall be applied to all waste exposed for any period exceeding 24 hours and extending up to six months. Thereafter, a minimum of 2 feet of final cover as approved herein shall be applied and maintained over the waste material. [N.J.A.C. 7:26-2A.8(j)]
4. In case of conflict, the provisions of N.J.A.C. 7:26-1 et seq. shall have precedence over the conditions of this Approval, and the conditions of this Approval shall have precedence over plans and specifications listed above. [N.J.A.C. 7:26-2A.9(d)8]
5. Methods of effectively controlling dust shall be implemented in order to prevent offsite migration. [N.J.A.C. 7:26-2A.8(j)]
6. The final cover in Area A shall completely isolate the landfilled solid waste from the surrounding environment and shall consist of twelve inches of intermediate cover, followed by six inches of clean imported fill and six inches of vegetative topsoil. The intermediate cover, imported fill and vegetative topsoil shall meet the New Jersey Residential Direct Contact Soil Remediation Standards. The final cover shall be graded in accordance with the approved Closure Plan. There shall not be any future use of the landfill that may result in the alteration of the final cover, subsequent to closure activities, without review and approval by the Department. [N.J.A.C. 7:26-2A.9(e)2ii]
7. Noise control measures shall be implemented so that noise levels generated by site activities do not exceed the standards set forth by the New Jersey Noise Control Regulations under N.J.A.C. 7:29-1.2. [N.J.A.C. 7:26-2A.8(j)]
8. The disruption of waste during closure operations shall be conducted in accordance with N.J.A.C.-2.A.8(j). [N.J.A.C. 7:26-2A.8(j)]
9. The disruption activities shall not cause any air contaminant to be emitted in violation of N.J.A.C. 7:27-5.2(a). Malodorous emissions shall be controlled by the use of daily cover. In the event that this is not satisfactory, a suitable deodorant shall be used. Malodorous solid waste shall be covered immediately after excavation, unloading or re-deposition with a minimum of six inches of cover material or approved alternative material. [N.J.A.C. 7:26-2A.8(j)4]
10. Vectors shall be controlled by the application of cover soil. If vectors persist, a control program shall be implemented in compliance with the requirements of the New Jersey Pesticide Control Code, N.J.A.C. 7:30, by an applicator of pesticides, certified in accordance with the New Jersey Pesticide Control Code, N.J.A.C. 7:30. [N.J.A.C. 7:26-2A.8(j)]
11. An adequate water supply and adequate fire-fighting equipment shall be maintained at the facility or be readily available to extinguish any and all types of fires. The telephone numbers of local fire, police, ambulance and hospital facilities shall be known in advance. [N.J.A.C. 7:26-2A.8(j)]

**Subject Item: PI 230696 -**

12. In the event that chemical or hazardous waste materials are encountered during the disruption, operations shall cease immediately and the area shall be secured. The contractor shall notify the Department by calling the Environmental Action Hot Line at 1-877-WARN DEP and take all necessary precautions for the safe removal and disposal of the waste to an approved facility under the direction of the department. [N.J.A.C. 7:26-2A.8(b)4]

13. The contractor shall follow the Occupational Safety and Health Administration (OSHA) standards and the Health and Safety Plan submitted as part of the application during all on-site activities for the safety of employees and for others entering the site. A copy of the operating procedures shall be posted on-site. On-site air monitoring (OVA, HNU, etc.) shall be provided to ensure worker safety during all disruption activities. [N.J.A.C. 7:26-2A.9]

14. The Bureau of Solid Waste Compliance and Enforcement shall be notified at (609) 584-4180 at least 72 hours prior to initiation of any disruption activities. [N.J.A.C. 7:26-2A.9]

15. Departmental inspectors shall have the right to enter and inspect the facility at any time. The right to inspect includes, but is not limited to: a. Sampling materials on site; b. Photographing any portion of the facility; c. Investigating an actual or suspected source of pollution of the environment; d. Ascertaining compliance or non-compliance with the statutes, rules or regulations of the Department, including conditions of any permit or approval issued by the Department; and e. Reviewing and copying all applicable records, which shall be furnished upon request and made available at all reasonable times for inspection. [N.J.A.C. 7:26-2A.8(j)]

16. Soil erosion and sediment control shall be achieved in accordance with the Soil Erosion and Sediment Control Plan certified by the Hudson-Essex-Passaic Soil Conservation District. The plan shall be certified by the District prior to the start of construction. [N.J.A.C. 7:26-2A.9(e)]

17. All closure work, including the excavation and relocation of the waste in the southern portion of the landfill (Area B) and implementation of the golf course project over the northern portion of the landfill (Area A), as approved herein, shall be completed within a period of 80 weeks from initiation of construction activities. The Bureau of Landfill and Hazardous Waste Permitting shall be notified in writing at least 72 hours prior to the initiation of any disruption activities. [N.J.A.C. 7:26-2A.9(e)4]

18. Failure to comply with any or all conditions of this Approval will result in the NJDEP seeking relief under the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq. Specifically, each day of failure to so comply shall constitute a separate violation on the basis of which a penalty shall be assessed pursuant to N.J.S.A. 13:1E-9 and may subject the facility to regulation as a solid waste facility pursuant to N.J.S.A. 13:1E-1 et seq. and N.J.A.C. 7:26-1 et seq. [N.J.A.C. 7:26-2A.8(j)]

19. Within six (6) months of completion of closure activities at the landfill, the owner and/or operator of the landfill shall obtain and submit to the Department an as-built certification by a New Jersey licensed professional engineer, certifying that the provisions of the Closure and Post-Closure Plan have been implemented for the entire landfill as designed and approved, with exceptions noted. [N.J.A.C. 7:26-2A.9(d)10]

20. No work performed under this Approval shall be considered complete until an engineer's certification has been submitted to and accepted by the Solid and Hazardous Waste Management Program as required herein. In the event that said certification is not received or is not accepted, the work shall be considered incomplete. [N.J.A.C. 7:26-2A.9(d)]

**Subject Item: PI 230696 -**

21. The issuance of this Approval and the conditions of operation identified herein shall not be interpreted as relieving the applicant of his responsibility to secure and maintain all other applicable federal, State and local permits or similar forms of authorization relating to the construction and/or operation of this facility. [N.J.A.C. 7:26-2A.8(j)]

22. This authorization is not transferable. [N.J.A.C. 7:26-2A.8(j)]

23. Upon closure of the sanitary landfill, a detailed description of the landfill shall be recorded, along with the deed, with the appropriate recording office. The description shall include the general types, locations, and depths of wastes on the site, the depth and types of cover material, the dates the landfill was in use and all such other information as may be of interest to potential landowners, and shall remain in the record in perpetuity. A copy of the recorded deed description shall be submitted to the Solid and Hazardous Waste Management Program within six (6) months of closure of the landfill. The deed shall also provide notice that any future disruption of the closed landfill shall require prior approval from the Department in accordance with N.J.A.C. 7:26-2A.8(j). [N.J.A.C. 7:26-2A.9(c)]

24. A methane gas survey shall be performed around the perimeter of the landfill buffer zone on a quarterly basis. The survey shall be performed with a hand-held portable explosimeter or equivalent and the minimum sampling depth shall be three feet below the ground surface or above the water table, whichever is higher. The maximum interval between sampling points shall be 300 feet. Anytime methane is detected at a sampling point, additional points at 25 foot intervals (both away from and along the landfill perimeter from the original point) shall be sampled to delineate the methane. Such delineation sampling shall continue until no methane is detected. The survey shall occur in the afternoon of days when atmospheric barometric pressure is falling and not rising. The barometric pressures shall be reported in two-hour intervals over a period of twelve hours prior to sampling. A reading at 24 hours before the monitoring event shall also be reported. The survey results, including the barometric pressure readings, shall be submitted to the Solid and Hazardous Waste Management Program during the months of January, April, July and October. [N.J.A.C. 7:26-2A.8(h)9]

25. The landfill shall be maintained and monitored in accordance with the Post-Closure Maintenance Schedule included in the approved Closure and Post-Closure Care Plan. The Post-Closure Maintenance Schedule includes the following post-closure tasks: (a) Maintenance of final cover system and ensuring conformance of the site to surroundings; (b) Runoff control maintenance; (c) Groundwater monitoring and well maintenance; (d) Gas monitoring; and (e) Maintenance and inspection of the fence, gate and access road. [N.J.A.C. 7:26-2A.9(e)]

26. A ground water monitoring system shall be maintained and the ground water shall be monitored in conformance with the Post-Closure Groundwater Monitoring Program included in the approved Closure and Post-Closure Care Plan. Monitoring results shall be reported to the Solid and Hazardous Waste Management Program within thirty (30) days of the monitoring event. [N.J.A.C. 7:26-2A.9(e)]

27. In the event some isolated waste pockets within Area B are not excavated or relocated, a two-foot soil cap shall be placed on any remaining waste. The two-foot soil cap shall meet the New Jersey Residential Direct Contact Soil Remediation Standards. The locations of these waste pockets shall be identified in the closure certification documents and included in the deed notice. [N.J.A.C. 7:26-2A.7(i)]

**Subject Item: PI 230696 -**

28. Periodic inspection of the final cover, runoff controls, groundwater monitoring wells and access controls shall be conducted in accordance with the Post-Closure Maintenance Schedule included in the approved Closure and Post-Closure Care Plan. The inspection results shall be submitted to the Solid and Hazardous Waste Management Program during the months of January, April, July and October. [N.J.A.C. 7:26-2A.8]

King

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF LAND USE REGULATION
501 East State Street, Station Plaza 5, 2nd Floor
P.O. Box 439, Trenton, New Jersey 08625-0439
Fax: (609) 777-3656 or (609) 292-8115
www.state.nj.us/dep/landuse

# PERMIT

In accordance with the laws and regulations of the State of New Jersey, the Department of Environmental Protection hereby grants this permit to perform the activities described below. This permit is revocable with due cause and is subject to the limitations, terms and conditions listed below and on the attached pages. For the purpose of this document, "permit" means "approval, certification, registration, authorization, waiver, etc." Violation of any term, condition or limitation of this permit is a violation of the implementing rules and may subject the permittee to enforcement action.

Approval Date
AUG 10 2009

Expiration Date
AUG 10 2014

| Permit Number/s | Type of Approval/s | Enabling Statute/s |
|---|---|---|
| 0906-07-0009.2 | Flood Hazard Area, Freshwater Wetlands General | N.J.S.A 13:9B |
| FHA 080001-2 | Permit No. 5, 10A, 11, 16, 17, Transition Area Waiver- | N.J.S.A 58:16A |
| WFD 080001 | Averaging Plan and Waterfront Development – IP | N.J.S.A 12:5-3 |
| FWW 080001-6 | Upland | N.J.S.A 58:10A |

Applicant
County of Hudson
574 Summit Avenue – 5th Floor
Jersey City, NJ 07306

Site Location
Block: 1702.1 Lot: 1
City of Jersey City, Hudson County, New Jersey

The County of Hudson is proposing the redevelopment of a 45 acre sanitary landfill site located in the City of Jersey City, Hudson County. The project in its entirety will cap the landfill in accordance with the Closure and Post-Closure Plan Approval issued by the Bureau of Landfill and Hazardous Waste Permitting, NJDEP. Upon completion of the capping, the County will construct a 9-hole golf course, and construct a 10-foot wide public waterfront walkway connecting to Duncan Avenue to the north and to a new walkway to the south being constructed in conjunction with a restoration project implemented by the Office of Natural Resource Restoration, NJDEP. This project will result in the disturbance as well as restoration/enhancement of freshwater wetlands, wetland transition areas and State open waters as outlined in condition number fourteen (14) of this permit. **Prior to site preparation, the permittee shall submit draft copies of the required conservation restrictions for review and written approval of the Division. Upon written approval of the drafts, final conservation restrictions shall be recorded with the property deed in the office of the County Clerk and proof of recordation shall be submitted to the Division. No site preparation or construction authorized by this permit shall commence until the approved conservation restrictions are recorded with the property deed in the office of the County Clerk.**

Additionally, this permit is authorized under, and in compliance with the Freshwater Wetlands Protection Act Rules N.J.A.C. 7:7A-1.1, the Flood Hazard Area Control Act Rules 7:13-1.1 and the following Rules on Coastal Zone Management, N.J.A.C. 7:7E-1.1 et seq., specifically: *Filled Waters Edge* 7:7E-3.23, *Wetlands and Wetland Buffers* 7:7E-3.27-3.28, *Flood Hazard Areas* 7:7E-3.25, *Riparian Zone* 7:7E-3.26, *Endangered or Threatened Wildlife or Vegetation Species Habitats* 7:7E-3.38, *Critical Wildlife Habitats* 7:7E-3.39, *Special Hazard Areas* 7:7E-3.41, *Special Urban Areas* 7:7E-3.43, *Hudson River Waterfront Area* 7:7E-3.48, *Lands and Waters Subject to Public Trust Rights* 7:7E-3.50, *Dredge Material Placement on Land* 7:7E-7.12, *Stormwater Management* 7:7E-8.7, *Public Trust Rights* 7:7E-8.11 and *Buffers and Compatibility of Uses* 7:7E-8.13.

By issuance of this permit, the State of New Jersey does not relinquish tidelands ownership or claim to any portion of the subject property or adjacent properties. The permittee shall allow an authorized Division representative the right to inspect the construction pursuant to N.J.A.C. 7:7E-1.5(b)4.

Prepared by

Kimberly Kerkuska
Senior Geologist

Received or Recorded by County Clerk

**THIS PERMIT IS NOT EFFECTIVE AND NO CONSTRUCTION APPROVED BY THIS PERMIT, OR OTHER REGULATED ACTIVITY, MAY BE UNDERTAKEN UNTIL THE A PPLICANT HAS SATISFIED ALL PRE-CONSTRUCTION CONDITIONS AS SET FORTH IN THIS PERMIT.**

**This permit is not valid unless authorizing signature appears on the last page.**

## STANDARD CONDITIONS:

1. **Extent of approval:**
   a. This document grants permission to perform certain activities that are regulated by the State of New Jersey. The approved work is described by the text of this permit and is further detailed by the approved drawings listed herein. All work must conform to the requirements, conditions and limitations of this permit and all approved drawings.

   b. If you alter the project without prior approval, or expand work beyond the description of this permit, you may be in violation of State law and may be subject to fines and penalties. Approved work may be altered only with the prior written approval of the Department.

   c. You must keep a copy of this permit and all approved drawings readily available for inspection at the work site.

2. **Acceptance of permit:** If you begin any activity approved by this permit, you thereby accept this document in its entirety, and the responsibility to comply with the terms and conditions. If you do not accept or agree with this document in its entirety, **do not begin** construction. You are entitled to request an appeal within a limited time as detailed on the attached *Administrative Hearing Request Checklist and Tracking Form.*

3. **Recording with County Clerk:** You must record this permit in the Office of the County Clerk for each county involved in this project. You must also mail or fax a copy of the front page of this permit to the Department showing the received stamp from each County Clerk within 30 days of the issuance date

4. **Notice of Construction:** You must notify the Department in writing at least 7 days before you begin any work approved by this permit by submitting the attached construction report. The Construction Reports are also available at www.nj.gov/dep/landuse.

5. **Expiration date:** All activities authorized by this permit must be completed by the expiration date shown on the first page unless otherwise extended by the Division. At that time, this permit will automatically become invalid and none of the approved work may begin or continue until a replacement permit is granted. (Some permits may qualify for an extension of the expiration date. Please contact the Department for further information.)

6. **Rights of the State:**
   a. This permit is revocable and subject to modification by the State with due cause.

   b. Representatives from the State have the statutory authority to enter and inspect this site to confirm compliance with this permit and may suspend construction or initiate enforcement action if work does not comply with this permit.

   c. This permit does not grant property rights. The issuance of this permit shall not affect any action by the State on future applications, nor affect the title or ownership of property, nor make the State a party in any suit or question of ownership.

7. **Other responsibilities:** You must obtain all necessary local, Federal and other State approvals before you begin work. All work must be stabilized in accordance with the *Standards for Soil Erosion and Sediment Control in New Jersey,* and all fill material must be free of toxic pollutants in toxic amounts as defined in section 307 of the Federal Act.

## SPECIAL CONDITIONS IN ADDITION TO THE STANDARD CONDITIONS:

8. No engineering drawings or site plans are approved in accordance with the activities authorized under this permit. Upon receipt of revised plans that illustrate compliance with the below listed conditions, the Department will modify this permit to reference accurate drawings. No work shall commence until revised plans have been submitted to and approved by the Department.

9. The permittee shall immediately inform the Department of any unanticipated adverse effects on the environment not described in the application or in the conditions of this permit.

10. Consistency with the Areawide Water Quality Management Plan

    The Division of Land Use Regulation has not reviewed this application for consistency with the Areawide Water Quality Management Plan and the issuance of this permit shall not be construed as an approval of any wastewater management plan for this project or site. There shall be no construction of any sewage generating structures unless and until the proposed development has been found to be consistent with the appropriate areawide water quality management plan

11. Vegetation within 50 feet of the top of the bank shall only be disturbed in the areas specifically shown on the approved drawing/s. No other vegetation within 50 feet of the top of any stream bank onsite shall be disturbed for any reason. This condition applies to all channels onsite regardless of the contributory drainage area.

12. Upon completion of the project, all temporarily disturbed areas within 50 feet of the top of any stream bank onsite shall be restored to original topography and replanted with indigenous, non-invasive vegetation in accordance with N.J.A.C. 10.2(u).

13. To facilitate foraging of yellow-crowned night heron, colonial waterbirds, and peregrine falcon, mudflats, ponds, and pools immediately adjacent to the Hackensack River are to be constructed. Additionally, forested/shrubby areas at this location must be preserved and are to be incorporated in the restoration of the site.

**Provisions of the Freshwater Wetlands General Permits:**

14. Limit of Authorized Disturbance - The authorized activity involves the disturbance and restoration of freshwater wetlands, wetland transition areas and State open waters for the capping of Lincoln Park Landfill and construction of a 9-hole golf course in the City of Jersey City, Hudson County. Specifically, this project will result in the disturbance of 2.70 acres of freshwater wetlands and 3.81 acres of wetland transition area associated with the capping of Lincoln Park Landfill under a General Permit No. 5 (approximately 1.94 acres of wetlands will be restored immediately following capping of the landfill); the disturbance of 0.02 of an acre of freshwater wetlands and 0.03 of an acre of State open waters for the installation of an 8-foot wide pile-supported pedestrian and golf cart bridge under a General Permit No. 10A; 0.04 of an acre of wetlands and 0.11 of an acre of wetland transition areas for the construction of four stormwater outfall structures under a General Permit No. 11; the restoration/enhancement of 3.71 acres of freshwater wetlands and wetland transition areas immediately following capping of the landfill under a General Permit No. 16 and 0.56 acres of freshwater wetlands and wetland transition areas for the construction of a waterfront walkway under a General Permit No. 17. Any additional disturbance of freshwater wetlands, State open waters and/or transition areas shall be considered a violation of the Freshwater Wetlands Protection Act unless a permit is obtained prior to the start of the disturbances from the Division of Land Use Regulation.

15. Water Quality Certificate - This permit to conduct a regulated activity in a wetland or open water includes the Division's approval of a Water Quality Certificate for these activities.

**Conditions for a Transition Area Waiver-Averaging Plan:**

Waiver Conditions:

In addition to the standard conditions set forth in section 7:7A-6, the following special conditions must be met for the activity under this transition area waiver.

16. The intermediate value transition area shall be reduced by 22,651 square feet of surface area and the exceptional value transition area shall be reduced 32,670 square feet of surface area (totaling 55,321 square feet of surface area). The permittee will compensate a total 22,651 square feet of intermediate resource value wetland transition area and 32,670 square feet of exceptional value wetland transition area on the same wetland system.

17. The intermediate transition area shall not be reduced to less than 11 feet and the exceptional transition area shall not be reduced to less than 90 feet.

18. Prior to site preparation, the applicant/owner shall sign a Department approved conservation restriction for the modified transition area on the subject parcel(s) in accordance with N.J.A.C. 7:7A-6.1(h). The conservation restriction shall address all wetlands and transition areas on site, including both the boundary of the reduced area as well as the compensated area. The restriction shall be included on the deed, and recorded in the office of the County Clerk (the REGISTRAR OF DEEDS AND MORTGAGES), in the county wherein the lands included in the waiver are located. Said restriction shall run with the land and be binding upon all successive owners. All individual lot surveys shall show the approved wetland and transition area boundaries. Any regulated activities undertaken on the site before a copy of this recorded restriction is submitted to the Department will be considered in violation of the Freshwater Wetlands Protection Act. **The conservation restriction should conform to the format and content of the model "Transition Area & Associated Wetlands Conservation Restriction/Easement," located on the Division's website at www.state.nj.us/dep/landuse. Please submit a copy of the draft restriction to Kimberly Kerkuska of this office for review, as well as the final restriction once filed.**

19. Within 30-days of the issuance of this permit, the permittee must submit revised plans that clearly illustrate a 10-foot wide walkway consistent with the walkway being constructed by the Office of Natural Resource Restoration to the south. This walkway is to be used solely for the purpose of the Hudson River Walkway and include benches, trash receptacles and access signs in accordance with the Hudson River Walkway Design Guidelines. No motorized vehicles of any type are permitted.

20. Within 30-days of the issuance of this permit, the permittee must submit revised plans that clearly illustrate a 30-foot wide easement associated with the entire waterfront walkway. The walkway is to be located in the center of the easement. Submission of this easement is required under N.J.A.C. 7:7E-8.11 *Public Trust Rights* of the Coastal Zone Management Rules and is to be incorporated into a conservation restriction as outlined in condition number twenty one (21) below.

21. Prior to site preparation, the permittee shall submit a draft copy of the required conservation restriction for the waterfront walkway which includes a minimum easement or right of way of 30 feet, for review and written approval of the Division. Upon written approval of the draft, a final conservation restriction shall be recorded with the property deed in the office of the County Clerk and proof of recordation shall be submitted to the Division. No site preparation or construction authorized

by this permit shall commence until the approved conservation restriction is recorded with the property deed in the office of the County Clerk. **The conservation restriction should conform to the format and content of the model "Public Access to the Waterfront Conservation Restriction/Easement," located on the Division's website at www.state.nj.us/dep/landuse. Please submit a copy of the draft restriction to Kimberly Kerkuska of this office for review, as well as the final restriction once filed.**

22. This permit verifies the flood hazard elevation of the Hackensack River at 9 feet NAVD. The floodway is taken at the top of bank of the watercourse.

23. All excavated material shall be disposed of in a lawful manner outside of any flood hazard area riparian zone, open water, freshwater wetland and adjacent transition area, and in such a way as to not interfere with the positive drainage of the receiving area.

24. All sediment barriers and other soil erosion control measures shall be installed prior to commencing any clearing, grading or construction onsite, and shall be maintained in proper working condition throughout the entire duration of the project.

25. **Within 30 days of the date of this permit, and prior to the start of any construction or site preparation,** the permittee must submit a signed and sealed certification that the proposed retaining walls have been designed to withstand displacement, overturning, and failure due to undermining or pressure from soil, water, and frost. This certification must be submitted to the Department for review and approval. Should any work or site preparation commence prior to the Department's acknowledgement of compliance with this condition, this will be considered a violation of this permit and the permittee shall be subject to an Enforcement Action.

26. **Within 30 days of the date of this permit, and prior to the start of any construction or site preparation,** the permittee must submit a revised utility plan, signed and sealed, showing that the proposed stormwater pipes will consist of perforated pipes wrapped in stone bedding. This is required to address the recharge deficit caused by the construction of the project and to provide a measure of disconnection of stormwater runoff to promote a better Low Impact Design. These plans must be submitted to the Department for review and approval, along with calculations demonstrating that the recharge deficit has been satisfied. Should additional recharge BMPs be required, then the permittee must provide them. Should any work or site preparation commence prior to the Department's acknowledgement of compliance with this condition, this will be considered a violation of this permit and the permittee shall be subject to an Enforcement Action.

John F. King
Supervising Environmental Specialist
Bureau of Urban Growth and Redevelopment

8/10/09
Date

C: City of Jersey City Construction Official
Paulus, Sokolowski and Sartor, LLC; attn Tom Zetkulic

New Jersey Department of Environmental Protection
Division of Land Use Regulation
Bureau of Urban Growth and Redevelopment

**ENVIRONMENTAL REPORT**

**APPLICANT:** The County of Hudson
**PROJECT NAME:** Lincoln Park West Public Golf Course
**DLUR FILE NO.:** 0906-07-0009.2
**ACTIVITY NO.:** FHA 080001 Verification
FHA 080002 IP
WFD 080001 IP Upland
FWW 080001 GP5
FWW 080002 GP10A
FWW 080003 GP11
FWW 080004 GP16
FWW 080005 GP17
FWW 080006 TAW-Averaging Plan
**LOCATION:** Block: 1702.1 Lot: 1
City of Jersey City, Hudson County

**Site Location:**

The subject site is former sanitary landfill adjacent to the Hackensack River located within Lot 1 of Block 1702.1 in the City of Jersey City, Hudson County.

**Project Description:**

The County of Hudson is proposing the redevelopment of a 45 acre sanitary landfill site located in the City of Jersey City, Hudson County. The project in its entirety will cap the landfill and construct a 9-hole golf course, and public walkway connecting to a restoration site directly to the south and Lincoln Park to the southeast.

Overall, this project will impact freshwater wetlands, wetland transition areas, and State open waters requiring the applicant to obtain a Flood Hazard Area Permit, a Waterfront Development – IP Upland, Freshwater Wetlands General Permit Numbers 5, 10A, 16, 17 and a Transition Area Waiver Averaging Plan.

**Approved Plans:**

As per condition number eight (8) below, revised plans are to be submitted to the Department for approval.

**Administrative History:**

Application Received By Department: December 23, 2008
Project Manager Received: January 6, 2009
Deficiency Letter Sent: January 22, 2009
20-Day Deadline: January 22, 2009
Meeting Held: April 1, 2009
Partial Information Received: April 13, 2009
Deficiency Letter Sent: April 27, 2009

Deficient Information Received: May 13, 2009
Phone Call Made: May 28, 2009
Site Inspection: None
Receive Engineering Review: August 7, 2009
90th Day Deadline: August 10, 2009

## I. Flood Hazard Area

The analysis of this application is based upon the relevant environmental requirements of the Flood Hazard Area Control Act Rules N.J.A.C. 7:13 amended November 5, 2007.

**7:13-10.2 Regulated activity in a riparian zone**
This project proposes to close a sanitary landfill. With these activities, riparian zone vegetation along the Hackensack River and onsite pond will be disturbed. For these disturbances, the applicant applied for a Hardship Exception under the Flood Hazard Area Control Act Rules. Upon closure and capping of the landfill, the riparian zone impacted will be restored and enhanced with native vegetation. Restoration and enhancement are to be illustrated on landscaping plans to be submitted to the Department within 30-days of the issuance of this permit. Based on the above, it has been determined that there are no other alternative locations that would minimize and/or eliminate disturbances to riparian zone vegetation due to the need to cap the existing landfill. Submittal of the revised plans for approval will result in compliance with this rule.

**7:13-10.5 Regulated activity in or along a water with fishery resources**
All work is being proposed upland of the Hackensack River and is not suspected to adversely affect any regulated water containing fishery resources. Compliance with this rule has been demonstrated.

**7:13-10.6 Regulated activity in a documented habitat for threatened or endangered species**
See section 7:7E-3.38 and 7:7E-3.39 Endangered or Threatened Wildlife or Vegetation Species Habitats and Critical Wildlife Habitats below for a full discussion on compliance.

**7:13-11.1 Requirements that apply to all regulated activities**
All work will be located upland of the Hackensack River and the project is not likely to cause a significant adverse effect in any regulated feature. Compliance with this rule has been demonstrated.

## II. Freshwater Wetlands

This application included a request for Freshwater Wetlands General Permit Numbers 5, 10A, 11, 16, 17 and Transition Area Waiver – Averaging Plan in conjunction with the Flood Hazard Area/Waterfront Development permit for the capping of Lincoln Park landfill and construction of a 9-hole golf course. Overall, it has been determined that this project demonstrates compliance with all the requirements set forth at N.J.A.C. 7:7A-5 of the Freshwater Wetlands Protection Act Rules. Therefore, the following general permits will be issued with this report:

A General Permit No. 5 will be issued for the disturbance of 2.70 acres of freshwater wetlands and 3.81 acres of wetland transition area associated with the capping of Lincoln Park Landfill. Approximately 1.94 acres of wetlands will be restored adjacent to the Hackensack River immediately following capping of the landfill.

A General Permit No. 10A will be issued for the disturbance of 0.02 of an acre of freshwater wetlands and 0.03 of an acre of State open waters for the installation of an 8-foot wide pile-supported pedestrian and golf cart bridge.

A General Permit No. 11 will be issued for disturbance of 0.04 of an acre of wetlands and 0.11 of an acre of wetland transition area for the construction of four stormwater outfall structures.

A General Permit No. 16 will be issued for the restoration/enhancement of 3.72 acres of freshwater wetlands and wetland transition areas immediately following capping of the landfill.

A General Permit No. 17 will be issued for the disturbance of 0.56 of an acre freshwater wetlands and wetland transition areas for the construction of a 10-foot wide waterfront walkway.

A Transition Area Waiver Averaging Plan will be issued for the modification of 22,651 square feet of intermediate resource value wetland transition area and 32,670 square feet of exceptional value wetland transition area (totaling 55,321 square feet) for the capping of Lincoln Park Landfill and construction of a 9-hole golf course. The permittee will compensate a total 22,651 square feet of intermediate resource value wetland transition area and 32,670 square feet of exceptional value wetland transition area on the same wetland system. A condition of this permit will require the applicant/owner to sign a Department approved conservation restriction for the modified transition areas onsite.

The total freshwater wetlands, wetland transition area and State open water disturbance associated with the Freshwater Wetlands General Permit Numbers 10A, and 11 for this project is 0.16 of an acre, which does not exceed the one-acre limitation. The General Permit numbers 5, 16 and 17 do not count toward the one-acre threshold. Implementation of the above referenced condition will result in compliance with the Freshwater Wetlands Protection Act.

**III. Waterfront Development Permit – IP Upland**

**Relevant Coastal Zone Management Rules - N.J.A.C. 7:7E**

**SUBCHAPTER 3 - SPECIAL AREAS**
**7:7E-3.23 Filled Waters Edge**
This project will occur in an area considered filled waters edge. The portion of this project adjacent to the Hackensack River will be enhanced to create suitable habitat for Yellow-crowned Night Heron, Colonial Waterbird and Peregrine Falcon. Therefore, immediately upland of the restoration area, the applicant is installing a 10-foot wide public waterfront walkway connecting to Duncan Avenue to the north and to a new walkway to the south being constructed in conjunction with a restoration project implemented by the Office of Natural Resource Restoration (ONRR). The design to the walkway onsite is consistent with the design of the walkway to be constructed to the south. This project will enhance public access opportunities along the Hackensack River by providing the general public with continuous access from Lincoln Park to the southeast of the site, through the restoration site immediately to the south as well as around the proposed course along the Hackensack River. The waterfront portion of the site is being developed with a water-dependent use. Therefore, compliance with this rule has been demonstrated.

**7:7E-3.27 and 7:7E-3.28 Wetlands and Wetland Buffers**
The permittee has met all the requirements of the Freshwater Wetlands Protection Act Rules N.J.A.C. 7:7A as discussed above. Freshwater Wetlands General Permit Numbers 5, 10A, 11, 16, 17 and a Transition Area Waiver – Averaging Plan will be issued with this report. Compliance with this rule has been demonstrated.

**7:7E-3.25 Flood Hazard Areas**
The controlling flood plain is tidal. As such, there is no limitation on the amount of flood fringe storage volume that may be displaced. No work is proposed in the waters of the Hackensack River (ie, the

floodway). The only structures to be located in the flood plain are retaining walls, for which the permit is conditioned such that the permittee submit a certification as to its structural design prior to the start of construction. Implementation of this condition will result in compliance with this rule.

**7:7E-3.26 Riparian Zone**

This project proposes to cap an existing sanitary landfill and redevelop the site with a 9-hole golf course with associated amenities. With these activities, riparian zone vegetation along the Hackensack River and onsite pond will be disturbed. For these disturbances, the applicant applied for a Hardship Exception under the Flood Hazard Area Control Act Rules. It has been determined that there are no other alternative locations that would minimize and/or eliminate disturbances to riparian zone vegetation due to the need to cap and properly close the existing landfill. Upon final closure of the landfill and completion of the golf course, the riparian zone impacted will be restored and enhanced with native vegetation. Restoration and enhancement are to be illustrated on landscaping plans to be submitted to the Department within 30-days of the issuance of this permit.

In addition to the redevelopment of this site to a golf course, the applicant will provide a waterfront walkway as well as wetland restoration immediately adjacent to the Hackensack River. The proposed walkway is consistent with both 7:7E-3.50 *Lands and waters subject to public trust rights* and N.J.A.C. 7:7E-8.11 *Public trust rights* of the Coastal Zone Management Rules. Submittal of accurate plans for approval as per condition number eight (8) below will result in compliance with this rule.

**7:7E-3.38 and 7:7E-3.39 Endangered or Threatened Wildlife or Vegetation Species Habitats and Critical Wildlife Habitats**

A review of the Landscape Project and the Natural Heritage Program grids have revealed that threatened/endangered species habitat has been mapped on the project site. In addition, an endangered and threatened species review by Department staff has determined that the project area is a documented habitat for Yellow-Crowned Night Heron, Colonial Waterbird and Peregrine Falcon. Comments provided indicate that this project will not have an adverse affect on these species provided the permittee complies with the following condition: To facilitate foraging activities of yellow-crowned night heron, colonial waterbirds and peregrine falcon; mudflats, ponds, and pools are to be constructed immediately adjacent to the Hackensack River and illustrated on plans to be submitted to the Department. Additionally, forested/shrubby areas at this location must be preserved and are to be incorporated in the restoration of the site. These specific design features will be imposed as a condition of this permit. Implementation of this condition will result in this projects compliance with both 7:7E-3.38 and 7:7E-3.39 of the Coastal Zone Management Rules.

**7:7E-3.41 Special Hazard Areas**

This site is a former municipal landfill containing unclassified municipal waste, construction and demolition materials, household garbage, etc., that ceased operations prior to 1982. On May 20, 2009, the Bureau of Landfill and Hazardous Waste Permitting, NJDEP issued a Closure and Post-Closure Plan Approval for the landfill. This approval required the site be capped with material excavated from the site immediately to the south coupled with a minimum of 2 feet of final cover that meets the New Jersey Residential Direct Contact Soil Remediation Standards. The applicant obtained the proper approvals from the Department associated with the clean up activities proposed for this site. Therefore, compliance with this rule has been demonstrated.

**7:7E-3.43 Special Urban Areas**

Jersey City is included on the list of municipalities qualified to receive State aid to maintain and upgrade municipal services and offset local property taxes. Jersey City is a special urban area. The proposed public golf course will benefit the City through closing and properly capping a sanitary landfill, creating

construction jobs and providing public recreation opportunities. Compliance with this rule has been demonstrated.

**7:7E-3.48 Hudson River Waterfront Area**

Jersey City is a municipality within the Hudson River Waterfront Area. This site has been designated as suitable habitat for yellow-crowned night heron, colonial waterbirds and peregrine falcon. In an effort to protect critical wildlife habitat onsite, the Departments threatened and endangered species staff recommended minimum human intrusion into the wetland and wetland transition areas to the maximum extent practicable. With this, the walkway location is proposed upland of the wetlands and the width has been minimized. In addition, this walkway will connect to Lincoln Park to the southeast of this site. These design alterations are necessary for the protection of natural resources onsite. Therefore, compliance with this rule has been demonstrated.

**7:7E-3.50 Lands and waters subject to public trust rights**

The Hackensack River is a tidal waterbody therefore all lands/waters associated with the river are subject to public trust rights. The applicant will install a 10-foot wide public waterfront walkway connecting to Duncan Avenue to the north and to a new walkway to the south being constructed in conjunction with a restoration project implemented by ONRR. This project will enhance public access opportunities along the Hackensack River by providing the general public with continuous access from Lincoln Park to the southeast of the site, through the restoration site immediately to the south as well as around the proposed course and paralleling the Hackensack River. Additionally, the walkway around the golf course has been designed to provide several look-out areas allowing visitors opportunities to observe wildlife. Compliance with this rule has been demonstrated.

**SUBCHAPTER 7 – USE RULES**

**7:7E-7.12 Dredged Material Placement on Land**

The construction of a temporary 7.05-acre confined disposal facility (CDF) will be constructed onsite from clean fill from the Laurel Hill site in Secaucus, New Jersey and the material will be dewatered discharging into the adjacent man-made pond. A temporary dredge material off-loading barge will be located directly adjacent to the landfill, connecting to the CDF via a 2,400' pipeline and delivering approximately 300,000 cubic yards of sand over a period of eight to ten weeks. These activities were approved by the Office of Dredging and Sediment Technology on July 21, 2009 (DLUR File No. 0906-07-0009.2 WFD 090001-2) in conjunction with the wetland restoration project being conducted immediately to the south by ONRR. The sand from this CDF will be utilized in conjunction with excavated material from the southern site as part of the capping activities. Compliance with this rule has been demonstrated.

**SUBCHAPTER 8 - RESOURCE POLICIES**

**7:7E-8.7 Stormwater Management**

The project is a major development because the land disturbance necessary to construct the project exceeds the 1 acre threshold. The impervious coverage associated with the project is meant for pedestrian traffic and for golf carts. Because of this, the impervious is considered clean. Any TSS generated from traffic from these sources would be treated through flow over surrounding grassed areas. As a backup, the proposed ponds would help filter TSS. Therefore, nothing further is required to address quality. Because the receiving watercourse is tidally controlled, no formal quantity BMPs are required. As a condition of the permit, the permittee is required to utilize perforated conveyance piping in stone bedding, or to take additional measures, if necessary, in order to satisfy the recharge standard and to better address low impact design. Implementation of this condition will result in compliance with this rule.

**7:7E - 8.11 Public Trust Rights**

The applicant will install a 10-foot wide public waterfront walkway connecting to Duncan Avenue to the north and to a new walkway to the south being constructed in conjunction with a restoration project implemented by ONRR. This project will enhance public access opportunities along the Hackensack River by providing the general public with continuous access from Lincoln Park to the southeast of the site, through the restoration site immediately to the south well as around the proposed course along the Hackensack River. Additionally, the walkway around the golf course has been designed to provide several look-out areas allowing visitors opportunities to observe wildlife. Additionally, this walkway will connect to Lincoln Park to the southeast of this site. Within 30-days of the issuance of this permit, plans are to be submitted to the Department that illustrates the 10-foot wide walkway and the required 30-foot wide easement associated with the waterfront walkway. This permit will require the applicant/owner to sign a Department approved conservation restriction for this easement as well as the waterfront walkway onsite. Implementation of these conditions will result in compliance with this rule.

**7:7E-8.13 Buffers and Compatibility of Uses**

The Buffer and Compatibility of Use rule requires that development is compatible with adjacent land and water uses to the maximum extent practicable. The site immediately to the south is a wetland restoration project being conducted by ONRR and to the southeast of this site is Lincoln Park. The waterfront walkway on this site will connect to ONRR's walkway providing continuous pedestrian access to Lincoln Park. Therefore, the proposed golf course is compatible with the surrounding land uses, the project will redevelop a sanitary landfill and is in compliance with the public trust rights rule. Compliance with this rule has been demonstrated.

**STANDARD CONDITIONS:** See permit for standard conditions numbers 1 through 7.

**SPECIAL CONDITIONS IN ADDITION TO THE STANDARD CONDITIONS:**

8. No engineering drawings or site plans are approved in accordance with the activities authorized under this permit. Upon receipt of revised plans that illustrate compliance with the below listed conditions, the Department will modify this permit to reference accurate drawings. No work shall commence until revised plans have been submitted to and approved by the Department.

9. The permittee shall immediately inform the Department of any unanticipated adverse effects on the environment not described in the application or in the conditions of this permit.

10. Consistency with the Areawide Water Quality Management Plan

    The Division of Land Use Regulation has not reviewed this application for consistency with the Areawide Water Quality Management Plan and the issuance of this permit shall not be construed as an approval of any wastewater management plan for this project or site. There shall be no construction of any sewage generating structures unless and until the proposed development has been found to be consistent with the appropriate areawide water quality management plan

11. Vegetation within 50 feet of the top of the bank shall only be disturbed in the areas specifically shown on the approved drawing/s. No other vegetation within 50 feet of the top of any stream bank onsite shall be disturbed for any reason. This condition applies to all channels onsite regardless of the contributory drainage area.

12. Upon completion of the project, all temporarily disturbed areas within 50 feet of the top of any stream bank onsite shall be restored to original topography and replanted with indigenous, non-invasive vegetation in accordance with N.J.A.C. 10.2(u).

13. To facilitate foraging of yellow-crowned night heron, colonial waterbirds, and peregrine falcon, mudflats, ponds, and pools immediately adjacent to the Hackensack River are to be constructed. Additionally, forested/shrubby areas at this location must be preserved and are to be incorporated in the restoration of the site.

**Provisions of the Freshwater Wetlands General Permits:**

14. Limit of Authorized Disturbance - The authorized activity involves the disturbance and restoration of freshwater wetlands, wetland transition areas and State open waters for the capping of Lincoln Park Landfill and construction of a 9-hole golf course in the City of Jersey City, Hudson County. Specifically, this project will result in the disturbance of 2.70 acres of freshwater wetlands and 3.81 acres of wetland transition area associated with the capping of Lincoln Park Landfill under a General Permit No. 5 (approximately 1.94 acres of wetlands will be restored immediately following capping of the landfill); the disturbance of 0.02 of an acre of freshwater wetlands and 0.03 of an acre of State open waters for the installation of an 8-foot wide pile-supported pedestrian and golf cart bridge under a General Permit No. 10A; 0.04 of an acre of wetlands and 0.11 of an acre of wetland transition areas for the construction of four stormwater outfall structures under a General Permit No. 11; the restoration/enhancement of 3.71 acres of freshwater wetlands and wetland transition areas immediately following capping of the landfill under a General Permit No. 16 and 0.56 acres of freshwater wetlands and wetland transition areas for the construction of a waterfront walkway under a General Permit No. 17. Any additional disturbance of freshwater wetlands, State open waters and/or transition areas shall be considered a violation of the Freshwater Wetlands Protection Act unless a permit is obtained prior to the start of the disturbances from the Division of Land Use Regulation.

15. Water Quality Certificate - This permit to conduct a regulated activity in a wetland or open water includes the Division's approval of a Water Quality Certificate for these activities.

**Conditions for a Transition Area Waiver-Averaging Plan:**

Waiver Conditions:

In addition to the standard conditions set forth in section 7:7A-6, the following special conditions must be met for the activity under this transition area waiver.

16. The intermediate value transition area shall be reduced by 22,651 square feet of surface area and the exceptional value transition area shall be reduced 32,670 square feet of surface area (totaling 55,321 square feet of surface area). The permittee will compensate a total 22,651 square feet of intermediate resource value wetland transition area and 32,670 square feet of exceptional value wetland transition area on the same wetland system.

17. The intermediate transition area shall not be reduced to less than 11 feet and the exceptional transition area shall not be reduced to less than 90 feet.

18. Prior to site preparation, the applicant/owner shall sign a Department approved conservation restriction for the modified transition area on the subject parcel(s) in accordance with N.J.A.C. 7:7A-6.1(h). The conservation restriction shall address all wetlands and transition areas on site, including

both the boundary of the reduced area as well as the compensated area. The restriction shall be included on the deed, and recorded in the office of the County Clerk (the REGISTRAR OF DEEDS AND MORTGAGES), in the county wherein the lands included in the waiver are located. Said restriction shall run with the land and be binding upon all successive owners. All individual lot surveys shall show the approved wetland and transition area boundaries. Any regulated activities undertaken on the site before a copy of this recorded restriction is submitted to the Department will be considered in violation of the Freshwater Wetlands Protection Act. **The conservation restriction should conform to the format and content of the model "Transition Area & Associated Wetlands Conservation Restriction/Easement," located on the Division's website at www.state.nj.us/dep/landuse. Please submit a copy of the draft restriction to Kimberly Kerkuska of this office for review, as well as the final restriction once filed.**

19. Within 30-days of the issuance of this permit, the permittee must submit revised plans that clearly illustrate a 10-foot wide walkway consistent with the walkway being constructed by the Office of Natural Resource Restoration to the south. This walkway is to be used solely for the purpose of the Hudson River Walkway and include benches, trash receptacles and access signs in accordance with the Hudson River Walkway Design Guidelines. No motorized vehicles of any type are permitted.

20. Within 30-days of the issuance of this permit, the permittee must submit revised plans that clearly illustrate a 30-foot wide easement associated with the entire waterfront walkway. The walkway is to be located in the center of the easement. Submission of this easement is required under N.J.A.C. 7:7E-8.11 *Public Trust Rights* of the Coastal Zone Management Rules and is to be incorporated into a conservation restriction as outlined in condition number twenty one (21) below.

21. Prior to site preparation, the permittee shall submit a draft copy of the required conservation restriction for the waterfront walkway which includes a minimum easement or right of way of 30 feet, for review and written approval of the Division. Upon written approval of the draft, a final conservation restriction shall be recorded with the property deed in the office of the County Clerk and proof of recordation shall be submitted to the Division. No site preparation or construction authorized by this permit shall commence until the approved conservation restriction is recorded with the property deed in the office of the County Clerk. **The conservation restriction should conform to the format and content of the model "Public Access to the Waterfront Conservation Restriction/Easement," located on the Division's website at www.state.nj.us/dep/landuse. Please submit a copy of the draft restriction to Kimberly Kerkuska of this office for review, as well as the final restriction once filed.**

22. This permit verifies the flood hazard elevation of the Hackensack River at 9 feet NAVD. The floodway is taken at the top of bank of the watercourse.

23. All excavated material shall be disposed of in a lawful manner outside of any flood hazard area riparian zone, open water, freshwater wetland and adjacent transition area, and in such a way as to not interfere with the positive drainage of the receiving area.

24. All sediment barriers and other soil erosion control measures shall be installed prior to commencing any clearing, grading or construction onsite, and shall be maintained in proper working condition throughout the entire duration of the project.

25. **Within 30 days of the date of this permit, and prior to the start of any construction or site preparation,** the permittee must submit a signed and sealed certification that the proposed retaining walls have been designed to withstand displacement, overturning, and failure due to undermining or

pressure from soil, water, and frost. This certification must be submitted to the Department for review and approval. Should any work or site preparation commence prior to the Department's acknowledgement of compliance with this condition, this will be considered a violation of this permit and the permittee shall be subject to an Enforcement Action.

26. **Within 30 days of the date of this permit, and prior to the start of any construction or site preparation,** the permittee must submit a revised utility plan, signed and sealed, showing that the proposed stormwater pipes will consist of perforated pipes wrapped in stone bedding. This is required to address the recharge deficit caused by the construction of the project and to provide a measure of disconnection of stormwater runoff to promote a better Low Impact Design. These plans must be submitted to the Department for review and approval, along with calculations demonstrating that the recharge deficit has been satisfied. Should additional recharge BMPs be required, then the permittee must provide them. Should any work or site preparation commence prior to the Department's acknowledgement of compliance with this condition, this will be considered a violation of this permit and the permittee shall be subject to an Enforcement Action.

**Conclusion:**

Based upon the preceding analysis, the Division Land Use Regulation is able to make the positive findings required under both Subchapter 5 and 6 of the Freshwater Wetlands Protection Act Rules, for approval of General Permits and a Transition Area Waiver for this project, the Flood Hazard Area Control Act Rules and the Coastal Zone Management Rules for the conditional approval of a Waterfront Development Permit as well as a Water Quality Certificate. The Freshwater General Permits, Transition Area Waiver, Flood Hazard Area IP, Waterfront Development Permit and Water Quality Certificate are contingent upon compliance with the conditions listed on the permit. The Division of Land Use Regulation hereby finds that the applicable Freshwater Wetlands Protection Act and Rules, Flood Hazard Area Control Act and Rules and Coastal Zone Management Policies will all be met. **Therefore, a Freshwater Wetlands General Permits 5, 10A, 11, 16, 17, Transition Area Waiver Averaging Plan, Flood Hazard Area Permit, Waterfront Development Permit – IP Upland and a Water Quality Certificate will be issued with this report.**

PREPARED BY: _____ DATE: 8/10/09
Kimberly Kerkuska
Senior Geologist

APPROVED BY: _____ DATE: 8/10/09
John F. King
Supervising Environmental Specialist

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JON S. CORZINE
*Governor*

MARK N. MAURIELLO
*Acting Commissioner*

Office of Dredging and Sediment Technology
P.O. Box 028
Trenton, NJ 08625
(609) 292-1251
Fax (609) 777-1914

July 21, 2009

Donald Stevens, PE
The Louis Berger Group, Inc.
P.O. Box 1946
412 Mount Kemble Avenue
Morristown, NJ 07963-1946

RE: Waterfront Development Permit/ FWW GP#16/Water Quality Certificate
Application No(s): 0906-07-0009.2 WFD090002 In-Water & WFD090001 Upland
Lincoln Park Wetland Restoration
Jersey City, County of Hudson

Dear Mr. Stevens:

Enclosed, please find an approved construction permit. Please read the permit and its terms and Conditions carefully. If you consider yourself aggrieved by our decision regarding your application, you may request a hearing by completing the requirements of the attached *administrative hearing request checklist and tracking form.* Unless you request a hearing to contest this permit or its conditions, you have accepted its terms and conditions.

You are required to keep a copy of your permit and the approved drawings at the construction site for the duration of the project. Failure to do so is a violation of the permit.

If you are required to record a Grant of Conservation Restriction/Easement, you must present the Department with proof that you have recorded it within ninety (90) days of issuance of this permit. You may NOT COMMENCE CONSTRUCTION until you have properly recorded the Division of Land Use Regulation approved Grant of Conservation Restriction/Easement documents and fulfilled the pre-construction conditions of this permit.

If a tidelands grant, lease or license is required as a condition of this permit, you may not begin construction until the Bureau of Tidelands Management has delivered the necessary conveyances. Construction prior to the receipt of the necessary conveyances is in violation of State law and will subject you to fines up to $1,000.00 plus $100.00 per day. Furthermore, the cost for the tidelands instrument may be higher since the property claimed will be appraised as improved property. You may be required to remove any unauthorized structures placed in tidelands claimed areas.

Please do not hesitate to contact the Office's project manager, listed on the first page of the permit, to discuss any concerns or questions you may have. Thank you for working with the staff of the Office to protect our state's natural resources.

Sincerely,

Suzanne U. Dietrick, Chief
Office of Dredging and Sediment Technology
Site Remediation Program

w/attachments

C: Bureau of Coastal and Land Use Enforcement – Trenton
New York Army Corps of Engineers – Richard Tomer
Jersey City Municipal Clerk

PS&S
integrating design & engineering

67B Mountain Boulevard Extension
P.O. Box 4039
Warren, NJ 07059
Tel 732.560.9700

December 29, 2010
01407.0081

Mr. Robert M. Confer, Chief
Bureau of Landfill and Hazardous Waste Permitting
New Jersey Department of Environmental Protection
401 East State Street, 2nd Floor
Trenton, New Jersey 08625-0414

Re: Closure and Post-Closure Plan Approval;
Alternate Acceptance Criteria for Materials Acceptance Protocol
HUDSON COUNTY LINCOLN PARK LANDFILL
(LINCOLN PARK WEST LANDFILL)
Jersey City, Hudson County
Preferred ID: 230696
Approval No.: LCC080001

Dear Mr. Confer:

On behalf of the Hudson County Improvement Authority (HCIA) and Hudson County, Paulus Sokolowski and Sartor, LLC (PS&S) is herewith submitting a request to the Bureau of Landfill and Hazardous Waste Permitting (BLHWP) to modify the NJDEP approved Materials Acceptance Protocol (MAP) for the receipt of subgrade fill materials at the Lincoln Park West Landfill. This revised request incorporates NJDEP comments on previous submissions. It is requested that the BLHWP approve an alternate acceptance criteria for the MAP, as presented below.

The approved MAP is based upon the NJDEP document, Guidance for Beneficial Use of Soil and Non-Soil Material in the Remediation of Contaminated Sites and Closure of Solid Waste Landfills, June 2008. The acceptance criteria included in the approved MAP was the NJDEP Nonresidential Direct Contact Soil Remediation Standards, November 2009 (NRDCSRS). Recent contacts with area fill suppliers indicate, however, that strict compliance with the NRDCSRS will significantly limit the supply of fill materials available to the Lincoln Park West Landfill. Of particular concern are the semi-volatile organic contaminants (SVOCs): Benzo (a) anthracene, Benzo (a) pyrene, Dibenz (a,h) anthracene and Ideno(1,2,3-cd) pyrene.

To address these concerns, a review of soil sample results from the Lincoln Park West Landfill, submitted with the original application to NJDEP for Landfill Closure Approval, was performed. A total of 30 test pits had been completed as part of the Landfill Closure Application using a grid pattern across the landfill. Soil samples were acquired from each test pit at depths ranging from 4 to 10 feet. 33 soil samples were submitted for laboratory analysis for heavy metals and SVOCs. A comparison of the 33 sample results to the NRDCSRS indicates numerous results above the NRDCSRS were identified. Table 1 provides a comparison to the sample results to the NRDCSRS.

Based upon the analyses compiled in Table 1, the **average values** for these landfill background samples (using half the detection limit value for Non-Detect results) were 11,048 ppb for Benzo (a)

anthracene, 7,559 ppb for Benzo (a) pyrene, 769 ppb for Dibenz (a,h) anthracene and 4,730 ppb for Ideno(1,2,3-cd) pyrene.

Because, as indicated above, the existing landfill material contains some significant exceedences of the NJDEP 2009 NRDCSRS, and upon completion of closure activities the entire site will be capped with a minimum of 24" clean cover, we therefore request approval of an alternate acceptance criterion for these SVOCs equal to 75% of the difference between the NRDCSRS and the averages indicated in Table 1 added to the NRDCSRS. The proposed alternate acceptance criteria are calculated in Table 2 and are the following: 8,786 ppb for Benzo (a) anthracene, 5,719 ppb for Benzo (a) pyrene, 627 ppb for Dibenz (a,h) anthracene and 4,048 ppb for Ideno(1,2,3-cd) pyrene.

If there are any questions, or if additional information is required, please contact myself or Mr. Michael Cohen. We hope to have an expeditious review of our request so that available fill sources will not be lost.

Very truly yours,

PAULUS, SOKOLOWSKI AND SARTOR, LLC

John T. Bolan. PE
Senior Associate

cc: M. Gerchman, NJDEP BLHWP
S. Dietrick, NJDEP ODST
N. Guerra, HCIA
K. Jennings, Hudson County Parks
M. Cohen, PS&S
M. Brendan Mullen, Hatch Mott MacDonald

**Table 1**
**Lincoln Park West Landfill**
**SVOC Soil Sample Results compared to NJDEP 2009 NRSRS (in parts per billion [ppb])**

| Sample ID# | Constituents | | | |
|---|---|---|---|---|
| | Benzo (a) anthracene NRDCSRS=2,000 | Benzo (a) pyrene NRDCSRS=200 | Dibenz(a,h) anthracene NRDCSRS=200 | Ideno(1,2,3-cd) pyrene NRDCSRS=2,000 |
| 2w2 | *130 | *215 | *63 | 200 |
| 2w4 | 2,100 | 2,200 | 510 | 1,300 |
| 2w6 | 580 | 620 | 110 | *100 |
| 2e2 | *130 | *215 | *63 | *100 |
| 4w0 | 28,000 | 24,000 | *63 | 27,000 |
| 4w2 | 360 | 420 | *63 | 240 |
| 6w2 | 550 | 590 | 290 | 800 |
| 6e4 | 7,500 | 6,000 | 2,000 | 4,600 |
| 8w0 | 2,000 | 2,000 | 440 | 1,100 |
| 8w4 | 53,000 | 66,000 | 8,700 | 21,000 |
| 8w8 | 330 | *215 | 61 | *100 |
| 8w10 | 310 | *215 | *63 | *100 |
| 8e2 | 600 | 720 | 130 | 370 |
| 10w2 | 7,700 | 6,200 | 1,300 | 3,300 |
| 10e2 | No Data | No Data | No Data | No Data |
| 11w1 | 11,000 | 7,400 | 2,000 | 460 |
| 11w3 | 9,500 | *215 | *63 | 10,000 |
| 11e1 | 2,700 | 3,200 | 620 | 1,900 |
| 12w0 | 2,500 | 1,100 | 430 | *100 |
| 12w4 | 7,300 | 8,500 | 1,100 | 2,600 |
| 12w8 | 400 | *215 | *63 | *100 |
| 12w10 | 2,400 | 2,400 | *63 | 2,700 |
| 13w2 | 13,000 | 13,000 | *63 | 14,000 |
| 16w2 | 3,200 | 2,600 | 730 | *100 |
| 16w4 | 28,000 | 30,000 | *63 | 12,000 |
| 16w6 | 28,000 | 30,000 | *63 | 12,000 |
| 20w2 | 80,010 | 30,000 | 4,680 | 9,990 |
| 20w4 | 1,700 | 933 | 257 | 433 |
| 20w6 | 64,000 | *215 | *63 | 24,000 |
| 21w6 | *130 | *215 | *63 | *100 |
| 22w4 | *130 | *215 | *63 | *100 |
| 22w8 | *130 | *215 | *63 | *100 |
| 26w8 | 1,100 | 3,300 | *63 | 2,500 |
| 12e2 | 6,100 | 6,100 | 1,000 | 2,600 |
| Total | 364590 | 249433 | 25366 | 156093 |
| **Averages** | **11048.182** | **7558.5758** | **768.66667** | **4730.09091** |

* = Half of the Detection Limit used for ND.

**Table 2**
**Lincoln Park West Landfill**
**Calculation of Alternate Acceptance Criteria**

| Constituent | 1<br>NRDCSRS (ppb) | 2<br>Landfill Average | 3<br>Difference between NDRCSRS and Landfill Average (2-1) | 4<br>75% of difference (0.75 x 3) | 5<br>Proposed Alternate Acceptance Criteria (1 + 4) |
|---|---|---|---|---|---|
| Benzo (a) anthracene | 2,000 | 11,048 | 9,048 | 6,786 | 8,786 |
| Benzo (a) pyrene | 200 | 7,559 | 7,359 | 5,519 | 5,719 |
| Dibenz (a,h) anthracene | 200 | 769 | 569 | 427 | 627 |
| Ideno (1,2,3-cd) pyrene | 2,000 | 4,730 | 2,730 | 2,048 | 4,048 |

PS&S
integrating design & engineering
678 Mountain Boulevard Extension
P.O. Box 4039
Warren, NJ 07059
Tel 732.560.9700

October 7, 2010
01407.0081

Mr. Robert M. Confer, Chief
Bureau of Landfill and Hazardous Waste Permitting
New Jersey Department of Environmental Protection
401 East State Street, 2nd Floor
Trenton, New Jersey 08625-0414

Re: Closure and Post-Closure Plan Approval
HUDSON COUNTY LINCOLN PARK LANDFILL
(LINCOLN PARK WEST LANDFILL)
Jersey City, Hudson County
Preferred ID: 230696
Approval No.: LCC080001

Dear Mr. Confer:

On behalf of the Hudson County Improvement Authority (HCIA) and Hudson County, Paulus Sokolowski and Sartor, LLC (PS&S) is herewith submitting a request to the Bureau of Landfill and Hazardous Waste Permitting (BLHWP) to modify Closure and Post-Closure Plan Approval LCC080001, dated May 20, 2009. A Material Acceptance Protocol (MAP) for the receipt of subgrade fill materials at the Lincoln Park West Landfill has been prepared. It is requested that the BLHWP approve the MAP as modification to LCC080001. Two copies of the proposed MAP are enclosed for the review of BLHWP.

The MAP is based upon the NJDEP document, Guidance for Beneficial Use of Soil and Non-Soil Material in the Remediation of Contaminated Sites and Closure of Solid waste Landfills, June 2008. The MAP also includes other criteria and requirements that are in addition to the NJDEP Guidance document.

The HCIA is currently coordinating with Donjon Marine and the NJDEP Office Dredging and Sediment Technology (ODST) regarding the receipt of processed dredge materials (PDM) from an existing US Army Corps of Engineers dredging contract at the Lincoln Park West Landfill. PDM is one of the fill materials identified in the MAP. Donjon has submitted a request for an Acceptable Use Determination (AUD) to ODST and we understand that the ODST will approve the AUD upon the approval of the MAP by BLHWP. Therefore, we would hope to have an expeditious review of the MAP by BLHWP.

If there are any questions or if additional information is required, please contact me or Mr. Michael Cohen.

Very truly yours

PAULUS, SOKOLOWSKI AND SARTOR, LLC

John T Bolan

John T. Bolan, PE
Senior Associate

C: M. Gerchman, NJDEP BLHWP
S. Dietrick, NJDEP ODST
N. Guerra, HCIA
K. Jennings, Hudson County Parks
M. Cohen, PS&S
M. Brendan Mullen, Hatch Mott MacDonald

# MATERIALS ACCEPTANCE PROTOCOL

Lincoln Park West Golf Landfill Closure
Jersey City, New Jersey

**October 2010**

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## APPENDICES


Appendix A TPRE Review Form

## 1.0 INTRODUCTION

A 98-acre section of Lincoln Park West in Jersey City (Site) will be redeveloped though the completion of proposed projects by the New Jersey Department of Environmental Protection (NJDEP) and by the Hudson County improvement Authority (HCIA). This section includes a former solid waste landfill. The NJDEP project will cover a 33 acre area and the HCIA will use the 65 acre area for its projects.

Under the terms of a federal stimulus grant, the NJDEP Office of Natural Resource Restoration (ONRR) will restore wetlands in Lincoln Park West along the Hackensack River in order to create wildlife habitat in a highly urbanized area, recreational opportunities for area residents. The ONRR Contract/Project involves the removal of soil, debris and other materials, thereby lowering the area to allow the land to benefit from daily tidal flows. These materials will be wet excavated and then be relocated by the ONRR Contractor to the upland area of the landfill portion of the Lincoln Park West Site.

On top of the capped area, a nine-hole golf course will be constructed consisting of tee-box, fairway and green areas. The course has been designed to incorporate stormwater management features comprised of four irrigation/stormwater management ponds. The four ponds will provide irrigation for the golf course and stormwater runoff treatment. The ponds will be connected to the existing tidal pond on the project site. The course features a bridge crossing over the existing onsite tidal pond to access the holes on the eastern and western side of the pond. The design of the course incorporates indigenous vegetation that will support the proposed recreated wetlands and transition areas. The proposed plantings have been designed to be beneficial for the support of wetlands, transition areas and the golf course.

Of the 65-acre HCIA area, approximately 25 acres has been classified by NJDEP as being non-landfill. The remaining 40 acres are classified as a former landfill and approximately 400,000 cubic yards of subgrade fill materials will need to meet the NJDEP non-residential direct contact soil remediation standards (NRDCSRS). The entire surface of the 65-acre HCIA area will be capped with dredged clean sands that will serve as the base for construction of a county-owned golf course. Capping of the landfill will be completed in accordance with an NJDEP Landfill Closure Approval. This Protocol has been prepared to allow the receipt of fill materials which will be used to provide the subgrade for the 40-acre landfill area only.

## 2.0 PROJECT SITE CHARACTERISTICS

### 2.1 Physical Location and Description

The Site is located in an urbanized section of the City of Jersey City, Hudson County, New Jersey. It is bordered on the north by Duncan Avenue, on the east by NJ Route 440, on the south by US Route 1-9 and to the west by the Hackensack River. The Site is surrounded a mix of other industrial and commercial properties and the easterly portion of Lincoln Park to the east of NJ Route 440. The nearest residential land use areas are located about ¼ mile to the north along NJ Route 440 feet.

The Site has a relatively flat topography. According to historical records, the Site was originally marsh and swampland and a section was formerly used as a municipal solid waste landfill.

### 2.2 Site History

Designed by landscape architects Daniel W. Langton and Charles N. Lowrie, Lincoln Park was begun in 1907. It was known as West Side Park until 1930. The name of the park was changed when the Lincoln Memorial was built at the Kennedy Boulevard entrance. Lincoln Park has a total area of approximately 273 acres and is the largest of the seven parks under the supervision of the Hudson County Division of Parks.

Lincoln Park is divided into Lincoln Park East and Lincoln Park West. Lincoln Park West is a 169 acre property located at the southwest corner of the intersection of U.S. Truck Route 1&9 and Duncan Avenue in Jersey City. The park also has frontage along the Hackensack River. Lincoln Park West includes the St. Peter's College athletic fields, a baseball complex, a commercial driving range, batting cages, a tidal pond and wetlands.

### 2.3 Site Engineering Controls

A 65-acre HCIA portion of the Site will ultimately be used as a public golf course subsequent to closure on the on-site landfill. The construction of the landfill closure/ golf course is subject to the requirements of an NJDEP closure and post-closure plan approval dated May 20, 2009, issued by the Bureau of Landfill & Hazardous Waste Permitting. Site engineering controls will include an environmental cap of clean sand for the entire 65-acre area.

## 3.0 REGULATORY BACKGROUND

### 3.1 Sources

Fill materials subject to this Protocol will include a combination of materials from multiple off-site sources and/or Processed Dredged Material (PDM) authorized through an Acceptable Use Determination (AUD) from the NJDEP Office of Dredging and Sediment Technology.

Fill material sources may change based on availability and market demands. As such, this Protocol has been developed to meet both NJDEP requirements and the needs of the project for this Site based on the number and types of available fill sources.

### 3.2 Materials Acceptance Application

Rather than being reviewed and approved by the NJDEP, fill material sources will be sampled and tested as discussed in this Protocol. The Material Provider will submit the results of testing along with required supplemental information to a Third Party Review Engineer (TPRE) for review and approval. The Material Provider will also be responsible for obtaining any required Federal, State or Local permits for each source of fill material/dredged material and for insuring that sampling and analyses comply with the most current NJDEP requirements.

### 3.3 Acceptance Criteria

In accordance with effort the NJDEP Guidance Document for the Remediation of Contaminated Soils, there are two classifications for the reuse of soils:

1. Non-hazardous Waste (ID 27 waste): Contaminated soil is non-hazardous when both the following criteria are met: (1) the contaminant levels are above the most stringent soil cleanup criteria established by the NJDEP; and (2) the waste is not classified as a hazardous waste.
2. Soils that Contain Contaminants Below Regulatory Concern: Soils that contain contaminants at levels that are below the most stringent site cleanup levels established by the NJDEP for a specific site are not of regulatory concern.

For the second classification, the term, Certified Clean, is used to document the quality of the soil or fills in accordance with certifications prescribed in NJAC 7:26E-6.4.

The NJDEP has established separate Soil Remediation Standards for residential (RDCSRS) uses and for non-residential uses (NRDCSRS). To address the placement of fill underneath the environmental cap in the landfill area, HCIA will be using the NRDCSRS as its materials acceptance criteria.

## 4.0 FILL MATERIAL TYPES

### 4.1 Fill Materials Underneath Environmental Cap in Landfill Portion

In addition to virgin clean fill, fill materials that may be used as subgrade beneath the environmental cap may include recycled masonry, construction fill, fill from recycling facilities and PDM. The chemical characterization of the fill material will in part determine its suitability for use as subgrade fill at the Site.

The following proposed categories of material are candidates for acceptance as beneficial use or other fill material for the landfill portion of the Site, provided they meet the requirements of Guidance for Beneficial Use of Soil and Non-Soil Material in the Remediation of Contaminated Sites and Closure of Solid Waste Landfills, NJDEP, June 2008 (SRP Guidance) and this Protocol:

1. Virgin Clean Fill including uncontaminated inert rock, soil, gravel, sand that meet the criteria of N.J.A.C. 7:26E 6.4. A certification shall be provided with each source of virgin clean fill in accordance with this Protocol.

2. Recycled masonry consists of crushed brick, concrete, and broken glass and shall not include other demolition waste and deleterious material. In accordance with the most current version of the NJDEP Guidance for Characterization of Concrete and Clean Materials Certification for Recycling, a self certification would be used if the material contains contaminants below the NJDEP RDCSRS.

3. Construction Fill includes soil, gravel, brick and concrete block material from construction projects, which includes soil, gravel, brick and concrete block and shall not include other demolition waste and deleterious material.

4. Fill material from permitted recycling facilities pursuant to N.J.A.C. 7:26A that meets all of the Site acceptance criteria. If the fill meets the Certified Clean criteria, a certification from the Material Provider shall also be provided.

5. PDM includes non-rock dredged material that has been amended with dredge admixtures that have been approved by NJDEP Office of Dredging and Sediment Technology (ODST).

### 4.2 Environmental Cap

Soil used for the environmental cap will be dredged sand received from a U.S. Army Corps of Engineers (USACE) Dredging Contractor (USACE Contractor) under USACE Contract W912DS-09-B-0018. This sand has been subjected to a battery of chemical, physical and biological testing for the USACE and has been determined to be clean material.

## 5.0 CHEMICAL ANALYTICAL TESTING

### 5.1 General Requirements

In order for the fill materials to be accepted for use beneath the environmental cap at the Site, they will need to meet the NRDCSRS for former landfill areas. No free product, stained materials, extraneous debris, solid or hazardous waste will be accepted.

The sampling and chemical analysis of potential fill materials will be completed by the Material Provider in accordance with the NJDEP Quality Assurance/Quality Control (QA/QC) measures in the Technical Requirem ents for Site Remediation at N.J.A.C. 7:26E-2 and the most recent versions of the NJDEP Field Sampling Procedures Manual.

For all analyses, data deliverables, at a minimum, are to be consistent with N.J.A.C. 7:26E, Appendix A, IV, Reduced Laboratory Data Deliverables – Non-USEPA/CLP methods, Sections 1 and 6.

Certifications for virgin clean fill, recycled masonry and clean fill from recycling facilities will also be required in accordance with NJDEP requirements to document Certified Clean sources of fill material.

### 5.2 Sampling and Analysis Requirements

Composite samples for the Fill Materials to be received under this Protocol shall be performed in accordance with the SRP Guidance and analyzed as indicated in Table 1 below. No fill materials will be approved for placement at the Site without the receipt and review of the required analyses.

**TABLE 1**
**SAMPLING AND ANALYSIS REQUIREMENTS**

| Fill Material | Composite Sampling Analysis Requirements | | | | Discrete Sampling[5] | | Discrete Sampling Analysis Requirements |
|---|---|---|---|---|---|---|---|
| | Ph[1] | TPH[2] | TCLP Metals[3] | TAL/TCL +30[4] | Yes or No | Frequency | VOC |
| Virgin Clean Fill | X | X | x | x | Yes | One per 7,000 cy | x |
| Recycled Masonry | X | X | x | x | No | ---------- | ---------- |
| Construction Fill | X | X | x | x | Yes | One per 5,000 cy | x |
| Fill from Recycling Facilities | X | X | x | x | Yes | One per 5,000 cy | x |
| PDM | 4 | 4 | 4 | 4 | No | ---------- | ---------- |

Notes:

1. As per USEPA SW-846
2. Total Petroleum Hydrocarbons as per NJDEP Method OQA-QAM-025, Rev 6
3. As per USEPA SW-846, Method 1311 L
4. As per USEPA SW-846
5. Each discrete grab sample shall be immediately screened upon collection using a suitable photoionization detector instrument (PID) or flame ionization detector instrument (FID) and be subject to visual inspection. The discrete sample with the highest PID/FID reading or alternatively when there is no difference in PID/FID readings is observed, the discrete sample with the greatest visual evidence of contamination shall then be submitted to the laboratory for TCL VOC analysis.

### 5.3 Virgin Clean Fill

Virgin clean fill will be accepted only with the submission of the documentation required by N.J.A.C. 7:26E-6.4. HCIA will also require that this material be sampled and analyzed before it is received at the Site.

### 5.4 Recycled Masonry

In accordance with the NJDEP Guidance for Characterization of Concrete and Clean Material Certification for Recycling, a self certification process is used for an owner of a structure to certify that the structure contains contaminants below the NJDEP Soil Remediation Standards. The format of the certification is contained in Addendum 2 of that document. This certification will be provided in addition to the sampling identified above, and will apply only where contaminants are below the RDCSRS.

### 5.5 Fill from Recycling Facilities

In the event that fill material has been decontaminated pursuant to any applicable remediation standard and is free of extraneous debris or solid waste in accordance with N.J.A.C. 7:26E-6.4, a certification stating that it is decontaminated recycled fill material shall be provided. The required certification would be submitted along with chemical analyses data described above.

### 5.6 Processed Dredge Materials

For PDM use, the sampling, testing and review of these materials will be in accordance with the AUD issued by NJDEP. The Material Provider shall also submit a copy of the NJDEP AUD and the analytical data provided to the NJDEP.

## 6.0 FILL ACCEPTANCE PROCEDURES

### 6.1 Fill Submittal

If a Material Provider wishes to supply subgrade fill materials, they shall submit a request for approval to the Third Party Engineer (TPRE) to be retained by the HCIA.

The following items shall be included in the submittal:

- A Cover Letter
- The quantity of Materials, in cubic yards
- Material Source Information
- Material Description
- A copy of the source material sampling plan
- Analytical Testing Data
- Certification from the Owner and Sampler

Each Material Provider shall transmit a written request to deliver fill materials to the Site. A cover letter prepared in the Material Provider's letterhead will be used. This cover letter will also designate the person that the HCIA and TPRE may contact regarding the proposed fill materials.

### 6.2 Submittal Review and Due Diligence

The Submittal will first be reviewed for administrative completeness to determine if all requested information has been enclosed. Subsequently, the TPRE will review the application for technical completeness. The TPRE will also complete and document a detailed due diligence investigation of the proposed fill material. The results will be available for inspection by NJDEP personnel.

Once the submittal is judged to be administratively and technically complete and the due diligence is completed, the TPRE will proceed with the evaluation of the Submittal to determine if it meets the SRP Guidance and the acceptance criteria for the Site. As part of the review, the TPRE may perform a site visit to the fill source.

### 6.3 Submittal Acceptance/Denial

Upon completion of the Submittal Review process, the TPRE will document the results of the review and issue an approval or denial for use at the Site. If the proposed fill materials are approved, the TPRE will certify that the proposed materials meet the acceptance criteria; assign a certification number and sign and seal the submittal form. Copies of the signed and sealed forms will be maintained at the Office of the TPRE, at the HCIA and at the Site. Copies will also be issued to the NJDEP.

If the TPRE denies the material application, the Material Provider will be advised as to the reasons for the denial and advised not to transport the materials to the Site. Copies of the denial will be maintained at the Office of the TPRE, at the HCIA and at the Site. Copies will also be issued to the NJDEP.

## 6.4 Materials Delivery and Documentation

Once the TPRE issues an approval for a fill material, a preprinted ticket will be produced that will reference the approval. No acceptable material will be received at the Site without a Bill of Lading. Fill materials that vary in quantity from the TPRE's approval will also not be accepted at the Site.

Upon delivery of the material to the Site, the preprinted ticket will be completed with the delivery amount, delivery date and time and the transporter's name and vehicle license plate number. A copy of this ticket will be maintained on site. The NJDEP will be provided with copies of tickets upon request.

Through an on-site representative, the HCIA will verify that the materials delivered to the proposed Site conform to the TPRE's approval and will reject those materials that do not conform. The HCIA's on-site representative will also field screen, sample or test materials delivered to the Site. Daily field logs will be prepared to document all fill activities, including placement records, material use and monitoring readings.

## 6.5 Management of Fill Material

The following operational considerations and restrictions shall apply to the placement of fill materials at the Site:

a) Only fill material, approved by the TPRE in accordance with the procedures described above, will be received at the Site. Fill material must meet the requirements of this Protocol to be approved for acceptance at the Site.

b) Fill material will be received Monday through Saturday of each week and only between the hours of 7:00 a.m. and 6:00 p.m.

c) Fill will be placed in a one-acre grid tracking system. Each of the grids will be field-staked and their locations will be plotted on a survey plan of the Site. This fill receipt plan will be progressively updated for the placement of new fill material. Upon delivery, each load of fill will be directed to a numbered grid for placement or stockpiling. The grid locations and fill elevations will be documented by re-surveying.

d) Delivery of fill material is estimated to occur during an eighteen-month period, commencing in the Fall of 2010. Stockpiling of materials may occur in advance of actual placement activities in upland areas to be designated by HCIA.

e) Fill stockpiling and placement activities will be performed in accordance with the soil erosion and sediment control plan certification to be issued by the Hudson-Essex-Passaic Soil Conservation District.

## 7.0 RECORD KEEPING

### 7.1 Reporting by HCIA

The HCIA shall maintain a Fill Materials Log at the Site that will identify the location, quantity and sources; also at the Site will be a working copy of Grid Plan. This information will be compiled into as-built documents at the completion of all site activities. These as-built documents will be submitted to the NJDEP.

### 7.2 Reporting by TPRE

The TPRE will submit monthly reports to the NJDEP no later than the 15th of the following month. The reports will contain a detailed narrative describing the previous month's activities, including, but not limited to: site plan(s) showing the areas being filled; problems encountered; and a listing of all materials received at the site, itemized by volume, type of material and recorded chronologically by date.

APPENDIX A

FILL MATERIAL CERTIFICATION NO. _____

LINCOLN PARK WEST

SENDING SOURCE: _____

_____

_____

CONTACT: _____ _____
Name Phone

VOLUME: _____ Tons/Cubic Yards

MATERIAL DESCRIPTION: _____

_____

_____

☐ Due Diligence Has Been Completed

☐ Application Has been Received and Reviewed

☐ Sampling Has Been Completed

Standards Met

☐ Residential

☐ Non-Residential

I certify that based on review of the information provided and due diligence of the sending site completed by me or persons under my supervision, that this material complies with the Material Acceptance Protocol approved by NJDEP for this site and the material is acceptable for receipt.

_____ _____
By: Date:

Affix NJ Professional Engineer Seal Here

Exhibit 4: Keegan Landfill/Waste Management Permit & Materials Acceptance Protocol

State of New Jersey

CHRIS CHRISTIE
*Governor*

KIM GUADAGNO
*Lt. Governor*

MAIL CODE 401-02C
ROBERT M. CONFER, CHIEF
BUREAU OF LANDFILL AND HAZARDOUS WASTE PERMITTING
SOLID AND HAZARDOUS WASTE MANAGEMENT PROGRAM
ENVIRONMENTAL MANAGEMENT
NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
P.O. BOX 420 401 EAST STATE STREET
TRENTON, NJ 08625-0420
TELEPHONE: (609) 984-6985 TELECOPIER: (609) 633-9839
http://www.state.nj.us/dep/dshw/permitting.htm

BOB MARTIN
*Commissioner*

# SOLID WASTE FACILITY PERMIT

Under the provisions of N.J.S.A. 13:1E *et seq.* known as the Solid Waste Management Act, this permit is hereby issued to:

**NEW JERSEY MEADOWLANDS COMMISSION**

| | |
|---|---|
| Facility Name: | **Keegan Landfill** |
| Lot & Block Nos.: | Lot #(s) 18, 19.02, 24, 27, 28, 29, 30, 31, 32 and 33; Block # 205 |
| Municipality: | Town of Kearny |
| County: | Hudson |
| Facility ID No.: | 133571 |
| Permit No.: | LOP070001 |

This permit is subject to compliance with all conditions specified herein and all regulations promulgated by the Department of Environmental Protection.

This permit shall not prejudice any claim the State may have to riparian land nor does it allow the registrant to fill or alter, or allow to be filled or altered, in any way, lands that are deemed to be riparian, wetlands, stream encroachment or flood plains, or within the Coastal Area Facility Review Act (CAFRA) zone or are subject to the Pinelands Protection Act of 1979, nor shall it allow the discharge of pollutants to waters of this State without prior acquisition of the necessary grants, permits, or approvals from the Department of Environmental Protection.

MAR 15 2012

Issuance Date

Robert M. Confer, Chief
Bureau of Landfill & Hazardous
Waste Permitting

June 20, 2016
Expiration Date

**Scope of the Permit**

This Permit, along with the referenced application documents herein specified, shall constitute the sole approval of solid waste landfill facility operations by the New Jersey Meadowlands Commission (NJMC) at the **KEEGAN LANDFILL** located in the Town of Kearny, Hudson County, New Jersey. Any registration, approval or permit previously issued by the Solid & Hazardous Waste Management Program or its predecessor agency for the specific activities described below and as conditioned herein is hereby superseded.

**Facility Description**

Keegan Landfill consists of approximately 110 acres located northeast of Bergen Avenue in the Town of Kearny, Hudson County, New Jersey. The first landfill operation on the site occurred in the 1940's. The majority of the disposal/landfilling activity occurred through the 1960's and ceased in 1970's. Due to the previous landfill activity, contaminated leachate regularly discharged into the adjacent fresh water marsh and there have been many incidents of underground fires. In order to remediate the site, the New Jersey Meadowlands Commission signed an agreement with the Town of Kearny and in 2007 and 2008 installed site improvements consisting of a perimeter slurry wall, a leachate collection system, and relocation of Frank's Creek.

The New Jersey Meadowlands Commission reopened the landfill operating under the Temporary Certificate of Authority to Operate (TCAO) issued by the Department on December 18, 2008, modified on January 26, 2009, and which has been subsequently renewed on an annual basis.

This permit supersedes the TCAO and authorizes the New Jersey Meadowlands Commission to continue to operate the Keegan Landfill to receive and dispose of the following waste types: ID13 (Bulky waste, with the exception of automobiles, trucks, trailers, large vehicle parts, drums and appliances), ID13C (Construction and demolition waste), ID23 (Vegetative waste), and ID27 (Dry industrial waste). Access to the landfill for solid waste disposal is limited to the following hours: Monday through Friday from 6:00 a.m. to 4:00 p.m., and Saturday from 6:00 a.m. to 1:30 p.m.

**Approved Permit Application and Associated Documents**

The registrant shall construct and operate the facility in accordance with N.J.A.C. 7:26-1 *et seq.*, the conditions of this permit, and the following documents:

1. A Solid Waste Facility Permit Application Form signed on December 8, 2007 by Thomas Marturano, Director of Solid Waste and Natural Resources of NJMC, Lyndhurst, New Jersey.

2. A letter dated December 12, 2007 requesting an Initial Operating Permit for the Keegan Landfill prepared, signed, sealed and submitted by Thomas Marturano, Director of Solid Waste and Natural Resources of NJMC, Lyndhurst, New Jersey.

3. A response to Department's Administrative Notice of Deficiency dated January 25, 2008, dated February 6, 2008 along with a revised application requesting an Initial Operating Permit for the Keegan Landfill prepared, signed, sealed and submitted by Thomas Marturano, Director of Solid Waste and Natural Resources of NJMC, Lyndhurst, New Jersey.

4. A submittal dated May 12, 2008, in response to Department's Administrative Notice of Deficiency dated May 7, 2008, prepared, signed, sealed and submitted by Thomas Marturano, Director of Solid Waste and Natural Resources of NJMC, Lyndhurst, New Jersey.

5. A submittal dated August 4, 2008, in response to Department's Notice of Administrative Completeness dated July 3, 2008, including the following documents prepared, signed, sealed and submitted by Thomas Marturano, Director of Solid Waste and Natural Resources of NJMC, Lyndhurst, New Jersey.

   - A revised Solid Waste Facility Permit Application Form signed on August 4, 2008 by Thomas Marturano, Director of Solid Waste and Natural Resources of NJMC, Lyndhurst, New Jersey.

   - A report entitled "Environmental and Health Impact Statement for the New Jersey Meadowlands Commission Keegan Landfill Remediation" dated August 28, 2007 revised on July 22, 2008 prepared, signed and sealed by Thomas R. Marturano, New Jersey Professional Engineer (license # 29537) of NJMC, Lyndhurst, New Jersey.

   - A report entitled "New Jersey Meadowlands Commission Keegan Landfill Operations & Maintenance Manual" dated November 2007 revised on July 22, 2008 prepared, signed and sealed by Thomas R. Marturano, New Jersey Professional Engineer (license # 29537) of NJMC, Lyndhurst, New Jersey.

   - A report entitled "New Jersey Meadowlands Commission Keegan Landfill Closure and Post-closure Care Plan" dated September 2007 revised on July 22, 2008 prepared, signed and sealed by Thomas R. Marturano, New Jersey Professional Engineer (license # 29537) of NJMC, Lyndhurst, New Jersey.

   - A report entitled "New Jersey Meadowlands Commission Keegan Landfill Closure/Post Closure Financial Plan" dated December 2007 prepared, signed and sealed by Thomas R. Marturano, New Jersey Professional Engineer (license # 29537) of NJMC, Lyndhurst, New Jersey.

   - A report entitled "Stability Analysis, Keegan Landfill, Town of Kearny, New Jersey" dated August 20, 2007 prepared, signed and sealed by Golam Kabir, New Jersey Professional Engineer (license # GE39908) of Converse Consultants, Parsippany, New Jersey.

- A report entitled "Geotechnical Investigation Report, Keegan Landfill, Town of Kearny, Hudson County, New Jersey" dated December 5, 2005 prepared, signed and sealed by Golam Kabir, New Jersey Professional Engineer (license # GE39908) of Converse Consultants, Parsippany, New Jersey.

- Engineering Drawings for the site improvement dated September 26, 2007 prepared, signed and sealed by Golam Kabir, New Jersey Professional Engineer (license # GE39908) of Converse Consultants, Parsippany, New Jersey.

- A Final contour plan for Keegan Landfill dated November 30, 2007 prepared, signed and sealed by Golam Kabir, New Jersey Professional Engineer (license # GE39908) of Converse Consultants, Parsippany, New Jersey.

6. A report entitled " Analytical Report of C & D Screening Fines from Waste Management Inc., Elizabeth, New Jersey" dated October 21, 2008 prepared by Amy Lynn Haag, Project Manager of Test America Laboratories Inc., Amherst, NY along with a letter signed by Thomas R. Marturano, Director of Solid Waste and Natural Resources, NJMC, Lyndhurst, New Jersey, dated December 18, 2008 indicating the need for NJMC Keegan Landfill to accept Class B recycling center fines from Front Street Class B Recycling operated by Waste Management Inc., Elizabeth, New Jersey.

7. A letter dated January 21, 2009 requesting modification to Temporary Certificate of Authority to Operate for the Keegan Landfill prepared, signed and submitted by Thomas Marturano, Director of Solid Waste and Natural Resources of NJMC, Lyndhurst, New Jersey.

8. Electronic mail documents dated January 15, 2009 and March 18, 2009 requesting use of on-site processed dredge material as an alternative daily cover material at Keegan Landfill prepared, signed and submitted by Thomas Marturano, Director of Solid Waste and Natural Resources of NJMC, Lyndhurst, New Jersey.

9. A letter dated June 22, 2009 along with an engineering drawing entitled " NJMC and Waste Management Trailer and Waste Management Utility Building Locations, Keegan Landfill, Town of Kearny, Hudson, County, New Jersey" certified (licence # 29537), prepared, signed and submitted by Thomas Marturano, Director of Solid Waste and Natural Resources of NJMC, Lyndhurst, New Jersey.

10. A letter dated September 30, 2010 in response to Department's Technical Notice of Deficiency dated September 10, 2010 along with a copy of New Jersey Pollutant Discharge Elimination System Permit Application for the Keegan Landfill prepared, signed and submitted by Thomas Marturano, Director of Solid Waste and Natural Resources of NJMC, Lyndhurst, New Jersey.

11. A memorandum dated in response to Bureau's memorandum dated November 18, 2010 to John Gray of Bureau of Non-point Pollution Control alongwith comments on New

Jersey Pollutant Discharge Elimination System Permit Application for the Keegan Landfill.

In case of conflict, the provisions of N.J.A.C. 7:26-1 *et seq.* shall have precedence over the conditions of this permit, and the conditions of this permit shall have precedence over plans and specifications listed above.

**Permit Conditions**

The conditions of this permit are found in the attached document entitled "KEEGAN LANDFILL, 133571 LOP070001 SW Landfill Operating Permit- Initial Permit Requirements Report."

**Subject Item: PI 133571 -**

1. The permittee shall operate the facility in compliance with the requirements of N.J.A.C. 7:26-2.11. [N.J.A.C. 7:26-2.8(i)]
2. The permittee shall operate the facility in conformance with all of the conditions, restrictions, requirements and any other provisions set forth in this permit. [N.J.A.C. 7:26-2.8(j)]
3. Except for minor modifications as set forth at N.J.A.C. 7:26-2.6(d), the permittee shall not modify, revise or otherwise change any condition of this permit without prior written approval of the Department. [N.J.A.C. 7:26-2.8(k)]
4. If the permittee wishes to continue the operation of this facility after the expiration date of this permit, the permittee shall apply for permit renewal at least 90 days prior to the expiration date of this permit, and the facility must be included in the District Solid Waste Management Plan at the time of such application. [N.J.A.C. 7:26-2.7(b)1]
5. The conditions of this permit shall continue in force beyond the expiration date of this permit pursuant to the Administrative Procedure Act, N.J.S.A. 52:14B-11, until the effective date of a new permit if the permittee has submitted a timely and complete application for a renewal permit at least 90 days prior to the expiration of this permit and the Department, through no fault of the permittee, does not issue a new permit with an effective date on or before the expiration date of this permit, due to time or resource constraints. [N.J.A.C. 7:26-2.7(c)]
6. Permits continued under the Administrative Procedure Act remain fully effective and enforceable. If the Permittee is not in compliance with any one of the conditions of the expiring or expired permit, the Department may choose to: Initiate enforcement action based on the permit which has been continued; Issue a notice of intent to deny the new permit under N.J.A.C. 7:26-2.4. If the permit is denied, the permittee would then be required to cease activities and operations authorized by the continued permit or be subject to an enforcement action for operating without a permit; Issue a new permit under N.J.A.C. 7:26-2.4 with appropriate conditions; or take such other actions as are authorized by N.J.A.C. 7:26-1 et seq. or the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq. [N.J.A.C. 7:26-2.7(d)]
7. Should the Department determine that the facility is operating in an environmentally unsound manner in accordance with N.J.A.C. 7:26-2.8(p) the permittee shall: Within 90 days of notification by the Department, submit a plan to close or environmentally upgrade the facility in conformance with the applicable standards, as determined by the Department and set forth in N.J.A.C. 7:26-1 et seq.; Within 90 days of receipt of written approval by the Department of the submitted plan, begin to close or construct the environmental upgrading at the facility; and Within one year of receipt of written approval by the Department of the submitted plan, complete closure or construction of the environmental upgrading at the facility. [N.J.A.C. 7:26-2.8(p)]
8. A one time extension of the compliance schedule established by N.J.A.C. 7:26-2.8(p) shall be granted by the Department provided the permittee demonstrates that it has made a good faith effort to meet the schedule. [N.J.A.C. 7:26-2.8(q)]
9. Should the environmental upgrading required pursuant to N.J.A.C. 7:26-2.8(p) not be completed or should continued operations be determined by the Department to be environmentally unsound despite the implementation of the plan approved pursuant to N.J.A.C. 7:26-2.8(p), the facility shall temporarily or permanently cease operations and close or enter into receivership, as provided for in N.J.S.A. 13:1E-9, for that period of time necessary to rectify the environmentally unsound conditions. [N.J.A.C. 7:26-2.8(r)]

**Subject Item: PI 133571 -**

10. If cause exists, the Department may modify, or revoke and reissue this permit, subject to the limitations of N.J.A.C. 7:26-2.6, and may require the permittee to submit an updated or new application in accordance with N.J.A.C. 7:26-2.6(e), if appropriate. [N.J.A.C. 7:26-2.6(a)1]
11. The Department may modify or, alternatively, revoke and reissue this permit if cause exists for termination under N.J.A.C. 7:26-2.6(c) and the Department determines that modification or revocation and reissuance is appropriate. [N.J.A.C. 7:26-2.6(b)]
12. Upon the request of the permittee, an interested party or for good cause, the Department may make certain minor modifications to a permit without issuing a tentative approval, providing public notice thereof or holding a public hearing thereon. [N.J.A.C. 7:26-2.6(d)]
13. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, the permittee shall promptly submit such facts or information. [N.J.A.C. 7:26-2]
14. All completed registration statements submitted by the permittee shall be signed as specified at N.J.A.C. 7:26-2.4(e)1. [N.J.A.C. 7:26-2.4(e)1]
15. All engineering designs and reports, the environmental and health impact statement, other information requested as "Addendums" by the Department pursuant to N.J.A.C. 7:26-2.4(f) and (g)4 and documents required to be submitted pursuant to N.J.A.C. 7:26-2.9 and 2.10, submitted on behalf of the permittee, shall be signed by a person described in N.J.A.C. 7:26-2.4(e)1 or by a duly authorized representative of that person, as specified at N.J.A.C. 7:26-2.4(e)2. [N.J.A.C. 7:26-2.4(e)2]
16. Any person signing a registration statement, engineering design or report, environmental and health impact statement or addendum mentioned in N.J.A.C. 7:26-2.4(e)1 or (e)2, submitted on behalf of the permittee, shall make the certification specified at N.J.A.C. 7:26-2.4(e)3. [N.J.A.C. 7:26-2.4(e)3]
17. The permittee shall not transfer ownership of the permit without receiving prior written approval of the Department, in accordance with N.J.A.C. 7:26-2.7(e). [N.J.A.C. 7:26-2.8(l)]
18. A written request for permission to allow any transfer of ownership or operational control of the facility must be received by the Department at least 180 days in advance of the proposed transfer. The request for approval shall include all of the information required by N.J.A.C. 7:26-2.7(e)1i-iv. [N.J.A.C. 7:26-2.7(e)1]
19. A new owner or operator may commence operations at the facility only after the existing permit has been revoked and a permit is issued pursuant to N.J.A.C. 7:26-2.4. [N.J.A.C. 7:26-2.7(e)2]
20. During a transfer of ownership, the permittee of record remains liable for ensuring compliance with all conditions of the permit unless and until the existing permit is revoked and a new permit is issued in the name of the new owner or operator. [N.J.A.C. 7:26-2.7(e)3]
21. Compliance with the transfer requirements set forth in N.J.A.C. 7:26-2.7 shall not relieve the permittee from the separate responsibility of providing notice of such transfer pursuant to the requirements of any other statutory or regulatory provision. [N.J.A.C. 7:26-2.7(e)4]
22. Prior to May 1 of each calendar year the permittee shall submit to the Department a statement updating the information contained in the permittee's initial registration statement. This update shall be on forms furnished by the Department. In no case shall submission of an updated statement alter conditions of this permit. [N.J.A.C. 7:26-2.8(b)]
23. The permittee shall notify the Department in writing within 30 days of any change in the information set forth in the permittee's current registration statement. [N.J.A.C. 7:26-2.8(c)]

**Subject Item: PI 133571 -**

24. Failure of the permittee to submit an updated registration statement and to submit all applicable fees, required by N.J.A.C. 7:26-4, on or before July 1 of each calendar year shall be sufficient cause for the Department to revoke this permit or take such other enforcement action as is appropriate. [N.J.A.C. 7:26-2.8(d)]

25. The permittee shall maintain a daily record of wastes received. The record shall include the information specified at N.J.A.C. 7:26-2.13(a). [N.J.A.C. 7:26-2.13(a)]

26. The daily record shall be maintained, shall be kept, and shall be available for inspection in accordance with N.J.A.C. 7:26-2.13(b). [N.J.A.C. 7:26-2.13(b)]

27. The permittee shall verify, retain and make available for inspection a waste origin/disposal (O and D) form for each load of solid waste received in accordance with N.J.A.C. 7:26-2.13(c). [N.J.A.C. 7:26-2.13(c)4]

28. The permittee shall submit monthly summaries of wastes received to the Solid and Hazardous Waste Management Program, Bureau of Recycling and Planning and the Solid Waste Coordinator for the District where the facility is located, on forms provided by the Department (or duplication of same), no later than 20 days after the last day of each month. The monthly summaries shall include the information specified at N.J.A.C. 7:26-2.13(e). [N.J.A.C. 7:26-2.13(e)]

29. Upon request by the Department, the permittee shall submit, in such form as the Department may deem appropriate, information concerning the sources of wastes received and the transportation or disposal patterns associated with such wastes. [N.J.A.C. 7:26-6.4]

30. The permittee shall operate the facility in compliance with any applicable district solid waste management plan(s) as well as any amendments to and/or approved administrative actions concerning such plan(s). Should the permittee fail to comply with any applicable district solid waste management plan(s) as well as any amendment to or approved administrative actions concerning such plan(s), the permittee shall be deemed in violation of N.J.S.A. 13:1E-1 et seq. and N.J.A.C. 7:26-1 et seq. and shall be subject to applicable penalties provided thereunder, and any other applicable laws or regulations. [N.J.A.C. 7:26-6.12(b)]

31. The permittee and/or facility operator shall report to the Department and the Attorney General within 30 days any changes or additions in the information required to be included in the disclosure statement, as specified at N.J.A.C. 7:26-16.6 [N.J.A.C. 7:26-16.6(b)]

32. The permittee and/or facility operator shall report any other changes in the information contained in the permittee's disclosure statement currently on file with the Department and the Attorney General in an annual update to be filed with the Department at the time of the permittee's annual renewal of its registration with the Department, as specified at N.J.A.C. 7:26-16.6 [N.J.A.C. 7:26-16.6(c)]

33. The issuance of this permit shall not exempt the permittee from obtaining all other permits or approvals required by law or regulations. [N.J.A.C. 7:26-2.8(h)]

**Subject Item: PI 133571 -**

34. The permittee shall inspect each incoming waste load in accordance with the Waste Control, Inspection, and Recyclables Plan included as part of the approved final operations and maintenance manual, or in accordance with any other approved facility operating plan as appropriate. Such inspections shall be performed to identify the incidence of designated recyclable materials that may be mandated to be source separated by the District Recycling Plan applicable to the point of origin of the waste load. The permittee shall consult with each county recycling coordinator for the facility's service area on a quarterly basis to review those recyclable materials that are designated by each county to be source separated pursuant to N.J.S.A. 13:1E-99.13(b)2. The Waste Control, Inspection, and Recyclables Plan or other approved facility operating plan as appropriate, shall be updated accordingly. Should any designated recyclable materials be detected in a delivered waste load, the appropriate county recycling coordinator shall be notified in writing. The permittee shall maintain a copy of each such notification at the facility. Whenever possible, the generator who failed to source separate the recyclable materials shall also be identified and reported to the county recycling coordinator. [N.J.A.C. 7:26-2.4(g)12]

**Subject Item: SWLG883192 - Landfill**

35. The facility shall comply with the additional operational, maintenance, inspection and monitoring requirements for all sanitary landfills as provided at N.J.A.C. 7:26-2A.8 [N.J.A.C. 7:26-2A.8]

36. The permittee is authorized to accept the following waste types: ID13 - Bulky waste (except for automobiles, trucks, trailers, large vehicle parts, drums, and appliances), ID13C - Construction and demolition waste, ID23 - Vegetative waste, and ID27 - Dry industrial waste. [N.J.A.C. 7:26-2.11(b)9]

37. The permittee is not authorized to accept any other type or description of solid waste as defined at N.J.A.C. 7:26-2.13(g) and (h), regulated medical waste as defined at N.J.A.C. 7:26-3A.6(a), or hazardous waste as defined at N.J.A.C. 7:26G. [N.J.A.C. 7:26-2.11(b)9]

38. The permittee shall operate the facility, and construct or install associated appurtenances thereto, in accordance with the provisions of N.J.A.C. 7:26-1 et seq., the conditions of this permit, and the permit application documents which are referenced as part of this permit.

39. In case of conflict, the provisions of N.J.A.C. 7:26-1 et seq. shall have precedence over the conditions of this permit, the conditions of this permit shall have precedence over the SWF permit application documents listed above, and the most recent revisions and supplemental information approved by the Department shall prevail over prior submittals and designs.

40. One complete set of the permit application documents as referenced herein, this Solid Waste Facility Permit, the O & M manual, and all records, reports and plans as may be required pursuant to this permit shall be kept on-site and shall be available for inspection by authorized representatives of the Department upon presentation of credentials. [N.J.A.C. 7:26-2.11(b)12]

41. The areal extent of the landfill shall be approximately 100 acres. Final elevation, including the final cover, shall not exceed elevation 60 feet above mean sea level for the entire landfill. All sideslopes shall be constructed as specified on the referenced engineering plans. [N.J.A.C. 7:26-2A]

42. Access to the sanitary landfill for solid waste disposal shall only be permitted during the following hours: Monday through Friday: 6:00 a.m. to 4:00 p.m. and Saturday from 6:00 a.m. to 1:30 p.m. The landfill will be closed on New Jersey legal holidays. [N.J.A.C. 7:26-2A.8(b)24]

**Subject Item: SWLG883192 - Landfill**

43. The landfill's base liner consists of a naturally occuring gray silt layer with pearmeability 6.0X10E-7. The facility is vertically contained by a perimeter slurry wall tied into the silt layer. The in-place permeability of the slurry wall shall be maintained at less than or equal to 1X10E-7 cm/sec. [N.J.A.C. 7:26-2A.7(c)]

44. The final cover for the landfill shall consist of minimum 18 inch of the soil overlain by 6 inch vegetative soil. The final cover shall meet the design and performance standards as stated in N.J.A.C. 7:26-2A.7(i)1 and N.J.A.C. 7:26-2A.6(i). The material used in the final cover shall have permeability less than or equal to the bottom liner system (6X10E-7 cm/sec). For any alternative final cover material (including Processed Dredge Material), a request shall be submitted to the Solid & Hazardous Waste Management Program and approved prior to implementation. There shall not be any future use of the landfill that may result in the alteration of the final cover, subsequent to closure activities, without review and approval by the Solid & Hazardous Waste Management Program. [N.J.A.C. 7:26-2A.7(i)]

45. The owner/operator shall close and maintain the landfill in accordance with N.J.A.C. 7:26-2A.9 and the approved closure and post-closure plan as referenced herein. [N.J.A.C. 7:26-2A.9(d)8]

46. The owner/operator shall notify the Department in writing of his intention to suspend or terminate operations at the landfill. The Department shall receive notice at least 10 days prior to the date of suspension of operations, which notice shall include the duration of the suspension, and shall receive notice at least 180 days prior to the date of termination of operations. [N.J.A.C. 7:26-2A.9(c)2]

47. Final cover constructed in accordance with N.J.A.C. 7:2A.7(i) shall be applied to all surfaces where final approved elevation has been reached and to all surfaces when the landfill operation is terminated. [N.J.A.C. 7:26-2A.8(b)14]

48. Upon closure of the sanitary landfill, a detailed description of the landfill shall be recorded, along with the deed, with the appropriate county recording office. The description shall include the general types, locations, and depths of wastes on the site, the depth and type of cover material, the dates the landfill was in use and all such other information as may be of interest to potential landowners, and shall remain in the record in perpetuity. The deed shall also provide notice that any future disruption of the closed landfill shall require prior approval from the Department in accordance with N.J.A.C. 7:26-2A.8(j). A copy of the recorded deed shall be submitted to the Solid and Hazardous Waste Management Program. [N.J.A.C. 7:26-2A.9(c)4]

49. The owner or operator may apply for Departmental approval to amend the Closure and Post-Closure Plan at any time during the sanitary landfill's operation, closure or post-closure care period. [N.J.A.C. 7:26-2A.9(d)6]

50. The Department may require the amendment of an engineering design and a Closure and Post-Closure Plan at any time it is deemed necessary during the sanitary landfill's operation, closure or post-closure care period. [N.J.A.C. 7:26-2A.9(d)7]

51. A copy of the approved Closure and Post-Closure Plan shall be kept on file at the sanitary landfill during the course of the sanitary landfill's operation and, after closure, shall be filed with the municipal clerk. [N.J.A.C. 7:26-2A.9(d)9]

52. Within six months of closure of the sanitary landfill, the owner and/or operator of the sanitary landfill shall obtain and submit to the Department an as-built certification by a New Jersey licensed professional engineer, certifying that each provision of the Closure and Post-Closure Plan has been implemented as designed and approved. [N.J.A.C. 7:26-2A.9(d)10]

**Subject Item: SWLG883192 - Landfill**

53. A New Jersey licensed professional engineer shall certify, in writing, to the Department that he or she has supervised the inspection of the construction of each major phase of the sanitary landfill's closure. He or she shall further certify that each phase has been prepared and constructed in accordance with the closure design approved by the Department. The certification shall include as-built drawings for each phase of closure activity. [N.J.A.C. 7:26-2A.9(d)10I]

54. A New Jersey licensed professional engineer shall include Quality Assurance and Quality Control reports in the as-built certification and certify that the materials utilized in the closure of the sanitary landfill are in conformance with and meet the specifications of the approved closure design. [N.J.A.C. 7:26-2A.9(d)10Ii]

55. There shall be no deviation from the approved closure design without the prior written approval of the design engineer and the Department. [N.J.A.C. 7:26-2A.9(d)10Iii]

56. All certifications shall bear the raised seal of the New Jersey licensed professional engineer, his or her signature, and the date of certification. [N.J.A.C. 7:26-2A.9(d)10Iv]

57. The closure certification shall include the following statement: I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals under my supervision, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. I understand that, in addition to criminal penalties, I may be liable for civil administrative penalty pursuant to N.J.A.C. 7:26-5 and that submitting false information may be grounds for denial, revocation or termination of any solid waste facility permit for which I may be seeking approval or now hold. [N.J.A.C. 7:26-2A.9(d)10V]

58. The flow of leachate in the leachate collection and detection systems shall be recorded on a daily basis. The results shall be complied on a quarterly basis and submitted to the Solid & Hazardous Waste Management Program. [N.J.A.C. 7:26-2A.8(h)4,5]

59. The hydrostatic pressure of the cut-off wall shall be monitored on a monthly basis and the results submitted to the Solid & Hazardous Waste Management Program. [N.J.A.C. 7:26-2A.8(h)8]

60. A methane gas survey shall be performed around the perimeter of the landfill buffer zone not bounded by water on a quarterly basis. The survey shall be performed with a hand-held portable explosimeter or equivalent and the minimum sampling depth shall be three feet below the ground surface or above the water table, whichever is higher. The maximum interval between sampling points shall be 300 feet. Sampling shall be performed around the perimeter of all on-site structures. The maximum interval between sampling points for structures shall be 50 feet; however, there shall be at least one sampling point along each side of the structure. Survey results shall be submitted to the Solid & Hazardous Waste Management Program as a condition of this Approval. [N.J.A.C. 7:26-2A.8(h)9ii]

61. The daily precipitation data from the meteorological monitoring system shall be compiled on a quarterly basis and submitted to the Solid & Hazardous Waste Management Program. [N.J.A.C. 7:26-2A.8(h)10]

62. The monitoring data for hydrostatic pressure of the cut-off wall shall be submitted on a monthly basis due on the last day of each month. The monitoring data for (a) daily precipitation, (b) leachate collection and (c) methane gas shall be submitted on a quarterly basis; fourth quarter due on January 31, 1st quarter due on April 30, 2nd quarter due on July 31 and 3rd quarter due on October 31of each year. [N.J.A.C. 7:26-2A.8]

**Subject Item: SWLG883192 - Landfill**

63. The annual topographical survey of the sanitary landfill meeting the requirements of N.J.A.C. 7:26-2A.8(i) shall be submitted to the Solid & Hazardous Waste Management Program by May 1 of each year. [N.J.A.C. 7:26-2A.8(i)]

64. A ground water monitoring system shall be maintained and the ground water shall be monitored in conformance with the New Jersey Pollutant Discharge Elimination System Permit issued pursuant to N.J.A.C. 7:14A-1 et. seq. Monitoring data shall be reported as required by the NJPDES Permit # NJ0171271. [N.J.A.C. 7:26-2A.9(e)]

65. The permittee shall maintain a separate area for staging and mixing ZIMPRO sludge. [N.J.A.C. 7:26-2A]

66. The quantity of C & D screening fines accepted each day, and inspection reports of this material, shall be entered and maintained in the daily record. [N.J.A.C. 7:26-2A]

67. The permittee shall accept no more than 75 cubic yards of ZIMPRO material on a daily basis to substitute the daily cover needs. [N.J.A.C. 7:26-2A]

68. The Bergen Avenue entrance shall be fenced and equipped with a secure gate. The Facility fencing and gate shall be maintained to prevent unauthorized entry to the landfill. [N.J.A.C. 7:26-2A.8(b)]

69. The owner/operator of the landfill shall inspect incoming loads of C & D Screening fines for presence of debris or material such as bottles, metals, any other waste and/or any other ID 27 material. Upon inspection if said material and/or mixture is found, the owner/operator of the landfill shall not accept the material for daily cover. In the event that any or all of the material is unsuitable for use as daily cover, the generator shall be responsible for proper disposal at an appropriately licensed disposal facility. [N.J.A.C. 7:26-2A]

70. The owner/operator of the landfill shall recieve the following analytical data on a monthly basis for C & D Screening fines from Waste Management Inc: Physical characteristics analysis including solid content; moisture content; %volatile solids and grain size analysis. Specifically, no more than 20 percent by weight of fine grained materials shall pass a No. 200 sieve; at least 40 percent by weight of the fragments in the soil mixture shall be capable of passing through a No. 10 mesh sieve; and in no case shall particle size exceed six inches in diameter. The owner/operator shall also recieve analytical results of C & D Screening fines for sulfate content. The target goal for sulfate content of C & D Screening fines shall be 3% by weight. The samples for sulfate analysis shall be analyzed on a weekly basis and recieved on monthly basis. This data shall be retained in the daily record for at least five years and shall be available for inspection at any time during normal working hours. [N.J.A.C. 7:26-2A]

71. The owner/operator of the landfill shall use C & D Screening fines and processed dredge material (PDM) currently available on-site at the time of issuance of this permit as daily cover on the interior faces only. It shall not be applied to the exterior sides and side slopes. [N.J.A.C. 7:26-2A]

72. The owner/operator may accept up to ten (10) truckloads (approximately 15 cubic yards each) of C & D Screenings fines per day for use as daily cover. Only the amount that can be utilized on any given day shall be accepted. The C & D Screenings fines shall only be accepted from the Front Street Transfer Station of Waste Management Inc. located in Elizabeth, NJ. [N.J.A.C. 7:26-2A]

**Subject Item: SWLG883192 - Landfill**

73. All exposed surfaces of solid waste shall be covered at the close of each operating day with daily cover consisting of six inches of compacted clean soil, C & D Screenings fines, processed dredge material (PDM) currently available on-site at the time of issuance of this permit and/or a mixture of ZIMPRO sludge and clean soil. ZIMPRO sludge shall only be mixed in a 1:1 ratio with clean soil material for use as cover. Any additional PDM from off-site shall not be accepted for use of daily/intermediated cover without prior approval from the Solid & Hazardous Waste Management Program. [N.J.A.C. 7:26-2A.8(b)7]

Exhibit 5: GM Linden Contract, Permit & Materials Acceptance Protocol

AGREEMENT BETWEEN
LINDEN DEVELOPMENT, LLC AND SUBCONTRACTOR

PROJECT NO: LDV301-000

CC:

AGREEMENT made this 17th day of November 2011

between "Linden Development, LLC": Linden Development, LLC
600 East 96th Street, Suite 100
Indianapolis, IN 46240

and the "Subcontractor": Impact Environmental
170 Keyland Court
Bohemia, NY 11716

for the following "Project": Legacy Commerce Center Sitework
1016 West Edgar Road
Linden, NJ 07036

the "Environmental Consultant": Hull & Associates

the "Owner": Linden Development LLC
600 East 96th Street, Suite 100
Indianapolis, IN 46240

Linden Development, LLC and the Subcontractor agree as set forth below:

## ARTICLE I
## SUBCONTRACT DOCUMENTS

1.1 Definitions. The "Subcontract Documents," consist of this Agreement and the following documents:

1.1.1 The Subcontract General Conditions attached hereto and made a part hereof as Exhibit A.

1.1.2 The Construction Documents identified in Exhibit B, attached hereto and made a part hereof.

1.1.3 The Project Schedule, attached hereto and made a part hereof as Exhibit C.

1.4 Flow-Down Clause. The Subcontractor agrees to be bound to Linden Development, LLC by all of the terms (technical, legal, administrative and procedural) of the agreement between Linden Development, LLC and Owner and the Contract Documents and the provisions set forth by the New Jersey Department of the Environment and U.S. EPA regarding the Remediation of the site incorporated in the Owner agreement (except for the payment provisions of the Owner agreement which are specifically excluded from the scope of the Subcontract Documents), and assumes toward Linden Development, LLC and the Owner all the obligations and responsibilities that Linden Development, LLC assumes toward the Owner. In the event of a conflict between the terms of this Agreement and the terms of the Owner agreement, the terms of this Agreement shall govern and control.

1.5 State Changes. State-specific changes to this Agreement and the other Subcontract Documents are set forth in Attachment 1 to this Agreement. The state-specific changes modify, add to and delete from the language of this Agreement and the other Subcontract Documents. Where any language of this Agreement or the other Subcontract Documents conflicts or is inconsistent with the state-specific changes, the state-specific changes shall control.

## ARTICLE 2
## THE WORK

2.1 Generally. The Subcontractor shall perform the Work required by the Subcontract Documents for Import of Clean Soils for the Project. The "Work" shall include all supervision, labor, materials, supplies, tools, equipment, machinery, transportation, taxes, and all other items and services necessary for the completion of the Work, or reasonably inferable from the Subcontract Documents to accomplish the results indicated by the Subcontract Documents, including the following: New Jersey Regulations regarding the reuse of recycled concrete and other applicable regulations as well as acceptance by Linden Development, LLC. The Work shall be performed in strict compliance with the Subcontract Documents, including the Environmental Regulation concerning the Site.

## ARTICLE 3
## SUBCONTRACT TIME

The Work shall be commenced and completed as provided in the Project Schedule (the "Subcontract Time"), subject to extensions of the Subcontract Time as set forth in the Subcontract General Conditions. "Substantial Completion" of the Project or designated portion thereof shall be the date determined by Linden Development, LLC when the Project is sufficiently complete in accordance with the Subcontract Documents so the Owner can occupy or utilize the Project or designated portion

thereof for the use indicated by the Subcontract Documents. The term "day" shall mean calendar day. Time is of the essence of this Agreement.

**ARTICLE 4**
**PAYMENTS**

4.1 Payment Terms. The Subcontract Sum has been determined as follows: Approximately 60,000 tons of Soil xxx / ton payable to Contracting Party within ten (10) days following Contracting Party's receipt of the Soil at the address specified above. Amounts payable to Contracting Party from Vendor will be calculated upon weight tickets provided by Vendor and their logistics vendors. Final amount will be agreed to upon by both Contracting and Vendor. Weight tickets shall be certified by a legal, calibrated and New Jersey weigh scale facility acceptable to Contracting Party.

4.4 Changes. For any adjustments to the Subcontract Sum that are based on other than unit prices, the Subcontractor agrees to charge, and accept as payment for overhead and profit, the following percentages of costs attributable to the change in the Work:

"LINDEN DEVELOPMENT, LLC"

By: _____
(Signature)
Brian Strohl, Director, Design & Construction

"SUBCONTRACTOR"

By: _____
(Signature)
Richard Parrish, President

**Summary of Site-Specific Fill Acceptance Criteria**
**for Materials Ultimately Covered by an Engineering Control**

**Linden Development LLC Site (Former GM Linden Assembly Plant)**

| Parameter | Acceptance Criteria (mg/kg) | Basis for Acceptance Criteria |
|---|---|---|
| **PAHs** | | |
| Acenaphthene | 100 | IGWSCC |
| Acenaphthylene | 8.6 | Maximum detected elsewhere on the site. |
| Anthracene | 100 | Maximum detected elsewhere on the site. |
| Benzo(a)anthracene | 120 | Maximum detected elsewhere on the site. |
| Benzo(a)pyrene | 71 | Maximum detected elsewhere on the site. |
| Benzo(b)fluoranthene | 50 | Maximum detected elsewhere on the site. |
| Benzo(b)fluoranthene | 50 | Maximum detected elsewhere on the site. |
| Benzo(g,h,i)perylene | 40 | Maximum detected elsewhere on the site. |
| Benzo(k)fluoranthene | 86 | Maximum detected elsewhere on the site. |
| Chrysene | 120 | Maximum detected elsewhere on the site. |
| Dibenz(a,h)anthracene | 13 | Maximum detected elsewhere on the site. |
| Fluoranthene | 100 | IGWSCC |
| Fluorene | 100 | IGWSCC |
| Indeno(1,2,3-cd)pyrene | 39 | Maximum detected elsewhere on the site. |
| Naphthalene | 100 | IGWSCC |
| Phenanthrene | 480 | Maximum detected elsewhere on the site. |
| Pyrene | 100 | IGWSCC |
| **Metals** | | |
| Antimony | 353 | Maximum detected elsewhere on the site. |
| Arsenic | 178 | Maximum detected elsewhere on the site. |
| Barium | 17,400 | Maximum detected elsewhere on the site. |
| Beryllium | 16.2 | Maximum detected elsewhere on the site. |
| Cadmium | 51.4 | Maximum detected elsewhere on the site. |
| Chromium | 247 | Maximum detected elsewhere on the site. |
| Cobalt | 124 | Maximum detected elsewhere on the site. |
| Copper | 1,500 | Concentration recommended by NJDEP Case Manager |
| Lead | 1,000 | Approximate average of lead concentrations detected elsewhere on the site. |
| Manganese | 2,200 | Maximum detected elsewhere on the site. |
| Mercury | 0.85 | Maximum detected elsewhere on the site. |
| Nickel | 1,170 | Maximum detected elsewhere on the site. |
| Selenium | 11.7 | Maximum detected elsewhere on the site. |
| Silver | 95 | Maximum detected elsewhere on the site. |
| Thallium | 1.8 | Maximum detected elsewhere on the site. |
| Vanadium | 155 | Maximum detected elsewhere on the site. |
| Zinc | 1,500 | Concentration recommended by NJDEP Case Manager |
| **VOCs** | | |
| Chlorinated solvents | Not Accepted | No materials with detectable chlorinated concentrations are accepted for import to the site. |
| VOCs other than chlorinated solvents | NRDCSCC or IGWSCC | The acceptance criterion for each compound is the lower of the NRDCSCC or the IGWSCC, as applicable. |
| **VOCs** | | |
| PCBs | 2 | NRDCSCC |
| **Additional Parameters** | | |
| Parameters not specified in this table | Parameter-specific | The acceptance criterion for each compound is the lower of the NRDCSCC or the IGWSCC, as applicable. |

Notes:
IGWSCC - New Jersey Impact to Groundwater Soil Cleanup Criteria
NRDCSCC - New Jersey Nonresidential Direct Contact Soil Cleanup Criteria

**Comparison of Site-Specific Fill Acceptance Criteria based on Maximum Detected Concentration to NJDEP Non-Residential and Impact to Groundwater Soil Cleanup Criteria**

**Linden Development LLC Site (Former GM Linden Assembly Plant)**

| Parameter | Site-Specific Fill Acceptance Criteria (mg/kg) | NJDEP Nonresidential Soil Cleanup Criteria (mg/kg) | NJDEP Impact to Groundwater Soil Cleanup Criteria (mg/kg) |
|---|---|---|---|
| **PAHs** | | | |
| Acenaphthylene | 8.6 | --[a] | -- |
| Anthracene | 100 | 30,000 | 100 |
| Benzo(a)anthracene | 120 | 2 | 500 |
| Benzo(a)pyrene | 71 | 0.2 | 100 |
| Benzo(b)fluoranthene | 50 | 2 | 50 |
| Benzo(g,h,i)perylene | 40 | 30,000 | -- |
| Benzo(k)fluoranthene | 86 | 23 | 500 |
| Chrysene | 120 | 230 | 500 |
| Dibenz(a,h)anthracene | 13 | 0.2 | 100 |
| Indeno(1,2,3-cd)pyrene | 39 | 2 | 500 |
| Phenanthrene | 480 | 300,000 | -- |
| **Metals** | | | |
| Antimony | 353 | 340 | -- |
| Arsenic | 178 | 20 | -- |
| Barium | 17,400 | 47,000 | -- |
| Beryllium | 16.2 | 2 | -- |
| Cadmium | 51.4 | 100 | -- |
| Chromium | 247 | 20[b] | -- |
| Cobalt | 124 | -- | -- |
| Manganese | 2,200 | -- | -- |
| Mercury | 0.85 | 270 | -- |
| Nickel | 1,170 | 2,400 | -- |
| Selenium | 11.7 | 3,100 | -- |
| Silver | 95 | 4,100 | -- |
| Thallium | 1.8 | 2 | -- |
| Vanadium | 155 | 7,100 | -- |

Notes:

a. -- No NJDEP cleanup critierion has been established for this parameter.

b. NJDEP Nonresidential Soil Cleanup Criterion is based on inhalation exposure to hexavalent chromium.

State of New Jersey

Jon S. Corzine
*Governor*

Department of Environmental Protection

Lisa P. Jackson
*Commissioner*

Bureau of Northern Field Operations
7 Ridgedale Avenue
Cedar Knolls, New Jersey 07927-1112
Phone #: 973-631-6401
Fax #: 973-656-4440

Duke Realty Limited Partnership
c/o Duke Realty Corporation
5600 Blazer Parkway
Dublin, Ohio 43017
Att: William DeBoer

Oct 27,2008

**Approval Letter Appendix F June 2008 RAW**

Re: Appendix F of the Remedial Action Workplan Addendum #1
Former General Motors Corp Assembly Division
1016 W Edgar Rd
Linden, Union County
SRP PI# 014755 EA ID #: SUB080002
BFO File Number: 20-09-24

Dear Mr. DeBoer:

The New Jersey Department of Environmental Protection (Department) has completed review of the Soil and Concrete Reuse Proposal listed as Appendix F of the Remedial Action Workplan Addendum #1. The Department has determined that the Soil and Concrete Reuse Proposal is in compliance with the Technical Requirements for Site Remediation, N.J.A.C. 7:26E and other applicable requirements. The Department hereby approves the Soil and Concrete Reuse Proposal, effective the date of this letter. The proposal includes a protocol for importation of material to the site for use as general fill during the redevelopment of the property

Pursuant to the schedule applicable to the site you shall submit a Site Progress Report on/by April 27,2009. Please submit the document by that date, or submit a written request for an extension at least 2 weeks prior to the due date. Failure to submit the required report in accordance with the schedule may result in the initiation of

enforcement action. For your convenience, the regulations concerning the Department's remediation requirements can be found at http://www.state.nj.us/dep/srp/regs/ .

Thank you for your cooperation in this matter. If you have any questions, call Gary Greulich at (973) 656-4465.

Sincerely,

David Oster, Section Chief
Bureau of Northern Field Operations

c: Robert Hare, General Motors
Bill Dennis, Hull Associates
Clerk, Linden
Local Health Department

# REVISED SOIL AND CONCRETE REUSE PROPOSAL (REVISION 1.0)

For the:
**LINDEN DEVELOPMENT LLC SITE**
**(FORMER GM LINDEN ASSEMBLY PLANT)**

Located at:
**1016 WEST EDGAR ROAD**
**LINDEN, NEW JERSEY**

Prepared for:
**LINDEN DEVELOPMENT, LLC**
**5600 BLAZER PARKWAY, SUITE 100**
**DUBLIN, OH 43017**

Prepared by:
**HULL & ASSOCIATES, INC.**
**4770 DUKE DRIVE, SUITE 300**
**MASON, OH 45040**

**MAY 2008**



engineers | geologists | scientists | planners

Hull & associates, inc.

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## APPENDICES


Appendix A Hull & Associates, Inc. Standard Operating Procedures
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## LIST OF ACRONYMS

| | |
|---|---|
| AOI | Area of Interest |
| CD&D | Construction Demolition and Debris |
| ISRA | Industrial Site Recovery Act |
| NJDEP | New Jersey Department of the Environment |
| N.J.A.C. | New Jersey Administrative Code |
| PAHs | Polynuclear Aromatic Hydrocarbons |
| PCBs | Polychlorinated Biphenyls |
| QC | Quality Control |
| RAWP | Remedial Action Work Plan |
| RCRA | Resource Conservation and Recovery Act |
| RCA | Recycled Concrete Aggregate |
| SRWMP | Site Remediation and Waste Management Program |
| TPH | Total Petroleum Hydrocarbons |
| TSCA | Toxic Substances Control Act |
| VOCs | Volatile Organic Compounds |

# 1.0 INTRODUCTION

## 1.1 General

The Site is the Linden Development, LLC Site (Former General Motors Corporation Linden Assembly Plant) located at 1016 West Edgar Avenue, Linden, Union County, New Jersey. The location of the Site is shown on Figure 1. The approximately 102-acre Site is located in a mostly industrial area of Linden and is bound by Linden Avenue and CSX railroad to the northwest, CSX railroad and various commercial and industrial sites to the northeast, Edgar Avenue and the Linden Airport to the southeast, and a residential area and Merck pharmaceutical complex to the southwest. The Site housed General Motors Corporation (GM) automobile assembly operations from 1937 to 2004. The plant was idle from 2004 to 2007. Linden Development, LLC (Linden Development) purchased the Site from GM in December 2007 and is currently conducting demolition of on-Site buildings and structures in preparation for development of the Site.

## 1.2 Regulatory Status

Linden Development, LLC signed a remediation agreement with the New Jersey Department of the Environment (NJDEP) upon transfer of the Site from GM in December 2007. The Site has been undergoing remediation since 1985 when GM initiated oversight from NJDEP to address discharges from former underground storage tanks. In 1995, GM entered into a Memorandum of Agreement with NJDEP to address volatile organic compounds (VOCs) identified in groundwater underlying the Site. Upon cessation of plant operations in 2004, oversight of environmental activities was transferred to NJDEP's Industrial Site Recovery Act (ISRA) program. The U.S. Environmental Protection Agency (U.S. EPA) has maintained joint jurisdiction over the Site since the late-1990s when GM terminated the Site's status as a Treatment Storage and Disposal facility under the federal Resource Conservation and Recovery Act (RCRA). While the RCRA status triggers certain environmental investigation and remediation requirements, NJDEP is serving as the lead regulatory agency.

## 1.3 Proposed Site Development

Linden Development anticipates redeveloping the Site to include two large retail spaces encompassing over 350,000 square feet and three warehouse spaces encompassing approximately 1.15 million square feet. A small portion of the Site may also include a residential development. Construction is expected to commence during the first half of 2009 and be

complete by 2014. Given that construction is scheduled to commence in early-2009, Site earthwork and grading activities, including importing fill materials, needs to be conducted as early as possible in 2008 and concurrent with ongoing demolition activities. This Soil and Concrete Reuse Proposal (Proposal) has been prepared to describe the procedures for the characterization and management of soil and fill material to achieve the desired grade for redevelopment of the Site.

For convenience, the Site has been separated into subparcels corresponding to the type of land use and chronology of Duke's redevelopment plans. Site redevelopment plans correspond to three subparcels: the Retail Redevelopment Area, the Industrial Redevelopment Area 1, the Industrial Redevelopment Area 2. A fourth minor area may also be added in the future for residential redevelopment activities. In the event that residential land use is added to the development plan, modified fill acceptance criteria specific to the residential area will be presented for NJDEP approval. Although redevelopment of the individual subparcels may proceed on different timelines, the procedures outlined in this document are performance-based and, as such, are applicable to each of the Redevelopment Areas at the Site.

## 1.4 Purpose of the Soil and Concrete Reuse Proposal

The purpose of this Proposal is to provide guidelines for conducting characterization and reuse of on-Site processed (i.e., crushed) concrete and/or masonry as on-Site structural or non-structural fill. In addition, this Proposal contains guidelines for the selection of additional fill materials (e.g., recycled materials and/or soil) obtained from off-Site locations (i.e., borrow sources). The Proposal focuses on the primary operational considerations required for:

1. characterization of concrete/masonry generated from on-Site sources to verify that the material is appropriate for reuse as fill at the Site; and

2. determination of criteria for reuse of on-Site materials and off-Site borrow sources.

## 1.5 Project Description

Linden Development is currently evaluating grading and redevelopment plans for the Site. In general, the redevelopment strategy includes the placement of fill material across a majority of the Site to raise the grade and support construction of new industrial and commercial facilities. The existing building slabs associated with GM's former main assembly building and other structures will, to the extent possible, remain in place. As such, filling activities and construction

of new facilities will take place on top of existing slabs. Upon completion of the redevelopment, the Site will be covered by engineering controls, including new building slabs, parking areas, roadways, and clean cover soils or fill. The grading plan ultimately selected for the Site and details associated with construction of the various engineering controls will be detailed in future amendments to GM's previously submitted Remedial Action Workplan (RAW) documents which will be submitted to NJDEP for approval.

It is noted that the anticipated volumes presented herein represent likely scenarios based on current redevelopment plans. These volumes could be modified in the future as grading and redevelopment plans are refined and finalized. In all cases, the proposed guidelines for characterizing and managing the various fill materials anticipated for use at the Site will be performance-based and, therefore, will not be affected by changes in grading or redevelopment plans.

Current plans for the Site require approximately 145,000 cubic yards of material to achieve the desired grade for redevelopment. It is anticipated that approximately 35,000 cubic yards of material will be obtained through the crushing and processing of the second and third story of the former main assembly building and miscellaneous outbuildings. This crushed material will likely be used to backfill existing pits and sumps in the main assembly building and miscellaneous outbuildings. In addition, it is anticipated that an additional 110,000 cubic yards of material will be obtained through commercial sources to provide the structural and non-structural fill required to achieve grades necessary to support the redevelopment. Finally, it is anticipated that approximately 25,000 cubic yards of material will be imported for use as an engineering control in future greenspace areas.

The performance-based measures outlined in the Proposal for characterizing and managing the various fill materials are based on the requirements outlined in N.J.A.C. 7:26-1.7(g). These exemptions are provided under the solid waste regulations, and are determined by the source of the material and/or the circumstances of the material reuse as follows:

1. *Materials Produced By a Recycling Center: (N.J.A.C. 7:26-1.7(g)2)*

   *The materials produced at a permitted recycling center as regulated pursuant to N.J.A.C. 7:26A are deemed to be approved for beneficial use provided the recycled product is used or reused directly as a product or as a substitute for raw*

*material that is incorporated into a product meets the generally accepted products specifications and standards for a similar manufactured product or raw material, and provided the recycled product poses no greater risk to human health or the environment than the use of the product or raw material it is replacing.*

2. *Materials Used/Reused Directly as a Product or Raw Material Substitute: (N.J.A.C. 7:26-1.7(g)3)*

   *The requirement to obtain a Certificate of Authority to Operate a beneficial use project is not applicable to materials used or reused directly as a product or as a substitute for raw material which is incorporated into a product that meets the original product specifications, provided the material poses no greater risk to human health or the environment than the use of the product or raw material it is replacing.*

# 2.0 GENERAL BACKFILL MATERIALS AND APPLICATIONS

## 2.1 Type of Materials for Reuse

Current plans for the Site include the reuse of the concrete and masonry demolition materials as structural and non-structural fill and the import of additional materials to achieve the desired future grade and serve as clean cover in greenspace areas.

### 2.1.1 On-Site Processed Concrete

It is anticipated that approximately 35,000 cubic yards of recycled concrete aggregate will be generated by the demolition of the former main assembly building and outbuildings. As the buildings are demolished, the walls of the building and the concrete from the floors of the second and third stories will be stockpiled at the Site for processing as fill material. A discussion of the methods used to process the demolition materials is included in subsequent sections.

### 2.1.2 Off-Site Borrow

As discussed previously, approximately 145,000 cubic yards of material will be imported as structural or non-structural fill to bring the Site to the desired grade for redevelopment. In addition, approximately 25,000 cubic yards of material will be imported for use as an engineering control (e.g., clean cover for greenspace areas). This fill will be obtained from an NJDEP-certified Class B Recycling Facility or other off-Site source to be approved by NJDEP that can provide materials that meet the performance-based criteria outlined herein.

The vast majority of materials obtained from off-Site borrow sources will consist of recycled concrete or other material suitable for structural fill. A smaller volume of the off-Site borrow material will consist of non-structural fill imported as an engineering control (e.g., clean soils for placement in future greenspaces). The procedures for the characterization of the off-Site borrow source(s) are discussed in the following sections of this report. In addition, the RAW amendment for each of the Redevelopment Areas will include further discussion of the non-structural fill that will be used as an engineering control (i.e., remedy), as appropriate.

# 3.0 CHARACTERIZATION OF FILL MATERIALS

## 3.1 General

In order to demonstrate that the fill materials are appropriate for use at the Site, chemical characterization and geotechnical analyses will be performed. The sampling and chemical analysis of the potential fill materials will be completed in accordance with the methodology outlined in the Technical Requirements for Site Remediation (N.J.A.C. 7:26E). It is noted that materials classified as characteristically hazardous shall not be imported to the Site. Geotechnical testing will be conducted in order to satisfy the specifications required by Linden Development for the ultimate development plan. Details of the geotechnical aspects of the Site redevelopment are outside the scope of this document. The procedures for sampling and analysis of the material generated on-Site and material that will be obtained from off-Site sources is described in the following sections.

## 3.2 Characterization of On-Site Recycled Concrete Aggregate

### 3.2.1 Pre-Characterization of Building Materials

Concrete and concrete block flooring samples were collected previously for the purpose of the Facility Environmental Assessment conducted by Conestoga-Rovers and Associates in September 2007. These samples were collected from various locations throughout the main assembly plant, outbuildings and the former wastewater treatment plant. The majority of these samples were collected from existing base floor slabs which will likely not be demolished or removed as part of the redevelopment (i.e., fill placement and future construction will take place on top of these slabs). Samples of these materials were analyzed for Polynuclear Aromatic Hydrocarbons (PAHs) and Polychlorinated Biphenyls (PCBs) in order to assist in the determination of the appropriate final disposition of the materials. The investigation did not identify samples with PAHs or PCBs above the Nonresidential Direct Contact Soil Cleanup Criteria within the areas to be crushed and processed for backfill.

### 3.2.2 Generation of Crushed Material

All processing, crushing and stockpiling of processed material will be conducted on-Site as directed by Linden Development or Owners Representative. The crushing equipment proposed will include the following: a receiving hopper sized to hold approximately 5 cubic yards of material equipped with a grizzly to screen off material larger than 8”. The discharge from the grizzly will be stockpiled and re-sized using an excavator equipped with a processor or impact

hammer before being placed back into the feed stream for final crushing. The material that passes thru the primary grizzly will collect in the receiving hopper that discharges onto an elevating conveyor where it will be carried to a primary vibratory screen. A self cleaning electromagnet will be positioned at the discharge of the elevating conveyor to remove any ferrous material prior to entering the vibratory screen. The discharge from this magnet will be stockpiled and processed separately as recycled scrap steel. After passing under the magnet the raw material will enter the primary vibratory screen where fine (0" x ¾") recycled concrete aggregate (RCA) will be separated and conveyed to a final stockpile area and ¾" x 8" RCA will enter the crusher. The crusher is a three stage, hammer mill type, with adjustable secondary stages. These secondary stages will be adjusted to meet the specification for the RCA as per American Association of State Highway and Transportation Officials (AASHTO) T 304 specifications including specific requirements for compactability, void space, and aggregate size. The discharge from the crusher will be directed to a final product stacker conveyor for stockpiling. The crushing equipment will be equipped with hoods and spray water at all transfer points to control potential fugitive dusts. Runoff from the spray water will be directed to a retention sump where sediment can be collected before reuse or discharge.

### 3.2.3 Sampling Methodology for On-Site Crushed Material

The processing and crushing of the masonry and concrete building materials discussed above will provide RCA for use as backfill material for excavation areas and all cavities on the Site (e.g., former sumps and containment pits). Prior to backfilling any excavation area with RCA, the concrete material will be sampled for PAHs and PCBs to determine if the material is suitable for use as backfill. Sampling of the on-Site, processed concrete and/or masonry materials will be performed in accordance with this document and will be certified as suitable for use, prior to processing and placement on the Site.

The crushed concrete will be stockpiled into 5,000 ton piles (approximately 3,300 yards based on a conversion factor of 1.5 tons per yard) and designated as stockpile #1, #2, etc. After each pile is designated a stockpile number, the piles will be sectioned into quarters (north, south, east and west) and discrete grab samples will be collected from each quarter of the pile. Each of the discrete grab samples will be combined and homogenized to create four-point composite samples. Once the samples are collected, they will be placed in laboratory-supplied containers for shipping to a laboratory consistent with Hull SOP #s F1013 and F3014 (Appendix A). Each

sample will be identified with respect to the location from which the sample was taken. Samples will be tested at an approved laboratory for PAHs by Method 8310 and PCBs by Method 8082.

The analytical data obtained from these samples will act as a quality control (QC) measure in order to verify field observation and segregation is being performed adequately. All demolition materials not acceptable for processing or utilized as backfill will be disposed off-Site at either an approved construction, demolition and debris (CD&D) landfill or approved solid waste facility, depending upon analytical testing, regulatory requirements, and/or confirmatory sampling results. Materials that are characterized as hazardous waste or other designation requiring special handling will be disposed off-Site at an appropriately licensed facility.

### 3.3 Characterization of Off-Site Borrow for Structural Fill Material

Fill materials brought onto the Site for the purpose of establishing the desired grade will be obtained from either a certified New Jersey Class B Recycling Facility or other off-Site source that meets the criteria approved by NJDEP. Material that is obtained from a certified New Jersey Class B Recycling Facility does not require additional characterization beyond that which is required for the sale of such recycled materials under the New Jersey Solid and Hazardous Waste Program. In accordance with N.J.A.C. 7:26-1.7(g)2, the materials produced at a permitted recycling center are deemed to be approved for beneficial use provided the recycled product is used or reused directly as a product or as a substitute for raw material that is incorporated into a product meets the generally accepted products specifications and standards for a similar manufactured product or raw material, and provided the recycled product poses no greater risk to human health or the environment than the use of the product or raw material it is replacing. For record-keeping purposes, Linden Development will catalog the quantity and sources of materials imported to the Site from certified New Jersey Class B Recycling Facilities throughout the development process.

Because the redevelopment process will also include importing materials from sources other than certified New Jersey Class B Recycling Facilities, this Proposal contains the procedures for the characterization of other potential off-Site source(s) that can provide materials that meet the performance-based criteria outlined herein. In the event that materials are obtained from a source other than an NJDEP-certified Class B Recycling Facility, the material will be characterized to determine the suitability for on-Site reuse. The procedures for the characterization of non-certified material are discussed below.

### 3.3.1 Borrow Source Questionnaire for Non-certified Material for Structural Fill Material

A borrow source questionnaire will be completed in order to screen the provenance and determine the appropriateness of the material, in accordance with 7:26E-6.4(b)2. If the provider of the material does not have a proprietary questionnaire for this purpose, the example borrow source questionnaire included in Appendix B will be used.

### 3.3.2 Sampling Frequency for Structural Fill Material

#### 3.3.2.1 Non-RCA Material

Non-RCA material to be used as structural fill will likely consist of soils obtained from off-site borrow sources. The sampling frequency for this material will be dictated by the general environmental condition of the source site.

Fill material obtained from general sites on which the borrow source questionnaire does not identify areas of potential environmental concern will be sampled at a frequency of one discreet sample per 500 cubic yards of material. Composite samples comprised of four homogenized discrete samples (1 composite sample per 2,000 cubic yards) will be analyzed at an approved laboratory.

Material obtained from sites with areas of potential environmental concern such as those sites subject to a state or federal environmental regulatory program will be sampled at a minimum frequency of one discrete sample per 125 cubic yards. Composite samples comprised of four homogenized discrete samples (1 composite sample per 500 cubic yards) will be analyzed at an approved laboratory.

#### 3.3.2.2 RCA Material

The sampling frequencies for RCA are summarized below and will be dictated by the volume of material originating from each source.

| Quantity | Frequency of Composite Samples |
|---|---|
| Less than 400 cubic yards | 1 per 100 cubic yards |
| 400 cubic yards to 2,000 cubic yards | 1 per 200 cubic yards + 2 |
| Greater than 2,000 cubic yards | 1 per 500 cubic yards + 8 |

### 3.3.3 Required Chemical Characterization for Structural Fill Material

#### 3.3.3.1 Non-RCA Material

If the structural fill material is obtained from a non-certified source, or if the material is something other than recycled concrete, the material will be analyzed for the chemicals of concern outlined below.

| Analysis | Method | Frequency of Composite Samples | |
|---|---|---|---|
| | | Regulatory Sites | General Sites |
| Priority Pollutant Volatile Organic Compounds (VOCs) + 15 | 8260 | 1 per 500 cubic yards | 1 per 2,000 cubic yards |
| Priority Pollutant Base Neutrals/Acid Extractables + 25 | 8270 | 1 per 500 cubic yards | 1 per 2,000 cubic yards |
| Priority Pollutant Metals | 6010/6020/ 7471 | 1 per 500 cubic yards | 1 per 2,000 cubic yards |
| Polychlorinated Bi-Phenyl Compounds (PCBs) | 8082 | 1 per 500 cubic yards | 1 per 2,000 cubic yards |
| Priority Pollutant Pesticides | 8081 | 1 per 500 cubic yards | 1 per 2,000 cubic yards |
| Cyanide, Total | 9012 | 1 per 500 cubic yards | 1 per 2,000 cubic yards |
| Phenols | 9066 | 1 per 500 cubic yards | 1 per 2,000 cubic yards |
| Toxicity Characteristic Leaching Procedure (TCLP) metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver) | 1311/6010/ 6020/7471 | 1 per 1,000 cubic yards | 1 per 1,000 cubic yards |
| Paint Filter | 9095 | One per site | One per site |

Note: The frequency of waste characterization sampling (TCLP metals and paint filter) may be adjusted to be more or less frequent, as applicable, depending on source site characteristics.

#### 3.3.3.2 RCA Material

All recycled concrete aggregate will be analyzed for PAHs and PCBs at the frequencies specified in Section 3.3.2.2.

## 3.4 Off-Site Borrow Characterization for Non-Structural Cover Material Engineering Control

It is anticipated that approximately 25,000 cubic yards of material will be imported to the Site for the purpose of an engineering control, in which one foot of non-structural clean soil cover will be placed in greenspace areas of the Site. In addition, clean material may ultimately be imported and used as an engineering control to cover non-greenspace areas that may eventually be

constructed upon. The following sections describe the procedure for characterization of the material used for the engineering control.

### 3.4.1 Borrow Source Questionnaire for Non-Structural Cover Material

As discussed above, a borrow source questionnaire will be completed in order to screen the provenance and determine the appropriateness of the material.

### 3.4.2 Required Sampling Frequency and Chemical Characterization for Non-Structural Cover Material

Materials for use as clean cover for the purpose of an engineering control will generally be obtained from general use sites with minimal to no areas of environmental concern or from virgin sources (e.g., quarries). Materials obtained from virgin sources do not require additional sampling or characterization.

Materials obtained from sites other than non-virgin sources will be sampled at a frequency of one discreet sample per 200 cubic yards of material, with the exception of selected compounds (e.g., TPH) shown in the table below. Composite samples comprised of four discreet samples (1 composite sample per 800 cubic yards) will be analyzed at an approved laboratory for the compounds summarized below. Materials from industrial-use sites will be subjected to additional chemical characterization as specified in the table below.

| Analysis | Method | Frequency of Composite Samples |
|---|---|---|
| Total Petroleum Hydrocarbons (TPH) | 8015 | 1 per 100 cubic yards |
| Volatile Organic Compounds (VOCs) | 8260 | 1 per 800 cubic yards |
| Priority Pollutant Metals | 6010/6020/7471 | 1 per 800 cubic yards |
| Toxicity Characteristic Leaching Procedure (TCLP) metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver) | 1311/6010/ 6020/7471 | one per site |
| Paint Filter | 9095 | one per site |
| Polychlorinated Bi-phenyl Compounds (PCBs) | 8082 | one per site |
| **Additional Sampling for Industrial Use Sites** | | |
| PCBs | 8082 | 1 per 800 cubic yards |
| PAHs | 8270 | 1 per 800 cubic yards |

Other constituents may be required, depending upon the source of the material. For example, soil material that is obtained from land formerly used for agricultural purposes may be analyzed

for pesticides and herbicides. More frequent waste profiling (i.e., TCLP and paint filter) may also be conducted, if necessary, based on source site characteristics.

# 4.0 MATERIAL REUSE CRITERIA

## 4.1 General

As previously discussed, it is anticipated that the RCA material generated on-Site and the majority of the material that will be imported will be used as structural fill underneath future building slabs and parking lots to achieve the desired grade. Therefore, it is not anticipated that future receptors at the Site will come into contact with the majority of the structural fill materials. However, a small volume of the imported non-structural fill material will be used for the purpose of an engineering control in greenspace and, potentially, non-greenspace portions of the Site. A discussion of the numeric chemical reuse criteria for each of the types of fill material is located in the following sections.

## 4.2 Numeric Chemical Criteria for Reuse of Imported Structural Fill Material

As discussed in Section 2.0, it is anticipated that approximately 145,000 cubic yards of material will be imported to achieve the final grade at the Site. This material will ultimately be covered by some type of engineering control (i.e., pavement, slab or other type of cover) as part of Linden Development's site redevelopment activities.

### 4.2.1 Numeric Criteria for PCBs (Materials Ultimately Covered by Engineering Control)

PCB concentrations, if detected, in potential fill material will be compared to NJDEP's Soil Cleanup Criteria (SCC), dated 5/12/1999, which are publicly available at the following website: http://www.state.nj.us/dep/srp/regs/scc/index.html. Concrete materials containing PCB concentrations below the Department's Nonresidential Direct Contact Soil Cleanup Criteria (NRDCSCC) of 2 mg/kg shall be considered eligible for use anywhere within nonresidential areas on the Site.

### 4.2.2 Numeric Criteria for PAHs (Materials Ultimately Covered by Engineering Control)

PAH concentrations, if detected, in potential fill material will be compared to the lower of the maximum concentrations of PAHs detected in soil at the Site to date, or the NJDEP Impact to Groundwater Soil Cleanup Criteria, as applicable. The lower of the maximum concentration of each PAH detected in soil up to this point of the investigation, or the Impact to Groundwater Criteria where applicable is summarized in Table 1, located below. Fill materials containing PAHs at concentrations below those summarized in Table 1 may be used as structural or non-structural fill anywhere on-Site that will ultimately be covered by an engineering control.

Materials containing PAHs at concentrations below the respective NJDEP Nonresidential Direct Contact Soil Cleanup Criteria may be used anywhere within nonresidential areas on the Site.

| Parameter | Maximum Concentration (mg/kg) | Qualifier | Sampling Location | Starting Depth (ft bgs) | Ending Depth (ft bgs) |
|---|---|---|---|---|---|
| Acenaphthene | 100[a] | | AOI 7 B-8 | 3.5 | 4.0 |
| Acenaphthylene | 8.6 | J | AOI 7 B-8 | 3.5 | 4.0 |
| Anthracene | 100 | | MW-18B B-5 | 2.5 | 3.0 |
| Benzo(a)anthracene | 120 | | MW-18B B-5 | 2.5 | 3.0 |
| Benzo(a)pyrene | 71 | | MW-18B B-5 | 2.5 | 3.0 |
| Benzo(b)fluoranthene | 50 | | MW-18B B-5 | 2.5 | 3.0 |
| Benzo(b)fluoranthene | 50 | | MW-18B B-5 | 2.5 | 3.0 |
| Benzo(g,h,i)perylene | 40 | | MW-18B B-5 | 2.5 | 3.0 |
| Benzo(k)fluoranthene | 86 | | MW-18B B-5 | 2.5 | 3.0 |
| Chrysene | 120 | | MW-18B B-5 | 2.5 | 3.0 |
| Dibenz(a,h)anthracene | 13 | | MW-18B B-5 | 2.5 | 3.0 |
| Fluoranthene | 100[a] | | AOI 7 B-8 / MW-18B B-5 | 3.5 / 2.5 | 4.0 / 3.0 |
| Fluorene | 100[a] | | AOI 7 B-8 | 3.5 | 4.0 |
| Indeno(1,2,3-cd)pyrene | 39 | | MW-18B B-5 | 2.5 | 3.0 |
| Naphthalene | 100[a] | | AOI 7 B-8 | 3.5 | 4.0 |
| Phenanthrene | 480 | | AOI 7 B-8 | 3.5 | 4.0 |
| Pyrene | 100[a] | | MW-18B B-5 | 2.5 | 3.0 |

a. NJDEP Impact to Groundwater Soil Cleanup Criteria

### 4.2.3 Numeric Criteria for Metals (Materials Ultimately Covered by Engineering Control)

The numeric criteria for metals will be the higher of the NJDEP Nonresidential Direct Contact Soil Cleanup Criteria or maximum detected concentration in soil at the Site, provided the materials are not classified as characteristically hazardous. Materials classified as characteristically hazardous shall not be imported to the Site.

The maximum concentration of each metal detected in soil up to this point of the investigation is summarized in Table 2, located below Fill materials containing metals at concentrations below those summarized in Table 2 may be used as structural or non-structural fill anywhere on-Site that will ultimately be covered by an engineering control. Materials containing metals at concentrations below the respective NJDEP Nonresidential Direct Contact Soil Cleanup Criteria may be used anywhere within nonresidential areas on the Site.

| Parameter (mg/kg) | Maximum Detected Concentration[a] (mg/kg) | Qualifier | Sampling Location | Starting Depth (ft bgs) | Ending Depth (ft bgs) |
|---|---|---|---|---|---|
| Antimony | 353 | | AOI11 B-2 | 1.0 | 1.5 |
| Arsenic | 178 | | MW-040W | 1.5 | 2.0 |
| Barium | 17,400 | | AOI10 B-5 | 1.0 | 1.5 |
| Beryllium | 16.2 | | AOI10 B-5 | 1.0 | 1.5 |
| Cadmium | 51.4 | | AOI11 B-5 | 1.0 | 1.5 |
| Chromium | 247 | | AOI11 B-5 | 1.0 | 1.5 |
| Cobalt | 124 | | MW-040W | 1.5 | 2.0 |
| Copper | 1,500[c] | | AOI11 B-10 | 3.5 | 4.0 |
| Lead | 1,000[b] | | NA | NA | NA |
| Manganese | 2,200 | | MW-30W B-1 | 1.5 | 2.0 |
| Mercury | 0.85 | | AOI03 B-2 | 1.0 | 2.0 |
| Nickel | 1,170 | | AOI10 B-5 | 1.0 | 1.5 |
| Selenium | 11.7 | | AOI11 B-5 | 1.0 | 1.5 |
| Silver | 95 | | AOI10 B-4 | 1.0 | 1.5 |
| Thallium | 1.8 | | AOI20 B-5 | 6.0 | 6.5 |
| Vanadium | 155 | | AOI10 B-4 | 1.0 | 1.5 |
| Zinc | 1,500[c] | J | AOI11 B-9 | 3.5 | 4.0 |

Notes:

a. The maximum detected concentration is the maximum detected concentration in soil Site-wide with the exception of soil samples collected in Area of Interest (AOI) 6 where an interim soil removal action was conducted.

b. Although there are detections of lead in soil at concentrations significantly higher than 1,000 mg/kg, this value was selected because it is the approximate average lead concentration in soil, excluding the concentrations of lead detected in AOI 6.

c. Concentration recommended by NJDEP Case Manager.

### 4.2.4 Numeric Criteria for VOCs

The numeric criteria selected for the evaluation of VOCs will be the lower of the NJDEP Nonresidential Direct Contact Soil Cleanup Criteria or the NJDEP Impact to Groundwater Soil Cleanup Criteria. Soil containing chlorinated VOCs will not be accepted for use as fill material at the Site.

## 4.3 Numeric Chemical Criteria for Reuse of Imported Non-Structural Fill Material for Engineering Control

As previously discussed, a small percentage of the total volume of the off-Site borrow material will consist of non-structural fill consisting of clean soils for placement in future greenspaces and, potentially, non-greenspace areas at the Site. As this material may reasonably be contacted by future receptors upon completion of redevelopment, it will be necessary for this soil to meet the lower of the NJDEP Direct Contact Soil Cleanup Criteria for the applicable land use (i.e., nonresidential or residential) or the Impact to Groundwater Cleanup Criteria, as appropriate.

The Remedial Action Workplan addendum for each of the Redevelopment Areas will include a discussion of the applicable NJDEP Direct Contact Soil Cleanup Criteria for the Redevelopment Area. For example, the applicable numeric criteria for the Retail Redevelopment Area will be the most stringent of the NJDEP Nonresidential Direct Contact Soil Cleanup Criteria or the Impact to Groundwater Cleanup Criteria for each constituent detected in the non-structural fill material with an available criterion, as appropriate.

## 5.0 MATERIAL TRACKING

Trucks importing fill material to the Site will be directed to a gated entranceway for fill delivery. Only trucks carrying approved paperwork from approved sources will be granted entry. Onsite personnel will visually inspect each load of fill to ensure the material is representative of the approved source(s). Loads that are not representative of the approved source(s) will be rejected and not allowed to offload at the Site. Accepted loads will be directed to a specific area for offloading, as described below.

A grid tracking system will be implemented for the purpose of tracking soil management activities including the placement of imported fill material and the relocation of soil obtained from on-Site locations. Based on Linden Development's final grading plan, each of the areas where soil management activities will occur will be identified on a grid. Upon delivery or on-Site relocation of material, each load of fill will be directed to an area of the grid for placement or stockpiling. All soil removed from these designated locations will also be tracked using a Global Positioning System (GPS) unit. Upon completion of each day's soil placement activities, the grid locations and approximate fill elevations will be documented and the placement area will be tracked by taking the GPS coordinates of the footprint.

All soil management activities involving the importation of fill material or the on-Site-relocation of soil material will be documented in a Fill Tracking System spreadsheet, which will serve to record the details of the soil management activities. The spreadsheet will document the grid locations of fill placement and on-Site soil relocation, the amount of off-Site borrow source fill received by source and location, and any rejected loads of borrow source material. Upon completion of the project, Linden Development will perform a final topographic survey of the Site.

## 6.0 REFERENCES


Conestoga-Rovers and Associates. 2007. Facility Environmental Assessment Report for the former GM Linden Assembly Plant. September 2007.

ENCORE. 2004. Resource Conservation and Recovery Act (RCRA) Facility and New Jersey Remedial Investigation Report for the General Motors Vehicle Manufacturing – Linden Assembly Plant. September 29, 2004.

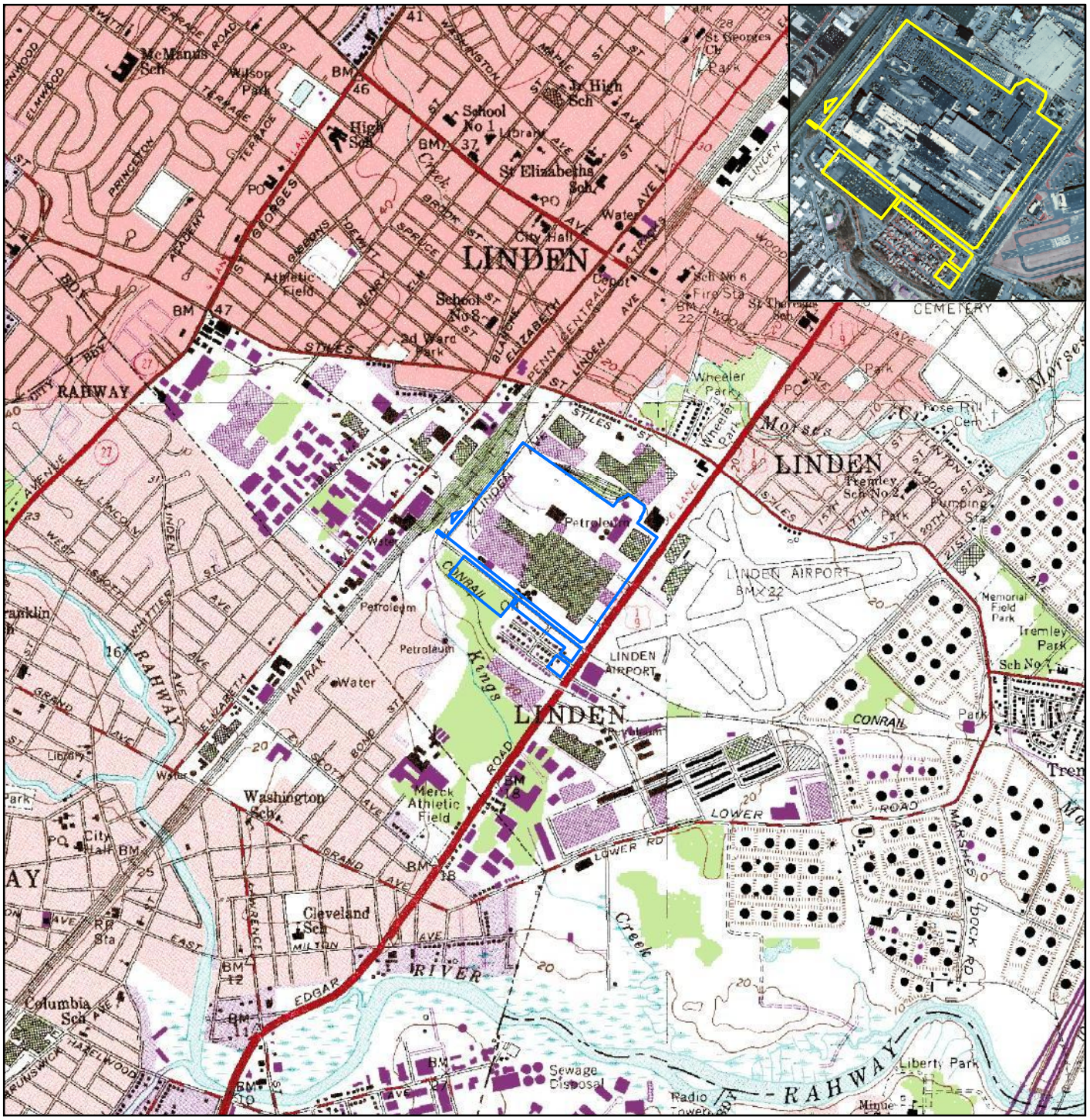
ENCORE. 2006. Resource Conservation and Recovery Act (RCRA) Facility and New Jersey Remedial Investigation Report Addendum for the General Motors Vehicle Manufacturing – Linden Assembly Plant. February 7, 2006.

New Jersey Administrative Code 7:26E. (N.J.A.C. 7:26). Solid and Hazardous Waste.

New Jersey Administrative Code 7:26E. (N.J.A.C. 7:26E). Technical Requirements for Site Remediation.

New Jersey Department of the Environment. Non-Residential Soil Cleanup Criteria. Available at: http://www.state.nj.us/dep/srp/regs/scc/index.html; criteria were last revised on May 12, 1999.

# FIGURES




Source: The topographic map was obtained from the Terrserver website, http://terraserver-usa.net. Quadrangle name: Roselle, New Jersey, revised in 1976, published in 1982. Quandrangle name: Elizabeth, New Jersey, revised in 1976, published in 1982. Quandrangle name: Perth Amboy, New Jersey, revised in 1979, published in 1982. Quadrangle name: Arthur Kill, New Jersey, revised in 1966, published in 1969. Photo revised in July 01, 1981.

The aerial photo in the inset is from Union County. Aerial photography dated 2002.

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Produced using ArcGIS 9.2

Linden Development LLC
Revised Soil and Concrete Reuse Proposal (Revision 1.0)

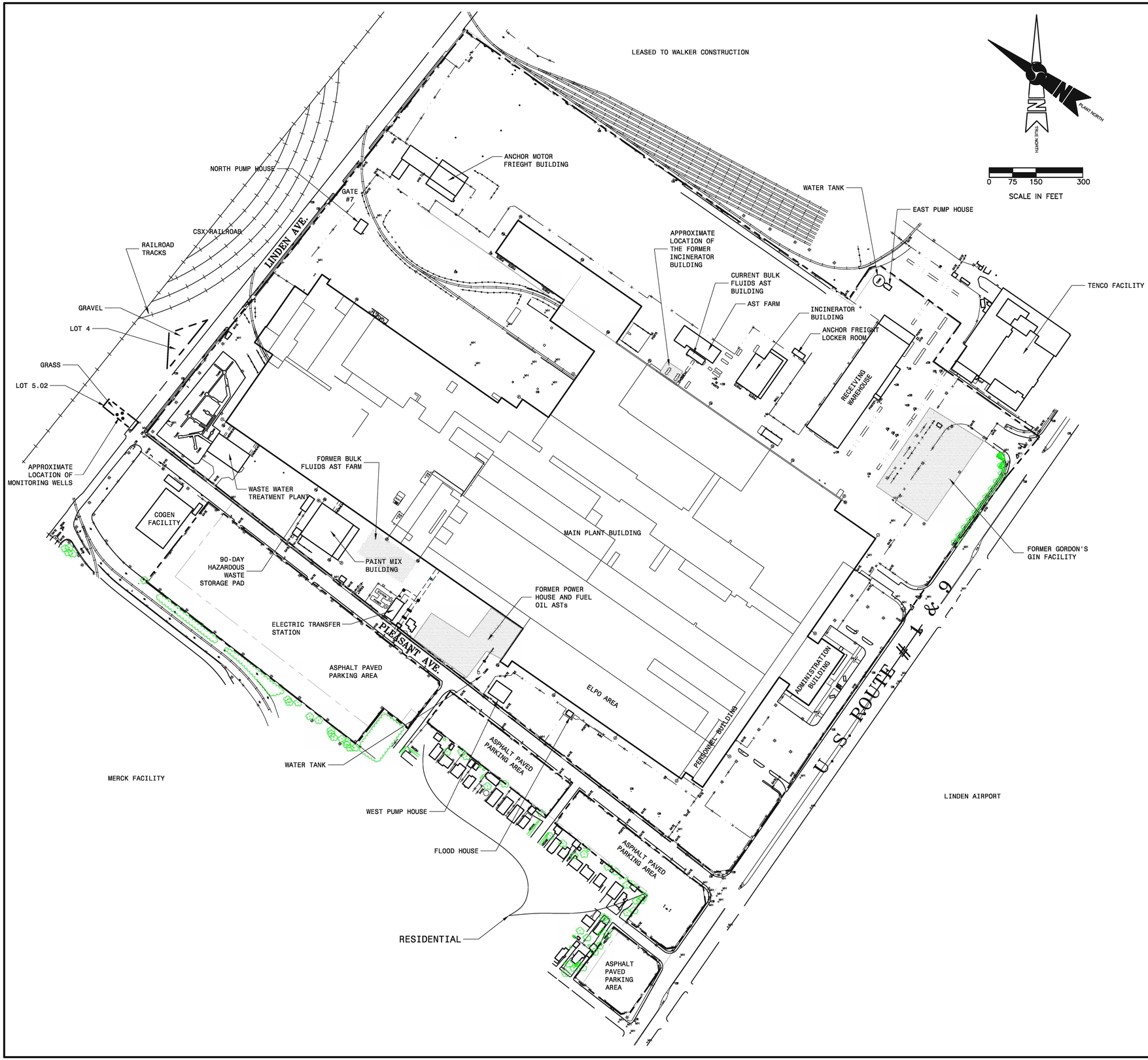
# Site Location Map

1016 West Edger Avenue
Linden, Union County, New Jersey

Date: May 2008

Project Number: DUK059
Geodatabase: DUK059.mdb
File Name: DUK059_SCRP_Rev1_Fig01_SiteLocMap.mxd

Figure 1




LEGEND

| | |
|---|---|
| APPROXIMATE SITE BOUNDARY | |
| HYD | FIRE HYDRANT |
| CB | CATCH BASIN |
| MH | MANHOLE |
| CEC | |
| FENCE | |
| COLUMN DESIGNATION | |

NOTE:
THIS DRAWING WAS MODIFIED FROM AN ORIGINAL PROVIDED BY THE GENERAL MOTORS NORTH AMERICAN TRUCK GROUP TITLED: SITE PLAN, DATED: FEBRUARY 1996.


Hull & associates, inc.
ENGINEERS I GEOLOGISTS I SCIENTISTS I PLANNERS
4770 DUKE DRIVE
SUITE 300
MASON, OHIO 45040
PHONE: (513) 459-9677
FAX: (513) 459-9869
www.hullinc.com


REGISTERED ENGINEER

DATE

LINDEN DEVELOPMENT LLC
REVISED SOIL AND CONCRETE REUSE
PROPOSAL (REVISION 1.0)

OWNER:
LINDEN DEVELOPMENT LLC
5600 BLAZER PARKWAY, SUITE 100
DUBLIN, OHIO 43017

| MARK | DATE | DESCRIPTION |
|---|---|---|

| | |
|---|---|
| PROJECT NO.: | DUK059 |
| CAD DWG FILE: | DUK059.200.0003 |
| PLOT DATE: | 05/29/08 |
| LAYOUT BY: | BD |
| DRAWN BY: | GAC |
| CHECKED BY: | SLG |
| SCALE: | 1"=150' |
| SUBMITTAL DATE: | MAY 2008 |

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SHEET TITLE:
FIGURE 2
SITE LAYOUT

# APPENDIX A

Hull & Associates, Inc. Standard Operating Procedures

**SOP No. F1013 (2001-REV)**
**PACKAGING AND SHIPPING OF NON-HAZARDOUS SAMPLES**

## 1.0 Purpose

The purpose of this SOP is to describe the procedures that shall be used to package and ship all non-hazardous samples. These procedures are the recommended handling procedures for all sample shipments to minimize the loss of samples associated with breakage and/or being received above the method required temperature. These requirements are mandatory for all samples being transported by non-project personnel. Project personnel include all HAI employees as well as personnel directly employed by the analytical subcontractor. Third-party courier services, regardless of whether contracted internally or by the analytical laboratory, are always considered non-project personnel. Strict adherence to these procedures shall help ensure sample integrity even if delivery is delayed.

## 2.0 Equipment and Materials

- duct tape
- clear packing tape
- custody seals
- zip-loc (or equivalent) bags, various sizes
- packing material (styrofoam peanuts, bubble wrap, etc.)
- mailing label (in addition to any shipping papers)

## 3.0 Procedures

The following procedures shall be adhered to for packaging and shipping of all non-hazardous samples. If any materials are known or suspected to be hazardous, they shall be packaged and shipped in accordance HAI SOP No. F1014.

### A. Coolers

Coolers are the most common package or containment device used to ship samples. Coolers are also used during sampling efforts to store and transport samples prior to shipping. It is very important that samples be placed in an iced cooler immediately after collection. The ice in the cooler used for shipping will last much longer if the sample containers placed into it have been pre-chilled. The following procedures shall be used when packing the cooler for shipment:

1. Secure the drain on the cooler with packing tape or duct tape to prevent accidental opening.

2. Place each individual sample (soil and/or groundwater) in a *Ziploc* bag. VOA vials that are aliquots from the same sample can be placed in the same bag. It is recommended that the VOA vials be wrapped with bubble wrap or paper towel to prevent excessive contact during shipping.



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3. Place the samples into the cooler. Situate the sample containers so that they do not touch each other. This is very important for aqueous samples in glass containers as they are more prone to break.

4. Use plastic bubble wrap or styrofoam peanuts as packing or filler material to prevent the samples from colliding and breaking during transportation. Do not use shredded paper because if the paper becomes wet it will no longer be useful to prevent samples from colliding. Only a minimum amount of packing material should be used as these materials insulate the samples and prevent them from being properly chilled. Plastic sample containers can be placed between glass containers. Bags of ice may be also be used as packaging material between samples. Sample containers should be snug and not easily moved with in the cooler.

5. Fill the cooler with ice. Ice must be double-bagged in *Ziploc* bags. Forty to fifty percent of the cooler capacity should contain ice in order to keep the samples cold during transport. If a commercial carrier such as FedEx or UPS is shipping the samples it is best to use more ice in case delivery is delayed. Less ice may be used if the samples will be delivered by hand. As a rule of thumb, an average cooler with a capacity of approximately 48 quarts will require two to three - eight pound bags of ice.

6. Temperature blanks shall be placed at the top of the cooler directly under the ice.

7. Place the chain-of-custody (COC) record in a *Ziploc* bag and tape it to the underside of lid of the cooler. If samples are packed in multiple coolers, the number of coolers should be marked on the COC record and a photocopy of the COC shall be placed in each cooler.

8. Tape the cooler shut to prevent accidental opening or potential leakage. Tape shall be placed around the entire perimeter of the lid and then around the body of cooler in two or three places. Do not tape down or otherwise restrict access to the cooler handles. Coolers used for shipping should not have any broken or missing handles.

9. Custody seals shall then be placed on the cooler to document the integrity of the shipping container. A minimum of two custody seals shall be placed on each cooler in a manner that the cooler cannot be opened with out breaking the seal. Each custody seal shall be signed and dated by the person packing the cooler and the seals shall covered by clear packing tape to prevent accidental loss or damage during shipping.

10. Affix a mailing label with the laboratory's address on the cooler. Apply clear tape over the address label to prevent accidental loss or damage during shipping. This label is required in addition to any shipping papers required by carriers.



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**B. Boxes**

Some samples do not require temperature control and may be shipped in boxes. The boxes should be sturdy enough to withstand rough handling. No liquids shall ever be shipped by box. Materials suitable to be shipped by box include:

1. Air samples in summa canisters or airtight gas sampling bags or other non-pressurized sample containers.

2. Bulk asbestos samples.

3. Soil samples for geotechnical analyses.

These materials may be securely packed in a suitable box. The box shall be sealed with packing tape and affixed with address labels and custody seals as described above.

## 4.0 Documentation

A copy of any applicable shipping papers shall be retained for future reference. Any pertinent shipping information should be recorded on the Daily Field Report or in the field notebook for the project.

## 5.0 Special Notes

None

## 6.0 References

None



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**SOP No. F3014 *(2002rev)***
**CHAIN-OF-CUSTODY PROCEDURES**

## 1.0 Purpose

This SOP documents the chain-of-custody (COC) procedures that will be employed during all sampling activities.

## 2.0 Equipment and Materials

- Indelible ink ball-point pens
- Chain-of-custody records
- One-gallon size *Zip-Loc* (or equivalent) storage bags

## 3.0 General

A completed COC record must accompany every sample from the point of collection to delivery to the laboratory. A single COC record may accompany several samples as long as all the samples are contained in a single unit (e.g., cooler, box, etc.). If a single COC is to be used for multiple samples in multiple coolers then a photocopy of the original COC must be placed in each cooler. All COCs will be kept in one-gallon *Zip-Loc* bags to prevent damage from melting ice, broken samples, and bad weather. A copy of every completed COC record will be retained in the project files.

## 4.0 Procedures

### 4.1 Completion of COC Record

A. The COC record is initiated in the field by the sampler(s) immediately after a sample is collected. Figure F3014-1 illustrates a properly completed COC.

B. The sample identification number will be recorded on the COC. Each sample number consists of three distinct data fields. A space for each data field is provided on the COC. These data fields include; Project Number, Sample Location, and Sample Type & ID.

C. The number of containers that makes a complete sample will be recorded in the box labeled "No. of Cont.". A sample may consist of multiple containers depending upon the analytical procedures requested.

D. If the sample is to be analyzed for metals, the box labeled "Metals" shall be completed to indicate whether the sample fractions for metals have been filtered. A "F" will be used to indicate that the metals were filtered and a "N" will indicate that they were not filtered. Occasionally, some samples may require metal fractions to be filtered and not filtered (e.g., analyses for dissolved and total metals). In this case a "B" will be used to indicate that the sample contains both filtered and non-filtered fractions. If the sample does not require analyses for metals or is not applicable to filtering (i.e., solid sample) a single line will be drawn through this box.



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E. The date and time (military) of sample collection will be recorded in the box labeled "Sampling Date/Time". It is very important to note the exact time each sample was collected.

F. The requested analytical methods will be recorded in the diagonal spaces provided under the box labeled "Analyses". The analytical method should always be referenced. Generalized descriptions such as “Metals” are not acceptable unless they reference a specific list (i.e., RCRA metals, Priority Pollutant List metals, etc).

G. Any preservatives added to the containers for each analytical method will be indicated by recording the letter in the box labeled "Preservatives" that corresponds to the preservative added. The preservatives and corresponding letters are listed near the top of the COC record.

H. A check mark or an “X” will be made under each fraction for which a particular sample will be analyzed. Drawing a line down the column or using quotes is not acceptable.

I. Any comments relating to the collected sample(s) can be recorded in the box labeled "Comments". These comments may indicate special handling or analytical instructions for the laboratory (e.g., compositing instructions, confirm MTBE, etc.) or may be used to indicate the location of sample collection.

J. Additional information required on the COC record includes the person the analytical reports should be sent to, client, site, project description, project number and phase, names of all samplers involved in sample collection, where the samples are to be delivered, method of delivery, and airbill number (if applicable).

## 4.2 Transfer of Custody

A. The COC record must document the transfer of custody each time the sample(s) changes hands. The National Enforcement Investigations Center (NEIC) of the EPA defines custody as:

1. the sample is in your physical possession;

2. the sample is within view after being in your physical possession;

3. the sample was in your possession and then you locked it or sealed it to prevent tampering; and/or

4. the sample is placed in a designated secure place with limited access to authorized personnel only.

B. When transferring custody of samples, the person in custody (e.g., the sampler) must sign the box labeled "Relinquished By" and fill in the date and time (military time) the custody of the samples was relinquished. The person accepting custody of the samples must then sign the box labeled "Received By" and complete the date and time (military time) the custody of the samples was accepted.



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C. The above procedures must be followed until the samples are delivered to the laboratory. Both internal (within the same organization) and external (between different organizations) transfers need to be documented. In cases where a commercial courier (e.g., Federal Express) is used to deliver the samples, the person relinquishing custody to the courier should put the name of the courier in the "Received By" box and seal the COC inside the cooler. Most couriers have a policy against signing for custody of samples.

D. The pink copy (bottom) of the COC will be retained by the sampler before the samples are shipped and the remaining copies (white and yellow) of the COC are delivered to the laboratory. The pink copy will then be immediately given to the QAO. The white copy will be returned by the laboratory with the final report.

## 5.0 Documentation

Chain-of-custody record

## 6.0 Special Notes

If samples are shipped via commercial courier on Friday the air bill needs to be checked for Saturday delivery.

Sample cooler packing instructions are documented in Hull's SOP F1013.

If samples are known to contain flammable or hazardous materials they need to be shipped accordingly. Check with the courier for specific shipping, labeling and packing requirements.

## 7.0 Applicable Standards and References

U.S. Environmental Protection Agency. NEIC Policies and Procedures. EPA-330/9-78-001-R. May 1978. (Revised February 1983.)

U.S. Environmental Protection Agency. User's Guide to the Contract Laboratory Program. Office of Emergency and Remedial Response. December 1986.

U.S. Environmental Protection Agency. A Compendium of Superfund Field Operations Methods. EPA/540/P-87/001, December 1987.



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# Figure 3014-1

Hull & associates, inc.

## CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

NO.

| ☒ Dublin, OH | ☐ Indianapolis, IN | ☐ Mason, OH | ☐ Solon, OH | ☐ Toledo, OH |
|---|---|---|---|---|
| 6397 Emerald Parkway Suite 200 Dublin, OH 43016 Phone: (614)793-8777 Fax: (614)793-9070 | 6330 E. 75th St. Suite 174 Indianapolis, IN 46250 Phone: (317)558-0558 Fax: (317)558-0553 | 4900 Parkway Dr. Suite 100 Mason, OH 45040 Phone: (513)459-9677 Fax: (513)459-9869 | 6161 Cochran Road Suite A Solon, OH 44139 Phone: (440)519-2555 Fax: (440)519-2560 | 3401 Glendale Ave. Suite 300 Toledo, OH 43614 Phone: (419)385-2018 Fax: (419)385-5487 |

REPORT TO: K. Wildman

Client: ABC Company
Site: Anytown, U.S.A.
Project #: ABCØØ1 Phase: Ø1.SMP
Samplers: J. Small, T. Large

SAMPLE TYPES: A - AIR; C - ASBESTOS; D- SEDIMENT; G- GROUNDWATER; P- PRODUCT; S- SOIL; W- WATER; Z- OTHERS

PRESERVATIVES: A - Cool only, <4 deg. C; B - $HNO_3$ pH<2; C - $H_2SO_4$ pH<2; D - NaOH pH>12; E - ZnAcetate + NaOH, pH>9; F - $(NH_4)_2S_2O_8$ (0.008%); G - HCL pH <2

METALS: F - FILTERED; N - NOT FILTERED; B - BOTH

All samples are kept at 4 degrees Celsius.

| PROJECT NO. | SAMPLE LOCATION | SAMPLE TYPE & ID | NO. OF CONT. | METALS | COLLECTION DATE/TIME | PRESERVATIVES | ANALYSES: A (VOCs - 8260) | A (PAHs - 8310) | G (VOCs - 8260 RCRA metals) | B | | | | | | | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ABCØØ1 | MW-1 | S Ø2 Ø Ø3 Ø | 2 | - | 11/8/02 0905 | | X | X | | | | | | | | | |
| ABCØØ1 | MW-2 | S Ø3 Ø Ø3 5 | 2 | - | 11/8/02 1013 | | X | X | | | | | | | | | (Hold sample) |
| ABCØØ1 | MW-3 | S Ø8 Ø1 Ø Ø | 2 | - | 11/8/02 1315 | | X | X | | | | | | | | | |
| ABCØØ1 | MW-1 | G 11 Ø8 Ø2 | 3 | F | 11/8/02 1528 | | | | X | X | | | | | | | |
| ABCØØ1 | FB1 | W 11 Ø8 Ø2 | 2 | - | 11/8/02 1530 | | | | X | | | | | | | | |
| ABCØØ1 | TB1 | W 11 Ø8 Ø2 | 2 | - | 11/8/02 — | | | | X | | | | | | | | |
| | | | | | / | | | | | | | | | | | | |
| | | | | | / | | | | | | | | | | | | |
| | | | | | / | | | | | | | | | | | | |
| | | | | | / | | | | | | | | | | | | |
| | | | | | / | | | | | | | | | | | | |
| | | | | | / | | | | | | | | | | | | |

| RELINQUISHED BY: | DATE: | TIME: | RECEIVED BY: | DATE: | TIME: |
|---|---|---|---|---|---|
| J. Small | 11/9/02 | 1430 | FEDEX | 11/9/02 | 1430 |
| RELINQUISHED BY: | DATE: | TIME: | RECEIVED BY: | DATE: | TIME: |
| RELINQUISHED BY: | DATE: | TIME: | RECEIVED FOR LAB BY: | DATE: | TIME: |

COOLER TEMPERATURE AS RECEIVED: °C

DISTRIBUTION:
WHITE - LAB USE (MUST BE RETURNED WITH REPORT)
YELLOW - LAB USE
PINK - RETAINED BY HULL

Deliver To: SONIC LAB, INC
Method of Delivery: FEDEX
Airbill Number: 798321Ø9X
NOTES: VAP Project

TURN AROUND TIME: 14 DAYS

# APPENDIX B

Environmental Questionnaire for Proposed Borrow Sources

**ENVIRONMENTAL QUESTIONNAIRE FOR THE PROPOSED BORROW SOURCE**

*Please complete all questions listed below to the best of your ability. Please hand print or type, use the back of the questionnaire or another piece of paper if more room is needed. Please do not leave any questions blank. If the question does not apply or if you do not know the answer, please indicate so. Where appropriate, please give names and phone numbers of any persons who may have knowledge of questions that you were not able to answer. Please provide a signature and date at the end of this form.*

Name: _____

Position: _____

Affiliation: _____

Address: _____

_____

Phone: _____

Borrow Source Location: _____

Borrow Source Address/Description: _____

_____

1. What activities or operations are currently conducted at the property? How long have these activities been conducted at this property?

2. What activities or operations of a different nature than noted in Question #2 have been conducted at the property in the past? How long have these activities been conducted at this property?

3. Are you aware of any hazardous substances or petroleum products on the site or nearby properties under conditions that indicate an existing or past release, or material threat of release into structures, soil, ground water or surface water?

4. Has there been any fill material brought to the property from any off-site locations? If yes, what was the origin of this fill?

5. Has there ever been any dumping or disposal of waste or chemicals on the property? If yes, please detail.

6. Are you aware of any of the following documents for the site and, if so, will copies be provided to HAI (even partial information may be useful)?

   _____Environmental Site Assessment or Audit Reports

_____Environmental Permits (for example, solid or hazardous waste disposal permits, wastewater permits, NPDES permits, etc.)
_____Registration for underground and aboveground storage tanks
_____Material Safety Data Sheets
_____Community Right-to-Know Plan
_____Safety Plans; preparedness and prevention plans; spill prevention, control, and countermeasures plans; etc.
_____Reports regarding hydrogeologic conditions on the property or surrounding area
_____Notices from any governmental agency relating to past or current violations of environmental laws with respect to the property or relating to environmental liens encumbering the property
_____Hazardous waste generator notices or reports
_____Geotechnical Studies

7. Are there, or were there ever, any underground storage tanks (USTs) on the property or surrounding properties? Are there any vent pipes, fill pipes, or pipes with an unknown use on the property? If USTs are known to exist on the property, please provide the following information, if available: construction, size, age, contents, closure report results (if abandoned after 1988), etc.

8. Are there, or were there ever, any aboveground petroleum or chemical storage containers on the property (e.g., aboveground storage tanks, 55-gallon drums, etc.)?

9. Has there ever been any spills, fires, or open burning on the property or surrounding properties? Is there currently, or has there been previously, any stained soil on the property?

10. Has there ever been any sludges or chemicals (including pesticides, herbicides, fertilizers, etc.) applied to the property or adjacent properties? If yes, were they applied in accordance with the manufacturer's specifications? In what quantities and frequency were they applied?

11. What structures or utilities have been located on the Property in the past? What were their uses, locations and sizes?

*Please note that based on responses to this questionnaire or knowledge of the borrow source developed independently by Hull, Hull may request chemical analytical data for the borrow material.*

**Signature: _____ Date: _____**

Exhibit 6: TRC Contract and Permit Authorizations

**Confidentiality and Exclusive Marketing Agreement**

This AGREEMENT made and entered into this 17th day of September 2007 by and between Impact Environmental Consulting, Inc. and/or any of its designated companies (hereinafter referred to as IEC), a corporation registered in the State of New York operating out of 170 Keyland Court, Bohemia, NY, 11716 and Total Recycling Corporation, a corporation registered in the state of Delaware operating out of 3715 Remaly Street Bethlehem, PA 18018 (hereinafter referred to as TRC)

Definitions: For the pupose of this AGREEMENT, "Confidential Information" shall mean all information of IEC, or of another party whose information IEC has in its possession under obligations of confidentiality, in whatever form transmitted, relating to contracts, funding, business contacts, business plans, operations, systems, and/or the proposed sale, purchase and use of telecommunications services, which (i) is disclosed by IEC or its affiliates, indicating its confidetial or proprietary nature, or (ii) is developed during the relationship between the parties and would give or increase advantage of IEC's competitors over IEC or diminsh IEC's advantage over its competitors. The term "affiliate" shall mean any person or entity controlled by or under common control with a party. For the purpose of this agreement, Exclusive Marketing Agreement shall mean that IEC will be the only entity/party authorized to bring soil material into TRC facilities located at 700 Savage Road in Northhampton PA 18067, and 1820 North Dauphin Street in Lehigh County, Allentown, Pennsylvaniaor any new TRC Facilities initiated due to the use of Confidential Information from IECfrom the states of New York, Connectuit, Deleware, Maryland and New Jersey, with exception of site projects where TRC is the site developer for property owners in New Jersey, for a period of 5 years.

Confidentiality: TRC agrees to keep all Confidential Information regarding the clients and related information obtained by IEC confidential and not to disclose said information to any third party without prior written consent of IEC .

Non-Circumvention: The parties further agree, TRC shall not contract or attempt to transact with or conduct business with IEC's customers or its competitors directly without written approval from IEC and will refer all inquiries as may originate from this exclusive marketing agreement to IEC in a timely matter.

IEC Responsiblities: IEC will be responsible for shipping 4000 loads annually into a TRC facility. A load is a truck with soil material deliveried to a TRC facility. IEC will place a site person at its sole cost to oversee the loads coming into the TRC facilities. IEC will pay TRC a rate of xxx per ton for material delivery to a TRC facility net 45 days. In the event payment is received after 45 days a xxx per ton premium will be added to this rate. IEC will review their customer's analyical data to determine if the soil material meets TRC permit requirements. IEC will be responsible for managing and generating the appropriate reports as required by the PADEP and any local agenciesat its sole cost.

TRC Responsiblities: TRC will be responsible for accepting soil material from IEC customer's that meet their permit requirements. TRC will maintain insurance coverage adequate to indemnify IEC customer's at its sole cost. TRC will issue monthly invoices by each job showing # of loads, rate, total cost and reflect IEC's net 45payments. TRC will be responsible for unloading, screening and placing the soil material at its sole cost. TRC will pay all engineering and analyical costs associated with keeping its permit in full effect.

Ownership: All Confidential Information, in whatever form, including but not limited to, information transmitted or supported in electronic storage media or written media, shall be and remain the property of IEC. All such Confidential Information shall be returned to IEC promptly upon written request and shall not be retained in any form by TRC unless required under its permit.

Remedies: The parties agree that in the event of a breach or threatened breach of the terms of this AGREEMENT, the non-breaching party shall be entitled to an injunction in addtion to, and not in lieu of, any other legal or equitable relief including monetary damages. The parties acknowledge that the Confidential Information is valuable and unique and that its disclosure or circumvention will result in irreparable damages to IEC.

Cure Period: Each party has 60 days to cure any voilation in this agreement before defaulting the other party. However, both parties are responsible for any and all damages caused by the other as a result of the violation.

Miscellaneous: Any failure or delay by the parties in exercising any right, power or privilege hereunder shall not invalidate the rights, power or privileges provided under this AGREEMENT. The laws of the State of Pennsylvania shall govern this AGREEMENT. If any provision of this of this AGREEMENT shall be involid under such laws, the validity of the remiaing provisions shall not be affected. The Commonwealth and/or Federal courts located in Pennsylvania shall be the exclusive and proper jurisdiction for any disputes arising hereunder. Should a party be found to be in violation of this AGREEMENT following due process, the violating party agrees to pay all costs and expesnes, including attorney's fee and disbursements incurred by the non-violating party in enforcing the terms of this AGREEMENT. Facsimile documents, when properly endorsed, are hereby declared to be treated as originals.

IN WITNESS WHEREOF, the parties hereto have duly executed this AGREEMENT.

Total Recycling Corporation

By: _____ 11/7/2008 _____

(Signature)

John Krapt

(Print Name)

Witness

Impact Environmental Consulting, Inc

By: _____ 12/3/2008 _____

Richard Parrish

Witness

COMMONWEALTH OF PENNSYLVANIA

# DEPARTMENT OF ENVIRONMENTAL PROTECTION

*ACTIVE AND ABANDONED MINE OPERATIONS* *BUREAU OF MINING PROGRAMS*

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

## Large Non Coal Mine Operator's License

### MINING WITH CONSERVATION STANDS FOR PROGRESS

*This is to certify that the following person has been duly licensed to engage in mining in the Commonwealth of Pennsylvania until the date of expiration, as shown below:*

*Name:* TOTAL RECYCLING CORP
DBA TOTAL RECYCLING RESOURCES

*Address:* PO BOX 90674
ALLENTOWN PA 18109-0674

*License Number:* 16848

*License Issued:* 11/19/2013

*License Expires:* **11/30/2014**

Any person who proceeds to conduct mining activities without a valid authorization or in violation of the terms of the authorization shall be guilty of a misdemeanor and subject to fine or imprisonment, as provided in the 'Noncoal Surface Mining Conservation and Reclamation Act.' This license may be suspended or revoked for failure to comply with the terms of the authorization, the applicable regulations or applicable laws. The terms of this authorization shall include: 1) Operator shall at all times comply with the 'The Clean Streams Law of Pennsylvania' and the 'Noncoal Surface Mining Conservation and Reclamation Act' and the rules and regulations, orders and permits issued under these acts. 2) Licensee shall not proceed to mine minerals by the surface mining method activities without a valid surface mining permit. 3) This certificate shall be displayed at the legal address of the licensee.

Director, Bureau of Mining Programs

# Total Recycling Corp. Permits

IMPACT ENVIRONMENTAL

170 KEYLAND COURT, BOHEMIA, NEW YORK 11716 | 631.269.8800 TELEPHONE | 631. 269.1599 FACSIMILE | IMPACTENVIRONMENTAL.COM

Pennsylvania Department of Environmental Protection

**5 West Laurel Boulevard**
**Pottsville, PA 17901-2522**

570-621-3118
FAX # 570-621-3110

August 14, 2008

**Pottsville District Office**

**NOTICE OF PERMIT CORRECTION**

Total Recycling Corporation
d/b/a Total Recycling Resources
PO Box 90674
Allentown, PA 18109

Re: Surface Mining Permit No. 7874SM1
Fullerton Slag Bank Operation
Hanover Township, Lehigh County

Ladies & Gentlemen:

The above-referenced permit is hereby corrected per Application No. 7874SM1C received June 19, 2008. The purpose of this correction is to authorize to bring clean fill to the mining site for production of construction material (mixtures of clean fill with slag material). Enclosed, please find the revised Part B Special Conditions or requirements, and note new conditions 9 through 17 that apply to clean fill.

The enclosed information shall be considered an addendum to the original permit issued on August 21, 1974 and any subsequent revisions or corrections. This information is to be filed with your copy of the original permit and, in case of any conflicts with the original permit, shall take precedence over the original permit information.

Should you have any questions, please contact this office.

Sincerely,

Ignacy F. Nasilowski, P.G.
Licensed Professional Geologist
District Mining Operations

Enclosures

cc: Nathan A. Houtz
SMCIS, Colleen B. Stutzman
SMCI, Christian Kuba
Consultant, Michael Chiavone, c/o: Impact Environmental
Municipality of Hanover Twp.
County of Lehigh
File
MS1-Total (8/08)

IFN:gk

**PART B**
**NONCOAL SURFACE MINING PERMIT NO. 7874SM1C**
**Total Recycling Corp. d/b/a Total Recycling Resources**
**Fullerton Slag Bank Operation**
**SPECIAL CONDITIONS OR REQUIREMENTS**

The following special conditions or requirements are hereby incorporated into the permit and represent permit conditions.

1. There shall be no point-source discharge of water from the area authorized by this surface mining permit. In the event a point-source discharge occurs, applicable effluent limitations as specified in Part A will apply. In the event of a permanent point-source discharge, the permittee shall immediately contact the surface mine conservation inspector. A new NPDES permit application is to be submitted to the Pottsville District Office within seven days of the discharge.

2. There shall be **NO BLASTING** on any portion of the referenced permit by the permittee, contractor, subcontractor or contractor blaster until such time as the permittee obtains a certificate of insurance covering blasting activities and an approved blast plan from the Department which shall be filed with the Department and further receives written confirmation from the Department that an approved blast plan has been incorporated into this permit and that this condition has been deleted.

3. The permit area encompasses 22.7 acres of slag material located in Hanover Township, Lehigh County and is jointly owned by J.O. Krapf and Sons. The Department approves mining and reclamation plans as depicted on Map Drawing S-5653, Sheet 2 of 2, certified by Frederick C. Spott, P.E. and Cross-sections C-C', D-D', E-E', F-F', G-G', H-H' and K-K' dated May 31, 1990, and certified by Frederick C. Spott, P.E.

4. A previously issued road variance to affect area for slag removal within 100 feet of the outside right-of-way of U.S. Route 22 is continued as per PennDOT letter dated May 22, 1991. This variance continuance remains subject to the conditions outlined in the May 22, 1991 approval letter, namely:

   a) The bearing capacity of bridge pier foundations and abutments shall not be endangered by removal of slag.

   b) The variance area will be used as a slope between the bridge foundations and the excavated slag pile.

   c) Slag material may not be removed from within the U.S. Route 22 right-of-way.

5. The permittee must maintain a minimum 70 foot setback from the U.S. Route 22 right-of-way to the top of the reclamation slope, as oriented parallel to the northern right-of-way line boundary of U.S. Route 22, as depicted on cross-section K-K', dated May 31, 1990, and certified by Frederick C. Spott, P.E.

6. The permittee is not authorized to exceed a 25 foot maximum vertical height while excavating slag bank material. Horizontal working benches must be at least 25 feet wide at all times.

7. The permittee is hereby granted a variance continuance to affect area within 100 feet of the Lehigh River for the purposes of excavating and removal of slag bank material. This variance remains subject to the following conditions:

   a) No changes in the maps, plans, profiles and specifications shall be made except with the prior written consent of the Department.

   b) The Operator shall notify the Surface Mine Conservation Inspector when work is commenced within the variance area and also upon removal of the containment berm depicted on the approved cross-sections.

   c) Within thirty days after the completion of the work authorized in the approved plan, the operator shall file with the Department a statement certifying that the work has been performed in accordance with the approved plan dated June 28, 1990.

d) The approved Erosion and Sedimentation Control Plan must be properly implemented and closely monitored to minimize erosion and prevent excessive sedimentation into the Lehigh River.

e) The Pennsylvania Fish Commission representatives shall be notified prior to beginning excavation within 50 feet of the Lehigh River.

8. All topsoil or subsoil encountered must be stockpiled and stabilized on-site for future use in reclamation of affected area(s).

9. The permittee is authorized to temporarily store and process clean fill material that comes from contracted construction and demolition jobs by the permittee or its affiliates. A structural fill will be produced by mixing imported clean fill with the site's slag material. The material brought to the site shall be deemed as clean fill in accordance with present Department Technical Guidance Documents and Policies, and any future Technical Guidance Documents relating to the placement of clean fill at mine sites.

10. No off-site material is to be retained and/or used for site reclamation without prior Departmental authorization.

11. The maximum volume of clean fill and clean fill/slag mixture stockpiled on-site at any given time shall not exceed 60,000 cubic yards each.

12. Off-site material shall be removed from the site within 90 days. The permittee shall maintain a log of all off-site material to be processed on this SMP including the origin of the material, date it was brought on-site for processing, and date the material was removed for the permit. The form FP-001 Certification of Origin of Clean Fill shall be completed for each source of material and made part of the log.

13. The operator or his designee shall conduct the required sampling and testing in accordance with present Department Technical Guidance Documents and Policies, and any future Technical Guidance Documents relating to the placement of clean fill at mine sites. The results of the sampling and testing must be available to the Pottsville District Mining Office for review (and take out copy must be also available) at any time during inspection of the mine site during regular working hours.

14. The mine operator must visually inspect and scan each load of proposed Clean Fill Material with an Organic Vapor Analyzer (OVA) or Photo Ionization Detector (PID) to assure that the materials contained in the loads are acceptable. If the visual inspection and/or OVA or PID testing reveals that the load does not qualify as Clean Fill Material (i.e. a positive OVA or PID reading is obtained or the load is contaminated) the mine operator is to refuse to accept the load. The rejected load is to be promptly removed from the active mine site. A record of the acceptance or rejection of a load, which includes the results of the OVA or PID testing, a description of unacceptable materials and in the case of rejection, the origin of the rejected load, shall be maintained at the mine site. Form 5600-FM-MR0145 or a Department approved form should be used for this purpose. The record must be maintained at the mine site for at least a year and held by the company for 5 years after the completion of the operation.

15. Clean fill and the clean fill/slag mixture shall be stockpiled only in areas designated on the Operations Map dated June 3, 2008. This area shall be isolated from the permit by constructing 3 foot high berm around the entire perimeter.

16. All runoff from clean fill and clean fill/slag mixture stockpile areas shall be contained on-site or directed to adequately designed, constructed and maintained erosion and sediment pollution controls.

17. The Department reserves the right to suspend, rescind or modify this approval for clean fill temporary storage at this mine site in the event of changes to the Department regulations and policies and/or unforeseen circumstances which may cause pollution of the waters of the Commonwealth, including groundwater.

5600-PM-MR0315 Rev. 3/2007

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF MINING AND RECLAMATION

| DEP USE ONLY |
|---|
| Date Received 6/19/08 |
| Permit Number 7874SM1C |

# LARGE NONCOAL (INDUSTRIAL MINERALS) MINE PERMIT APPLICATION

**Before completing this form, read the step-by-step instructions provided with this Permit Application Package.**

## SECTION A. APPLICANT INFORMATION

**Applicant Name**
Total Recycling Corporation dba Total Recycling Resources

**Mailing Address**
PO Box 90674
(Street # and Name or P.O. Box)

(Address Line 2)

Allentown (City) | PA (State) | -181090674 (Zip Code + Four)

**Applicant Type**
- ☐ Individual (INDIV)
- ☐ PA Corporation (PACOR)
- ☒ Non-PA Corporation (NPACO)
- ☐ General Partnership (PARTG)
- ☐ Limited Partnership (PARTL)
- ☐ Municipality (MUNI)
- ☐ Sole Proprietorship (SOLEP)
- ☐ Other (OTHER)

6102611700 Ext. (Telephone #) | (FAX #)

**Surface Mining Operator's License #**
16848
☐ Pending

**Applicant Contact**
Krapf (Last Name) | Howard (First Name) | J (MI)

President (Title)

**Mailing Address**
PO Box 90674
(Street # and Name or P.O. Box)

Allentown (City) | PA (State) | -181090674 (Zip Code + Four)

penmarkay@aol.com (Email Address) | (610) 2611700 Ext. (Telephone #) | (FAX #)

## SECTION B. DESCRIPTION OF ACTIVITY

**Application Type**
☐ New (NEW) ☒ Revision/Modification (MOD) ☐ Transfer (TRAN) Permit Number 7874SM1

**Type of Mining Activity(ies)**
☒ Surface Mining ☐ Underground Mining (Includes Surface Effects of Underground Mining) ☐ Incidential Coal Extraction
☐ Other (specify)

## SECTION C. SITE INFORMATION

**Operation/Site Name** Fullerton Slag Bank

**Operation/Site Location**

| County(ies) | Municipality(ies) |
|---|---|
| Lehigh County | Hanover Township |

**SECTION C.** (continued)

**Operation/Site Location**

U.S.G.S. Map Name(s) Catasauqua, PA

Map Coordinates (center of proposed permit area)

Latitude 40° 37′ 52″ Longitude 75° 27′ 48″

Method of latitude/longitude collection USGS

Horizontal accuracy (feet/inches) +/- 50 feet

Horizontal Reference Datum
- ☐ N.Am. 1927
- ☒ N.Am. 1983
- ☐ World Geodetic 1984

Name or route number of nearest state/township road and a description of the location of the road that provides access to the operation Route 22 Overpass

**Name(s) of receiving stream(s)/Chapter 93 Classification**

Lehigh River / TSF - Trout Stocking

| **MSHA Mine I.D. No** | **MSHA Pit No.** |
|---|---|
| 0 | N/A |

**Extent of Mining**

**Surface Mine**

| List Rock/Mineral to be Mined (Include topsoil/overburden to be sold) | Acres of Rock/Mineral Removal |
|---|---|
| Blending of Slag with | None |
| PA Clean Fill from | |
| offsite sources | |
| | |

Total acres to be affected by rock/mineral removal None

Permit Area (total acres) 5 Acre

**Remining**

Total acres of abandoned mine land (i.e., open pits, refuse/spoil piles, surface area affected by underground mining) to be reaffected Zero

**Processing Facility**

Total acres to be affected 5 Acres

**Wetlands**

Total acres of wetland to be affected by mining Zero

Total acres of wetland to be replaced Zero

## SECTION D. PERMIT COORDINATION (or provide GIF form 8000-PM-IT0001)

1. Will this noncoal mining project involve the crushing and screening of noncoal minerals other than sand and gravel? ☐ Yes ☒ No

2. Will this noncoal mining project involve the crushing and/or screening of sand and gravel with the exception of wet sand and gravel operations (screening only) and dry sand and gravel operations (crushing and/or screening) processing unconsolidated materials with a rated capacity of less than 150 tons/hour? ☐ Yes ☒ No

3. Will this noncoal mining project involve the construction, operation and/or modification of a portable mineral processing plant? ☐ Yes ☒ No

4. Will underground tanks for storage of fuel or chemicals be located within the proposed permit area? ☐ Yes ☒ No

## SECTION E. APPLICATION FEE

☒ $250.00 - Surface Mining or Underground Mining, Support Facilities (including NPDES when required)

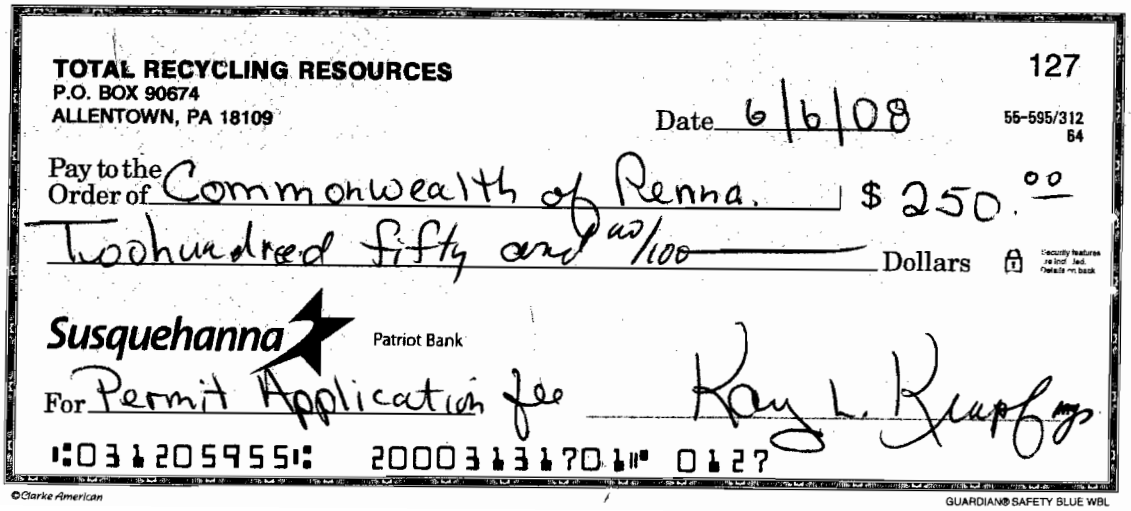
☐ Water obstruction and encroachments (There is a fee under Chapter 105 for each water obstruction and encroachment)

| | Application Fee | Number | Type |
|---|---|---|---|
| ☐ | | | Stream enclosure ($350.00 each) |
| ☐ | | | Channel change ($300.00 each) |
| ☐ | | | Bridges and other water obstructions in a stream or floodway with a drainage area of greater than 100 acres ($200.00 each) |
| ☐ | | | Encroachments ($200.00 each) |
| ☐ | | | Small projects as defined in 25 Pa Code Section 105.1 ($100.00 each) |
| ☐ | - 0 - | | General Permit for Temporary Road Crossings for Moving Surface Mining Equipment BMR-GP-101 (No fee is required) |
| ☐ | - 0 - | | General Permit for Access Road Crossing BMR-GP-102 (No fee is required) |

☐ Dam (There is a fee for each dam)

| | | | |
|---|---|---|---|
| ☐ | | | Class C dams as defined in 25 Pa Code Section 105.91. ($1,500.00 each/No fee is required if the dam has a contributing drainage of 100 acres or less, the greatest depth of water at maximum storage elevation is 15 feet or less, and the maximum impounding capacity is 50 acre- feet or less). |

$250.00 Total Application Fee



TOTAL RECYCLING RESOURCES
P.O. BOX 90674
ALLENTOWN, PA 18109

127

Date 6/6/08

55-595/312
64

Pay to the Order of Commonwealth of Penna. $ 250.00

Two hundred fifty and no/100 Dollars

Susquehanna Patriot Bank

For Permit Application fee Kay L. Kreps

⑆031205955⑆ 2000313170⑈ 0127

©Clarke American

GUARDIAN® SAFETY BLUE WBL

## SECTION F. CONSULTANT

| Parrish | Richard | |
|---|---|---|
| (Last Name) | (First Name) | (MI) |
| President | Impact Environmental | |
| (Title) | (Name of Consulting Firm) | |

**Mailing Address**
**170 Keyland Court**
(Street # and Name or P.O. Box)

| Bohemia | PA | 11716 - |
|---|---|---|
| (City) | (State) | (Zip Code + Four) |
| rich@impactenvironmental.com | (610) 269 - 8800 | (631) 269 - 1599 |
| (E-mail Address) | (Telephone #) | (Fax #) |

## SECTION G. LAND USE INFORMATION (or provide GIF form 8000-PM-IT0001)

Have you submitted local municipal and county approval letters for this mining project with this permit application? ☐ Yes ☒ No

If "no," respond to the following additional questions.

1. Is there a municipal comprehensive plan(s)? ☐ Yes ☒ No
2. Is there a county comprehensive plan(s)? ☐ Yes ☒ No
3. Is there a multi-municipal or multi-county comprehensive plan? ☐ Yes ☒ No
4. Is the proposed project consistent with these plans? ☐ Yes ☒ No
   If no plan(s) exist, answer "yes."
5. Is there a municipal zoning ordinance(s)? ☐ Yes ☒ No
6. Is there a joint municipal zoning ordinance? ☐ Yes ☒ No
7. Will the proposed project require a zoning approval (e.g. special exception, conditional approval, rezoning, variance)? ☐ Yes ☒ No
   **Note:** If zoning approval has already been received, attach documentation.
8. Are any zoning ordinances that are applicable to this project currently the subject of any type of legal proceeding? ☐ Yes ☒ No
9. Will the project be located on a site that is being remediated under DEP's Land Recycling Program? ☐ Yes ☒ No
10. Will the project result in reclamation of abandoned mine lands through remining or as part of DEP's RECLAIM PA Program? ☐ Yes ☒ No
11. Will the project be located in an agricultural security area or an area protected under an agricultural conservation easement? ☐ Yes ☒ No
12. Will the project be located in a Keystone Opportunity Zone or Enterprise Development Area? ☐ Yes ☒ No
13. Will the project be located in a Designated Growth Area as defined by the Municipalities Planning Code? ☐ Yes ☒ No

**Note:** Applicants are encouraged to submit copies of local land use approvals or other evidence of compliance with local comprehensive plans and zoning ordinances.

## SECTION H. ADDITIONAL RELATED INFORMATION

Will the proposed mining activities involve the disturbance of any primary agricultural lands? ☐ Yes ☒ No

If "yes," indicate the alternatives to this disturbance considered and the reasons they were not deemed feasible.

Name and Address of Public Office where a copy of this application is on file for public review.

Have arrangements been made to publish notice of this application in a local newspaper of general circulation in the locality of the proposed mining activities? ☐ Yes ☒ No

Name of newspaper where the public notice advertisement will appear: n/a

Attach a copy of the proposed public notice (see instructions for sample notice containing suggested wording and content).

**SECTION H.** (continued)

Provide the following (if applicable to this proposed operation):

Pre-Application No. n/a

Notice of Intent to Explore No. n/a

Application Date: n/a

**SECTION I. AFFIDAVIT**

Commonwealth of Pennsylvania, County of Lehigh

I, Howard J. Krapf being duly sworn, according to law, depose and say that I (am the applicant) (am an officer or official of the applicant) (have the authority to make this application) and that the plans, reports and documents submitted as part of the application are true and correct to the best of my knowledge and belief. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (cross out inapplicable portions in parenthesis)

Sworn and Subscribed to Before Me This

16 Day of 06 (month) 2008 (year)

Howard J Krapf VP
Signature of Applicant or Responsible Official

Kay Louise Krapf
Notary Public

Howard J KRAPF
Name (Typed)

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Kay Louise Krapf, Notary Public
Allen Twp., Northampton County
My Commission Expires June 10, 2010
Member, Pennsylvania Association of Notaries

Notary Public
Title and Seal

P O Box 90674
Address

## PERSON(S) AUTHORIZED BY APPLICANT TO PREPARE THIS APPLICATION

The application, plans, reports and specifications shall be certified by a registered professional engineer, registered professional geologist or registered professional land surveyor, as appropriate. Geologic and hydrogeologic information must be certified by a registered professional geologist. Impoundments requiring a 25 Pa Code Chapter 105 permit or having a storage capacity of equal to or greater than 20 acre-feet; and final contours/grading other than approximate original contour in conjunction with achieving an alternate postmining land use must be certified by a registered professional engineer. Impoundments which do not require a Chapter 105 permit or have a storage capacity of less than 20 acre-feet must be certified by a registered professional engineer or a registered professional land surveyor.

***Registered Professional Engineer***

I, Joel M. Rogers, PE do hereby certify to the best of my knowledge, information and belief, that the application, plans, specifications and reports have been prepared in accordance with accepted practice of engineering, are true and correct, and are in accordance with the Rules and Regulations of the Department of Environmental Protection. I further certify that it is within my professional expertise to verify the correctness of the information. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Signature _____

Address 170 Keyland Court
Bohemia, NY 11716

Telephone No. 631-269-8800

Seal

***Registered Professional Geologist***

I, _____ do hereby certify to the best of my knowledge, information and belief, that the application, plans, specifications and reports have been prepared in accordance with accepted practice of geology and hydrology, are true and correct, and are in accordance with the Rules and Regulations of the Department of Environmental Protection. I further certify that it is within my professional expertise to verify the correctness of the information. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Signature _____

Address _____

Telephone No. _____

Seal

***Registered Professional Land Surveyor***

I, _____ do hereby certify to the best of my knowledge, information and belief, that the application, plans, specifications and reports have been prepared in accordance with accepted practice of land surveying and engineering land surveys, are true and correct, and are in accordance with the Rules and Regulations of the Department of Environmental Protection. I further certify that it is within my professional expertise to verify the correctness of the information. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Signature _____

Address _____

Telephone No. _____

Seal

## APPLICATION FORM CERTIFICATION

Complete the following if the application is submitted on forms other than the original Department Forms.

Registered Professional Engineer, Registered Professional Land Surveyor or Registered Professional Geologist

I, _____ ; being a registered professional
(Engineer's/Surveyor's/Geologist's Name - Print or Type)

engineer/registered professional land surveyor or registered professional geologist (circle as appropriate) do hereby certify that the forms used in the accompanying application have been reproduced under my supervision and are a facsimile of the forms prepared by the Department. I am aware that there are significant penalties for altering the content of the Department's forms, including the possibility of fine and imprisonment.

Signature _____ Date _____ Seal

Pennsylvania Department of Environmental Protection

**2 Public Square**
**Wilkes-Barre, PA 18711-0790**
February 6, 2009

**Northeast Regional Office**

570-826-2511
Fax 570-826-5448

Total Recycling Corporation
3725 Remaly Street
Bethlehem, PA 18018

Re: Total Recycling Corporation
Coproduct Determination for Iron Slag
City of Bethlehem, Lehigh County

Dear Sir or Madam:

On May 22, 2008, the Department received your request for concurrence of coproduct determination to use iron slag from the former Fullerton Slag Bank located at 1820 North Dauphlin Street in Allentown, PA to use as construction material listed in Pennsylvania Department of Transportation Construction Specifications Publication 408. We have concurred with your determination contingent upon the implementation of a Department approved sampling and analysis plan to demonstrate that the slag to act as a construction material as defined by Pennsylvania Department of Transportation.

If you require anything further, or would like to discuss this matter, feel free to contact Paul Jarecki, Environmental Chemist or me at the above listed address or at 570-826 2474.

Sincerely,

Tracey L. McGurk
Solid Waste Supervisor
Waste Management Program

cc: Richard Parrish

Pennsylvania Department of Environmental Protection

**5 West Laurel Boulevard**
**Pottsville, PA 17901-2522**

570-621-3118
FAX # 570-621-3110

August 14, 2008

**Pottsville District Office**

**NOTICE OF PERMIT CORRECTION**

Total Recycling Corporation
d/b/a Total Recycling Resources
PO Box 90674
Allentown, PA 18109

Re: Surface Mining Permit No. 7874SM1
Fullerton Slag Bank Operation
Hanover Township, Lehigh County

Ladies & Gentlemen:

The above-referenced permit is hereby corrected per Application No. 7874SM1C received June 19, 2008. The purpose of this correction is to authorize to bring clean fill to the mining site for production of construction material (mixtures of clean fill with slag material). Enclosed, please find the revised Part B Special Conditions or requirements, and note new conditions 9 through 17 that apply to clean fill.

The enclosed information shall be considered an addendum to the original permit issued on August 21, 1974 and any subsequent revisions or corrections. This information is to be filed with your copy of the original permit and, in case of any conflicts with the original permit, shall take precedence over the original permit information.

Should you have any questions, please contact this office.

Sincerely,

Ignacy F. Nasilowski, P.G.
Licensed Professional Geologist
District Mining Operations

Enclosures

cc: Nathan A. Houtz
SMCIS, Colleen B. Stutzman
SMCI, Christian Kuba
Consultant, Michael Chiavone, c/o: Impact Environmental
Municipality of Hanover Twp.
County of Lehigh
File
MS1-Total (8/08)

IFN:gk

# PART B
# NONCOAL SURFACE MINING PERMIT NO. 7874SM1C
# Total Recycling Corp. d/b/a Total Recycling Resources
# Fullerton Slag Bank Operation
# SPECIAL CONDITIONS OR REQUIREMENTS

The following special conditions or requirements are hereby incorporated into the permit and represent permit conditions.

1. There shall be no point-source discharge of water from the area authorized by this surface mining permit. In the event a point-source discharge occurs, applicable effluent limitations as specified in Part A will apply. In the event of a permanent point-source discharge, the permittee shall immediately contact the surface mine conservation inspector. A new NPDES permit application is to be submitted to the Pottsville District Office within seven days of the discharge.

2. There shall be **NO BLASTING** on any portion of the referenced permit by the permittee, contractor, subcontractor or contractor blaster until such time as the permittee obtains a certificate of insurance covering blasting activities and an approved blast plan from the Department which shall be filed with the Department and further receives written confirmation from the Department that an approved blast plan has been incorporated into this permit and that this condition has been deleted.

3. The permit area encompasses 22.7 acres of slag material located in Hanover Township, Lehigh County and is jointly owned by J.O. Krapf and Sons. The Department approves mining and reclamation plans as depicted on Map Drawing S-5653, Sheet 2 of 2, certified by Frederick C. Spott, P.E. and Cross-sections C-C', D-D', E-E', F-F', G-G', H-H' and K-K' dated May 31, 1990, and certified by Frederick C. Spott, P.E.

4. A previously issued road variance to affect area for slag removal within 100 feet of the outside right-of-way of U.S. Route 22 is continued as per PennDOT letter dated May 22, 1991. This variance continuance remains subject to the conditions outlined in the May 22, 1991 approval letter, namely:

   a) The bearing capacity of bridge pier foundations and abutments shall not be endangered by removal of slag.

   b) The variance area will be used as a slope between the bridge foundations and the excavated slag pile.

   c) Slag material may not be removed from within the U.S. Route 22 right-of-way.

5. The permittee must maintain a minimum 70 foot setback from the U.S. Route 22 right-of-way to the top of the reclamation slope, as oriented parallel to the northern right-of-way line boundary of U.S. Route 22, as depicted on cross-section K-K', dated May 31, 1990, and certified by Frederick C. Spott, P.E.

6. The permittee is not authorized to exceed a 25 foot maximum vertical height while excavating slag bank material. Horizontal working benches must be at least 25 feet wide at all times.

7. The permittee is hereby granted a variance continuance to affect area within 100 feet of the Lehigh River for the purposes of excavating and removal of slag bank material. This variance remains subject to the following conditions:

   a) No changes in the maps, plans, profiles and specifications shall be made except with the prior written consent of the Department.

   b) The Operator shall notify the Surface Mine Conservation Inspector when work is commenced within the variance area and also upon removal of the containment berm depicted on the approved cross-sections.

   c) Within thirty days after the completion of the work authorized in the approved plan, the operator shall file with the Department a statement certifying that the work has been performed in accordance with the approved plan dated June 28, 1990.

d) The approved Erosion and Sedimentation Control Plan must be properly implemented and closely monitored to minimize erosion and prevent excessive sedimentation into the Lehigh River.

e) The Pennsylvania Fish Commission representatives shall be notified prior to beginning excavation within 50 feet of the Lehigh River.

8. All topsoil or subsoil encountered must be stockpiled and stabilized on-site for future use in reclamation of affected area(s).

9. The permittee is authorized to temporarily store and process clean fill material that comes from contracted construction and demolition jobs by the permittee or its affiliates. A structural fill will be produced by mixing imported clean fill with the site's slag material. The material brought to the site shall be deemed as clean fill in accordance with present Department Technical Guidance Documents and Policies, and any future Technical Guidance Documents relating to the placement of clean fill at mine sites.

10. No off-site material is to be retained and/or used for site reclamation without prior Departmental authorization.

11. The maximum volume of clean fill and clean fill/slag mixture stockpiled on-site at any given time shall not exceed 60,000 cubic yards each.

12. Off-site material shall be removed from the site within 90 days. The permittee shall maintain a log of all off-site material to be processed on this SMP including the origin of the material, date it was brought on-site for processing, and date the material was removed for the permit. The form FP-001 Certification of Origin of Clean Fill shall be completed for each source of material and made part of the log.

13. The operator or his designee shall conduct the required sampling and testing in accordance with present Department Technical Guidance Documents and Policies, and any future Technical Guidance Documents relating to the placement of clean fill at mine sites. The results of the sampling and testing must be available to the Pottsville District Mining Office for review (and take out copy must be also available) at any time during inspection of the mine site during regular working hours.

14. The mine operator must visually inspect and scan each load of proposed Clean Fill Material with an Organic Vapor Analyzer (OVA) or Photo Ionization Detector (PID) to assure that the materials contained in the loads are acceptable. If the visual inspection and/or OVA or PID testing reveals that the load does not qualify as Clean Fill Material (i.e. a positive OVA or PID reading is obtained or the load is contaminated) the mine operator is to refuse to accept the load. The rejected load is to be promptly removed from the active mine site. A record of the acceptance or rejection of a load, which includes the results of the OVA or PID testing, a description of unacceptable materials and in the case of rejection, the origin of the rejected load, shall be maintained at the mine site. Form 5600-FM-MR0145 or a Department approved form should be used for this purpose. The record must be maintained at the mine site for at least a year and held by the company for 5 years after the completion of the operation.

15. Clean fill and the clean fill/slag mixture shall be stockpiled only in areas designated on the Operations Map dated June 3, 2008. This area shall be isolated from the permit by constructing 3 foot high berm around the entire perimeter.

16. All runoff from clean fill and clean fill/slag mixture stockpile areas shall be contained on-site or directed to adequately designed, constructed and maintained erosion and sediment pollution controls.

17. The Department reserves the right to suspend, rescind or modify this approval for clean fill temporary storage at this mine site in the event of changes to the Department regulations and policies and/or unforeseen circumstances which may cause pollution of the waters of the Commonwealth, including groundwater.

Exhibit 7: Phase III Contract and Permit Authorizations

# FILL SUPPLY AND STONE PRODUCTS PURCHASE AGREEMENT

**AGREEMENT** dated as of October 15, 2010, between **Phase III Environmental,** with offices at 1120 Mauch Chunk Road, Palmerton, Pennsylvania ("Phase III") and **IMPACT ENVIRONMENTAL CONSULTING, INC.,** with offices at 170 Keyland Court, Bohemia, New York 11716 ("Impact"). Impact agrees to supply Fill Materials to Phase III for use as capping media for the Act II Remediation Site identified as NJ Zinc in Palmerton, Pennsylvania ("Remediation Site") and Phase III agrees to accept Fill Materials from Impact on the following terms and conditions:

1. Definitions.

"Fill Materials" means Clean Fill or Regulated Fill as defined by the Pennsylvania Department of Environmental Protection ("PADEP") Management of Fill Policy and that is approved for use at the Remediation Site subject to the conditions of the General Fill Permit issued to Phase III by the PADEP and any subsequent authorized revisions.

"Fill Certification Protocol" means a sampling protocol whereby fill source material has been sampled for at least one five-point composite and one grab sample per every 1,000 cubic yards for all parameters established in the Management of Fill Policy by a Pennsylvania certified laboratory and has been certified by a professional engineer to meet the standards for a Clean Fill or Regulated Fill that is authorized for acceptance to the Remediation Site by the PADEP Regulated Fill Permit and all required notifications as presented in the Material Handling Plan approved in the Regulated Fill Permit.

"Exclusivity of Fill Supply" means that Impact shall be the exclusive supplier for all Fill Materials accepted into the Remediation Site.

2. Term. The term of this Agreement shall be thirty-six (36) months from the date of execution of this Agreement. Either party may terminate this Agreement without cause on fourteen (14) days' prior written notice. Either party may terminate this Agreement for cause immediately upon written notice to the other party.

3. Supply of Fill Materials. During the Term, Impact agrees to supply to Phase III and Phase III agrees to accept from Impact up to 3,000,000 tons of Fill Materials for use at the Remediation Site.

4. Fill Operations. Specific duties that each party will be responsible for are summarized in Table 1 of this agreement. These duties are considered consistent with the descriptions provided below, however, in the event of a discrepancy in the documents, the text of this Agreement (as presented below), will supersede the information within the table.

(a) Impact Obligations. Impact shall conduct the following activities at its sole cost and expense and in compliance with all applicable federal, state and local laws, rules and regulations:

i. Impact shall perform all administrative and marketing services to solicit generators of Fill Materials to utilize the Remediation Site for waste disposal. This

includes all computer/print advertisements, notices and websites, entertainment charges, salesperson staffing, publishers and trade shows. It will be the responsibility of Impact to determine fees for dumping qualified Fill Materials at the Remediation Site. The fees will be subject to approval by Phase III.

ii. Impact shall perform all services to satisfy the Fill Certification Protocol. This shall include acquisition and analysis of laboratory data, sampling, research, photography and documentation as required under the Regulated Fill Permit approved Material Handling Plan.

iii. Impact shall install and operate a scale at the Remediation Site to meter incoming (gross) and outgoing (tare) weights. All materials shall be weighed at the time of delivery to the Remediation Site in accordance with the Fill Certification Protocol. Impact shall deliver weekly gross, tare and net weight measurements from the scale to Phase III. Impact shall also pay for all office expenses and maintenance costs incurred at the on-site trailer offices existing at the Remediation Site. Phase III, or its agents, will also have the right to a dedicated portion of the office trailer for its unrestricted use at no expense for the purpose of administering operations at the Remediation Site. Phase III retains ownership of certain assets located at the trailer for shared use between the parties as presented in Exhibit A.

iv. Impact shall be responsible to perform all administrative services associated with invoicing and collecting accounts receivables from generators for Fill Materials delivered to the Remediation Site on behalf of Phase III.

(b) Phase III Obligations. Phase III shall conduct the following activities at the Remediation Site, at its sole cost and expense:

i. Phase III shall be responsible to accept all qualified Fill Materials and direct all activities associated with its placement, temporary, incidental or permanent at the Remediation Site. This includes the supply of all labor and equipment necessary to perform said services.

ii. Phase III shall identify to Impact the specific area(s) of the Remediation Site in which Fill Materials are to be placed on a daily basis, and shall ensure that each such area is prepared for the delivery of the Fill Materials. Impact may request certain areas be used for storage of Fill Materials.

5. Fees for Fill Material Delivery. Impact shall pay Phase III a fee that is equivalent to one-half the predetermined per-ton fee for dumping each Fill Material source load. Impact shall prepare a ticket for each incoming load, identifying its source and reference to a Fill Material source, and shall provide tickets for all incoming loads of fill to Phase III on a weekly basis. Phase III shall invoice on a weekly basis for acceptance of the Fill Material received the prior Monday through Sunday. Impact shall pay all invoices within sixty (60) days of receipt.

6. Indemnity. Impact and its agents, officers, employees, subcontractors or servants will defend, indemnify and hold harmless Phase III and all of its officers, directors, employees, agents, successors and assigns from and against any and all third party claims, demands, actions,

suits, losses, liabilities, damages, and all related costs and expenses, including without limitation reasonable attorneys' fees ("Claims") due to, arising from or relating to: (a) Impact's breach of a representation, obligation, warranty or covenant set forth in this Agreement; (b) negligent, willful or reckless acts or omissions of Impact; (c) death, personal injury, bodily injury or property damage caused by Impact, whether covered by the insurance specified at Section 9 of this Agreement or not. Impact agrees not to settle any Claim without Phase III's written consent, which shall not be unreasonably withheld. The provisions of this Section shall survive the termination or expiration of this Agreement.

Phase III and its agents, officers, employees, subcontractors or servants will defend, indemnify and hold harmless Impact and all of its officers, directors, employees, agents, successors and assigns from and against any and all third party claims, demands, actions, suits, losses, liabilities, damages, and all related costs and expenses, including without limitation reasonable attorneys' fees ("Claims") due to, arising from or relating to: (a) Phase III's breach of a representation, obligation, warranty or covenant set forth in this Agreement; (b) negligent, willful or reckless acts or omissions of Phase III; (c) death, personal injury, bodily injury or property damage caused by Impact, whether covered by the insurance specified below or not. Phase III agrees not to settle any Claim without Impact's written consent, which shall not be unreasonably withheld. The provisions of this Section shall survive the termination or expiration of this Agreement.

7. Insurance. (a) Impact shall secure and maintain for the duration of the Agreement such insurance as will protect it from claims under the Worker's Compensation Statute for the State of New Jersey and from such claims for bodily injury, death or property damage as may arise in the performance of Impact's obligations under this Agreement, such coverage to be equal or greater than the minimum limits hereinafter set forth. Impact shall also secure and maintain for the duration of the Agreement such insurance as will protect it from claims under any State law or requirement for temporary disability benefits. Such coverage shall be equal or greater than the minimum requirements set by the applicable law.

All insurance required to be obtained and actually secured by Impact shall be primary, not excess or concurrent, any insurance policy clause notwithstanding.

(c) Minimum Limits of Insurance Coverage. Impact agrees to maintain the following minimum limits of insurance coverage:

a. Worker's Compensation:
Statutory Per State of New Jersey Requirements

b. Comprehensive General Liability
(Incl. Contractual Liability and Product/Completed Operations coverage):
$5,000,000 Combined Single Limit (CSL)

c. Automobile Liability:
$500,000 Combined Single Limit (CSL)

8. Confidentiality. The terms of this Agreement shall be treated as Confidential Information and shall not be disclosed to any third party, other than employees and independent contractors of Phase III and Impact. The parties and their employees and independent contractors are obligated to maintain the confidentiality of the terms of this Agreement unless disclosure is required by law or court order. The provisions of this Section 11 shall survive the termination or expiration of this Agreement.

9. Notices. Any notice or other communication required or permitted to be given hereunder shall be deemed given only if in writing and delivered personally or mailed certified mail, return receipt requested, or delivered by overnight courier, or sent by telefax, to the party to whom such notice or communication is to be given as follows:

If to Phase III:

xxx

If to Impact:

Julie LaVan
Impact Environmental Consulting, Inc.
170 Keyland Court
Bohemia, NY 11716
(631)269-1599

10. Force Majeure. Neither party to this Agreement shall be considered in default in the performance of its obligations to the extent that the performance of any such obligation is prevented or delayed by any cause that is beyond the reasonable control of such party.

11. Assignment. Neither party may assign either this Agreement or any of its rights, interests or obligations hereunder without the prior written approval of the other party.

12. Amendment and Waiver. No amendment to any provision of this Agreement shall be effective unless in writing and signed by both parties. The waiver by either party of a breach or default of any provision of this Agreement by the other party shall not be construed as a waiver of any succeeding breach of the same or any other provision.

13. Entire Agreement. This Agreement contains the entire agreement of the parties hereto and supersedes all prior agreements and understandings, oral or written, between the parties hereto with respect to the matters contained herein.

14. Severability. Any term or provision of this Agreement that is invalid or unenforceable in any situation or in any jurisdiction shall not affect the validity or enforceability of the remaining terms and provisions hereof.

15. Choice of Law and Forum. This Agreement shall be interpreted and the rights and obligations of the parties shall be determined in accordance with the substantive law, but not the rules pertaining to the choice of law, of the State of Pennsylvania. .

16. Counterparts. This Agreement may be executed in counterparts, each of which may be executed by one of the parties hereto, but which taken together shall constitute a single agreement binding upon both parties.

**IN WITNESS WHEREOF,** the parties hereto have executed this Agreement as of the date first above written.

**PHASE III ENVIRONMENTAL.**

By:_____

Attest:_____

**IMPACT ENVIRONMENTAL CONSULTING, INC.**

By:_____

Attest:_____

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NORTHEAST REGIONAL OFFICE

September 17, 2014

Phase III Environmental, LLC
c/o Mr. Bruce A. Lack
1120 Mauch Chunk Road
Palmerton, PA 18071

Re: Background Lead Concentration
Phase III Environmental, LLC
Palmerton Borough, Carbon County
General Permit # WMGR096NE003

Dear Mr. Lack:

We are writing in response to your May 8, 2013 letter requesting to establish a background concentration for lead under general permit WMGR096NE003. The Waste Management Program has reviewed your request and hereby approves a background lead concentration level of 1,000 mg/kg for the above referenced site. The approved background lead concentration level of 1,000 mg/kg is consistent with the Act 2 Medium Specific Concentrations (MSCs) for Non-Residential Direct Contact.

If you have any questions regarding this matter, please contact me at (570) 830-3111.

Sincerely,

Jeffrey Spaide, P.E.
Environmental Engineer Manager
Waste Management Program

Cc: Palmerton Borough
Carbon County

Bcc: W. Tomayko/WM File
M. Bedrin
M. Ferrence
S. Socash/Central Office
E. Supey/G. Olenick
J. Spaide/T. McGurk
D. Fisher

JS:mo
WP: W2-201.doc
H: 9/17/14; T(F): 9/17/14

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

# General Permit
# For
# Processing/Beneficial Use of Municipal Waste

**Permit No.** WMGR096NE003 **Date Amended** December 23, 2013

**Date Issued** December 23, 2013 **Date Expires** December 23, 2018

The Department of Environmental Protection, Bureau of Waste Management, Division of Municipal and Residual Waste hereby approves the:

☒ Beneficial Use ☐ Processing prior to Beneficial Use ☐ Other

of: Regulated fill as defined in Guidance Document 258-2182-773 (Management of Fill).

for use as: Construction material.

This approval is granted to: Phase III Environmental, LLC

Site: 1120 Mauch Chunk Road
Palmerton, PA 18071

subject to the attached conditions and may be revoked or suspended for any project which the Department of Environmental Protection determines to have a substantial risk to public health, the environment, or cannot be adequately regulated under the provisions of this permit.

The processing of wastes not specifically identified in the documentation submitted for this approval, or the beneficial use of wastes not approved in this permit, is prohibited without the written permission of the Department.

This permit is issued under the authority of the Solid Waste Management Act (35 P.S. §§6018.101-6018.1003), The Pennsylvania Used Oil Recycling Act (58 P.S. §§471-480), The Clean Streams Law (35 P.S. §§691.1-691.1001), Sections 1905-A, 1917-A and 1920-A of the Administrative Code of 1929 (71 P.S. §§510-5, 510-17 and 510-20) and the Municipal Waste Planning, Recycling and Waste Reduction Act (53 P.S. §§4000.101-4000.1904).

This approval is granted: By: William Tomayko

☐ Statewide ☒ Regional Title: Environmental Program Manager

1. *Permitted Activities.* The approval herein granted is limited to the beneficial use of regulated fill as a construction material when moved offsite or received onsite. Regulated fill may only be moved to a property that is approved for construction and that is zoned and used exclusively for commercial and industrial uses or that is unzoned but is exclusively used for commercial and industrial uses (excluding parks, playgrounds, nursing homes, child care facilities, schools or other residential-style facilities or recreation areas). This permit does not authorize blending or processing of material to meet concentration limits in Table GP-1.

2. *Definitions.* The following terms, when used in this permit, have the following meanings:

   *"Regulated fill"* is soil, rock, stone, dredged material, used asphalt, historic fill, and brick, block or concrete from construction and demolition activities that is separate from other waste and recognizable as such that has been affected by a spill or release of a regulated substance and the concentrations of regulated substances exceed the values in Table FP-1 of the Department's fill policy.

   *"Historic fill"* is material (excluding landfills, waste piles and impoundments) used to bring an area to grade prior to 1988 that is a conglomeration of soil and residuals, such as ashes from the residential burning of wood and coal, incinerator ash, coal ash, slag, dredged material and construction and demolition waste. The term does not include iron or steel slag that is separate from residuals if it meets the coproduct definition and the requirements of 25 Pa. Code § 287.8. The term does not include coal ash that is separate from residuals if it is beneficially used in accordance with 25 Pa. Code Chapter 290.

3. *Concentration limits.* Regulated fill may not exceed the values in Table GP-1.

4. *Hazardous waste prohibited.* Material that is hazardous waste under Chapter 261a (relating to identification and listing of hazardous waste) may not be used under this permit.

5. *Proper management of fill.* Regulated fill may not be placed on a greenfield property not planned for development, or on a property currently used for or planned for residential use. Material containing concentrations of regulated substances that exceed the values in Table GP-1 may not be moved under the provisions of this general permit, but must be managed in accordance with the provisions of the Department's municipal or residual waste regulations.

6. *Proper management of dredged materials.* In addition to meeting the values in Table GP-1, regulated fill consisting of dredged material from tidal streams shall meet 250 mg/l for chlorides based on an SPLP analysis.

7. *Proper management of fill materials containing metals.* Regulated fill containing metals may be moved to a site if those metals concentrations meet either the concentration limits for metals in Table GP-1 or the background concentration, whichever is higher. Fill that exceeds the concentration limits must be placed as part of an approved construction project in such a manner that all direct contact exposure pathways are eliminated. The background concentration is defined as the concentration of a substance that is present at the site before beneficial use activities occur under this permit. Background concentrations may be determined by taking a representative number of samples, based

on the size of the site, from each of the receiving site and the fill proposed for beneficial use. The average concentration in the receiving site samples becomes the background concentration.

8. *Notice to municipalities.* A person that applies for coverage under this general permit shall submit a copy of the determination of applicability application to each municipality in which the beneficial use activities will be located a minimum of 60 days prior to initiating operations.

9. *Sampling and analysis.* Prior to the beneficial use, the permittee shall perform chemical analysis on representative samples of regulated fill for the appropriate parameters in accordance with the protocol in Appendix A to the Fill Policy. The chemical analyses required in this condition shall be performed by a laboratory accredited or registered for accreditation under the Pennsylvania Environmental Laboratory Accreditation Act of 2002. The operator of the facility shall inspect all incoming waste to insure that the receipt of the waste is consistent with the permit.

10. *Deed Acknowledgment for beneficial use of regulated fill.* The permittee shall provide to the Department proof of a recorded deed notice that includes the exact location of the fill placed on the property, including longitude and latitude descriptions, and a description of the types of fill identified by sampling and analysis. The location and description shall be made a part of the deed for all future conveyances or transfers of the subject property. This deed notice may be provided as an ongoing part of the project or at the end of the completed project.

11. *Siting limitations.* Regulated fill shall not be beneficially used under this permit unless authorized in writing by the Department:

    a. in the 100-year floodplain;

    b. within 100 feet of a sinkhole or area draining into a sinkhole;

    c. within 50 feet of a dwelling unless the owner has provided a written waiver consenting to the beneficial use being closer than 50 feet;

    d. within 100 feet of a perennial stream;

    e. within 300 feet of a water source unless the owner has provided a written waiver consenting to the beneficial use being closer than 300 feet;

    f. within 300 feet of an exceptional value wetland, an exceptional value water or a high quality water.

    g. The siting limitations in paragraph 11(a) are not applicable to the placement of regulated fill at a brownfield site provided the placement is in accordance with all other applicable requirements.

12. *Water quality.* Regulated fill shall not be placed in the waters of the Commonwealth.

13. *Nuisances.* Regulated fill shall not contain any free liquids based on visual inspection, and shall not create public nuisances (for example objectionable odors)and shall minimize the generation of fugitive dust emissions related to operation of the facility.

14. Stabilization Upon completion of areas where regulated fill is beneficially used, the areas shall be promptly vegetated or otherwise stabilized to minimize and control erosion if the construction activity is not undertaken within 30 days of fill placement.

15. *Mixing prohibited.* The regulated fill may not be mixed with other types of solid waste unless otherwise approved by the Department.

16. *Storage and transportation.* The storage and transportation of regulated fill shall be in a manner that does not create a nuisance or be harmful to the public health, safety or the environment. Storage and transportation shall comply with the requirements of 25 Pa. Code Chapters 285 or 299 (relating to storage, collection and transportation of municipal waste and residual waste), whichever is applicable to the waste type being stored or transported.

17. *Discharge of waste prohibited.* This permit does not authorize and shall not be construed as an approval to discharge any other waste, wastewater or runoff from the site where regulated fill originated or the site where regulated fill is beneficially used, to the land or waters of the Commonwealth.

18. *Fugitive emissions.* The permittee shall comply with any applicable fugitive emissions standards adopted under 25 Pa. Code §123.1 and 123.2.

19. *Erosion and sedimentation control.* An erosion and sedimentation control plan shall be implemented that is consistent with the applicable requirements of Chapter 102 (relating to erosion and sedimentation control). A copy of the approved stormwater management, and erosion and sedimentation control plans shall be maintained onsite during construction activities.

20. *Recordkeeping.* Records of analytical evaluations conducted on the regulated fill under this permit, daily records of the weight or volume of the regulated fill received, the placement locations, and the approved construction plans shall be kept onsite by the permittee and at the permittee's place of business. This information shall be available to the Department for inspection and submitted to the Department upon request. This waste analysis information shall be retained by the permittee for a minimum of 5 years.

21. *Relationship to local law.* Nothing in this permit shall be construed to supersede, amend, or authorize a violation of any of the provisions of any valid and applicable local law, ordinance, or regulation, providing that said local law, ordinance, or regulation is not preempted by the Solid Waste Management Act, 35 PS §6018.101 et seq.; and the Municipal Waste Planning, Recycling and Waste Reduction Act of 1988, 53 P.S. §4000.101 et seq.

22. *Inspections.* As a condition of this permit and of the permittee's authority to conduct the activities authorized by this permit, the person receiving the fill hereby authorizes and consents to allow authorized employees or agents of the Department, without advance notice or search warrant, upon presentation of appropriate credentials and without delay, to have access to and to inspect all areas on

which solid waste management activities are being, will be, or have been conducted. This authorization and consent shall include consent to collect samples of waste, soils, water, or gases; to take photographs; to perform measurements, surveys, and other tests; to inspect any monitoring equipment; to inspect the methods of operation; and to inspect and/or copy documents, books, and papers required by the Department to be maintained. This permit condition is referenced in accordance with Sections 608 and 610(7) of The Solid Waste Management Act, 35 P.S. § 6018.608 and 6018.610(7). This condition in no way limits any other powers granted under the Solid Waste Management Act.

23. *Prevention of harm or threat of harm.* The activities authorized by this permit shall not harm or present a threat of harm to the health, safety, or welfare of the people or environment. The Department may modify, suspend, revoke, or reissue the authorization granted in this permit if it deems necessary to prevent harm or the threat of harm to the public health, the environment, or if the activities cannot be adequately regulated under the conditions of this permit.

24. *Individual permits.* The permittee shall comply with the terms and conditions of this general permit and with the environmental protection acts to the same extent as if the activities were covered by an individual permit. The Department may require the permittee to apply for, and obtain an individual permit or cease operation if the permittee is not in compliance with the conditions of this general permit or is conducting an activity that harms or presents a threat of harm to the health, safety or welfare of the people or the environment.

25. *Incorporation of application.* All activities conducted under the authorization granted in this permit shall be conducted in accordance with the permittee's application. Except to the extent that the permit states otherwise, the permittee shall use the regulated fill as described in the approved application.

26. *Permit application requirements.* Persons or municipalities that propose to beneficially use regulated fill by operating under the terms and conditions of this general permit after the date of permit issuance shall submit a determination of applicability application for each location of beneficial use. The application shall be sent to the Department's appropriate regional office that has jurisdiction for waste-related activities in the county where the regulated fill will be beneficially used. At a minimum, the following determination of applicability information shall be submitted on application forms provided by the Department:

    a. Name and street address of the applicant;

    b. Names, addresses, and locations of known or potential sources of regulated fill and estimated source weights or volumes;

    c. Name, location, area and ownership of the location of beneficial use;

    d. Documentation including laboratory analytical results and a certification by the permittee that the regulated fill meets the conditions of this general permit;

    e. Number and title of the general permit;

f. Proof that the beneficial use management activities are consistent with the general permit.

g. A description of the activities that will take place and an estimated schedule for placement of regulated fill.

h. If the size of the receiving site, where the beneficial use takes place, is greater than or equal to one acre, proof that a Pennsylvania Natural Diversity Inventory (PNDI) review at the site has been completed. This review should be in accordance with the Department's policy #400-0200-001, "Policy for Pennsylvania Natural Diversity Inventory Coordination During Permit Review and Evaluation" (Jan. 18, 2003) and all known occurrences must be resolved with the jurisdictional agency. If a PNDI review has been completed at the receiving site under another Department program, the report of that review and approval may be submitted to the Department to satisfy this permit application requirement.

i. Signed and notarized statement by the person who seeks the "determination of applicability" to accept all conditions and operate under the terms and conditions of this general permit;

j. Proof that copies of the "determination of applicability" have been submitted to each municipality, county, county planning agency and county health department where the beneficial use is located;

k. Proof that the applicant has legal right to enter the land where the beneficial use will occur and perform the activities approved in Condition 1 of this permit and an irrevocable written consent from the landowner giving the Department permission to enter upon land where the applicant will be conducting waste management activities;

l. Information that identifies the applicant (i.e. individual, corporation, partnership, government agency, association, etc.) and related parties, including the names and addresses of every officer who has a financial interest in or controls the facility operation;

m. Evidence must be provided by persons operating under this general permit of noncompliance with state and federal environmental laws and regulations;

n. Independent contractors retained by the applicant to perform any activities authorized under this permit must comply with state and federal laws and regulations relating to environmental protection and transportation safety; and

o. The non-refundable fee for a determination of applicability fee, as specified in the residual waste management regulations, payable to the "Commonwealth of Pennsylvania."

27 *Commencement of activities.* For persons or municipalities that propose to beneficially use regulated fill on nonresidential brownfields, the activities may commence after 60 working days from the date the determination of applicability application is submitted to the Department, unless otherwise instructed by the Department. A "brownfield" is defined as real property where regulated substances have been released and remain present. For persons or municipalities that propose to beneficially use regulated fill for one of the following, the activities may commence after 60 working days from the

date the determination of applicability application is submitted to the Department, unless otherwise instructed by the Department:

a. on nonresidential greenfields;

b. on properties where the area subject to regulated fill placement is larger than 10 acres; or

c. on properties where waiver or modification of a siting limitation in Condition 11 has been requested.

A "greenfield" is defined as real property that is not a brownfield.

28. *New sources of fill.* If new sources of regulated fill are to be included at the approved beneficial use location, the permittee shall notify the Department in writing by submitting information in accordance with subparts (b) and (d) of Condition 26 above. A permittee may commence with beneficial use of the new source after 10 working days from the date the information is submitted to the Department, unless otherwise instructed by the Department.

29. *Expansions.* If the placement of additional regulated fill will be expanded beyond the permitted area, the permittee shall notify the Department in writing by submitting information in accordance with subparts (a)-(h) and (j) – (k) of Condition 26 above. If additional regulated fill volumes are needed for the approved construction activities within the existing permitted area, the permittee shall submit a letter notifying the appropriate Department regional office. The letter shall include a description of the proposed changes and identify the additional volumes necessary.

30. *Notification of changes in operator.* Any person who is operating under the provisions of this permit shall immediately notify, in writing, the waste program Operations Manager of the appropriate regional office of the Department (address in attached list) within 30 days via certified mail of any changes in: the company name, address, owners, operators, and/or responsible officials of the company; the generator(s) of the regulated fill; the compliance status (e.g., violations) of any permit issued by the Department or federal government under the environmental protection acts

31. *Determination that material is no longer waste.* Regulated fill that meets all the terms and conditions of this permit and that does not exceed concentration limits in Table GP-1 shall cease to be waste once the regulated fill is placed. If dewasted regulated fill is subsequently excavated or moved beyond the area permitted for fill placement, it will then be subject to applicable requirements for the use of regulated fill.

32. *Revocation or suspension.* Failure of the measures herein approved to be performed as intended, or as designed, or in compliance with the applicable laws, rules and regulations, and terms and conditions of this permit, for any reason, shall be grounds for the revocation or suspension of the permittee's approval to operate under this permit.

## Table GP-1a
## Regulated Fill Concentration Limits For Organics

| PARAMETER | CASRN | Regulated Fill Total analysis mg/kg |
|---|---|---|
| ACENAPHTHENE | 83-32-9 | 4700 |
| ACENAPHTHYLENE | 208-96-8 | 6900 |
| ACEPHATE | 30560-19-1 | 3.6 |
| ACETALDEHYDE | 75-07-0 | 0.63 |
| ACETONE | 67-64-1 | 110 |
| ACETONITRILE | 75-05-8 | 3.9 |
| ACETOPHENONE | 98-86-2 | 540 |
| ACETYLAMINOFLUORENE, 2- (2AAF) | 53-96-3 | 0.28 |
| ACROLEIN | 10-702-8 | 0.0014 |
| ACRYLAMIDE | 79-06-1 | 0.0024 |
| ACRYLIC ACID | 79-10-7 | 0.11 |
| ACRYLONITRILE | 107-13-1 | 0.037 |
| ALACHLOR | 15972-60-8 | 0.077 |
| ALDICARB | 116-06-3 | 0.12 |
| ALDRIN | 309-00-2 | 0.44 |
| ALLYL ALCOHOL | 107-18-6 | 1.2 |
| AMINOBIPHENYL, 4- | 92-67-1 | 0.0046 |
| AMITROLE | 61-82-5 | 0.12 |
| AMMONIA | 7664-41-7 | 360 |
| AMMONIUM SULFAMATE | 7773-06-0 | 24 |
| ANILINE | 62-53-3 | 0.34 |
| ANTHRACENE | 120-12-7 | 350 |
| ATRAZINE | 1912-24-9 | 0.13 |
| BAYGON (PROPOXUR) | 114-26-1 | 0.057 |
| BENOMYL | 17804-35-2 | 970 |
| BENTAZON | 25057-89-0 | 45 |
| BENZENE | 71-43-2 | 0.13 |
| BENZIDINE | 92-87-5 | 0.34 |
| BENZO[A]ANTHRACENE | 56-55-3 | 110 |
| BENZO[A]PYRENE | 50-32-8 | 11 |
| BENZO[B]FLUORANTHENE | 205-99-2 | 110 |
| BENZO[GHI]PERYLENE | 191-24-2 | 180 |
| BENZO[K]FLUORANTHENE | 207-08-9 | 610 |
| BENZOIC ACID | 65-85-0 | 7800 |
| BENZOTRICHLORIDE | 98-07-7 | 0.048 |
| BENZYL ALCOHOL | 100-51-6 | 1100 |
| BENZYL CHLORIDE | 100-44-7 | 0.22 |
| BHC, ALPHA | 319-84-6 | 0.19 |
| BHC, BETA- | 319-85-7 | 0.82 |
| BHC, DELTA- | 319-86-8 | 30 |
| BHC, GAMMA (LINDANE) | 58-89-9 | 0.072 |
| BIPHENYL, 1,1- | 92-52-4 | 2200 |
| BIS(2-CHLOROETHYL)ETHER | 111-44-4 | 0.017 |
| BIS(2-CHLORO-ISOPROPYL)ETHER | 108-60-1 | 8 |

## Table GP-1a
## Regulated Fill Concentration Limits For Organics

| PARAMETER | CASRN | Regulated Fill Total analysis mg/kg |
|---|---|---|
| BIS(CHLOROMETHYL)ETHER | 542-88-1 | 0.000044 |
| BIS[2-ETHYLHEXYL] PHTHALATE | 117-81-7 | 130 |
| BISPHENOL A | 80-05-7 | 2000 |
| BROMACIL | 314-40-9 | 2 |
| BROMOCHLOROMETHANE | 74-97-5 | 1.6 |
| BROMODICHLOROMETHANE | 75-27-4 | 3.4 |
| BROMOMETHANE | 74-83-9 | 0.54 |
| BROMOXYNIL | 1689-84-5 | 170 |
| BROMOXYNIL OCTANOATE | 1689-99-2 | 360 |
| BUTADIENE, 1,3- | 106-99-0 | 0.027 |
| BUTYL ALCOHOL, N- | 71-36-3 | 24 |
| BUTYLATE | 2008-41-5 | 51 |
| BUTYLBENZENE, N- | 104-51-8 | 2600 |
| BUTYLBENZENE, SEC- | 135-98-8 | 960 |
| BUTYLBENZENE, TERT- | 98-06-6 | 740 |
| BUTYLBENZYL PHTHALATE | 85-68-7 | 10000 |
| CAPTAN | 133-06-2 | 31 |
| CARBARYL | 63-25-2 | 41 |
| CARBAZOLE | 86-74-8 | 83 |
| CARBOFURAN | 1563-66-2 | 0.87 |
| CARBON DISULFIDE | 75-15-0 | 350 |
| CARBON TETRACHLORIDE | 56-23-5 | 0.26 |
| CARBOXIN | 5234-68-4 | 53 |
| CHLORAMBEN | 133-90-4 | 1.6 |
| CHLORDANE | 57-74-9 | 49 |
| CHLORO-1,1-DIFLUOROETHANE, 1- | 75-68-3 | 4800 |
| CHLORO-1-PROPENE, 3- (ALLYL CHLORIDE) | 107-05-1 | 0.13 |
| CHLOROACETOPHENONE, 2- | 532-27-4 | 0.026 |
| CHLOROANILINE, P- | 106-47-8 | 52 |
| CHLOROBENZENE | 108-90-7 | 6.1 |
| CHLOROBENZILATE | 510-15-6 | 6.3 |
| CHLOROBUTANE, 1- | 109-69-3 | 6400 |
| CHLORODIBROMOMETHANE | 124-48-1 | 3.2 |
| CHLORODIFLUOROMETHANE | 75-45-6 | 2.6 |
| CHLOROETHANE | 75-00-3 | 19 |
| CHLOROFORM | 67-66-3 | 2.5 |
| CHLORONAPHTHALENE, 2- | 91-58-7 | 18000 |
| CHLORONITROBENZENE, P- | 100-00-5 | 18 |
| CHLOROPHENOL, 2- | 95-57-8 | 4.4 |
| CHLOROPRENE | 126-99-8 | 0.97 |
| CHLOROPROPANE, 2- | 75-29-6 | 44 |
| CHLOROTHALONIL | 1897-45-6 | 61 |
| CHLOROTOLUENE, O- | 95-49-8 | 20 |
| CHLORPYRIFOS | 2921-88-2 | 23 |

## Table GP-1a
## Regulated Fill Concentration Limits For Organics

| PARAMETER | CASRN | Regulated Fill Total analysis mg/kg |
|---|---|---|
| CHLORSULFURON | 64902-72-3 | 71 |
| CHLORTHAL-DIMETHYL (DACTHAL) (DCPA) | 1861-32-1 | 650 |
| CHRYSENE | 218-01-9 | 230 |
| CRESOL(S) | 1319-77-3 | 8.9 |
| CRESOL, 0- (METHYLPHENOL, 2-) | 95-48-7 | 180 |
| CRESOL, M (METHYLPHENOL, 3-) | 108-39-4 | 100 |
| CRESOL, P (METHYLPHENOL, 4-) | 106-44-5 | 12 |
| CRESOL, P-CHLORO-M- | 59-50-7 | 110 |
| CROTONALDEHYDE | 4170-30-3 | 0.0043 |
| CROTONALDEHYDE, TRANS- | 123-73-9 | 0.0043 |
| CUMENE | 98-82-8 | 1600 |
| CYCLOHEXANONE | 108-94-1 | 2800 |
| CYFLUTHRIN | 68359-37-5 | 33 |
| CYROMAZINE | 66215-27-8 | 240 |
| DDD, 4,4'- | 72-54-8 | 30 |
| DDE, 4,4'- | 72-55-9 | 170 |
| DDT, 4,4'- | 50-29-3 | 230 |
| DI(2-ETHYLHEXYL)ADIPATE | 103-23-1 | 10000 |
| DIALLATE | 2303-16-4 | 0.59 |
| DIAMINOTOLUENE, 2,4- | 95-80-7 | 0.016 |
| DIAZINON | 333-41-5 | 0.082 |
| DIBENZO[A,H]ANTHRACENE | 53-70-3 | 11 |
| DIBROMO-3-CHLOROPROPANE, 1,2- | 96-12-8 | 0.0092 |
| DIBROMOBENZENE, 1,4- | 106-37-6 | 410 |
| DIBROMOETHANE, 1,2- (ETHYLENE DIBROMIDE) | 106-93-4 | 0.0012 |
| DIBROMOMETHANE | 74-95-3 | 7.7 |
| DIBUTYL PHTHALATE, N- | 84-74-2 | 4100 |
| DICHLORO-2-BUTENE, 1,4- | 764-41-0 | 0.0039 |
| DICHLOROBENZENE, 1,2- | 95-50-1 | 59 |
| DICHLOROBENZENE, 1,3- | 541-73-1 | 61 |
| DICHLOROBENZENE, P- | 106-46-7 | 10 |
| DICHLOROBENZIDINE, 3,3'- | 91-94-1 | 32 |
| DICHLORODIFLUOROMETHANE (FREON 12) | 75-71-8 | 100 |
| DICHLOROETHANE, 1,1- | 75-34-3 | 2.7 |
| DICHLOROETHANE, 1,2- | 107-06-2 | 0.1 |
| DICHLOROETHYLENE, 1,1- | 75-35-4 | 0.19 |
| DICHLOROETHYLENE, CIS-1,2- | 156-59-2 | 1.6 |
| DICHLOROETHYLENE, TRANS-1,2- | 156-60-5 | 2.3 |
| DICHLOROMETHANE (METHYLENE CHLORIDE) | 75-09-2 | 0.076 |
| DICHLOROPHENOL, 2,4- | 120-83-2 | 1 |
| DICHLOROPHENOXYACETIC ACID, 2,4- (2,4-D) | 94-75-7 | 1.8 |
| DICHLOROPROPANE, 1,2- | 78-87-5 | 0.11 |
| DICHLOROPROPENE, 1,3- | 542-75-6 | 0.46 |
| DICHLOROPROPIONIC ACID (DALAPON), 2,2- | 75-99-0 | 5.3 |

## Table GP-1a
## Regulated Fill Concentration Limits For Organics

| PARAMETER | CASRN | Regulated Fill Total analysis mg/kg |
|---|---|---|
| DICHLORVOS | 62-73-7 | 0.052 |
| DICYCLOPENTADIENE | 77-73-6 | 0.26 |
| DIELDRIN | 60-57-1 | 0.44 |
| DIETHYL PHTHALATE | 84-66-2 | 160 |
| DIFLUBENZURON | 35367-38-5 | 52 |
| DIMETHOATE | 60-51-5 | 0.77 |
| DIMETHOXYBENZIDINE, 3,3- | 119-90-4 | 64 |
| DIMETHYLAMINOAZOBENZENE, P- | 60-11-7 | 0.15 |
| DIMETHYLANILINE, N,N- | 000121-69-7 | 11 |
| DIMETHYLBENZIDINE, 3,3- | 000119-93-7 | 1.5 |
| DIMETHYLPHENOL, 2,4- | 105-67-9 | 87 |
| DINITROBENZENE, 1,3- | 99-65-0 | 0.049 |
| DINITROPHENOL, 2,4- | 51-28-5 | 0.46 |
| DINITROTOLUENE, 2,4- | 121-14-2 | 0.2 |
| DINITROTOLUENE, 2,6- (2,6-DNT) | 606-20-2 | 3 |
| DINOSEB | 88-85-7 | 0.29 |
| DIOXANE, 1,4- | 123-91-1 | 0.31 |
| DIPHENAMID | 957-51-7 | 12 |
| DIPHENYLAMINE | 122-39-4 | 12 |
| DIPHENYLHYDRAZINE, 1,2- | 122-66-7 | 0.58 |
| DIQUAT | 85-00-7 | 0.24 |
| DISULFOTON | 298-04-4 | 0.078 |
| DIURON | 330-54-1 | 0.86 |
| ENDOSULFAN | 115-29-7 | 61 |
| ENDOSULFAN I (ALPHA) | 959-98-8 | 260 |
| ENDOSULFAN II (BETA) | 33213-65-9 | 260 |
| ENDOSULFAN SULFATE | 1031-07-8 | 70 |
| ENDOTHALL | 145-73-3 | 4.1 |
| ENDRIN | 72-20-8 | 5.5 |
| EPICHLOROHYDRIN | 106-89-8 | 0.12 |
| ETHEPHON | 16672-87-0 | 5.9 |
| ETHION | 563-12-2 | 110 |
| ETHOXYETHANOL, 2- (EGEE) | 110-80-5 | 17 |
| ETHYL ACETATE | 141-78-6 | 470 |
| ETHYL ACRYLATE | 140-88-5 | 0.5 |
| ETHYL BENZENE | 100-41-4 | 46 |
| ETHYL DIPROPYLTHIOCARBAMATE, S- (EPTC) | 759-94-4 | 180 |
| ETHYL ETHER | 60-29-7 | 120 |
| ETHYL METHACRYLATE | 97-63-2 | 30 |
| ETHYLENE GLYCOL | 107-21-1 | 170 |
| ETHYLENE THIOUREA (ETU) | 96-45-7 | 0.034 |
| ETHYLP-NITROPHENYL PHENYLPHOSPHOROTHIOATE | 2104-64-5 | 0.31 |
| FENAMIPHOS | 22224-92-6 | 0.17 |
| FENVALERATE (PYDRIN) | 51630-58-1 | 94 |

## Table GP-1a
## Regulated Fill Concentration Limits For Organics

| PARAMETER | CASRN | Regulated Fill Total analysis mg/kg |
|---|---|---|
| FLUOMETURON | 2164-17-2 | 2.5 |
| FLUORANTHENE | 206-44-0 | 3200 |
| FLUORENE | 86-73-7 | 3800 |
| FLUOROTRICHLOROMETHANE (FREON 11) | 75-69-4 | 87 |
| FONOFOS | 944-22-9 | 2.9 |
| FORMALDEHYDE | 50-00-0 | 12 |
| FORMIC ACID | 64-18-6 | 460 |
| FOSETYL-AL | 39148-24-8 | 27000 |
| FURAN | 110-00-9 | 0.87 |
| FURFURAL | 98-01-1 | 3.7 |
| GLYPHOSATE | 1071-83-6 | 620 |
| HEPTACHLOR | 76-44-8 | 0.68 |
| HEPTACHLOR EPOXIDE | 1024-57-3 | 1.1 |
| HEXACHLOROBENZENE | 118-74-1 | 0.96 |
| HEXACHLOROBUTADIENE | 87-68-3 | 1.2 |
| HEXACHLOROCYCLOPENTADIENE | 77-47-4 | 91 |
| HEXACHLOROETHANE | 67-72-1 | 0.56 |
| HEXANE | 110-54-3 | 1100 |
| HEXYTHIAZOX (SAVEY) | 78587-05-0 | 820 |
| HYDRAZINE/HYDRAZINE SULFATE | 302-01-2 | 0.00042 |
| HYDROQUINONE | 123-31-9 | 55 |
| INDENO[1,2,3-CD]PYRENE | 193-39-5 | 110 |
| IPRODIONE | 36734-19-7 | 1200 |
| ISOBUTYL ALCOHOL | 78-83-1 | 160 |
| ISOPHORONE | 78-59-1 | 1.9 |
| KEPONE | 143-50-0 | 2.2 |
| MALATHION | 121-75-5 | 34 |
| MALEIC HYDRAZIDE | 123-33-1 | 47 |
| MANEB | 12427-38-2 | 5.8 |
| MERPHOS OXIDE | 78-48-8 | 41 |
| METHACRYLONITRILE | 126-98-7 | 0.067 |
| METHAMIDOPHOS | 10265-92-6 | 0.063 |
| METHANOL | 67-56-1 | 120 |
| METHOMYL | 16752-77-5 | 3.2 |
| METHOXYCHLOR | 72-43-5 | 630 |
| METHOXYETHANOL, 2- | 109-86-4 | 1.1 |
| METHYL ACETATE | 79-20-9 | 1900 |
| METHYL ACRYLATE | 96-33-3 | 77 |
| METHYL CHLORIDE | 74-87-3 | 0.038 |
| METHYL ETHYL KETONE | 78-93-3 | 110 |
| METHYL ISOBUTYL KETONE | 108-10-1 | 6.3 |
| METHYL METHACRYLATE | 80-62-6 | 56 |
| METHYL METHANESULFONATE | 66-27-3 | 0.32 |
| METHYL PARATHION | 298-00-0 | 0.42 |

## Table GP-1a
## Regulated Fill Concentration Limits For Organics

| PARAMETER | CASRN | Regulated Fill Total analysis mg/kg |
|---|---|---|
| METHYL STYRENE (MIXED ISOMERS) | 25013-15-4 | 340 |
| METHYL TERT-BUTYL ETHER (MTBE) | 1634-04-4 | 0.28 |
| METHYLENE BIS(2-CHLOROANILINE), 4,4'- | 101-14-4 | 15 |
| METHYLNAPHTHALENE, 2- | 91-57-6 | 8000 |
| METHYLSTYRENE, ALPHA | 98-83-9 | 250 |
| NAPHTHALENE | 91-20-3 | 25 |
| NAPHTHYLAMINE, 1- | 134-32-7 | 1.1 |
| NAPHTHYLAMINE, 2- | 91-59-8 | 0.046 |
| NAPROPAMIDE | 15299-99-7 | 2300 |
| NITROANILINE, M- | 99-09-2 | 0.091 |
| NITROANILINE, O- | 88-74-4 | 0.1 |
| NITROANILINE, P- | 100-01-6 | 0.086 |
| NITROBENZENE | 98-95-3 | 2.2 |
| NITROPHENOL, 2- | 88-75-5 | 17 |
| NITROPHENOL, 4- | 100-02-7 | 4.1 |
| NITROPROPANE, 2- | 79-46-9 | 0.0011 |
| NITROSODIETHYLAMINE, N- | 55-18-5 | 0.000076 |
| NITROSODIMETHYLAMINE, N- | 62-75-9 | 0.00017 |
| NITROSO-DI-N-BUTYLAMINE, N- | 924-16-3 | 0.014 |
| NITROSODI-N-PROPYLAMINE, N- | 621-64-7 | 0.0051 |
| NITROSODIPHENYLAMINE, N- | 86-30-6 | 83 |
| NITROSO-N-ETHYLUREA, N- | 759-73-9 | 0.00022 |
| OCTYL PHTHALATE, DI-N- | 117-84-0 | 10000 |
| OXAMYL (VYDATE) | 23135-22-0 | 2.6 |
| PARATHION | 56-38-2 | 360 |
| PCB-1016 (AROCLOR) | 12674-11-2 | 200 |
| PCB-1221 (AROCLOR) | 11104-28-2 | 2.5 |
| PCB-1232 (AROCLOR) | 11141-16-5 | 2 |
| PCB-1242 (AROCLOR) | 53469-21-9 | 62 |
| PCB-1248 (AROCLOR) | 12672-29-6 | 44 |
| PCB-1254 (AROCLOR) | 11097-69-1 | 44 |
| PCB-1260 (AROCLOR) | 11096-82-5 | 130 |
| PEBULATE | 1114-71-2 | 860 |
| PENTACHLOROBENZENE | 608-93-5 | 660 |
| PENTACHLORONITROBENZENE | 82-68-8 | 20 |
| PENTACHLOROPHENOL | 87-86-5 | 5 |
| PHENACETIN | 62-44-2 | 46 |
| PHENANTHRENE | 85-01-8 | 10000 |
| PHENOL | 108-95-2 | 66 |
| PHENYLENEDIAMINE, M- | 108-45-2 | 8.6 |
| PHENYLPHENOL, 2- | 90-43-7 | 1900 |
| PHORATE | 298-02-2 | 0.88 |
| PHTHALIC ANHYDRIDE | 85-44-9 | 6200 |
| PICLORAM | 1918-02-1 | 7.4 |
| PRONAMIDE | 23950-58-5 | 3.1 |

## Table GP-1a
## Regulated Fill Concentration Limits For Organics

| PARAMETER | CASRN | Regulated Fill Total analysis mg/kg |
|---|---|---|
| PROPANIL | 709-98-8 | 26 |
| PROPHAM | 122-42-9 | 48 |
| PROPYLBENZENE, N- | 103-65-1 | 780 |
| PROPYLENE OXIDE | 75-56-9 | 0.19 |
| PYRENE | 129-00-0 | 2200 |
| PYRIDINE | 110-86-1 | 0.22 |
| QUINOLINE | 91-22-5 | 0.074 |
| QUIZALOFOP (ASSURE) | 76578-14-8 | 47 |
| RONNEL | 299-84-3 | 800 |
| SIMAZINE | 122-34-9 | 0.15 |
| STRYCHNINE | 57-24-9 | 2.5 |
| STYRENE | 100-42-5 | 24 |
| TEBUTHIURON | 34014-18-1 | 83 |
| TERBACIL | 5902-51-2 | 2.2 |
| TERBUFOS | 13071-79-9 | 0.12 |
| TETRACHLOROBENZENE, 1,2,4,5- | 95-94-3 | 14 |
| TETRACHLORODIBENZO-P-DIOXIN, 2,3,7,8- (TCDD) | 1746-01-6 | 0.00053 |
| TETRACHLOROETHANE, 1,1,1,2- | 630-20-6 | 18 |
| TETRACHLOROETHANE, 1,1,2,2- | 79-34-5 | 0.0093 |
| TETRACHLOROETHYLENE (PCE) | 127-18-4 | 0.43 |
| TETRACHLOROPHENOL, 2,3,4,6- | 58-90-2 | 950 |
| TETRAETHYL LEAD | 78-00-2 | 0.012 |
| TETRAETHYLDITHIOPYROPHOSPHATE | 3689-24-5 | 1.5 |
| THIOFANOX | 39196-18-4 | 0.34 |
| THIRAM | 137-26-8 | 130 |
| TOLUENE | 108-88-3 | 44 |
| TOLUIDINE, M- | 108-44-1 | 0.51 |
| TOLUIDINE, O- | 95-53-4 | 1.2 |
| TOLUIDINE, P- | 106-49-0 | 1.3 |
| TOXAPHENE | 8001-35-2 | 1.2 |
| TRIALLATE | 2303-17-5 | 660 |
| TRIBROMOMETHANE (BROMOFORM) | 75-25-2 | 4.4 |
| TRICHLORO-1,2,2-TRIFLUOROETHANE, 1,1,2- | 76-13-1 | 53000 |
| TRICHLOROBENZENE, 1,2,4- | 120-82-1 | 27 |
| TRICHLOROBENZENE, 1,3,5- | 108-70-3 | 31 |
| TRICHLOROETHANE, 1,1,1- | 71-55-6 | 7.2 |
| TRICHLOROETHANE, 1,1,2- | 79-00-5 | 0.15 |
| TRICHLOROETHYLENE (TCE) | 79-01-6 | 0.17 |
| TRICHLOROPHENOL, 2,4,5- | 95-95-4 | 6100 |
| TRICHLOROPHENOL, 2,4,6- | 88-06-2 | 8.9 |
| TRICHLOROPHENOXYACETIC ACID, 2,4,5- (2,4,5-T) | 93-76-5 | 1.5 |
| TRICHLOROPHENOXYPROPIONIC ACID, 2,4,5- (2,4,5-TP) (SILVEX) | 93-72-1 | 22 |
| TRICHLOROPROPANE, 1,1,2- | 598-77-6 | 8.7 |
| TRICHLOROPROPANE, 1,2,3- | 96-18-4 | 0.82 |

## Table GP-1a
## Regulated Fill Concentration Limits For Organics

| PARAMETER | CASRN | Regulated Fill Total analysis mg/kg |
|---|---|---|
| TRICHLOROPROPENE, 1,2,3- | 96-19-5 | 30 |
| TRIFLURALIN | 1582-09-8 | 0.96 |
| TRIMETHYLBENZENE, 1,3,4- (TRIMETHYLBENZENE, 1,2,4-) | 95-63-6 | 20 |
| TRIMETHYLBENZENE, 1,3,5- | 108-67-8 | 6.2 |
| TRINITROTOLUENE, 2,4,6- | 118-96-7 | 0.023 |
| VINYL ACETATE | 108-05-4 | 14 |
| VINYL BROMIDE (BROMOETHENE) | 593-60-2 | 0.28 |
| VINYL CHLORIDE | 75-01-4 | 0.027 |
| WARFARIN | 81-81-2 | 7.4 |
| XYLENES (TOTAL) | 1330-20-7 | 990 |
| ZINEB | 12122-67-7 | 81 |

## Table GP-1b
## Regulated Fill Concentration Limits For Metals and Inorganics

| PARAMETER | CASRN | Regulated Fill Total analysis mg/kg |
|---|---|---|
| ALUMINUM | 7429-90-5 | 190000 |
| ANTIMONY | 7440-36-0 | 27 |
| ARSENIC | 7440-38-2 | 53 |
| BARIUM AND COMPOUNDS | 7440-39-3 | 8200 |
| BERYLLIUM | 7440-41-7 | 320 |
| BORON AND COMPOUNDS | 7440-42-8 | 6.7 |
| CADMIUM | 7440-43-9 | 38 |
| CHROMIUM III | 16065-83-1 | 190000 |
| CHROMIUM VI | 18540-29-9 | 190 |
| COBALT | 7440-48-4 | 22 |
| COPPER | 7440-50-8 | 36000 |
| CYANIDE, FREE | 57-12-5 | 200 |
| IRON | 7439-89-6 | 190000 |
| LEAD | 7439-92-1 | 450 |
| MANGANESE | 7439-96-5 | 190000 |
| MERCURY | 7439-97-6 | 10 |
| NICKEL | 7440-02-0 | 650 |
| NITRATE NITROGEN | 14797-55-8 | na |
| NITRITE NITROGEN | 14797-65-0 | na |
| SELENIUM | 7782-49-2 | 26 |
| SILVER | 7440-22-4 | 84 |
| THALLIUM | 7440-28-0 | 14 |
| TIN | 7440-31-5 | 680 |
| VANADIUM | 7440-62-2 | 72000 |
| ZINC | 7440-66-6 | 12000 |

Exhibit 8: Kingsland Redevelopment Area Project Permit Authorizations

mes E. McGreevey
*Governor*

State of New Jersey

Department of Environmental Protection
Division of Solid and Hazardous Waste
P.O. Box 414
Trenton, New Jersey 08625-0414
Tel. # (609) 984-6900
Fax. # (609) 633-9839

Bradley M. Campbell
Commissioner

April 7, 2004

Jeffery Cappola, Esq.
DeCotiis, Fitzpatrick, Cole & Wisler, LLP
Glenpointe Centre West
500 Frank W. Burr Boulevard
Teaneck, New Jersey 07666

Re: **Acceptance Procedures for Fill Materials Below the Barrier Layer**
EnCap Phase I Redevelopment Project - Avon, Lyndhurst, Rutherford and Kingsland Landfills
Comprehensive Site List ID No. NJD069291656, P.I. #131884

Dear Mr. Cappola:

The Department of Environmental Protection (Department) has completed its review of the referenced report dated June 2003, revised most recently in November 2003. This document, "Acceptance Procedures for Fill Materials" (OENJ Protocol) was prepared by OENJ Cherokee Corp. and submitted as a replacement for earlier versions of the Acceptance Procedures for Fill Materials prepared by Sadat Associates, Inc. (SAI). In addition, an amendment to the OENJ Protocol was submitted to the Department on April 1, 2004 and has been addressed in this letter.

On December 18, 2001, the Department conditionally approved the SAI Acceptance Procedures, which established the procedures for sampling, characterizing and determining the acceptability of fill materials that will be placed beneath the final cap at the Avon, Lyndhurst, Rutherford and Kingsland Landfills. The Department issued Remedial Action Workplan/Closure Plan Approvals on September 18, 2001 for the Avon Sanitary Landfill and October 29, 2002 for the Lyndhurst and Rutherford Landfills. A Closure and Post-Closure Plan Approval was issued for the Kingsland Landfill on January 27, 2003. The plans contained in these Remedial Action Workplans/Closure Plans (RAW/CP) represent the fill material needs of the landfills for closure.

The OENJ Protocol sets forth a plan for the acceptance and use of processed dredged material and beneficial use materials at the landfills, in accordance with the Solid Waste Regulations for beneficial use of material (N.J.A.C. 7:26-1.7(g)). The proposal establishes the procedures for sampling, characterizing, and determining the acceptability of fill materials for the project. As part of this process, EnCap's Review Engineer will evaluate requests to provide fill and approve those that meet the acceptability criteria contained in the OENJ Protocol. The Review Engineer will then provide the Department with information regarding the placement of the material. Please refer to Condition E-2 for specific requirements relative to the Review Engineer.

The OENJ Protocol only applies to those materials that will be placed below the barrier layer. Staff review indicates that the OENJ Protocol contains the same basic analytical requirements as the previously approved document.

After much consideration of this matter, the Department approves the use of the OENJ Protocol for the Avon, Lyndhurst, Rutherford and Kingsland Landfills. This Approval is the result of a site-specific determination by the Department and is subject to the following specific conditions:

## A. BENEFICIAL USE MATERIALS

1. This Approval applies to the following materials:
   a. Processed Dredged Material (PDM);
   b. Recycled Masonry, Brick, Block, Concrete and Glass;
   c. Recycled Asphalt;
   d. Construction and Demolition (C&D) Screenings;
   e. Water Treatment Plant Residuals;
   f. Chipped Tires;
   g. Construction Site Fill;
   h. Material obtained from Areas of Concern as defined in N.J.A.C. 7:26E-3.9(a-f);
   i. Processed sewage sludge as defined in Item A-4, and
   j. Soils produced by Class B Recycling Facilities.

2. EnCap is required to place a minimum amount of processed/amended dredged material (PDM) for use in the proper closure/remediation of these landfills as specified in the Fill Capacity Agreement and as a condition of this Approval.

3. EnCap is authorized to accept a maximum amount of beneficial use materials, exclusive of processed sewage sludge, as specified in item A.1 of this section and in accordance with the Fill Capacity Agreement. The use of this material shall be in accordance with the conditions set forth in Item C.1 below. EnCap shall use these recyclables judiciously to address any interruption in the delivery of PDM.

4. EnCap is authorized to accept a maximum of 385,000 tons of domestic, dewatered, wet air - oxidized processed sewage sludge (hereinafter referred to as "processed sewage sludge"). The material shall be accepted for the length of time that filling activities approved under the RAW/CP are being implemented for the Avon, Rutherford, Lyndhurst and Kingsland Landfills.

5. Hazardous materials and materials containing free product as defined by the Technical Requirements for Site Remediation, N.J.A.C. 7:26E-1.8 shall not be accepted for use at the landfills.

6. Tire chips shall conform to the standard sizes established by ASTM. Tire chips shall not be in direct contact with any of the geosynthetic materials being used for the engineering controls. The use of tire chips above the PDM or geomembrane cap and/or outside the vertical hydraulic barrier walls is prohibited.

## B. MATERIAL CHARACTERIZATION

1. Items A.1a through A.1i shall be sampled, analyzed and characterized in accordance with the provisions of the OENJ Protocol.

2. This Approval does not apply to the testing of beneficial use materials proposed for use above the geomembrane/PDM cap and/or outside of the capped areas.

3. All testing shall be performed by either a New Jersey Certified Laboratory or a NJDEP-approved Laboratory.

## C. MATERIAL PLACEMENT

1. **Fill Materials Below the Barrier Layer**
   For areas equipped with a Leachate Management System (LMS), the materials placed beneath the geomembrane or PDM cap shall not exceed the Non-Residential Direct Contact Soil Cleanup Criteria (NRDCSCC) or the Alternate Acceptance Criteria (AAC), as applicable.

2. **Processed Dredged Material (PDM) Outside of the Barrier Layer**
   In areas not equipped with an LMS, it shall be demonstrated that the PDM does not contain contamination above the NJDEP's non-residential direct contact soil cleanup criteria (NRDCSCC) and will not leach contaminants that may impact ground water or surface water. This Approval presumes that compliance with this condition/ requirement will be demonstrated by submittal of the bulk chemistry analysis data that must be obtained pursuant to the Acceptable Use Determination (AUD) for the site. EnCap shall also perform a Multiple Extraction Procedure (MEP) on the same material to establish that contaminant levels in the MEP extracts do not exceed the New Jersey's Class II-A Ground Water Quality Criteria and/or Surface Water Quality Standards.

## D. STORAGE & HANDLING

1. PDM and other materials that meet the RDCSCC may be stockpiled, where appropriate, at the project site. Measures shall be taken to control soil and wind erosion. Prior to acceptance of these materials, EnCap shall provide the Department with notification of the intent to stockpile materials, which shall include the type and volume of the material, staging area location and the temporary engineering controls to be employed at the staging site.

2. The Department issued an Approval on January 23, 2003 to allow the staging of fill materials in an Interim Stockpile Area. Except as provided for in that Approval, materials that exceed the RDCSCC shall not be accepted until the LMS for that specific section of the project area has been installed and is operational.

## E. ADDITIONAL CLARIFICATION

1. All sampling, analysis, and characterization of materials shall conform to the Technical Requirements for Site Remediation, N.J.A.C. 7:26E-2.

2. EnCap shall engage the services of a qualified, independent environmental professional to perform the duties of Review Engineer. A qualified professional is considered to be a registered New Jersey Professional Engineer or Certified Hazardous Materials Manager with relevant experience in the environmental field. The qualified professional shall have no affiliation with any person or corporate entity with an ownership interest in EnCap, OENJ-Cherokee, Mactec or any associated companies/subsidiaries/joint venture partners.

3. The RAW/CPs for the subject sites and the Protocol use the term "common fill". The RAW/CPs describe "common fill" as a discrete layer in the engineered cover systems that will be constructed at the sites whereas the Protocol describes "common fill" as being synonymous with fill from construction sites. For the purposes of this Approval, EnCap is authorized to accept "common fill" as described in the OENJ Protocol for placement in the shaping and grading layers at the sites.

4. The Review Engineer shall review and confirm that materials from jurisdictions other than New Jersey have been sampled/analyzed in accordance with the New Jersey Technical Requirements for Site Remediation as stated in Section 5.8 on page 28 in the Revised OENJ Protocol dated November 2003 and this Approval.

5. Physical properties of recyclable materials, such as gradation, permeability, strength, etc. can vary significantly for each type and source of material. The Department has not reviewed the appropriate physical characteristics nor has it evaluated the engineering properties of the proposed materials or assessed their suitability for structural fill. It is the sole responsibility of EnCap and its designated engineer to ensure that the specific recyclable materials satisfy the requirements for use as structural/ nonstructural fill in both load bearing and non-load bearing design situations.

6. EnCap shall submit monthly construction reports to the Department. The reports shall contain a detailed narrative which describes the previous month's activities and include the following items: site plan(s) showing the areas being filled; problems encountered; and a list of all materials received at the site, itemized by volume, type of material (PDM, C&D screenings, construction site fill, etc.). All data shall be recorded chronologically by date. The individual material lists should be further broken down to include the source of material; total amount of material approved by the Review Engineer and copy of the certification for each particular source; total quantity of material delivered and number of trucks; and final placement location. The monthly reports shall be submitted to the NJDEP Bureau of Landfill and Recycling Management and the Office of Dredging and Sediment Technology no later than the 15$^{th}$ of the following month.

7. The Department clarifies that the quality criteria contained in this Approval supersedes the quality criteria contained in conditions 13 and 14 of the September 18, 2001 Remedial Action Workplan/ Closure Plan Approval for the Avon Sanitary Landfill.

8. This Approval supersedes the Protocol Approval issued by the Department on December 18, 2001.

Should you have any questions, please contact Mary Anne Goldman at (609) 984-6650 or by e-mail at MaryAnne.Goldman@dep.state.nj.us.

Sincerely,

Thomas Sherman, Assistant Director
Office of Permitting & Technical Programs

c. John Castner, Director - DSHW
Teruo Sugihara, BEERA
Jeff Story, BGWPA
Richard DeWan, ODST
Ruth Foster, OPP&PC
Tim Doutt, BNSPC
Steve Tiffinger, Bergen Co Health Svs
Robert Ceberio, NJMC
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State of New Jersey
Department of Environmental Protection

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Bradley M. Campbell
Commissioner

2nd Approval

RECEIVED
OCT 31 2002

Certified Mail
Return Receipt Requested
No. 7001 1940 0002 4793 8238

OCT 29 2002

Jeffery W. Cappola, Attorney
DeCotiis, Fitzpatrick, Gluck, Hayden & Cole, LLP
Glenpointe Centre West
500 Frank W. Burr Boulevard
Teaneck, NJ 07666

Dear Mr. Cappola:

Re: Lyndhurst & Berry's Creek Redevelopment Project and EnCap Golf Holdings, LLC (EnCap)
Lyndhurst Sanitary Landfill, Lyndhurst Recreation Complex, Rose City Area & Viola Area - Block 231 Lots 9, 10, 11 and 12, Block 233 Lots 1, 5, 6.01, 6.02, 9 (partial), 10, 11, 12 and 15, 16.01,16.02, 17 & 18,
Township of Lyndhurst, Bergen County
Rutherford Sanitary Landfill, Rutherford Haul Road and Northern Node - Portions of Block 220 Lots 1 through 12, Block 220 Lots 14, 15.01, 15.02 & 15.03
Borough of Rutherford, Bergen County
Comprehensive Site List ID No. NJD069291656
Memorandum of Agreement (MOA) effective 20 March 2000 with Amendments effective 5 June 2001 & 26 September 2002

The New Jersey Department of Environmental Protection (Department or NJDEP) conducted expedited reviews on each of the following documents concerning the remediation/closure of the above referenced parcels by EnCap:

- Revised Remedial Action Workplan/Closure Plan & Major Landfill Disruption Permit Approval Application, Paulus, Sokolowski and Sartor, Inc., April 2002
- Supplemental Information - Revised Remedial Action Workplan/Closure Plan & Major Landfill Disruption Permit Approval Application, Paulus, Sokolowski and Sartor, Inc., June 2002
- Supplemental Information Package - Revised Remedial Action Workplan/Closure Plan & Major Landfill Disruption Permit Approval Application, Paulus, Sokolowski and Sartor, Inc., July 2002
- Viola Ditch Construction Methods, EnCap Golf Holdings, LLC, 30 July 2002
- Additional Supplemental Information Package - Revised Remedial Action Workplan/Closure Plan & Major Landfill Disruption Permit Approval Application, Paulus, Sokolowski and Sartor, Inc., August 2002

Collectively, these documents represent the Revised Remedial Action Workplan/Closure Plan (RAW/CP) and Major Landfill Disruption Approval Application (MLD) that EnCap certified and submitted for NJDEP review. Based on its review, the Department hereby approves the Revised RAW/CP and MLD (hereafter referred to as "the Revised Plan") subject to the conditions contained herein. EnCap is notified that in instances where numerous revisions, additions or subsequent explanations are provided on any particular proposal, this approval applies to the most recent and/or complete version of the proposals submitted by EnCap.

The NJDEP evaluated the Revised Plan for consistency with the *Brownfields and Contaminated Site Remediation Act*, N.J.S.A. 58:10B-1 et seq., *Solid Waste Management Act*, N.J.S.A. 13:1E-1 et seq., *Spill Compensation and Control Act*, N.J.S.A. 58:10-23.11a et seq. and *Water Pollution Control Act*, 58:10A-1 et seq. Conformance with the *Technical Requirements for Site Remediation* (TRSR), N.J.A.C. 7:26E-1 et seq. and the *Solid Waste Regulations*, N.J.A.C. 7:26-1 et seq. was also evaluated during the Department's review of the Revised Plan.

## A. Project Summary

The Lyndhurst and Berry's Creek Redevelopment Project involves plans to properly remediate/close four landfills and other miscellaneous parcels within the New Jersey Meadowlands District. The project will improve the existing environmental conditions while providing for beneficial reuse and development of the sites. EnCap proposes recreational, commercial and residential end uses for the parcels involved in the project. Based on information provided by EnCap, development plans include construction of golf courses, a hotel/conference center, spa, commercial buildings, retail space, office buildings and residential units with potential for other public recreational facilities to be added. The success of the project will require effective communication/coordination and implementation of the Revised Plan in accordance with all of the federal, state, and local approvals/permits.

EnCap originally entered into the MOA to obtain the NJDEP's oversight for the closure and remediation of the Avon, Lyndhurst and Rutherford Landfills. The MOA was subsequently amended to provide for NJDEP oversight for the Kingsland Landfill and several other parcels within the project area. Elements of the Department's Site Remediation Program (SRP) are working closely together to provide the oversight necessary to ensure that the closure, remediation and redevelopment project is conducted in accordance with all applicable federal, state and local laws, regulations and ordinances. To facilitate this project, the NJDEP applied an innovative oversight process that included expedited reviews of EnCap's submittals and participation in numerous technical meetings to guide EnCap's preparation of the applications and documents. The NJDEP approved the Avon Sanitary Landfill RAW/CP and MLD on 18 September 2001. The Department's approval for the RAW/CP and MLD for the Lyndhurst and Rutherford Sanitary Landfills was issued on 13 December 2001. However, based on EnCap's decision to submit a revised design for the above referenced parcels, the NJDEP is issuing this approval of the Revised Plan. This approval supersedes the Department's 13 December 2001 approval.

Early in the process, the NJDEP established that the project should include 1) active collection of landfill gases, 2) construction of an impermeable cap and 3) full containment/collection of leachate and contaminated ground water for the landfills. Based on the data EnCap obtained during its investigation of the referenced areas, EnCap proposes to install a passive landfill gas venting system, excavate/consolidate contaminated soil and waste material, construct engineered cover systems, install leachate collection systems, and install vertical hydraulic barrier (VHB) walls. The designs for the various engineering controls are specific to the individual areas that EnCap identifies in the Revised Plan.

Based on its review of the Revised Plan, the Department has determined that the remediation/closure activities, which also include the following activities, may proceed subject to the conditions described within this approval:

- Installation of soil erosion and sediment control measures,
- Dust suppression, odor control and air monitoring programs during the construction phase,
- Establishment of institutional controls (i.e. - a Deed Notice and a Classification Exception Area),
- Operation and maintenance of all engineering controls, and
- Long-term performance and compliance monitoring.

## B. Conditions

### 1. General Clarification

The issuance of this approval should not be construed as an indication that the Department accepts all of the statements, conclusions and recommendations contained in the Revised Plan. The NJDEP does not consider it necessary to illustrate its point by listing each case where this condition applies. However, it must be noted that EnCap often characterizes, describes or utilizes the existing database in a manner that does not reflect the NJDEP's position regarding the adequacy of the available data. In addition, some sections of the Revised Plan claim that the NJDEP previously approved certain proposals when no such approval was issued. The Department has made a site-specific determination to approve the Revised Plan subject to the terms contained herein based on the proposed remedial/closure design and to facilitate implementation of the overall project for the benefit of human health and safety and the environment.

### 2. Reservation of Rights

Certain proposals in the Revised Plan are intended to satisfy performance-based criteria within estimated/ calculated time periods and EnCap seeks NJDEP concurrence with these time periods as part of this approval. The Department acknowledges that the time period estimates/calculations are based on site-specific data and were developed through the application of acceptable methodologies. However, the Department clarifies that following implementation, EnCap will have to ultimately demonstrate that the estimates/calculations are correct, that the engineering controls performed as predicted, and that the remedial objectives for the sites have been achieved. Some contingencies have been integrated into the Revised Plan to reflect the Department's requirements regarding this matter, with the most notable example pertaining to the operation, maintenance and monitoring of the leachate management system. In addition, the Department has stipulated terms within this correspondence to further clarify its requirements on certain proposals.

### 3. Compliance Statement

EnCap shall implement the Revised Plan in conformance with all applicable federal, state and local laws, regulations and ordinances, including any/all required permits. In the event that the terms, conditions and/or requirements of a permit are more stringent than this approval, then the more stringent permit requirements shall prevail. Conversely, if the terms, conditions and/or requirements of this approval are more stringent than those specified by a permit, then the requirements of this approval shall prevail.

### 4. Media of Concern and Applicable Remediation Standards

EnCap's remediation/closure activities are limited to soil, ground water, landfill waste materials, landfill leachate and landfill gas emissions at the referenced blocks/lots. In many instances, EnCap's remediation/closure activities are further limited to a portion of the referenced blocks/lots. Therefore, the NJDEP hereby reserves the right to pursue any person(s) potentially responsible for the remediation/closure of those portions of the project area that are not addressed by EnCap and where contaminants above the applicable remediation standards may exist on, or be emanating from, the referenced parcels.

In addition, EnCap proposes to apply the narrative standards that it has developed and presented in the Revised Plan. As a condition of this Approval, the NJDEP clarifies that the following criteria/standards shall also be considered as the applicable remediation standards for the referenced sites:

a. Soil

Contamination above the NJDEP's Nonresidential Direct Contact Soil Cleanup Criteria (NRDCSCC) will remain at the sites and be addressed by a Restricted Use Remedial Action that involves the establishment of engineering and institutional controls.

b. Ground Water

The applicable remediation standards are the Class II-A ground water quality criteria pursuant to the Ground Water Quality Standards, N.J.A.C. 7:9-6.

c. Surface Water and Sediments

The Revised Plan establishes that the landfills have impacted the surface waters and sediments within the project area and that certain contaminant levels exceed surface water quality standards and/or sediment-screening criteria. The Revised Plan also establishes that EnCap did not conduct a complete ecological risk assessment pursuant to the TRSR. In addition, EnCap suggests that surface water and sediment remediation will be achieved by the proposed engineering controls. The Department clarifies that except for a portion of Viola Ditch, the remediation of surface water and sediment is not addressed by EnCap and is outside the scope of this approval. In addition, the proposed remediation of Viola Ditch is not intended to achieve numerical standards for these environmental media. Further clarification on the remediation of Viola Ditch is also provided later in this correspondence.

This approval is being issued with the expressed understanding that all future approvals, including any future No Further Action (NFA) letters, will specifically state that the full extent of potential impacts to environmentally sensitive areas and receptors was not investigated or remediated by EnCap. Also, this approval shall not be construed as a release from liability for any person that is potentially responsible for remediation that EnCap does not conduct.

d. Air

The applicable remediation standards for landfill gas (LFG) emissions are established by the Department's 8 November 2001 Permit to Construct, Install, or Alter, and Certificate to Operate Control Apparatus or Equipment – Construction of New Source for the Passive LFG System at the Lyndhurst and Rutherford Landfills. EnCap shall conform to the requirements of said permit and the applicable laws/regulations regarding potential air impacts from landfill gas emissions.

5. Leachate Management System (LMS)

The proposed LMS consists of leachate collection trenches that will be constructed inside the VHB walls to be installed around the perimeter of the landfills. The trench will be five feet wide with the bottom of the trench set at 0.0 feet NAVD88 and a perforated PVC pipe set at an invert elevation of 0.5 feet NAVD88. Spacing between the VHB wall and LMS will average thirty (30) feet. Based on localized site conditions, the spacing will generally range between twenty (20) and forty (40) feet with certain site conditions potentially requiring greater spacing. However, even in these limited instances the maximum distance between the VHB wall and the LMS shall not exceed sixty (60) feet. The LMS design also includes pump stations and force mains that will divert the collected leachate/ground water to the local POTW for subsequent treatment/discharge. The operation of the LMS is intended to eventually reduce the ground water mounds within the containment areas and, in combination with the other engineering controls, establish hydraulic control of the leachate and contaminated ground water.

The NJDEP accepts the proposed design subject to the terms/conditions described throughout this approval. In addition, EnCap shall submit the final, detailed plans for all of the LMS pump stations to the NJDEP a minimum of thirty (30) calendar days prior to construction of the LMS. The plans shall include the size and volume of each wet well, pipe inverts, bottom elevations, pump sizing and pumping rates (including the calculations used to support the design decisions), and pump control elevations. EnCap shall receive NJDEP approval of these detailed plans prior to constructing the pump stations.

The LMS operational period shall coincide with the length of time required for EnCap to demonstrate compliance with the remedial objectives defined in Condition B.22.c of this approval and shall not necessarily be linked to a prearranged date. In summary, EnCap shall achieve and maintain the remedial objectives for these sites. If the performance monitoring of the LMS indicates that the remedial objectives are not achieved or cannot be maintained, then EnCap shall modify and/or continue the operation of the LMS until compliance is achieved/ maintained. Due to EnCap's decision to revise the cover system design by eliminating the use of a continuous impermeable synthetic liner for the barrier layer, the LMS operational period shall be viewed as indeterminate. Please refer to Condition B.22 of this approval for further details regarding the remedial objectives for these sites.

The LMS shall be installed and operational prior to the placement of any material that does not meet the unrestricted use criteria unless EnCap receives prior written authorization from the Department. The unrestricted use criteria and the methods/procedures that shall be employed to determine whether or not a material contains contaminants above the unrestricted use criteria shall be described in the NJDEP's pending Fill Protocol Approval for final cover materials.

This provision is integrated into this approval in recognition of the separate, ongoing negotiations between EnCap and the NJDEP regarding the use of processed dredged material (PDM) and other recyclable materials as fill material at the sites. In further recognition of these negotiations, efforts are currently underway to develop an acceptable Interim Storage Plan. This plan will detail information including, without limitation, the type and volume of materials proposed for staging, the contaminant types/concentrations, the staging area locations, and the temporary engineering controls for the locations. Certain requirements for the placement of PDM prior to LMS installation/operation are already specified in the NJDEP's 18 December 2001 Fill Protocol Approval. Additional requirements/clarification on PDM placement prior to LMS installation/operation will be specified in the Department's pending approval of the Interim Storage Plan.

6. Vertical Hydraulic Barrier (VHB) Wall

The bottom of the VHB wall shall be installed to an elevation that corresponds to the top of the varved clay or to a maximum depth of -12 feet NAVD88, whichever is encountered first. The top of the VHB wall shall be set at an elevation of +3 feet NAVD88. In addition, the joints between the individual sheets shall be sealed with the manufacturer's recommended hydrophylic caulk to minimize leakage and reduce the hydraulic transmissivity of the VHB to between $1x10^{-7}$ and $1x10^{-10}$ centimeters/second (cm/sec).

7. Ground Water Remediation

The proposed ground water remedy consists mainly of source containment/hydraulic control and pumping leachate and contaminated ground water to the local publicly owned treatment works (POTW) for subsequent treatment/ discharge. Other areas are being addressed by source removal (i.e. - excavation/consolidation of contaminated soils/waste materials) or phytoremediation. Long-term monitoring will be conducted at the various areas that comprise the sites. These remedial approaches are acceptable subject to the terms and conditions contained in this approval. However, the NJDEP clarifies that the approved ground water remedial action is not natural remediation pursuant to the TRSR, N.J.A.C. 7:26E-6.3(d) and (e). Also, site conditions prevent sentinel well installation so all existing/proposed wells shall be deemed performance wells, not sentinel or compliance wells.

8. Ecological Evaluation, Investigation and Risk Assessment

EnCap's position on potential ecological impacts from the sites is documented in the Final Remedial Investigation (RI) Report dated September 2001, the previous RAW/CP and MLD, as well as the Revised Plan. In summary, EnCap concludes that most of the current, site-related ecological impacts are miniscule and/or cannot be differentiated from regional influences from Berry's Creek and the Hackensack River. EnCap also concludes that the presence of background contamination negates the need for further ecological investigation/ risk assessment. However, EnCap also concludes that a portion of the Viola Ditch requires remediation and proposes a remedial action that eliminates the existing tidal creek after an improved, alternate channel is constructed to enhance surface water drainage/flow through this part of the project area.

Based on its review of the referenced submittals, the Department does not view the ecological risk assessment (ERA) as complete. Due to the noted limitations associated with the existing database (see condition B.1) and the use of data from Berry's Creek and the Hackensack River as reference samples, the NJDEP does not agree that EnCap's conclusions are fully supported. The NJDEP considers it highly probable that there are both site-related and regional contributions to the potential ecological impacts within the study area. At the same time, it is the NJDEP's position that the subject sites have had some influence on the reference sample locations that EnCap selected to establish background contaminant levels. However, the Department's policies regarding the selection of reference sample locations require that the site(s) being investigated have no influence on the reference sample locations. Therefore, the samples collected from Berry's Creek and the Hackensack River shall not be considered reference samples. Accordingly, the Department cannot endorse any conclusions that are based on rationale that includes such data.

Notwithstanding the above, EnCap is conducting the project pursuant to the Department's Voluntary Cleanup Program and has not volunteered to complete the ecological investigation/risk assessment portion of the RI. Accordingly, the NJDEP is not requiring EnCap to conduct toxicity testing or further ecological investigation/ assessment provided that leachate and contaminated ground water discharges to surface water are mitigated to the extent that EnCap predicts in the Revised Plan. However, the NJDEP clarifies that this approval shall not be construed as release from liability for any person responsible for conducting an ecological investigation/risk assessment on potential contaminant impacts to ecological receptors or any remediation that is warranted based on the results of that investigation/assessment.

9. Natural Resource Issues

The SRP is not in a position to evaluate potential historic natural resource injuries or EnCap's conclusion that it will not cause any further natural resource injuries through the implementation of its proposed Revised Plan. If EnCap wants to resolve this issue with the Department, please provide the NJDEP with written notice to this effect and the matter will be referred to the NJDEP's Office of Natural Resource Restoration. Otherwise, EnCap may proceed with implementation of the Revised Plan subject to the terms/conditions contained in this approval and with the understanding that natural resource issues are not addressed and that natural resource injuries will be expressly excluded from future approvals, including any NFA letters.

10. Property Owner Consent

EnCap proposes to implement a Restricted Use Remedial Action that relies on the establishment of engineering and institutional controls. The Department requires that EnCap provide written property owner consent to the engineering and institutional controls as a stipulation to this approval. This requirement applies to all real property that will be restricted as a result of the remediation/closure of the parcels referenced at the beginning of this Approval. The written consent of the property owner(s) shall be provided to this office prior to EnCap implementing the on-site activities.

11. Deed Notice

The draft Deed Notice provided by EnCap partially satisfies the administrative requirements established by the TRSR, N.J.A.C. 7:26E-6.2(a)16. Considerable effort will be required to develop a final Deed Notice that satisfies the administrative and technical requirements of the TRSR and Solid Waste Regulations, N.J.A.C. 7:26-1 et seq. for inclusion in the Remedial Action Report (RAR). In addition, written property owner consent shall be provided (see Condition B.10, above) and consist of a copy of the draft deed notice signed by the property owner as well as a separate, written statement of consent.

12. Use of Recyclable Materials

The use of recyclable materials to construct the various layers of the cover systems for the sites is discussed throughout the Revised Plan. The terms, conditions and requirements for use of recyclable materials for all layers except the low permeability material (LPM) layer, common fill layer and vegetative growth layer are stated in the NJDEP's 18 December 2001 approval of the *Protocol for Review and Certification of Recyclable Materials* (protocol approval). The NJDEP's requirements for the use of recyclable materials to construct the LPM, common fill and vegetative growth layers shall be specified in the Department's pending Fill Protocol Approval for final cover material.

13. Landfill Disruption Approval

The disruption of waste during the construction shall be conducted in accordance with N.J.A.C. 7:26-2.11.

14. Landfill Gas Control

The proposal to install a passive LFG venting system is acceptable subject to the terms of Conditions 3 and 4.d, above.

15. Landfill Cover Systems

EnCap proposes to construct the following cover systems on certain areas of the referenced parcels. The proposed cover designs are described below in ascending order (i.e. - from existing grade to final grade) and are approved subject to the terms described in Condition B.12, above and as otherwise conditioned in this approval. The Department clarifies that the grading and shaping layers described below are included in the project to promote/facilitate the placement of dredged materials on the subject sites and to achieve the subgrade elevations that EnCap has established for development of the sites.

a. Processed Dredged Material (PDM) Cover System

This system is approved for the Lyndhurst Landfill (including the Rose City and Viola Areas), Rutherford East Landfill, Rutherford West Landfill and the Rutherford Northern Node:

Grading and Shaping Layer: Comprised mainly of PDM, the thickness of this layer will vary across the sites depending on the amount of material required to achieve the required subgrade elevations.
PDM Cap Layer: One (1) foot thick with permeability not greater than (i.e. - not more permeable than) $1x10^{-5}$ cm/sec.
Sacrificial PDM Layer: One (1) foot thick with permeability not greater than $1x10^{-5}$ cm/sec.
Common Fill Material: Eighteen (18) inches thick.
Growing Medium: A six (6) inch layer of material that is capable of supporting the intended vegetative cover.

PDM utilized to construct the Sacrificial PDM Layer or placed in areas that are not equipped with an LMS and a VHB wall shall not contain contamination above the NJDEP's non-residential direct contact soil cleanup criteria (NRDCSCC) or leach contaminants that may impact ground water or surface water. This approval presumes that EnCap will demonstrate compliance with this condition/requirement by submitting the bulk sediment chemistry data and Multiple Extraction Procedure (MEP) data that shall be obtained pursuant to the Acceptable Use Determination (AUD) for the sites. The MEP data shall establish that contaminant levels in the MEP extracts do not exceed New Jersey's Class II-A Ground Water Quality Criteria and/or the applicable Surface Water Quality Standards.

b. Multi-layer Cover System

The system described below is approved as a contingency for the PDM cover system due to potential uncertainties associated with the volume and availability of PDM:

Grading and Shaping Layer: Comprised mainly of PDM, the thickness of this layer will vary across the sites depending on the amount of material required to achieve the required subgrade elevations.
Cushion Layer: A six (6) inch thick layer of material that is no coarser than a poorly graded sand (SP) and is free of rocks, fractured stones, debris, cobbles and solid waste.
Barrier Layer: 40mil linear low density polyethylene (LLDPE) geomembrane.
Geocomposite Drainage Layer: Biplanar/Triplanar drainage net that will be heat-bonded on both sides to non-woven geotextile.
Low Permeability Material (LPM): Twelve (12) inches thick with a hydraulic permeability that will not be greater than (i.e. - not more permeable than) $1x10^{-4}$ centimeters per second (cm/sec).
Common Fill Material: A six (6) inch thick layer.
Growing Medium: A six (6) inch layer of material that is capable of supporting the intended vegetative cover.

c. Soil Cover System

The system described below is approved for the Lyndhurst Recreation Complex:

Grading and Shaping Layer: The thickness of this layer will vary across the site depending on the amount of material required to achieve the required subgrade elevations.
Common Fill Material: An eighteen (18) inch thick layer.
Growing Medium: A six (6) inch layer of material that is capable of supporting the intended vegetative cover.

In addition, the materials utilized to construct this cover system shall satisfy the requirements specified in Condition 15.f, below.

d. Pavement Cover System

The system described below is approved for roadway on the Rutherford Haul Road:

Grading and Shaping Layer: The thickness of this layer will vary depending on the amount of material required to achieve the subgrade elevations and be compacted to achieve the required density specifications.
Dense Graded Aggregate Sub-base: A twelve (12) inch thick layer per NJDOT specifications.
Prime Coat: In accordance with NJDOT specifications.
Bituminous Stabilized Base Course: A two (2) inch thick layer of mix # I-2 per NJDOT specifications.
Tack Coat: In accordance with NJDOT specifications.
Bituminous Concrete Surface Course: A two (2) inch thick layer of mix # I-4 per NJDOT specifications.

e. Edge Details

EnCap has revised the edge details for all of the various cover system designs. EnCap will either achieve a minimum two-foot thick final cover along the site perimeters/property boundaries or a minimum one-foot thick final cover that includes the use of a geotextile filter fabric in the design. Additional excavation/consolidation of waste material and/or contaminated soil has been proposed as required by the NJDEP. Therefore, the edge details described on page 5-21 of the April 2002 submittal are acceptable.

f. Criteria for Placement of LPM, Common Fill and Growing Medium

With respect to the LPM, common fill and growing medium, the Department prefers that EnCap utilize certified clean fill from virgin sources. However, EnCap prefers to have the option to utilize materials from alternate sources. Therefore, the Department's pending Fill Protocol Approval for final cover material shall establish:

- the types of materials that EnCap may consider for constructing these layers,
- the procedures that EnCap shall employ to identify potential alternate sources,
- the testing requirements that EnCap shall satisfy to demonstrate that the materials do not exceed the unrestricted use soil cleanup criteria (URUSCC) for final cover material, and
- the definition for the URUSCC that shall apply to the final cover material for these sites.

g. Additional Concerns Associated with Designs

The final designs for the proposed golf courses and structures have not been submitted for review/approval. Said review is required so the NJDEP may ensure that elements of the final designs such as landscape features do not include trees/shrubs with root systems that may potentially penetrate deep into the cap, clog/damage the drainage layer, and/or breach the barrier layer.

In addition, EnCap has specifically designed the final cover layer so that no more than a two-foot thickness will be achieved across the sites. Based on this design and the materials that EnCap plans to consider for use in constructing the final cover, additional topsoil will likely be required to facilitate landscaping. Additional stability analysis may/will be required prior to placement of any amount of soil/material greater than that necessary to conform to the current design. Also, this approval shall not be construed as an indication that the NJDEP is satisfied that the final cover will support vegetative growth. Therefore, the Department emphasizes that it is EnCap's responsibility to establish and maintain the required vegetative cover for these sites.

EnCap shall provide detailed plans on the construction methods that will be utilized for installing engineering supports for the various structures (e.g. - driving pilings to support future buildings). In addition, all buildings shall be equipped with engineering controls to eliminate potential migration of contaminants and landfill gases into the building interiors. Final designs/plans shall be submitted, and receive NJDEP approval, prior to construction of the golf courses and buildings.

16. Stability and Settlement

The Revised Plan contains discussions and calculations regarding the stability analyses conducted to support the proposed designs as well as the settlement that will occur as a result of placing materials at these sites. As stated in the August 2002 submittal, ground improvements are envisioned as part of the proposed activities for these sites. However, EnCap has not determined what method(s) shall be utilized for this task. Therefore, EnCap shall decide what method will be utilized and submit a detailed ground improvement plan and/or staged filling

plan along with an updated instrumentation program for the sites. Said plan shall be submitted a minimum of thirty (30) calendar days prior to the scheduled start date for these activities and be approved by the NJDEP prior to implementation. With regard to the northeast portion of the Lyndhurst East along Berry's Creek, the ground improvement and/or staged filling plan shall ensure that a factor of safety of 1.5 is achieved and shall include the required monitoring plan.

17. Landfill Closure Certification

EnCap shall comply with the closure certification requirements established by the Solid Waste Regulations, N.J.A.C. 7:26-2A.9(d)10.

18. Ground Water Classification Exception Area/Well Restriction Area (CEA/WRA)

The CEA/WRA is acceptable.

19. Surface Water Management Plan

The surface water management plan is acceptable provided that the materials to be placed above the barrier layer meet the criteria established by Condition 15.f, above.

20. Leachate/Contaminated Ground Water Disposal

EnCap proposes to dispose the leachate/contaminated ground water that will be generated during the construction and operation of the LMS at the appropriate local POTW. This proposal is acceptable to the NJDEP provided that EnCap acquires the applicable permits before it begins construction of leachate collection trench and complies with any/all permit conditions. EnCap shall develop an alternate leachate disposal method if it cannot acquire the applicable permits.

21. Phytoremediation

The phytoremediation plan described in Section 5.11 and Appendix P of the Revised Plan consists of planting grass, shrub, and tree species with the plants being grown in clean, imported material. As such, much of the vegetation does not directly remediate, but rather isolates the contaminants from potential human receptors. This approach assumes that the clean imported material will remain uncontaminated over time. It must also be recognized that the plantings on the lower slope intended to accomplish phytoremediation will only really do so during the growing season. Notwithstanding these limitations, the phytoremediation plan is approved.

22. Post-Remediation/Closure Care Plan

Throughout the project, the Department has maintained that both the TRSR, N.J.A.C. 7:26B-1 et seq. and Solid Waste Regulations, N.J.A.C. 7:26-1 et seq. apply to this remediation/closure project. The post-remediation/closure care plan presented in the Revised Plan is intended to satisfy the requirements of the TRSR and the Solid Waste Regulations, N.J.A.C. 7:26-2A.9(e)i. The NJDEP has performed a comparative analysis of the post-remediation/ closure care plan and determined that while strict conformance to both the TRSR and the Solid Waste Regulations is not demonstrated, the main regulatory objectives are achieved. Therefore, the plan is approved subject to the terms/conditions described below:

a. Post-Remediation/Closure Care Period and No Further Action (NFA) Requests

The Revised Plan states that the thirty (30) year post-remediation/closure care period will begin following seeding of the final grades. The Revised Plan also states that EnCap will prepare a RAR and request NFAs from the NJDEP for six (6) distinct "sub-sites" once seeding is complete.

With regard to RAR submittals and NFA requests, EnCap may submit a single, comprehensive RAR or six (6) separate RARs provided each submittal documents full compliance with all of the requirements established by the Department for each area(s) of the site for which EnCap submits an NFA request. Furthermore, given the scope/extent of remediation/closure that will be completed upon seeding at final grades, any NFA approval issued by the NJDEP will be for soils only. Any NFA approval shall also require that all engineering/institutional controls be monitored and maintained pursuant to the *Brownfields and Contaminated Site Remediation Act*, N.J.S.A. 58:10B-1. The duration of the post-remediation care period is discussed below.

b. Duration of the Post-Remediation/Closure Care Period

The Revised Plan proposes to limit the post-remediation/closure care period to the initial thirty (30) years after completion of the remediation/closure activities (i.e. - upon completion of seeding final grades). The Department issues this approval with the expressed understanding that the post-remediation/closure care period shall be as follows:

- The post-remediation/closure care period is established pursuant to the *Brownfields and Contaminated Site Remediation Act*, N.J.S.A. 58:10B-1 et seq. and the *Solid Waste Management Act*, N.J.S.A. 13:1E-1 et seq.

- The engineering controls (e.g. - cover systems and VHB walls) shall be maintained as long as waste materials and/or contamination above the restricted use standards remain at the sites.

- The institutional controls (e.g. - Deed Notice) established for these sites shall be maintained as long as waste materials and/or contamination above the unrestricted use standards remain at the sites..

- The post-remediation/closure care period for the LMS shall be deemed indeterminate at this time. Consistent with applicable laws/regulations, EnCap may petition the NJDEP to terminate the LMS post-remediation/closure care period. Any such petition shall be fully supported by the post-remediation/closure monitoring data that verify that the remedial objectives established in Condition B.22.c, have been achieved and shall continue to be maintained without operation of the LMS.

c. LMS Contingency Plan

As summarized in Condition B.5 above, the remedial objective of the LMS is to reduce the ground water mounds to achieve and maintain hydraulic control of the leachate/ground water contamination at the sites. EnCap shall continue to operate the LMS until the following remedial objectives are achieved for the areas listed below:

| | |
|---|---|
| Lyndhurst Landfill: | LMS turn-off elevation at 1.5 feet NAVD88 |
| Rutherford East: | LMS turn-off elevation at 3.0 feet NAVD88 |
| Rutherford West: | LMS turn-off elevation at 1.5 feet NAVD88 |

Quarterly ground water elevation monitoring shall be initiated upon completion of the remediation/closure activities and continue for the first five (5) years of the post-remediation/closure care period. This approach requires that EnCap complete the installation of the monitor well network for each of the respective areas prior to the initiation of the respective post-remediation/closure care periods.

Once four (4) consecutive quarters of ground water level elevations demonstrate that an LMS has achieved the remedial objective (or "turn off" elevation) for the respective areas, that LMS may be turned off. If the "turn off" elevation is achieved during the first five (5) years of the post-remediation/closure period for an area, then quarterly monitoring shall continue until the first five (5) years have elapsed. Monitoring may then be reduced to an annual basis provided that the ground water elevations do not rise above the "turn on" elevations listed below. If the "turn off" elevation is not achieved within the first five (5) years of the post-remediation/closure care period, EnCap shall continue operating the LMS and conduct quarterly monitoring while the current LMS design is re-evaluated. Determinations on the need for upgrading, modifying or expanding the LMS system for a particular area would be rendered by the NJDEP following its review of EnCap's report on the re-evaluation of the current LMS design (discussed further in last paragraph of this condition).

Once the LMS is turned off, monitoring would continue in accordance with the monitoring frequency in effect at that time. If the ground water level measurements obtained from any well exceeds the following "turn-on" elevations at any time after ceasing operation of the LMS, then EnCap shall immediately turn the LMS back on for the subject area. EnCap shall also revert to the quarterly monitoring frequency if it is conducting annual monitoring when the ground water level exceeded the "turn on" elevation.

| | |
|---|---|
| Lyndhurst Landfill: | LMS turn-on elevation at 2.5 feet NAVD88 |
| Rutherford East: | LMS turn-on elevation at 4.0 feet NAVD88 |
| Rutherford West: | LMS turn-on elevation at 2.5 feet NAVD88 |

LMS operation may again cease once four (4) consecutive quarters of ground water level measurements demonstrate that the LMS has again achieved the turn-off elevations for each of the subject areas. At this point, the monitoring frequency may be reduced to an annual basis once again. Annual monitoring would continue for the duration of the post-remediation/closure care period.

EnCap may petition the Department for a ground water NFA once it demonstrates that the remedial objective for a particular LMS has been achieved and maintained. The NJDEP will render a determination as to whether or not a ground water NFA is appropriate based upon its review of all pertinent information relating to ground water contamination.

Should EnCap be unable to achieve and/or maintain the respective "turn-off" elevations, EnCap shall fully evaluate the reasons, run the ground water flow model again and correlate the model with recent water-level data. The goal of this effort would include identifying possible leaks in the landfill cap or VHB wall and, if any are identified, developing a plan to repair the cap or wall and/or proposing continued long-term operation of the LMS.

d. Reporting

In the event that the LMS contingencies must be implemented, EnCap shall provide a separate report of the data to the Department prior to submittal of the proposed biennial monitoring/certification report.

e. Ground Water Quality Sampling/Analytical Requirements ✓

EnCap shall submit a detailed ground water sampling/analysis plan for the proposals contained in Section 7.2.4.1 of the Revised Plan. The plan shall be submitted for NJDEP review/approval a minimum of sixty (60) calendar days prior to the initiation of the post-remediation/closure care period for the Lyndhurst Recreation Complex and Rutherford Northern Node. A copy of Figure 7-1 from the Revised Plan is enclosed to depict the monitoring wells that shall be subject to the required sampling/analysis. The plan shall detail the sampling procedures, analytical methodologies, report format/content and quality assurance/quality control (QA/QC) requirements in conformance with the TRSR. The sampling/analysis to be performed on the LMS effluent (i.e. - POTW sampling/analysis) shall also be provided in the plan.

f. Landfill Gas Venting System Monitoring

The Revised Plan contains proposals to monitor the passive landfill gas venting system to comply with the requirements, terms, and conditions established by the air permit/certificate. These proposals include plans to conduct perimeter monitoring to evaluate potential off-site migration of subsurface landfill gases wherever there is a continuous unsaturated zone of greater than three feet between the landfill and any foundation supported structures. The perimeter monitoring proposal also provides contingencies to install additional gas monitoring probes and immediately implement a remedial plan upon discovery of a subsurface gas migration hazard. The proposal also states that the perimeter monitoring may be reduced or discontinued upon petition to the Department. The plan is acceptable provided that EnCap:

- submits a map depicting the locations for the initial landfill gas monitoring wells for NJDEP approval,
- does not reduce or discontinue the monitoring until/unless the NJDEP approves the petition, and
- notifies the assigned case manager in the event that a subsurface gas migration hazard is detected.

g. Certification of Completion of Post-Remediation/Closure Care Period

The proposal to have both the owner/operator and a NJ-licensed Professional Engineer certify the submittal is acceptable. The owner/operator shall also certify the document pursuant to the TRSR, N.J.A.C. 7:26E-1.5 and the *Procedures for Department Oversight of the Remediation of Contaminated Sites*, N.J.A.C. 7:26E-1.2.

h. Biennial Certification Requirements

EnCap indicates that "a developer" will inspect/certify that the remediation remains protective. The Biennial Certification shall comply with the TRSR, specifically N.J.A.C. 7:26E-6.4(g). In the event that the person obligated to provide the Biennial Certification changes in the future, the person who is relinquishing the obligation and the person who is assuming the obligation shall do so pursuant to N.J.A.C. 7:26E-6.4(h).

23. Decontamination Plan

The decontamination plan is acceptable provided that EnCap monitors the scrubber/decontamination pads to ensure that the rinse waters do not overflow and discharge to the ground water or surface water. No potentially contaminated vehicle and/or equipment shall leave the site except through the designated decontamination areas (Figure 1, Attachment E of the August 2002 submittal) and shall do so only after proper decontamination. The proposed decontamination of personnel and hand tools (Section 1.2, Appendix R of the April 2002 submittal) is generally acceptable. However, EnCap and its contractors shall conform to detailed procedures to be described in a Health and Safety Plan that conforms to the industry (29 CFR 1910) and construction (29 CFR 1926) standards established by OSHA.

24. Implementation Schedule

The proposed schedule is adequate for the purpose of authorizing EnCap to proceed with the project activities.

25. Notification

EnCap shall notify the assigned case manager a minimum of two (2) weeks prior to initiation of field activities. The assigned case manager shall also be contacted in the event that suspected hazardous materials are encountered during project implementation. EnCap shall also report any such incidents to the Department's hotline by calling 1-877-WARN DEP.

26. Health and Safety Plan (HASP)

EnCap and its contractors are responsible for ensuring that the HASP covers all activities and conforms to the industry (29 CFR 1910) and construction (29 CFR 1926) standards established by OSHA.

27. Instrumentation Plan

Appendix U of the April 2002 submittal contains an instrumentation plan that EnCap intends to implement during the performance of the closure, remediation and redevelopment of the subject sites. The Department clarifies that a detailed engineering evaluation was not conducted on the Instrumentation Plan. In addition, EnCap and its contractors shall be responsible for conducting the project in accordance with prevailing professional standards and ensuring that the structural integrity/operation of the structures/infrastructure on and/or adjacent to the sites are not compromised by the planned activities. EnCap shall also upgrade/modify the Instrumentation Plan as warranted once the ground improvement and/or staged filling plans are developed (see Condition B.16, above).

28. Portion of Viola Ditch

The Revised Plan describes the planned improvements for a portion of the tidal creek that EnCap designates as the Viola Ditch. EnCap partially supports this proposal with conclusions from its ERA. The Department clarifies that although EnCap has not conducted a complete/acceptable ERA for the subject sites (see condition B.8), the proposal is approved due to the documented presence of waste materials in the sediments and the anticipated hydrologic improvements associated with the enhanced channel. This decision also facilitates implementation of the overall project for the benefit of human health and safety and the environment.

29. Wetlands

EnCap proposes to remove exposed/visible waste materials from the wetland areas around the perimeter of the landfill areas for esthetic purposes and then restore the disturbed areas. However, EnCap does not propose to conduct complete remediation/closure in the wetlands. While the NJDEP views this limited activity as appropriate, this Approval confirms that this activity does not represent full remediation of the subject wetlands and does not warrant consideration for a future NFA approval. Also, this approval shall not be construed as a release from liability for any person that is potentially responsible for the remediation of contamination that is not remediated by EnCap.

30. Acceptance Form

This Approval will be effective upon NJDEP receipt of an executed original of the enclosed Acceptance Form.

If you have any questions, please contact Mr. Michael Kenney, Case Manager at (609) 633-0739 or via email at *mkenney@dep.state.nj.us*.

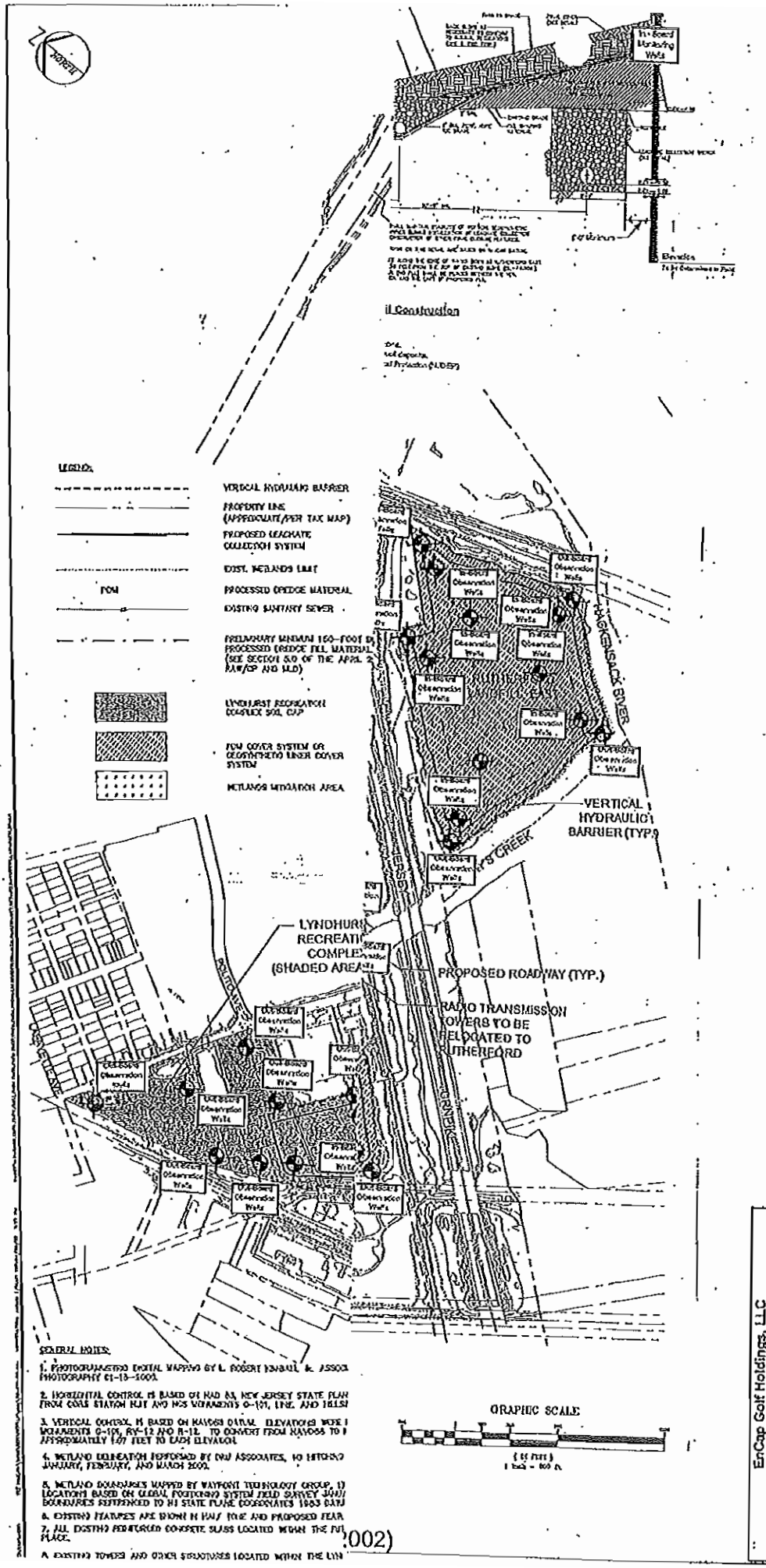
Sincerely,

Michael S. Kenney, Case Manager
Bureau of Case Management

Thomas Sherman, Assistant Director
Office of Permitting & Technical Programs

Enclosures

c: Steve Tiffinger, Bergen County Department of Health Services
Robert Ceberio, New Jersey Meadowlands Commission
Richard Gimello, NJDOT - Office of Maritime Resources
John Sartor, Paulus, Sokolowski and Sartor, Inc.
Evan Van Hook, Assistant Commissioner - SRP
John Cashner, Director - DSHW
Stephanie Brand, DOL
Teruo Sugihara, BEERA
Jeff Story, BGWPA
Nelson Hausman, BLRM
Mary Anne Goldman, BLRM
Richard DeWan, OD&ST
Ruth Foster, OPP&PC
Quddus Qayyum, BNSR
John Sacco, ONRR
Gwen Zervas, BCM




Note:
A. Conceptual Monitoring Well Location Plan prepared for the groundwater level monitoring during remediation construction and post - remediation care plans. Out - Board monitoring wells to be constructed outside of the vertical hydraulic barrier and the leachate management system. In - Board Monitoring Wells to be constructed inside of the leachate management system.
B. Conceptual Monitoring Wells to be four - inch PVC wells screened to the saturated zone of the landfill material with protective locking casing.
C. Conceptual Monitoring Wells to be installed in the vicinity of the topographic low points of the leachate management system.

EnCap Golf Holdings, LLC
Meadowlands Golf Redevelopment Project
OBSERVATION WELL LOCATION PLAN
PAULUS, SOKOLOWSKI AND SARTOR, LLC
Consulting Engineers and Environmental Scientists
Warren, New Jersey

| | |
|---|---|
| Drawn: JMS | Project: 2425-0163-014 |
| Checked: JAS | Scale: 1" = 300' (See Bar Scale) |
| Date: April 22, 2002 | Figure: 7-1 |

(2002)

**APPENDIX A**

**CLEAN MATERIAL**
**CERTIFICATION AND APPROVAL FORM**

## PART I SOURCE INFORMATION

1. Name or Source Owner: _____

2. Address of Source Owner: _____

3. Location of Clean Material:

   Street Address _____

   City/State/Zip _____

4. Registration Number (if source is an approved recycling facility):

   _____

5. Type of Material (check one):

   _____ certified clean
   _____ processed sewage sludge
   _____ Clean tested soil
   _____ masonry fines
   _____ unprocessed dredge

6. Quantity of Material Requested for Approval

   _____

7. Analytical Results Submitted with this Request:

| Parameter Tested | Test Date | # of Analyses | # of Samples (if composite) |
|---|---|---|---|
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| | | | |
| | | | |
| | | | |
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| | | | |
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| | | | |
| | | | |
| | | | |

**PART I SOURCE INFORMATION *(cont.)***

7. (a) Raw Dredged Material:

| Parameter Tested | Test Date | # of Analyses | # of Samples (if composite) |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

7. (b) SPLP Testing:

| Parameter Tested | Test Date | # of Analyses | # of Samples (if composite) |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

8. Is the material considered to be a hazardous waste in accordance with N.J.A.C. 7:26-8.5?

_____ Yes _____ No

9. Is the material considered from an area described in N.J.A.C. 7:26E-3.9(a) – (f)?

_____ Yes _____ No

10. Were field or trip blanks utilized?

_____ Yes _____ No

If yes, for which samples? _____

11. Geotechnical Analysis

Describe Type of Analysis Included

Check all that apply:

| | | |
|---|---|---|
| _____ | Moisture Content | Laboratory Conducting Analysis |
| _____ | Gradation Analysis | _____ |
| _____ | Other Soil Tests (Specify) | _____ |

12. (a) Name and Address of Independent Sampler

Name: _____

Address: _____

_____

(b) Credential of Independent Sampler (if applicable)

Name: _____

Address: _____

_____

13. Certification of Sampler (if applicable)

As an independent professional, I certify that the samples obtained as described in questions 1 – 12 herein were obtained in accordance with the NJDEP sampling requirements (N.J.A.C. 7:26E-2) and that sample collection has been performed in accordance with the current Field Sampling Procedures Manual, NJDEP.

_____ (Signature of Sampler)

_____ (Printed Name of Sampler)

_____ Legal Address of Sampler)

_____

14. Certification of Source Owner

As owner of the above-described clean material, I warrant that to the best of my knowledge, the material is clean and consists only of those items described in Item 5. above and has been sampled and analyzed in accordance with (N.J.A.C. 7:26E-2.1) and that sample collection has been performed in accordance with the current Field Sampling Procedures Manual, NJDEP.

_____ (Signature of Owner)

_____ (Printed Name of Owner)

_____ Legal Address of Owner)

_____

**PART II REVIEW ENGINEER FINDINGS AND CERTIFICATION—CLEAN MATERIALS**

1. Type of material as per Protocol Addendum: _____

2. Quantity of material: _____

3. Describe proposed use: _____

_____

4. Quality Criteria Applicable to Material (check one)

   Residential Direct Contact: _____

   Impact to Groundwater: _____

   Groundwater Quality Standard: _____

   Surface Water Quality Standard: _____

5. Characterization Required

   Type of Analyses: _____

   No. of Analyses: _____

   No. of Composites: _____

   Has material been properly characterized?

   _____ Yes _____ No

6. Does the material meet applicable quality criteria?

   _____ Yes _____ No

   If yes, attach summary of analytical results.

7. Are there criteria proposed by others that must be met?

   _____ Yes _____ No _____ N/A

Describe other tests required if applicable: _____

_____

_____

_____

_____

**PART II REVIEW ENGINEER FINDINGS AND CERTIFICATION—CLEAN MATERIALS *(cont.)***

8. Are any additional permits or approvals needed prior to acceptance of material?

   _____ Yes _____ No _____ N/A

9. Previous quantities approved: _____ cubic yards

   Quantity this approval: _____ cubic yards

10. Certification No. _____

Based upon the information contained in Part I and Part II of this application, I hereby certify that to the best of my knowledge, the material described herein is acceptable for use as clean material at the Kingsland Park Sanitary Landfill project in accordance with applicable permits and approvals and has been found acceptable pursuant to the "Addendum to Protocol for Review and Certification of Recyclable Materials at the Kingsland Park Sanitary Landfill project.

_____ _____

Date of Certification Signature of Review Engineer

11. If approved, mail copy of certification to:

    a. Material Source Owner

    b. WCD Consultants, LLC

    c. NJDEP

12. Denial

    If Review Engineer does not approve this application, return Part I and Part II to the material source owner with request for additional information and/or reason for denial.

Describe additional information needed: _____

_____

_____

_____

_____

Describe reason for denial: _____

_____

_____

_____

_____

**Form CTS-1 (Revised)**
**SITE EVALUATION TO DETERMINE POTENTIAL FOR CLEAN SOIL**

1. Name of Site: _____
2. Location: _____
3. Owner: _____
4. Acreage: _____

5. Description (describe current site features). Attach a tax map or GIS formatted map. Show direction of surface runoff onto site and from site. (Provide support documentation in Appendix A).

_____

_____

6. Adjacent Property Description (describe surrounding properties by land use type, providing support documentation in Appendix B).

_____

_____

7. Describe any potential Areas of Concern on site or offsite that could impact site (provide support documentation in Appendix C).

_____

_____

8. Provide a brief site history. If a Preliminary Assessment or Site Investigation has been performed, from copy, provide support documentation in Appendix D.

_____

_____

9. Describe soils on site proposed for reuse (general soil type).

_____

_____

10. Is the soil parent material from the site? If so, document referencing soil survey information in Appendix E.

_____

_____

11. Is the soil an engineered fill? If so, describe fill material and reason for concluding that it was imported to the site to be used as engineered fill.

_____

_____

12. Is there any waste material on site or mixed with the proposed soil? If so, describe:

_____

_____

13. Is any additional testing recommended beyond the minimum criteria in the Protocol?

_____

_____

**CERTIFICATION BY EVALUATOR**

Based upon the above findings, I have determined that the proposed volume of soil from the above-referenced soil qualifies for consideration as “clean tested soil.” Pursuant to NJDEP approved Addendum to Protocol for Review and Certification of Recyclable Materials.

Print Name

Registration No.

**CERTIFICATION BY SITE OWNER/GENERATOR**

As owner of the above-described materials, I warrant that to the best of my knowledge, the material is clean soil and that the site history is as described above.

Print Name

Exhibit 9: Morris Blanchard Redevelopment Project Permit Authorizations

**New Jersey Department of Environmental Protection**
Site Remediation Program

**LSRP NOTIFICATION OF RETENTION OR DISMISSAL**

Date Stamp
(For Department use only)

**SECTION A. SITE NAME AND LOCATION**

Site Name: Fairmount Chemical Company, Inc

List all AKAs:

Street Address: 117 Blanchard Street

Municipality: Newark (Township, Borough or City)

County: Essex Zip Code: 07105

Program Interest (PI) Number(s): 015008 Case Tracking Number(s): E20020444

**SECTION B. RETENTION INFORMATION**

I was retained by Morris Companies, Inc to serve as the licensed site remediation professional for the remediation at the site on 01/03/2012.

I replaced another LSRP: ☐ Yes ☒ No

Provide name of replaced/released LSRP:

**SECTION C. RELEASE INFORMATION**

I was released by from service as the licensed site remediation professional for remediation at the site on .

Note: The release notification is only required if it occurs prior to the issuance of the response action outcome for the site by the LSRP.

**SECTION D. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND STATEMENT**

LSRP ID Number: 509037

First Name: James Last Name: Mack

Phone Number: (908) 448-6566 Ext: Fax:

Mailing Address: 25 Starview Drive

City/Town: Hillsborough State: New Jersey Zip Code: 08844

Email Address: jamespmack@jpm-llc.com

This statement shall be signed by the LSRP who is submitting this notification in accordance with N.J.S.A. 58:10C-16d and N.J.S.A. 58:10B-1.3b(2).

*I certify that I am a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C to conduct business in New Jersey. I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowingly or recklessly submitting false statement, representation or certification in any document or information submitted to the board or Department, etc., that there are significant civil, administrative and criminal penalties, including license revocation or suspension, fines and being punished by imprisonment for conviction of a crime of the third degree.*

LSRP Signature: James P. Mack Date: 1/10/12

LSRP Name/Title: James P. Mack/President No Changes Since Last Submittal ☒

Company Name: James P. Mack LLC

## SECTION E. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION

Full Legal Name of the Person Responsible for Conducting the Remediation: Morris Fairmount Associates

Representative First Name: Mark Representative Last Name: Bava

Title: Executive Vice President

Phone Number: (201) 804-8700 Ext: Fax:

Mailing Address: Morris Companies; 350 Veterans Boulevard

City/Town: Rutherford State: New Jersey Zip Code: 07070

Email Address:

1. I am a prospective purchaser of the subject site ☐ Yes ☒ No
2. I am hiring a LSRP to address an unregulated heating oil tank(s) only ☐ Yes ☒ No
3. I maintain I have a defense to spill act liability pursuant to N.J.S.A. 58:10-23.11gd because I am a (select one):
   ☐ Government Entity ☐ Lender
   ☐ Innocent Purchaser ☒ Developer
4. I am hiring a LSRP to meet licensing requirements for a child care center on this site ☐ Yes ☒ No
   If "Yes," indicate if you are the ☐ property owner or ☐ tenant.
5. This site is or may be impacting a school, childcare center or residence ☐ Yes ☒ No
6. I am taking over remediation from the Department or another party ☐ Yes ☒ No
   If "Yes," indicate name of party that was previously conducting remediation:

   If "Yes," the party who I am taking over from agrees that I will conduct the remediation. ☐ Yes ☐ No
7. Total number of contaminated AOC(s) on site known at this time: 4
8. I have hired a LSRP to address:
   ☒ the entire site based upon a PA/SI (completed or yet to be completed);
   or
   ☐ Specific known contaminated AOC(s). Indicate the number of known contaminated AOC(s) that this LSRP is addressing:

This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

*I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, and that to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.*

Signature: Date: 1/10/12

Name/Title: Mark Bava/Executive Vice President

## SECTION F. "OPT IN" REQUEST

Is a Case Manager assigned? ☒ Yes ☐ No

If "Yes," provide name: Steve Kehayes

In accordance with N.J.A.C. 7:26C-2.3(b), I hereby request that the Department allow the remediation at the site identified in Section A, above, to be conducted in accordance with N.J.A.C. 7:26C-2.4. I certify that I have paid all invoiced uncontested oversight costs and applicable fees and that, if applicable, my remediation funding source has been established and maintained in an amount that reflects the estimated cost of remediation and that all applicable surcharges have been paid. I further certify that I agree to pay oversight costs incurred by the Department but not yet invoiced and, if applicable, to maintain my remediation funding source in an amount that equals the estimated cost of the remediation and to pay any required surcharge.

I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

I understand that my submittal of this certification provides an automatic approval of this request, provided that I am eligible for approval and that the Department finds the certification to be truthful and accurate.

Signature: _____ Date: 1/14/12

Typed/Printed Name: Mark Bava

Title: EVP & CFO

Completed forms should be sent to:

Bureau of Case Assignment & Initial Notice
Site Remediation Program
NJ Department of Environmental Protection
401-05H
PO Box 420
Trenton, NJ 08625-0420

# AUTHORIZATION TO DISCHARGE STORMWATER

N.J. Department of Environmental Protection
Bureau of Nonpoint Pollution Control
*in cooperation with the*
N.J. Department of Agriculture
State Soil Conservation Committee
and Soil Conservation Districts

## NJPDES General Permit No. NJG0088323
## Stormwater Discharge Associated with Construction Activity

**Is this a Ch. 251 Project?** Yes, App. # Newark 104780 ; SCD RFA# 07-14-09-013

**1. Project or Facility Name and Address**

Blanchard Street Redevelopment
80 - 132 and 97 - 135 Blanchard St.
Newark, NJ 07102

**2. Permittee Name and Address**

Same as Owner

**3. Owner Name and Address**

Tom Gallagher
Morris Fairmount Associates, LLC
350 Veterans Blvd.
Rutherford, NJ 07070

**4. Proposed Land Use (check appropriate category(ies)):**

a. Residential Dwelling ____ Single Family ____ Multi-Family;

b. Commercial Facility ____ ; c. Industrial Facility X ; d. Mining or Quarry ____ ;

e. Public School, Religious or Charitable Institutions ____ ; f. Other (specify) ____

**Effective Date** 9-3-08 **Expiration Date** Permit Extension - 6/30/15 3-3-2012

Your Request for authorization under NJPDES General Permit No. NJG0088323 has been certified in accordance with the provisions of N.J.A.C. 7:14A and the New Jersey Stormwater Permitting Program in coordination with the New Jersey Department of Agriculture, the State Soil Conservation Committee and the Soil Conservation District.

Barry Chalofsky, P.P. Chief
Bureau of Nonpoint Pollution Control
New Jersey Department of Environmental Protection

**CERTIFIED BY:**

Signature — Date: 9-3-08

Carl Quazza
Chairman
Title

HEP-SCD, 15 Bloomfield Ave.
North Caldwell, NJ 07006

**FOR DISTRICT USE ONLY**

**NJ Natural Resources Conservation Program**
**Expiration of Authorization to Discharge Stormwater**

Reason for Expiration:

- ☐ Project Completed (Final Report of Compliance Issued)
- ☐ Application Withdrawn by Applicant
- ☐ Application Denied by District or SSCC
- ☐ Project SESC Plan Certification Expired

Date of Expiration ____

Authorized by ____
District Official

LIMIT OF DISTURBANCE AREA = 11.62 Ac.

SILT FENCE

REFERENCE MERIDIAN N.J.S.P.C.S. NAD 1983

LOT 62

LOT 74

LOT 74

LOT 82

LOT 84

LOT 85

LOT 90

LOT 76

LOT 80

LOT 75

LOT 40

LOT 93

LOT 42

LOT 46

LOT 48

LOT 49

LOT 50

LOT 50.01

LOT 92

FOUNDATION

CONC

UNDER CONSTRUCTION

FENCE

FRESHWATER WETLANDS 815 S.F.

STATE OPEN WATER 4,401 S.F.

ABANDONED RAILROAD

CONRAIL

BLANCHARD STREET

PROP. 50'x24' CONSTRUCTION ENTRANCES

LIMIT OF DISTURBANCE AREA = 1.65 Ac.

SILT FENCE

PASSAIC RIVER

RIPARIAN & BULKHEAD LINE (PREHUMMEL)

MEAN HIGH WATER LINE EL. 2.33 FT. AS VERIFIED BY LGA ENGINEERING INC.

TIDELAND GRANT LINE PER MAP OF LOTS 62 & 74, BLOCK 2438

ABANDONED BARGE

EXISTING OUTFALL

ABANDONED BARGE

EXISTING OUTFALL

RAMP

GATE

CONC

KEY MAP
SCALE: 1" = 2000'

KEARNY

RIVER

SITE

LEGEND

| EXISTING | PROPOSED |
|---|---|
| BOUNDARY LINE | |
| LOT LINE | |
| CURB LINE | |
| DEPRESSED CURB | |
| EDGE OF PAVEMENT | |
| PAINT LINE | |
| CONCRETE | |
| CONTOURS | |
| MINOR | 8 |
| MAJOR | 10 |
| TREE LINE | |
| STORM DRAIN | |
| EXISTING DRAIN EXTENSION | |
| ROOF DRAIN | |
| YARD DRAIN | |
| STORM INLET "B" | |
| STORM INLET "E" | |
| MANHOLE | |
| CLEANOUT | CO |
| LIMIT OF DISTURBANCE | |
| SILT FENCE | |
| INLET PROTECTION | |
| CONSTRUCTION ENTRANCE | |

50 40 30 20 10 0 50 100 150
GRAPHIC SCALE

ATTENTION OF THE CONTRACTOR IS DIRECTED TO THE FACT THAT THE APPROXIMATE LOCATIONS OF KNOWN UTILITY STRUCTURES AND FACILITIES THAT MAY BE ENCOUNTERED WITHIN AND ADJACENT TO THE LIMITS OF WORK AREA SHOWN ON THE PLANS. THE ACCURACY AND COMPLETENESS OF THIS INFORMATION IS NOT GUARANTEED BY THE ENGINEER, AND THE CONTRACTOR IS ADVISED TO VERIFY, IN THE FIELD, ALL THE FACTS CONCERNING THE LOCATION OF THESE UTILITIES AND OTHER CONSTRUCTION OBSTACLES PRIOR TO THE START OF CONSTRUCTION. FURTHER, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING, PRIOR TO THE START OF CONSTRUCTION, OF ANY DISCREPANCIES WHICH MAY EFFECT THE PROJECT DESIGN.

THE CONTRACTOR SHALL CONTACT NEW JERSEY ONE CALL (1-800-272-1000, OR LATEST NUMBER) FOR UTILITY MARKOUT PRIOR TO THE START OF CONSTRUCTION.

Plotted: 05/13/08 - 3:34 PM, By: rester
File: S:\Projects\2008\502025000\Engineering\Civil\ESC-LOTS 74 & 40.dwg, ---> 01-ESC
Copyright LGA Engineering Inc. 2008

LGA ENGINEERING, INC.
CONSULTING ENGINEERS & SURVEYORS

SEAN R. TORPEY, P.E.
PROFESSIONAL ENGINEER
N.J. Lic. No. 46423

Alan P. Hilla PE No. 20393
Michael J. Giuliano, Jr. PE No. 23314
John L. Maestrinch PE No. 36588
David G. Eareckson PE No. 42344

750 Vassar Avenue
Lakewood, N.J. 08701
Tel: (732) 901-2162
Certificate of Authorization No. 24GA27990000

Date: 5/13/08

| NO. | DATE | REVISION | DRAWN | CHK'D | REL'D |
|---|---|---|---|---|---|

# SOIL EROSION & SEDIMENT CONTROL PLAN
LOT 74, BLOCK 2438
LOT 40, BLOCK 5001
P/O BLANCHARD STREET R.O.W.
FAIRMOUNT CHEMICAL SITE REMEDIATION

SITUATED IN
CITY OF NEWARK, ESSEX COUNTY, NEW JERSEY

| DATE | SCALE | DRAWN BY | CHECKED BY | RELEASED BY | FILE NO. | DRAWER NO. | SHEET |
|---|---|---|---|---|---|---|---|
| 05/13/08 | 1"=50' | RRE | RRE | SRT | 502025000100 | 217-009 C | 1 OF 2 |

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF LAND USE REGULATION
501 East State Street, Station Plaza 5, 2nd Floor
P.O. Box 439, Trenton, New Jersey 08625-0439
Fax: (609) 777-3656 or (609) 292-8115
www.state.nj.us/dep/landuse

# PERMIT

| | |
|---|---|
| In accordance with the laws and regulations of the State of New Jersey, the Department of Environmental Protection hereby grants this permit to perform the activities described below. This permit is revocable with due cause and is subject to the limitations, terms and conditions listed below and on the attached pages. For the purpose of this document, a permit means approval, certification, registration, authorization, waiver, etc. | Approval Date: SEP 05 2007 |
| | Expiration Date: SEP 05 2012 |

| Permit Number/s | Type of Approval/s | Enabling Statute/s |
|---|---|---|
| 0714-07-0001.1 | | |
| WFD070001 (Upland) | Waterfront Development – IP Upland | NJSA 12:5-3 |
| WFD070002 (In-water) | Waterfront Development – IP In-water | NJSA 13:9B-1 |
| FWW070001 (GP-6) | Freshwater Wetlands General Permit #6 | NJSA 58:10A-1 |

| Applicant: | Owner (if different from applicant) |
|---|---|
| The Morris Fairmount Associates, LLC<br>350 Veterans Boulevard<br>Rutherford, NJ 07070 | |

This permit authorizes the construction of a 750,000 sq. ft. warehouse building with associated parking and loading/unloading areas, and the repair and enlargement of an existing outfall structure located below the mean high water line of the Passaic River; and
The filling of 0.02 of an acre of freshwater wetlands and 0.10 acres of State open waters authorized under Statewide General Permit #6 for the construction of the warehouse and parking lot.

The proposed project is shown on site plans entitled: "*Preliminary & Final Major Site Plan; Lots 74, 76, 78, 80, 82, 84, 85, 92, Block 2438; Lots 40, 42, 46, 48, 49, 50, 50.01, 93, Block 5001; P/O Blanchard Street R.O.W.; Blanchard Street Redevelopment.* September 20, 2006; prepared by LGA Engineering, Inc."

a) "SITE LAYOUT PLAN" (Sheet 3), last revised August 21, 2007;
b) "GRADING AND DRAINAGE PLAN" (Sheet 4), last revised August 29, 2007;
c) "UTILITY PLAN" (Sheet 5), last revised August 21, 2007;
d) "PROFILES" (Sheet 6 - no revisions, Sheet 7 - last revised July 25, 2007, and Sheet 8 - last revised June 29, 2007);
e) "LANDSCAPE AND LIGHTING PLAN" (Sheet 9 - last revised August 21, 2007, and Sheet 10 - no revisions);
f) "SOIL EROSION AND SEDIMENT CONTROL PLAN" (Sheet 11 - last revised August 21, 2007, and Sheet 12 - no revisions);
g) "CONSTRUCTION DETAILS" (Sheets 13 & 14) last revised August 29, 2007.

This permit is authorized under, and in compliance with, the Rules on Coastal Zone Management, N.J.A.C. 7:7E-1.1 et seq. By issuance of this permit, the State of New Jersey does not relinquish tidelands ownership or claim to any portion of the subject property or adjacent properties. The permittee shall allow an authorized Division representative the right to inspect the construction pursuant to N.J.A.C. 7:7E-1.5(b)4.

| Project Location: Block: 2438; Lots: 74,76,78,80,82,84,85,&92<br>Block: 5001; Lots: 40,42,46,48,49,50,93,&94<br><br>City of Newark<br>Essex County, New Jersey | Received by County Clerk |
|---|---|
| Project Manager's Signature<br>Becky Dreibelbis<br>Telephone: 609-984-0194<br>Email: Becky.Dreibelbis@dep.state.nj.us | |

This permit is not valid unless authorizing signature appears on the last page.

**Terms And Conditions**

## STANDARD CONDITIONS:

1. **Extent of approval:** This document grants permission to perform certain activities that are regulated by the State of New Jersey. The approved work is described by the text of this permit and is further detailed by the approved drawings listed below. All work must conform to the requirements, conditions and limitations of this permit and all approved drawings. You must keep a copy of this permit and all approved drawings readily available for inspection at the work site. Approved work may be altered only with the prior written approval of the Division. If you alter the project without prior approval, or expand work beyond the description of this permit, you may be in violation of State law and may be subject to fines and penalties.

2. **Acceptance of permit:** If you begin any activity approved by this permit, you thereby accept this document in its entirety and agree to adhere to all terms and conditions. If you do not accept or agree with this document in its entirety, **do not begin** construction. You are entitled to request an appeal within a limited time as detailed on the attached *Administrative Hearing Request Checklist and Tracking Form.* You may also contact the project manager shown on the first page if you have any questions or concerns about this document.

3. **Recording with County Clerk:** You must record this permit in the Office of the County Clerk for each county involved in this project. You must also mail or fax a copy of the front page of this permit to the Division showing the received stamp from each County Clerk within 30 days of the issuance date (or 90 days if multiple counties are involved). The Division's address and fax number are shown on the first page of this permit.

4. **Notice of Construction:** You must notify the Division in writing at least 7 days before you begin any work approved by this permit. The Division's address and fax number are shown on the first page of this permit. Please direct your letter to the project manager shown on the first page.

5. **Expiration date:** All activities authorized by this permit must be completed by the expiration date shown on the first page. At that time, this permit will automatically become invalid and none of the approved work may begin or continue until a replacement permit is granted. (Some coastal permits may qualify for an extension of the expiration date. Please contact the Division for further information.)

6. **Rights of the State:** This permit is revocable and subject to modification by the State with due cause. The State may inspect the work site and may suspend construction if work does not comply with this permit. This permit does not grant property rights. The issuance of this permit shall not affect any action by the State on future applications, nor affect the title or ownership of property, nor make the State a party in any suit or question of ownership.

7. **Other responsibilities:** You must obtain all necessary local, Federal and other State approvals before you begin work. All work must be stabilized in accordance with the *Standards for Soil Erosion and Sediment Control in New Jersey,* and all fill material must be free of toxic pollutants in toxic amounts as defined in section 307 of the Federal Act.

## SPECIAL CONDITIONS IN ADDITION TO THE STANDARD CONDITIONS:

8. **Prior to commencing any activities** authorized by this permit, the permittee shall execute and deliver a Deed of Conservation Easement in recordable form that clearly delineates the proposed public waterfront walkway and perpendicular access as depicted on the approved plans. The deed restriction shall include the entire 30-foot wide conservation easement along the water's edge of the site and the 8-foot wide conservation easement along the eastern edge of the site, as depicted on the approved plans. These areas should be noted as public access facilities open to the general public on a 24-hour basis, to be maintained and managed by the permittee (or its assigns) in perpetuity. In addition, a public access walkway connecting to the adjacent neighbors shall be included, such that when public access becomes available at

those sites, the access can be easily connected. This area shall also be addressed in the deed restriction for current and all future owners of the subject property. The restriction shall be included on the deed, and recorded in the office of the County Clerk (the REGISTRAR OF DEEDS AND MORTGAGES), in the county wherein the lands included in the waiver are located. The restriction shall run with the land and be binding upon all successive owners. All individual lot surveys shall show the approved proposed public access walkway boundaries. **Any regulated activities undertaken on the site before a copy of the recorded restriction is submitted to the Division will be considered in violation of the Waterfront Development Law.** The conservation restriction shall also include a requirement to maintain overlooks, trash receptacles, benches, lighting, and railing along the entire waterfront walkway and signage to be maintained in perpetuity. The permittee shall submit a revised plan illustrating the meets and bounds description of the entire proposed public access area.

9. **Prior to the start of construction,** the permittee shall provide documentation to the Division that the project is in compliance with the regulations of the NJDEP Site Remediation Program, Office of Brownfields Administration.

10. **Prior to the start of construction** and upon receiving approval from NJDEP Site Remediation Program, Office of Brownfields Administration as stipulated in permit condition #9, the applicant shall submit revised plans to the Division of Land Use Regulation detailing the construction of a 16-foot walkway extending approximately 1,100 feet along the water's edge of the property, and the construction of an 8-foot wide perpendicular access sidewalk along the eastern edge of the site. The plans shall detail the specific materials being used for the walkway, as well as the location of trash receptacles, benches, lighting, and a railing along the entire waterfront walkway, and shall include overlooks and signage to be maintained in perpetuity.

11. **Prior to the start of construction,** the permittee must obtain a Tidelands Grant and Interim License from the NJDEP Bureau of Tidelands.

12. **Prior to the start of construction,** the permittee must obtain approval from the City of Newark for the Traffic Study associated with this project.

13. All necessary local, Federal and other state approvals must be obtained by the applicant prior to the commencement of the herein-permitted activities. Approvals from the following agency may be required:

    a. New York District of the Army Corps of Engineers.

14. In order to protect the general game fishery resource within the Passaic River, any proposed grading or other construction activities within 25 feet of the top of bank of the Passaic River is prohibited from May 1 to June 30 of each year.

15. *Conditions of the Freshwater Wetlands Statewide General Permit #6:*
This portion of the permit authorizes the filling of **871.2 sq. ft. (0.02) acres** of isolated freshwater wetlands and **4,356 sq. ft. (0.10 acres)** of State open waters for the construction of a warehouse and associated parking lot, under a Freshwater Wetlands Statewide General Permit #6, as depicted on the approved plans.

16. The applicant must make specific arrangements to ensure the continuous maintenance and efficient operation of all proposed water quality measures on this site in accordance with the Department's Best Management Practices Manual. This includes, but is not limited to the cleaning and inspection of all water quality inlets and water quality mechanical units at least 4 times a year and after every storm exceeding 1 inch of rainfall, and the continuous implementation of appropriate soil conservation practices within any basins, grassed swales, stormwater outfall structures and other similar appurtenances throughout the site in order to limit soil erosion and sediment discharge into adjacent waterways.

**Terms And Conditions**

17. The time limit for backfilling and stabilizing all earth work and for the removal of all temporary fill and other appurtenances in connection with the placement of storm water outfall structures, pipelines and other utility crossings shall be thirty (30) days after the commencement of construction for each individual stream crossing and/or section of the project along any stream channel. However, if the construction is located within an acid producing area, the backfilling must be completed without exposing any acid producing deposits for more than eight (8) hours.

18. All excavated material and dredged spoils must be disposed of in a lawful manner outside of any regulated flood plain, open water, freshwater wetlands or adjacent transition areas, and in such a way as to not interfere with the positive drainage of the receiving area.

19. Trees, shrubs, grasses, and other vegetation within 25 feet from the top of all stream banks on site shall not be disturbed for any reason, except as approved by the Department and as shown on the approved site plans. This condition applies to all streams and waterways on site, regardless of the contributory drainage area.

Andrew Clark, Supervisor
Bureau of Inland Regulation

9/5/07
Date

Exhibit 10: TRC-Walnut Cut Authorization

**DEPARTMENT OF ENVIRONMENTAL PROTECTION**
**Bureau of Waste Management**

**DOCUMENT NUMBER:** 258-2182-773

**INTERIM FINAL EFFECTIVE DATE:** August 7, 2010

**TITLE:** Management of Fill

**AUTHORITY:** This document is established in accordance with the Act of July 7, 1980, as amended, 35 P.S. §§ 6018.101 *et seq.*, known as the Solid Waste Management Act (SWMA); the Act of June 22, 1937, as amended, 35 P.S. §§ 691.1 *et seq*., known as the Clean Streams Law; the Act of April 9, 1929, Section 1917-A of the Administrative Code, 71 P.S. § 510-17; the Act of July 18, 1995, 35 P.S. §§ 6026.101 *et seq.*, known as the Land Recycling and Environmental Remediation Standards Act.

**POLICY:** This policy is designed to replace the Department's existing Clean Fill Policy dated February 29, 1996.

**PURPOSE**: This policy provides DEP's procedures for determining whether material is clean fill or regulated fill. Regulated fill may not be used unless a SWMA permit is secured by the individual or entity using the regulated fill.

**APPLICABILITY:** This policy shall be used to evaluate whether material qualifies as clean fill or regulated fill. This policy does not apply to mine land reclamation activities subject to a permit. Excavation, movement or reuse of fill material within a project area or right-of-way of a project is not an activity that requires a SWMA permit.

**DISCLAIMER:** The policies and procedures outlined in this guidance document are intended to supplement existing requirements. Nothing in the policies or procedures shall affect regulatory requirements. The policies and procedures herein are not an adjudication or a regulation. There is no intent on the part of the DEP to give the rules in these policies that weight or deference. This document establishes the framework within which DEP will exercise its administrative discretion in the future. DEP reserves the discretion to deviate from this policy statement if circumstances warrant.

**PAGE LENGTH:** 10 pages

**LOCATION:** Volume 6, Tab 40(b)

**DEFINITIONS:**

*Act 2* - The Land Recycling and Environmental Remediation Standards Act, Act of May 18, 1995 (P.L. 4, No. 1995-2), 35 P.S. §§ 6026.101 et seq.

*Clean fill* - Uncontaminated, nonwater-soluble, nondecomposable inert solid material. The term includes soil, rock, stone, dredged material, used asphalt, and brick, block or concrete from construction and demolition activities that is separate from other waste and recognizable as such. (25 Pa. Code §§ 271.101 and 287.101) The term does not include materials placed in or on the waters of the Commonwealth unless otherwise authorized.

*Environmental due diligence* - Investigative techniques, including, but not limited to, visual property inspections, electronic data base searches, review of ownership and use history of property, Sanborn maps, environmental questionnaires, transaction screens, analytical testing, environmental assessments or audits.

*Historic fill* - Material (excluding landfills, waste piles and impoundments) used to bring an area to grade prior to 1988 that is a conglomeration of soil and residuals, such as ashes from the residential burning of wood and coal, incinerator ash, coal ash, slag, dredged material and construction and demolition waste. The term does not include iron or steel slag that is separate from residuals if it meets the coproduct definition and the requirements of 25 Pa. Code § 287.8. The term does not include coal ash that is separate from residuals if it is beneficially used in accordance with 25 Pa. Code § 287.661 - 287.666.

*Regulated fill* - Soil, rock, stone, dredged material, used asphalt, historic fill, and brick, block or concrete from construction and demolition activities that is separate from other waste and recognizable as such that has been affected by a spill or release of a regulated substance and the concentrations of regulated substances exceed the values in Table FP-1a and b.

*Regulated substance* - The term shall include hazardous substances and contaminants regulated under the Hazardous Sites Cleanup Act, and substances covered by the Clean Streams Law, the Air Pollution Control Act, the Solid Waste Management Act, the Infectious and Chemotherapeutic Waste Law, and the Storage Tank and Spill Prevention Act.

*Release* - Spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing of a regulated substance into the environment in a manner not authorized by the Department of Environmental Protection. The term includes the abandonment or discarding of barrels, containers, vessels and other receptacles containing a regulated substance.

*Uncontaminated material* - Material unaffected by a spill or release of a regulated substance, or if affected by a spill or release, the concentrations of regulated substances are below the concentrations specified in Table FP-1a and b.

**REFERENCES:**

25 Pa. Code Chapters 287 to 299 (residual waste regulations)
25 Pa. Code Chapters 271 to 285 (municipal waste regulations)
Solid Waste Management Act, 35 P.S. §§ 6018.101 *et seq.*
Land Recycling and Environmental Remediation Standards Act, 35 P.S. §§ 6026.101 *et seq.*

**TECHNICAL GUIDANCE:**

FILL DETERMINATION

1) To determine whether fill is clean or regulated, a person must perform environmental due diligence.[1]

   a) If due diligence shows no evidence of a release of a regulated substance, the material may be managed as clean fill under this policy.

   b) If due diligence shows evidence of a release, the material must be tested to determine if it qualifies as clean fill. Testing must be performed in accordance with Appendix A.

      i) If testing reveals that the material contains concentrations of regulated substances that are below the residential limits in Table FP-1a and b, the material must be managed as clean fill.

      ii) If testing reveals that the material contains concentrations of regulated substances that exceed the limits in Table FP-1a and b, the material must be managed as regulated fill.

2) A person may not blend or mix materials to become clean fill. Materials that contain regulated substances that are intentionally released may not be managed under this policy.

MANAGEMENT OF REGULATED FILL

1) Materials identified as regulated fill are waste and must be managed in accordance with the Department's municipal or residual waste regulations, whichever is applicable, based on 25 Pa. Code §§ 287.2 or 271.2. Regulated fill may be beneficially used under General Permit WMGR096 (proposed) if the materials and the proposed activities for the fill meet the conditions of that permit. A person may apply for an industry-wide beneficial use general permit for the beneficial use of regulated fill in lieu of this general permit.

2) Regulated fill may not be placed on a greenfield property not planned for development, or on a property currently in residential use or planned for residential use unless otherwise authorized.

3) Fill containing concentrations of regulated substances that exceed the values in Table GP-1 a and b may not be managed under the provisions of this policy or General Permit WMGR096, but must be otherwise managed in accordance with the provisions of the Department's municipal or residual waste regulations.

4) A general permit is not required for remediation activities undertaken entirely on an Act 2 site pursuant to the requirements of Section 902 of the Land Recycling and Environmental Remediation Standards Act. A general permit is also not required if regulated fill from an Act 2 site is used as construction material at a receiving site that is being remediated to attain an Act 2 standard as long as the procedural and substantive requirements of Act 2 are met. Regulated

[1] Analytical assessment, testing or sampling is only required if visual inspection or reviews of historic property use indicates evidence of a release of a regulated substance.

substances contained in the regulated fill must be incorporated into the notice of intent to remediate and the final report. Movement of regulated fill between Act 2 sites must be documented in both the sending and receiving sites' cleanup plans and final reports. Placement of the regulated fill may not cause the receiving site undergoing remediation to exceed the selected Act 2 standard.

MANAGEMENT OF CLEAN FILL

1) Use of material as clean fill does not require a permit under the Solid Waste Management Act and regulations, and it may be used in an unrestricted or unregulated manner under this Act and its regulations. The use of materials as clean fill is still regulated under other environmental laws and regulations. A person using materials as clean fill under the policy is still subject to and must comply with all applicable requirements governing the placement or use of material as clean fill, such as Chapter 102 (Erosion and Sediment Control) and Chapter 105 (Dam Safety and Waterway Management).

2) Any person placing clean fill which has been affected by a release of a regulated substance on a property must certify the origin of the fill material and results of analytical testing to qualify the material as clean fill on Form FP-001. Form FP-001 must be retained by the owner of the property receiving the fill.

3) Best management practices (BMP) must be followed prior to demolition activities to remove materials like lead-based paint surface, friable asbestos and hazardous materials such as mercury switches, PCB ballasts and fluorescent light bulbs from a building if the brick, block, or concrete is used as clean fill.

4) Clean fill may not contain any free liquids based on visual inspection, and shall not create public nuisances (for example objectionable odors) to users of the receiving property or adjacent properties.

**Appendix A**

Sampling and Analyses for Regulated Material to be Used as Fill:

Sampling of regulated material proposed to be used as fill shall be done either by composite samples or by discrete samples. Sampling in either case shall be random and representative of the fill material being sampled. Sampling shall be in accordance with the most current version of the EPA RCRA Manual, SW-846 *(Test Methods for Evaluating Solid Waste, Physical/Chemical Methods. Office of Solid Waste and Emergency Response).*

(a) Sampling based on composite sampling procedures shall include the following:

(i) For volumes of material equal to or less than 125 cubic yards, a total of eight samples shall be collected and analyzed as follows:

(A) For analysis of all substances other than volatile organic compounds (VOCs), the samples shall be analyzed in two composites of four samples each, in accordance with the most current version of the USEPA Manual, SW-846 *(Test Methods for Evaluating Solid Waste, Physical/Chemical Methods. Office of Solid Waste and Emergency Response).*

(B) Two samples shall be selected from the 8 samples for analysis of VOCs. The samples shall be based on field screening of the eight samples to select those samples that are most likely to contain the highest concentrations of VOCs.

(C) Two grab samples shall be taken from the same areas in the material from which the two samples used for field screening of VOCs were taken, in accordance with Method 5035 from the most current version of the USEPA Manual, SW-846 *(Test Methods for Evaluating Solid Waste, Physical/Chemical Methods. Office of Solid Waste and Emergency Response).*

(ii) For volumes of material greater than 125 cubic yards and less than or equal to 3,000 cubic yards, a total of 12 samples shall be collected and analyzed as follows:

(A) For analysis of all substances other than VOCs, the samples shall be analyzed in three composites of four samples each.

(B) Three samples shall be selected from the 12 samples for analysis of VOCs. The samples shall be based on field screening of the 12 samples to select those samples that are most likely to contain the highest concentrations of VOCs.

(C) Three grab samples shall be taken from the same areas in the material from which the three samples used for field screening of VOCs were taken, in accordance with EPA Method 5035, referenced in subparagraph (i)(C).

(iii) For each additional 3,000 cubic yards of material or part thereof over the initial 3,000 cubic yards, 12 additional samples shall be collected and analyzed as follows:

(A) For analysis of all substances other than VOCs, the samples shall be analyzed in three composites of four samples each.

(B) Three samples for analysis of VOCs shall be selected from the 12 samples for analysis of VOCs. The samples shall be based on field screening of the 12 samples to select those samples that are most likely to contain the highest concentrations of VOCs.

(C) Three grab samples shall be taken from the same areas in material from which the three samples used for field screening of VOCs were taken, in accordance with EPA Method 5035, referenced in subparagraph (i)(C).

(b) Sampling based on discrete sampling procedures shall include the following:

(i) For volumes of material equal to or less than 125 cubic yards, a minimum of eight samples shall be collected and analyzed. For volumes of material greater than 125 cubic yards and less than or equal to 3,000 cubic yards, a minimum of 12 samples shall be collected and analyzed. For each additional 3,000 cubic yards of material or part thereof over the initial 3,000 cubic yards, a minimum of 12 additional samples shall be collected and analyzed.

(ii) For VOCs analysis, grab sampling procedures shall be the procedures described in subsection (a), for the equivalent volumes of material sampled.

(c) Analyses of results:

(i) For a composite sample taken in accordance with subsection (a), the measured numeric value for a parameter shall be less than or equal to the concentration limit listed in Table FP-1a or b for that parameter in order for the material to qualify as clean fill, or in Table GP-1a or b for that parameter in order for the fill material to qualify as regulated fill.

(ii) For a grab sample, taken in accordance with subsections (a) and (b), the measured numeric value for a parameter shall be less than or equal to the concentration limit listed in Table FP-1a or b for that parameter in order for the material to qualify as clean fill, or in Table GP-1a or b for that parameter for the fill material to qualify as regulated fill.

(iii) For discrete samples required in subsection (b), the measured numeric values for a substance in 75% of the discrete samples shall be equal to or less than the concentration limit listed in Table FP-1a or b, or in Table GP-1a or b for that parameter with no single sample exceeding more than twice the concentration limit for a parameter.

(d) In lieu of subsection (c), a person may use 95% Upper Confidence Limit (UCL) of the arithmetic mean to determine whether a fill material meets the appropriate concentration limits for use as clean or regulated fill. The calculated 95% UCL of the arithmetic mean must be below the appropriate concentration limit for clean or regulated fill. Sampling shall be random and

representative of the material being sampled. The minimum number of samples shall be determined in accordance with EPA approved methods on statistical analysis of environmental data, as identified in 25 PA. Code, §250.707(e) (relating to statistical tests). The application of the 95% UCL of the arithmetic mean shall comply with the following performance standards:

(i) The null hypotheses (Ho) shall be that the true fill arithmetic average concentration is at or above the regulated fill appropriate concentration limit, and the alternative hypothesis (Ha) shall be that the true fill arithmetic average concentration is below the regulated fill appropriate concentration limit.

(ii) The underlying assumptions of the statistical method shall be met, such as data distribution.

(iii) Compositing cannot be used for volatile organic compounds.

(iv) The censoring level for each nondetect shall be the assigned value randomly generated that is between zero and the limit related to the PQL.

(v) Tests shall account for spatial variability, unless otherwise approved by the Department.

(vi) Statistical testing shall be done individually for each parameter present in the fill.

(vii) Where a fill has distinct physical, chemical or biological characteristics, or originates from different areas, the statistical testing shall be done separately.

(viii) The following information shall be documented:

(A) A description of the original areas of the fill, and physical, chemical and biological characteristics of the fill.

(B) A description of the underlying assumptions of the statistical method.

(C) Documentation showing that the sample data set meets the underlying assumptions of the statistical method.

(D) Documentation of input and output data for the statistical test, presented in tables or figures, or both, as appropriate.

(E) An interpretation and conclusion of the statistical test.

(e) The Synthetic Precipitation Leaching Procedure (SPLP, per *Technical Guidance Manual*, 253-0300-100/ May 4, 2002 /Page II-26-27), is listed below:

The value for the SPLP is the concentration of a regulated substance in soil at the site that does not produce a leachate in which the concentration of the regulated substance exceeds the groundwater MSC. Since this test must be conducted on the actual site soil, no values for the SPLP could be published in the tables of MSCs in the regulations. The following procedure should be used to determine the alternative soil-to-groundwater value based upon the SPLP:

(i) During characterization, the remediator should obtain a minimum of ten samples from within the impacted soil area. The four samples with the highest total concentration of the regulated substance should be submitted for SPLP analysis. Samples obtained will be representative of the soil type and horizon impacted by the release of the regulated substance.

(ii) Determine the lowest total concentration (TC) that generates a failing SPLP result. The alternative soil-to-groundwater standard will be the next lowest TC.

(iii) If all samples result in a passing SPLP level, the alternative soil-to-groundwater standard will be the TC corresponding to the highest SPLP result. The remediator has the option of obtaining additional samples.

(iv) If none of the samples generates a passing SPLP, the remediator can obtain additional samples and perform concurrent TC/SPLP analyses to satisfy the above requirements for establishing an alternative soil-to-groundwater standard.

**Table FP-1a**
**Clean Fill Concentration Limits for Organics**

| | | Clean Fill |
|---|---|---|
| PARAMETER | CASRN | Total Analysis |
| | | mg/kg |
| ACENAPHTHENE | 83-32-9 | 2700 |
| ACENAPHTHYLENE | 208-96-8 | 2500 |
| ACEPHATE | 30560-19-1 | 0.9 |
| ACETALDEHYDE | 75-07-0 | 0.23 |
| ACETONE | 67-64-1 | 41 |
| ACETONITRILE | 75-05-8 | 1.9 |
| ACETOPHENONE | 98-86-2 | 200 |
| ACETYLAMINOFLUORENE, 2- (2AAF) | 53-96-3 | 0.069 |
| ACROLEIN | 10-702-8 | 0.00062 |
| ACRYLAMIDE | 79-06-1 | 0.00057 |
| ACRYLIC ACID | 79-10-7 | 0.051 |
| ACRYLONITRILE | 107-13-1 | 0.0087 |
| ALACHLOR | 15972-60-8 | 0.077 |
| ALDICARB | 116-06-3 | 0.12 |
| ALDRIN | 309-00-2 | 0.10 |
| ALLYL ALCOHOL | 107-18-6 | 0.58 |
| AMINOBIPHENYL, 4- | 92-67-1 | 0.0012 |
| AMITROLE | 61-82-5 | 0.029 |
| AMMONIA | 7664-41-7 | 360 |
| AMMONIUM SULPHAMATE | 7773-06-0 | 24 |
| ANILINE | 62-53-3 | 0.16 |
| ANTHRACENE | 120-12-7 | 350 |
| ATRAZINE | 1912-24-9 | 0.13 |
| BAYGON (PROPOXUR) | 114-26-1 | 0.057 |
| BENOMYL | 17804-35-2 | 880.00 |
| BENTAZON | 25057-89-0 | 16 |
| BENZENE | 71-43-2 | 0.13 |
| BENZIDINE | 92-87-5 | 0.078 |
| BENZO[A]ANTHRACENE | 56-55-3 | 25 |
| BENZO[A]PYRENE | 50-32-8 | 2.5 |
| BENZO[B]FLUORANTHENE | 205-99-2 | 25 |
| BENZO[GHI]PERYLENE | 191-24-2 | 180 |
| BENZO[K]FLUORANTHENE | 207-08-9 | 250 |
| BENZOIC ACID | 65-85-0 | 2900 |
| BENZOTRICHLORIDE | 98-07-7 | 0.012 |
| BENZYL ALCOHOL | 100-51-6 | 400 |
| BENZYL CHLORIDE | 100-44-7 | 0.051 |
| BHC, ALPHA- | 319-84-6 | 0.046 |
| BHC, BETA- | 319-85-7 | 0.22 |
| BHC, DELTA- | 319-86-8 | 11 |
| BHC, GAMMA (LINDANE) | 58-89-9 | 0.072 |
| BIPHENYL, 1,1- | 92-52-4 | 790 |
| BIS(2-CHLOROETHYL)ETHER | 111-44-4 | 0.0039 |
| BIS(2-CHLORO-ISOPROPYL)ETHER | 108-60-1 | 8.0 |
| BIS(CHLOROMETHYL)ETHER | 542-88-1 | 0.00001 |
| BIS[2-ETHYLHEXYL] PHTHALATE | 117-81-7 | 130 |
| BISPHENOL A | 80-05-7 | 700 |
| BROMACIL (BROMAX) | 314-40-9 | 2 |
| BROMOCHLOROMETHANE | 74-97-5 | 1.6 |
| BROMODICHLOROMETHANE | 75-27-4 | 3.40 |
| BROMOMETHANE | 74-83-9 | 0.54 |
| BROMOXYNIL | 1689-84-5 | 63 |
| BROMOXYNIL OCTANOATE | 1689-99-2 | 360 |
| BUTADIENE, 1,3- | 106-99-0 | 0.0062 |
| BUTYL ALCOHOL, N- | 71-36-3 | 12.00 |
| BUTYLATE | 2008-41-5 | 51.0 |
| BUTYLBENZENE, N- | 104-51-8 | 950 |
| BUTYLEBENZENE, SEC- | 135-98-8 | 350 |
| BUTYLEBENZENE, TERT- | 98-06-6 | 270 |
| BUTYLBENZYL PHTHALATE | 85-68-7 | 10000 |
| CAPTAN | 133-06-2 | 12 |
| CARBARYL | 63-25-2 | 41 |
| CARBAZOLE | 86-74-8 | 21 |
| CARBOFURAN | 1563-66-2 | 0.87 |
| CARBON DISULFIDE | 75-15-0 | 160 |

**Table FP-1a**
**Clean Fill Concentration Limits for Organics**

| | | Clean Fill |
|---|---|---|
| PARAMETER | CASRN | Total Analysis |
| | | mg/kg |
| CARBON TETRACHLORIDE | 56-23-5 | 0.26 |
| CARBOXIN | 5234-68-4 | 53 |
| CHLORAMBEN | 133-90-4 | 1.6 |
| CHLORDANE | 57-74-9 | 49 |
| CHLORO-1, 1-DIFLUOROETHANE, 1- | 75-68-3 | 2300 |
| CHLORO-1-PROPENE, 3- (ALLYL CHLORIDE) | 107-05-1 | 0.065 |
| CHLOROACETOPHENONE, 2- | 532-27-4 | 0.0093 |
| CHLOROANILINE, P- | 106-47-8 | 19.00 |
| CHLOROBENZENE | 108-90-7 | 6.1 |
| CHLOROBENZILATE | 510-15-6 | 1.60 |
| CHLORBUTANE, 1- | 109-69-3 | 2300 |
| CHLORODIBROMOMETHANE | 124-48-1 | 3.20 |
| CHLORODIFLUOROMETHANE | 75-45-6 | 2.6 |
| CHLOROETHANE | 75-00-3 | 5.00 |
| CHLOROFORM | 67-66-3 | 2.50 |
| CHLORONAPHTHALENE, 2- | 91-58-7 | 6200 |
| CHLORO[D~~I~~]NITROBENZENE, [2-]P- | 100-00-5 | 4.9 |
| CHLOROPHENOL, 2- | 95-57-8 | 4.40 |
| CHLOROPRENE | 126-99-8 | 0.45 |
| CHLROPROPANE, 2- | 75-29-6 | 21 |
| CHLOROTHALONIL | 1897-45-6 | 15 |
| CHLOROTOLUENE, O- | 95-49-8 | 20 |
| CHLORPYRIFOS | 2921-88-2 | 23 |
| CHLORSULFURON | 64902-72-3 | 25 |
| CHLORTHAL-DIMETHYL (DACTHAL) (DCPA) | 1861-32-1 | 650 |
| CHRYSENE | 218-01-9 | 230 |
| CRESOL(S) | 1319-77-3 | 3.1 |
| CRESOL, O-(METHYLPHENOL, 2-) | 95-48-7 | 64 |
| CRESOL, M-(METHYLPHENOL, 3-) | 108-39-4 | 36 |
| CRESOL, P-(METHYLPHENOL, 4-) | 106-44-5 | 4.2 |
| CRESOL, P-CHLORO-M- | 59-50-7 | 37 |
| CROTONALDEHYDE | 4170-30-3 | 0.00099 |
| CROTONALDEHYDE, TRANS- | 123-73-9 | 0.00099 |
| CUMENE (ISOPROPYL BENZENE)* | 98-82-8 | 780 |
| CYCLOHEXANONE | 108-94-1 | 1400 |
| CYFLUTHRIN | 68359-37-5 | 33 |
| CYROMAZINE | 66215-27-8 | 84 |
| DDD, 4,4'- | 72-54-8 | 6.8 |
| DDE, 4,4'- | 72-55-9 | 41 |
| DDT, 4,4'- | 50-29-3 | 53 |
| DI(2-ETHYLHEXYL)ADIPATE | 103-23-1 | 10000 |
| DIALLATE | 2303-16-4 | 0.15 |
| DIAMINOTOLUENE, 2,4- | 95-80-7 | 0.0042 |
| DIAZINON | 333-41-5 | 0.082 |
| DIBENZO[A,H]ANTHRACENE | 53-70-3 | 2.50 |
| DIBROMO-3-CHLOROPROPANE, 1,2- | 96-12-8 | 0.0092 |
| DIBROMOBENZENE, 1,4- | 106-37-6 | 150 |
| DIBROMOETHANE, 1,2- (ETHYLENE DIBROMIDE) | 106-93-4 | 0.0012 |
| DIBROMOMETHANE | 74-95-3 | 3.7 |
| DI-N-BUTYLPHTHALATE, N- | 84-74-2 | 1500 |
| DICHOLOR-2-B[Y]UTENE, 1,4- | 764-41-0 | 0.0009 |
| DICHLOROBENZENE, 1,2- | 95-50-1 | 59 |
| DICHLOROBENZENE, 1,3- | 541-73-1 | 61 |
| DICHLOROBENZENE, P- | 106-46-7 | 10 |
| DICHLOROBENZIDINE, 3,3'- | 91-94-1 | 8.3 |
| DICHLORODIFLUOROMETHANE (FREON 12) | 75-71-8 | 100 |
| DICHLOROETHANE, 1,1- | 75-34-3 | 0.65 |
| DICHLOROETHANE, 1,2- | 107-06-2 | 0.10 |
| DICHLOROETHYLENE, 1,1- | 75-35-4 | 0.19 |
| DICHLOROETHYLENE, CIS-1,2-* | 156-59-2 | 1.6 |
| DICHLOROETHYLENE, TRANS-1,2- | 156-60-5 | 2.3 |
| DICHLOROMETHANE (METHYLENE CHLORIDE) | 75-09-2 | 0.076 |
| DICHLOROPHENOL, 2,4- | 120-83-2 | 1 |
| DICHLOROPHENOXYACETIC ACID, 2,4- (2,4-D) | 94-75-7 | 1.8 |

**Table FP-1a**
**Clean Fill Concentration Limits for Organics**

| | | Clean Fill |
|---|---|---|
| PARAMETER | CASRN | Total Analysis |
| | | mg/kg |
| DICHLOROPROPANE, 1,2- | 78-87-5 | 0.11 |
| DICHLOROPROPENE, 1,3- | 542-75-6 | 0.12 |
| DICHLOROPROPIONIC ACID (DALAPON), 2,2- | 75-99-0 | 5.30 |
| DICHLORVOS | 62-73-7 | 0.012 |
| DICYCLOPENTADIENE | 77-73-6 | 0.12 |
| DIELDRIN | 60-57-1 | 0.11 |
| DIETHYL PHTHALATE | 84-66-2 | 160 |
| DIFLUBENZIRON | 35367-38-5 | 52 |
| DIMETHOATE | 60-51-5 | 0.28 |
| DIMETHOXYBENZIDINE, 3,3- | 119-90-4 | 16 |
| DIMETHYLAMINOAZOBENZENE, P- | 60-11-7 | 0.037 |
| DIMETHYLANILINE, N,N- | 121-69-7 | 4.1 |
| DIMETHYLBENZIDINE, 3,3- | 119-93-7 | 0.4 |
| DIMETHYLPHENOL, 2,4- | 105-67-9 | 32 |
| DINITROBENZENE, 1,3- | 99-65-0 | 0.049 |
| DINITROPHENOL, 2,4- | 51-28-5 | 0.21 |
| DINITROTOLUENE, 2,4- | 121-14-2 | 0.050 |
| DINITROTOLUENE, 2, 6,- (2,6-DNT) | 606-20-2 | 1.10 |
| DINOSEB | 88-85-7 | 0.290 |
| DIOXANE, 1,4- | 123-91-1 | 0.073 |
| DIPHENAMID | 957-51-7 | 12 |
| DIPHENYLAMINE | 122-39-4 | 12 |
| DIPHENYLHYDRAZINE, 1,2- | 122-66-7 | 0.15 |
| DIQUAT | 85-00-7 | 0.24 |
| DISULFOTON | 298-04-4 | 0.078 |
| DIURON | 330-54-1 | 0.86 |
| ENDOSULFAN | 115-29-7 | 30.00 |
| ENDOSULFAN I (ALPHA) | 959-98-8 | 110 |
| ENDOSULFAN II (BETA) | 33213-65-9 | 130 |
| ENDOSULFAN SULFATE | 1031-07-8 | 70 |
| ENDOTHALL | 145-73-3 | 4.1 |
| ENDRIN | 72-20-8 | 5.5 |
| EPICHLOROHYDRIN | 106-89-8 | 0.056 |
| ETHEPHON | 16672-87-0 | 2.1 |
| ETHION | 563-12-2 | 39 |
| ETHOXYETHANOL, 2- (EGEE) | 110-80-5 | 7.80 |
| ETHYL ACETATE | 141-78-6 | 220 |
| ETHYL ACRYLATE | 140-88-5 | 0.12 |
| ETHYL BENZENE | 100-41-4 | 46 |
| ETHYL DIPROPYL THIOCARBAMATE, S- (EPTC) | 759-94-4 | 65 |
| ETHYL ETHER | 60-29-7 | 53 |
| ETHYLMETHACRYLATE | 97-63-2 | 14 |
| ETHYLENE GLYCOL | 107-21-1 | 170 |
| ETHYLENE THIOUREA (ETU) | 96-45-7 | 0.034 |
| ETHYL P-NITROPHENYL PHENYLPHOSPHOROTHIOATE | 2104-64-5 | 0.12 |
| FENAMIPHOS | 22224-92-6 | 0.17 |
| FENVALERATE (PYDRIN) | 51630-58-1 | 94 |
| FLUOMETURON (FLUORNETRON IN EPA FEB 96) | 2164-17-2 | 2.5 |
| FLUORANTHENE | 206-44-0 | 3200 |
| FLUORENE | 86-73-7 | 3000 |
| FLUOROTROCHLOROMETHANE (FREON 11) | 75-69-4 | 87 |
| FONOFOS | 944-22-9 | 2.9 |
| FORMALDEHYDE | 50-00-0 | 12 |
| FORMIC ACID | 64-18-6 | 210 |
| FOSETYL-AL | 039148-24-8 | 9700 |
| FURAN | 110-00-9 | 0.42 |
| FURFURAL | 98-01-1 | 1.4 |
| GLYPHOSATE | 1071-83-6 | 620 |
| HEPTACHLOR | 76-44-8 | 0.68 |
| HEPTACHLOR EPOXIDE | 1024-57-3 | 1.1 |
| HEXACHLOROBENZENE | 118-74-1 | 0.96 |
| HEXACHLOROBUTADIENE | 87-68-3 | 1.20 |
| HEXACHLOROCYCLOPENTADIENE | 77-47-4 | 91 |
| HEXACHLOROETHANE | 67-72-1 | 0.560 |

**Table FP-1a**
**Clean Fill Concentration Limits for Organics**

| | | Clean Fill |
|---|---|---|
| PARAMETER | CASRN | Total Analysis |
| | | mg/kg |
| HEXANE | 110-54-3 | 500 |
| HEXYTHIAZOX (SAVEY) | 78587-05-0 | 820 |
| HYDRAZINE/HYDRAZINE SULFATE | 302-01-2 | 0.000098 |
| HYDROQUINONE | 123-31-9 | 20 |
| INDENO[1,2,3-CD]PYRENE | 193-39-5 | 25 |
| IPRODIONE | 36734-19-7 | 430 |
| ISOBUTYL ALCOHOL | 78-83-1 | 76 |
| ISOPHORONE | 78-59-1 | 1.90 |
| KEPONE | 143-50-0 | 0.56 |
| MALATHION | 121-75-5 | 34 |
| MALEIC HYDRAZIDE | 123-33-1 | 47 |
| MANEB | 12427-38-2 | 2 |
| MERPHOS OXIDE | 78-48-8 | 6.6 |
| METHACRYLONITRILE | 126-98-7 | 0.031 |
| METHAMIDOPHOS | 10265-92-6 | 0.022 |
| METHANOL | 67-56-1 | 58.00 |
| METHOMYL | 16752-77-5 | 3.20 |
| METHOXYCHLOR | 72-43-5 | 630 |
| METHOXYETHANOL, 2- | 109-86-4 | 0.41 |
| METHYL ACETATE | 79-20-9 | 690 |
| METHYL ACRYLATE | 96-33-3 | 27 |
| METHYL CHLORIDE | 74-87-3 | 0.038 |
| METHYL ETHYL KETONE (2-BUTANONE) | 78-93-3 | 54 |
| METHYL ISOBUTYL KETONE | 108-10-1 | 2.90 |
| METHYL METHACRYLATE | 80-62-6 | 26.0 |
| METHYL METHANESULFONATE | 66-27-3 | 0.083 |
| METHYL PARATHION | 298-00-0 | 0.42 |
| METHYL STYRENE (MIXED ISOMERS) | 25013-15-4 | 120 |
| METHYL TERT-BUTYL ETHER (MTBE) | 1634-04-4 | 0.28 |
| METHYLENE BIS(2-CHLOROANILINE), 4,4'- | 101-14-4 | 3.9 |
| METHYLNAPHTHALENE, 2- | 91-57-6 | 2900 |
| METHYLSTYRENE, ALPHA | 98-83-9 | 120 |
| NAPHTHALENE* | 91-20-3 | 25 |
| NAPHTHYLAMINE, 1- | 134-32-7 | 0.30 |
| NAPHTHYLAMINE, 2- | 91-59-8 | 0.01 |
| NAPROPAMIDE | 15299-99-7 | 860 |
| NITROANILINE, M- | 99-09-2 | 0.033 |
| NITROANILINE, O- | 88-74-4 | 0.038 |
| NITROANILINE, P- | 100-01-6 | 0.031 |
| NITROBENZENE | 98-95-3 | 0.79 |
| NITROPHENOL, 2- | 88-75-5 | 5.90 |
| NITROPHENOL, 4- | 100-02-7 | 4.1 |
| NITROPROPANE, 2- | 79-46-9 | 0.000260 |
| NITROSODIETHYLAMINE, N- | 55-18-5 | 0.000018 |
| NITROSODIMETHYLAMINE, N- | 62-75-9 | 0.000041 |
| NITROSO-DI-N-BUTYLAMINE, N- | 924-16-3 | 0.0033 |
| NITROSODI-N-PROPYLAMINE, N- | 621-64-7 | 0.0013 |
| NITROSODIPHENYLAMINE, N- | 86-30-6 | 20.00 |
| NITROSO-N-ETHYLUREA, N- | 759-73-9 | 0.000054 |
| OCTYL PHTHALATE, DI-N- | 117-84-0 | 4400 |
| OXAMYL (VYDATE) | 23135-22-0 | 2.60 |
| PARATHION | 56-38-2 | 130 |
| PCB-1016 (AROCLOR) | 12674-11-2 | 15 |
| PCB-1221 (AROCLOR) | 11104-28-2 | 0.63 |
| PCB-1232 (AROCLOR) | 11141-16-5 | 0.50 |
| PCB-1242 (AROCLOR) | 53469-21-9 | 16 |
| PCB-1248 (AROCLOR) | 12672-29-6 | 9.90 |
| PCB-1254 (AROCLOR) | 11097-69-1 | 4.40 |
| PCB-1260 (AROCLOR) | 11096-82-5 | 30 |
| PEBULATE | 1114-71-2 | 300 |
| PENTACHLOROBENZENE | 608-93-5 | 180 |
| PENTACHLORONITROBENZENE | 82-68-8 | 5.00 |
| PENTACHLOROPHENOL | 87-86-5 | 5.00 |
| PHENACETIN | 62-44-2 | 12.00 |

**Table FP-1a**
**Clean Fill Concentration Limits for Organics**

| | | Clean Fill |
|---|---|---|
| PARAMETER | CASRN | Total Analysis |
| | | mg/kg |
| PHENANTHRENE | 85-01-8 | 10000 |
| PHENOL | 108-95-2 | 66.00 |
| PHENYLENEDIAMINE, M- | 108-45-2 | 3.10 |
| PHENYLPHENOL, 2- | 90-43-7 | 490 |
| PHORATE | 298-02-2 | 0.41 |
| PHTHALIC ANHYDRIDE | 85-44-9 | 2300 |
| PICLORAM | 1918-02-1 | 7.4 |
| PRONAMIDE | 23950-58-5 | 3.1 |
| PROPANIL | 709-98-8 | 9.2 |
| PROPHAM | 122-42-9 | 17 |
| PROPYLBENZENE, N- | 103-65-1 | 290 |
| PROPYLENE OXIDE | 75-56-9 | 0.049 |
| PYRENE | 129-00-0 | 2200 |
| PYRIDINE | 110-86-1 | 0.11 |
| QUINOLINE | 91-22-5 | 0.018 |
| QUIZALOFOP (ASSURE) | 76578-14-8 | 47 |
| RONNEL | 299-84-3 | 280 |
| SIMAZINE | 122-34-9 | 0.15 |
| STRYCHNINE | 57-24-9 | 0.89 |
| STYRENE | 100-42-5 | 24 |
| TEBUTHIURON | 34014-18-1 | 83 |
| TERBACIL | 5902-51-2 | 2.2 |
| TERBUFOS | 13071-79-9 | 0.12 |
| TETRACHLOROBENZENE, 1,2,4,5- | 95-94-3 | 5.1 |
| TETRACHLORODIBENZO-P-DIOXIN, 2,3,7,8- (TCDD) | 1746-01-6 | 0.00012 |
| TETRACHLOROETHANE, 1,1,1,2- | 630-20-6 | 18 |
| TETRACHLOROETHANE, 1,1,2,2- | 79-34-5 | 0.0093 |
| TETRACHLOROETHYLENE (PCE) | 127-18-4 | 0.43 |
| TETRACHLOROPHENOL, 2,3,4,6- | 58-90-2 | 450.00 |
| TETRAETHYL LEAD | 78-00-2 | 0.0046 |
| TETRAETHYLDITHIOPYROPHOSPHATE | 3689-24-5 | 0.73 |
| THIOFANOX | 39196-18-4 | 0.12 |
| THIRAM | 137-26-8 | 47 |
| TOLUENE | 108-88-3 | 44 |
| TOLUIDINE, M- | 108-44-1 | 0.13 |
| TOLUIDINE, O- | 95-53-4 | 0.32 |
| TOLUIDINE, P- | 106-49-0 | 0.32 |
| TOXAPHENE | 8001-35-2 | 1.20 |
| TRIALLATE | 2303-17-5 | 240 |
| TRIBROMOMETHANE (BROMOFORM) | 75-25-2 | 4.4 |
| TRICHLORO- 1,2,2-TRIFLUOROETHANE, 1,1,2- | 76-13-1 | 26000 |
| TRICHLOROBENZENE, 1,2,4- | 120-82-1 | 27 |
| TRICHLOROBENZENE, 1,3,5- | 108-70-3 | 31 |
| TRICHLOROETHANE, 1,1,1- | 71-55-6 | 7.20 |
| TRICHLOROETHANE, 1,1,2- | 79-00-5 | 0.15 |
| TRICHLOROETHYLENE (TCE) | 79-01-6 | 0.17 |
| TRICHLOROPHENOL, 2,4,5- | 95-95-4 | 2300 |
| TRICHLOROPHENOL, 2,4,6- | 88-06-2 | 3.1 |
| TRICHLOROPHENOXYACETIC ACID, 2,4,5- (2,4,5-T) | 93-76-5 | 1.50 |
| TRICHLOROPHENOXYPROPIONIC ACID, 2,4,5- (2,4,5-TP)(SILV | 93-72-1 | 22 |
| TRICHLOROPROPANE, 1,1,2- | 598-77-6 | 3.1 |
| TRICHLOROPROPANE, 1,2,3- | 96-18-4 | 1.6 |
| TRICHLOROPROPENE, 1,2,3- | 96-19-5 | 11 |
| TRIFLURALIN | 1582-09-8 | 0.96 |
| TRIMEHTYLBENZENE, 1,3,4- (TRIMETHYLBENZENE, 1,2,4-) | 95-63-6 | 9 |
| TRIMETHYLBENZENE, 1,3,5- | 108-67-8 | 2.8 |
| TRINITROTOLUENE, 2,4,6- | 118-96-7 | 0.023 |
| VINYL ACETATE | 108-05-4 | 6.50 |
| VINYL BROMIDE (BROMOMETHANE) | 593-60-2 | 0.068 |
| VINYL CHLORIDE | 75-01-4 | 0.03 |
| WARFARIN | 81-81-2 | 2.60 |
| XYLENES (TOTAL) | 1330-20-7 | 990 |
| ZINEB | 12122-67-7 | 29 |

# Table FP-1b

## Clean Fill Concentration Limits For Metals and Inorganics

| PARAMETER | Unregulated Fill<br><br>Total Analysis<br>mg/kg |
|---|---|
| ANTIMONY | 27 |
| ARSENIC[1] | 12 |
| BARIUM AND COMPOUNDS | 8,200 |
| BERYLLIUM | 320 |
| BORON AND COMPOUNDS | 6.7 |
| CADMIUM | 38 |
| CHLORIDES | na |
| CHROMIUM III | 190,000 |
| CHROMIUM VI | 94 |
| COBALT | 8.1 |
| COPPER | 8,200 |
| CYANIDE FREE | 200 |
| LEAD | 450 |
| MANGANESE | 31,000 |
| MERCURY | 10 |
| NICKEL | 650 |
| NITRATE NITROGEN | na |
| NITRITE NITROGEN | na |
| SELENIUM | 26 |
| SILVER | 84 |
| SULFATE | na |
| THALLIUM | 14 |
| TIN | 240 |
| VANADIUM | 1,500 |
| ZINC | 12,000 |

[1] The limit of 12 mg/kg applies to all releases of arsenic. A limit of 20 mg/kg applies to certain construction materials not subject to direct contact upon completion of construction. The limit of 20 mg/kg can only be used if a Department approved Best Management Practices Plan for Earthwork and General Construction is followed by all parties involved in supplying and using materials on the construction project.

Exhibit 11: Stag's Leap Authorization

# SLRD COMPANY - MULLICA HILL
# FORMER ALHERN, INC. LANDFILL
# CLOSURE PROJECT

# PROTOCOL FOR REVIEW, CERTIFICATION AND ACCEPTANCE OF OFF-SITE RECYCLABLE FILL MATERIALS

**March 8, 2006**
**(Revised July 17, 2006)**

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Appendix 2: Non-Hazardous Fill Material Certification Form ..... Following Text
Appendix 3 Health and Safety Plan ..... **SUBMITTED WITH ORIGINAL APPLICATION**

# I. SITE SUMMARY

## A. Introduction

SLRD Company - Mullica Hill, LLC (SLRD) has been authorized to proceed with the closure of the Alhern, Inc./Henry Harris Sanitary Landfill located in Harrison Township, New Jersey (Permit No. LCC050001). While the landfill has been abandoned for over 20 years, SLRD has conducted extensive surveys and environmental investigations such that it believes that the landfill can be properly closed and restored to a productive and useful industrial property.

Pursuant to the approved Landfill Closure & Post-Closure Care Plan, SLRD has been authorized to utilize up to 2 million cubic yards of capping and surcharge fill materials in the initial phase of the landfill closure. The purpose of this material is to provide a compacted fill base upon which an impermeable geomembrane can be installed followed by a clean soil base upon which buildings and facilities can be constructed.

In that the volume required to successfully surcharge the landfill is large, SLRD plans to accept other recyclable and beneficial use materials in addition to materials meeting the NRDCSCC standards for this purpose. These beneficial use materials shall be pre-qualified as described herein and will be used below the 30-mil HDPE geomembrane Barrier Layer described in the approved Closure Plan. This will ensure that such materials are controlled and located below the environmentally protective geomembrane / Barrier Layer.

## B. Purpose

The approved Closure Plan requires that fill materials meeting the NRDCSCC or other approved criteria would be used in the Grading Layer as Structural Fill beneath the Barrier Layer or Protective Layer Material. A testing frequency is provided for testing of the proposed sources of fill for beneficial use. The Closure Plan, however, does not establish a full protocol for demonstrating that fill material meets the NRDCSCC or other approved criteria, and for acceptance and tracking of the material at the Site.

The protocol presented herein is prepared in order to facilitate the NJDEP authorization for the use of any off-site recyclable fill materials being imported and used as surcharge and grading fill materials at the site and to ensure compliance with Permit Condition Items No. 29, 31, and 35 of the Closure Plan Approval. Additionally, contained within this protocol is a proposed Alternative Acceptance Criteria (AAC) which would be utilized for the acceptance and beneficial re-use of materials being accepted by SLRD. The AAC is presented in **Table 1** attached hereto.

## II. MATERIAL ACCEPTANCE PROTOCOL

### A. Categories of Acceptable Fill Material

A wide range of fill materials have been used beneficially at similar sites, and may be available in the region for use as fill materials for the Site. Based upon probable availability, similar use, and previously proposed materials at this Site, eleven (11) categories of material have been identified for inclusion in this Material Acceptance Protocol ("MAP"). Candidate materials include soil material and non-soil fill materials.

It is proposed that the following categories of material be accepted as fill for use at the SLRD Site (the "Fill Material"):

1. Clean Fill – including uncontaminated inert rock, soil, gravel, sand, concrete, recycled crushed glass, clay and ceramic products. Clean Fill material shall generally meet the size limitations as per the NJDEP definition of clean fill (approximately 8 inches in diameter or less). For larger diameter or mixed graded materials, the material shall be intermixed with fine graded fill upon placement such that the material meets the geotechnical specifications of SLRD's Engineer.

2. Recycled Asphalt – The NJDEP has previously approved the use of recycled asphalt as a structural fill material. This classification of material shall be free of demolition waste and deleterious material. Therefore, it is assumed that this material will be chemically inert and have no adverse impact on the environment.

3. Recycled Masonry - Recycled masonry consists of crushed brick, concrete, and broken glass. This classification of material shall be free of demolition waste and deleterious material. With proper due diligence and a clean fill certification from the owner of the fill source, it is assumed that this material will be chemically inert and have no adverse impact on the environment. Where due diligence indicates the possibility of contamination, this material will require analytical testing as for the Construction Fill category below.

4. Construction Fill – includes soil fill material that has been tested for priority pollutants that shall not exceed the Non-Residential Direct Contact Soil Cleanup Criteria ("NRDCSCC") or approved alternate Alternative Acceptance Criteria. For such fill, the sampling frequency, collection, preservation and handling for the sampling and analysis will be performed in accordance with the protocol described below herein.

5. Fill From Recycling Facilities – soil from permitted recycling facilities, such as MART, Clean Earth of Carteret, Inc. (Class B facility in Carteret, New Jersey) and Clean Earth of Philadelphia, Inc. that meets all of the respective facilities' permit standards for restricted use in non-residential sites.

6. Dredged Material Suitable for Placement at Upland Sites without Processing – includes glacial till material, clay material, sand, gravel, cobbles, and rock, including blasted rock that has been deemed to be suitable for upland placement without processing by the appropriate regulatory agencies, including NJDEP Office of Dredging and Sediment Technology (ODST).

7. Amended Dredged Material "ADM" - includes non-rock dredged material that has been amended with any or all of the dredge admixtures that have been approved by NJDEP for the CEDT Claremont DMRF facility that meets the approved Alternative Acceptance Criteria.

8. Coal Combustion Byproducts and Coker Byproducts – Two types of coal ash, fly ash, and bottom ash are generated by the coal-fired industrial boiler industry. Fly ash is generated by air pollution emission control systems. The electric industry generates a large volume of such wastes which are available for beneficial re-use and recycling. Bottom ash is a heavier coal combustion byproduct which remains after thermal processing. Petroleum refiners generate a product called Coke which is used by many industries as both a fuel and a needle grade carbon coke product used in manufacturing. Occasionally, a refiner will generate an off-specification (such as elevated ash percentages batch of coke) which may be available for beneficial re-use and recycling.

9. Water Treatment Plant Residuals – Water treatment residuals are the solid materials removed from the wastewater treatment process. These residuals include the turbidity-causing materials in raw water, organic and inorganic solids, algae, bacteria, viruses, colloids, precipitated chemicals from raw water and those added in both treatment of water and as stabilizing agents after solids production. The solids generally show the chemical properties of alum residuals and / or diatomaceous earth solids.

10. Construction and Demolition Screenings - Construction and demolition debris (C&D) screenings includes material remaining after the mechanical screening of raw C&D debris prior to sizing, segregation and recycling of recyclable components of the stream. C&D screenings are generally less than 2-inches in dimension and may be used as general construction fill material for the landfill closure and redevelopment project. Due to the heterogeneous nature of this material, sampling and analytical criteria shall be as indicated below for Construction Fill.

11. Other Fill Material – includes soil/fill material not meeting the definition of any other Category of Acceptable Fill Material for the SLRD Site. For such "other fill" material, the sampling plan, collection, preservation and handling for the sampling and analysis will be performed in accordance with New Jersey's Technical Requirements for Site Remediation at N.J.A.C. 7:26E and the latest edition of the "New Jersey Department of Environmental Protection, Hazardous Waste Programs, Field Sampling Procedures Manual," or by such alternate sampling frequency and protocol as shall be mutually agreed in advance by the NJDEP BLE Case Manager and SLRD. Application for acceptance of this category of fill material shall be made in writing to the Case Manager on a case-by-case basis, along with copies of all source information and analytical data reports. Approval of each such application shall be determined by NJDEP upon review

categories as acceptable fill material for re-use at the Site. **Table 1** presents the proposed Alternative Acceptance Criteria to be used to qualify fill materials for use at the Site. Since the fill materials are intended for use as grading and surcharge fill exclusively for use below the geomembrane/Barrier Layer, and based on the engineering controls planned as part of the landfill closure, acceptance criteria for certain chemical constituents are proposed that exceed the NRDCSCC to the limits specified on **Table 1** herein.

## D. Procedures for Review, Certification and Management of Fill Material Sources

SLRD and its Engineer have initiated the following review, certification, and quality assurance (QA/QC ) procedures for the project.

*Protocol for Approval of Fill Material Sources*

This section describes the procedures to be followed for approval of each proposed source of Fill Material prior to delivery of the Fill Material to the SLRD Site.

### 1. Source Registration

Each source of Fill Material proposed for the SLRD Site will be registered in advance through the SLRD Site Manager or its designated Fill Coordinator. A Material Characterization Request Form will be completed by the Generator or its agent and submitted to the Site Fill Coordinator of the fill material being proposed for use at the Site. A copy of the Material Characterization Request Form is included as an attachment in **Appendix 1**. The purpose of this form is to provide important information for each proposed source of fill, including its location, description of activities generating the fill material, and as detailed a site history as is available to assist in determining the suitability of the fill material for use at the Site. Any available existing fill characterization data (analyses) will be submitted with this form as well to determine if additional analysis/characterization is warranted. Information to be provided at the time of registration of the fill source includes: the applicant name; the fill source project name, location and scope; the fill material type and quantity; the activity generating the proposed fill material; any known or suspected sources of contamination (e.g., historic fill); and any existing known analytical data (chemical and geotechnical).

### 2. Fill Material Characterization

The primary object of the Materials Acceptance Plan is to define the circumstances under which off-site imported fill material may be beneficially used as part of the landfill closure and redevelopment of the Site. As such, it is important that each potential source of fill, and the fill material itself, be properly characterized to determine its compatibility with Site remediation goals, standards, and requirements, and that it is feasible for use in construction at the Site.

Characterization of fill materials will be carried out in accordance with the procedures set forth in this MAP. In general, except in limited circumstances, materials to be accepted at

the Site are not expected to be affected by known spills or discharges from environmental areas of concern (pursuant to 7:26E).

Materials proposed for use as fill will require analytical testing to determine suitability for beneficial use at the redevelopment Site. Depending on the category and nature of the fill material proposed for use at the Site, proposed fill materials may be tested in-place prior to excavation for use as fill material (in-situ characterization) or post-excavation (stockpile and/or confirmatory testing).

Many proposed sources of fill will have been previously investigated and characterized by the fill source owner or its engineering consultants for their own project or regulatory purposes. A review of these results along with the information provided in the Material Characterization Request Form discussed above will assist in determining whether additional sampling or analysis is needed to approve the fill for use at the Site.

Characterization of proposed fill material sources will be carried out in accordance with the procedures set forth herein to ensure the material meets the proposed Alternative Fill Acceptance Criteria as set forth above and in **Table 1**. In order for materials to be accepted at the SLRD site, a review of the pertinent analytical data shall be conducted by SLRD and its consultants to ensure conformance with the constituent acceptance criteria presented in **Table 1**. Additionally, a certification of the origin of such materials and conformance with the SLRD acceptance levels shall be provided in the Materials Characterization Request and Certification Form presented in **Appendix 1**.

### 3. Potential Fill Source Due Diligence

The determination of suitability of fill material for use at the Site will begin with a due diligence investigation into each potential source of fill. The background investigation will include a detailed review of information provided in the Material Characterization Request and Certification Form as well as any associated site investigation reports or remedial action reports associated with the potential fill source site. Items to be researched and documented for each potential source include the process generating the fill material, the reason for its excavation and removal from the source site, the presence or absence of any known areas of concern or contaminant sources at the fill source site (including the status of any remedial actions on or around the fill source site), details regarding the delineation and separation of contaminated materials (if any) at the source site from the fill proposed for use at Site, and a review of existing sampling diagrams and analytical data for the fill material intended for beneficial use at the Site. A determination of the completeness of characterization of the fill material will be made, taking into account the amount of background information available and the relative homogeneity of the fill material for the source proposed for use at the Site. The due diligence investigation will be performed and documented by SLRD, or its consultants or engineers, with the results available for inspection by NJDEP personnel and to be filed with the final Closure Report for the Site.

Depending upon the amount of site history and data available for fill from a potential source, a determination regarding the completeness of the submittal will be made by SLRD or its consultant, or additional frequency testing and analysis will be requested.

## 4. Type and Frequency of Testing

A generic fill material testing protocol has been developed and is proposed in this MAP for use in the majority of circumstances where existing fill characterization and analytical data are not available. After review of initial due diligence/background for a potential fill source is completed by SLRD or its consultant or engineer, and the fill source appears acceptable, conformance sampling and analysis of the fill proposed for use from the potential source will be implemented. The discussion below presents the generic frequency protocol for conformance sampling and analysis of potential fill materials to be used at the Site. **Table 2** graphically depicts the sampling frequency requirements.

As shown on **Table 2**, testing for virgin materials will not be required and the fill source owner will provide the certification as shown in the Materials Characterization Request and Certification Form in Appendix 1. Recycled soil, recycled non-soil, and dredged material will be tested in accordance with their facility specific permit, or in accordance with an Acceptable Use Determination, subject to NJDEP approval. Since the vast majority of fill sources for the Site are anticipated to be large (i.e., greater than 10,000 cubic yards), a generic sampling frequency for each specific fill type is proposed herein for concurrence by NJDEP.

SLRD reserves the right, on a case-by-case basis, to request a variance to the sampling frequency proposed herein depending on the homogeneity of a specific proposed source of fill material, as well as the level of background data available for the source. In some cases, extensive background investigation and characterization of a potential fill source may have been performed for an excavation area in advance of its identification as a potential source of fill for this Site. In these instances, a source-specific sampling frequency (which could be the existing data only with no additional testing) will be proposed by SLRD or its consultant for each such potential source of fill and an application for approval of the fill for use at the Site submitted to the NJDEP.

The sampling frequency proposed for each type of fill material is as follows:

a. *Clean Fill* - No analytical testing will be required for this material if it is source separated and a clean fill certification is signed by the fill source owner at the site of origin and a sufficient level of documentation and sampling results shall be available for review from the source owner if requested or a PA (Preliminary Assessment) level of material assessment shall be available for review if requested.

b. *Recycled Asphalt and Recycled Masonry* - The specification for these materials shall call for the fill material to be free of debris and deleterious material. Therefore, no analytical testing will be required for this material when it is

homogenous and has known characteristics. The material must be source separated and a clean fill certification executed based on the knowledge of the fill source owner at the site of origin and a sufficient level of documentation and sampling results shall be available for review from the source owner if requested or a PA (Preliminary Assessment) level of material assessment shall be available for review if requested. For recycled masonry that is suspected to contain contaminants, sampling and analysis shall be conducted according to the procedures and frequency for Construction Fill presented below.

c. *Construction Fill and Other Fill Material* - Construction Fill and Other Fill material includes select soil materials from construction projects and, in some cases, from remedial projects. Such fill materials shall be sampled for the Target Compound List plus 30/Target Analyte List (TCL+30/TAL) at the frequency of at least one grid composite sample per 1,000 cubic yards. The analysis shall be performed on a grid composite sample consisting of adjacent grid samples obtained at a frequency of one discrete sample per 200 cubic yards. Analysis for volatile organics shall be performed on one of the discrete samples biased towards the highest suspected concentration. A minimum of one (1) composite sample per project shall be analyzed. This sampling and analysis frequency shall apply for each individual source of Fill up to 2,500 cubic yards of material; thereafter, the frequency of sampling shall be reduced to one (1) composite sample per 2,500 additional cubic yards of material for that source. For the reduced frequency, the analysis sampling shall be conducted as detailed above, except that up to five adjacent grid composite samples may be composited again to form an area composite sample for analysis. Analysis for volatile organics shall be performed on one of the discrete samples, biased towards the highest suspected concentration.

d. *Fill From Recycling Facilities* - Soil and fill from Class B Recycling Facilities shall be tested according to the respective facility's permit standards for analysis of its product for restricted use in non-residential sites. Sampling and analysis shall be at a frequency consistent with that listed above herein for Construction Fill.

e. *Unprocessed and Amended Dredged Material* - Samples must be taken in accordance with an NJDEP-approved sampling plan for each specific dredging project. The number of samples and the ODST-analyses required shall be in accordance with the March 1996 NJDEP document entitled *The Management and Regulation of Dredging Activities and Dredged Material in the New Jersey's Tidal Waters*, as submitted in a dredging project-specific Sampling and Analysis Plan (SAP) and approved in advance by NJDEP-ODST.

f. *Coal Combustion Byproducts and Off-Spec Coker Materials* - Coal combustion byproducts and off-spec coker materials material shall be sampled for the Target Compound List plus 30/Target Analyte List (TCL+30/TAL) at the frequency of at least one sample per 5,000 cubic yards from each proposed

source. The analyses shall be performed on a composite sample collected at the frequency of one discrete sample per 1,000 cubic yards. Analyses for TCL Volatile Organics shall be performed on discrete samples per the appropriate frequency.

g. *Water Treatment Plant Residuals* - Water treatment plant residuals shall be sampled for the Target Compound List plus 30/Target Analyte List (TCL +30/TAL) at the frequency of at least one sample per 5,000 cubic yards from each source. The analysis shall be performed on a composite sample collected at the frequency of one discrete sample per 1,000 cubic yards. Analyses for TCL Volatile Organics shall be performed on discrete samples per the appropriate frequency.

h. *Construction and Demolition Screenings* - Construction and Demolition Screenings shall be initially sampled for full Target Compound List (TCL + 30/TAL) at the frequency of at least one sample per 1,000 cubic yards for each proposed source. The analysis shall be performed on a composite sample collected at the frequency of one discrete sample per 200 cubic yards. Analyses for TCL Volatile Organics shall be performed on discrete samples per the appropriate frequency.

Additionally, each proposed source of fill material shall be analyzed for full TCLP analysis to determine that the fill material is not a characteristic hazardous waste pursuant to 40 CFR 261 or applicable NJDEP Classification Guidance Document. Testing shall only be required where bulk analysis exceeds the applicable screening value of 20 times the regulated level for any constituent or group of constituents (i.e, metals, etc.). A signed non-hazardous certification based upon generator/source owner knowledge will be acceptable in lieu of TCLP testing, except where due diligence indicates a possibility of hazardous characteristics.

## 5. Sampling Methodology

Materials to be accepted at the Site must be sampled in accordance with sampling and quality assurance procedures of the NJDEP Technical Requirements for Site Remediation (NJAC 7:26E-2). Certification of conformance with these requirements must be included with application for acceptance of fill materials to the Site on the forms attached hereto. The Generator or source owner of the fill material or its agent shall certify that the samples were obtained in accordance with procedures recommended in NJDEP Field Sampling Procedures Manual, August 2005. All sampling shall be performed by an independent consulting firm or laboratory certified or registered with the state from which the fill is originating. Field and trip blanks will not be considered mandatory.

## 6. Fill Material Approval Procedure

A fill material approval procedure has been established to facilitate requests for approval and

# TABLE 2

## Summary of Fill Material
## Sampling and Analytical Requirements

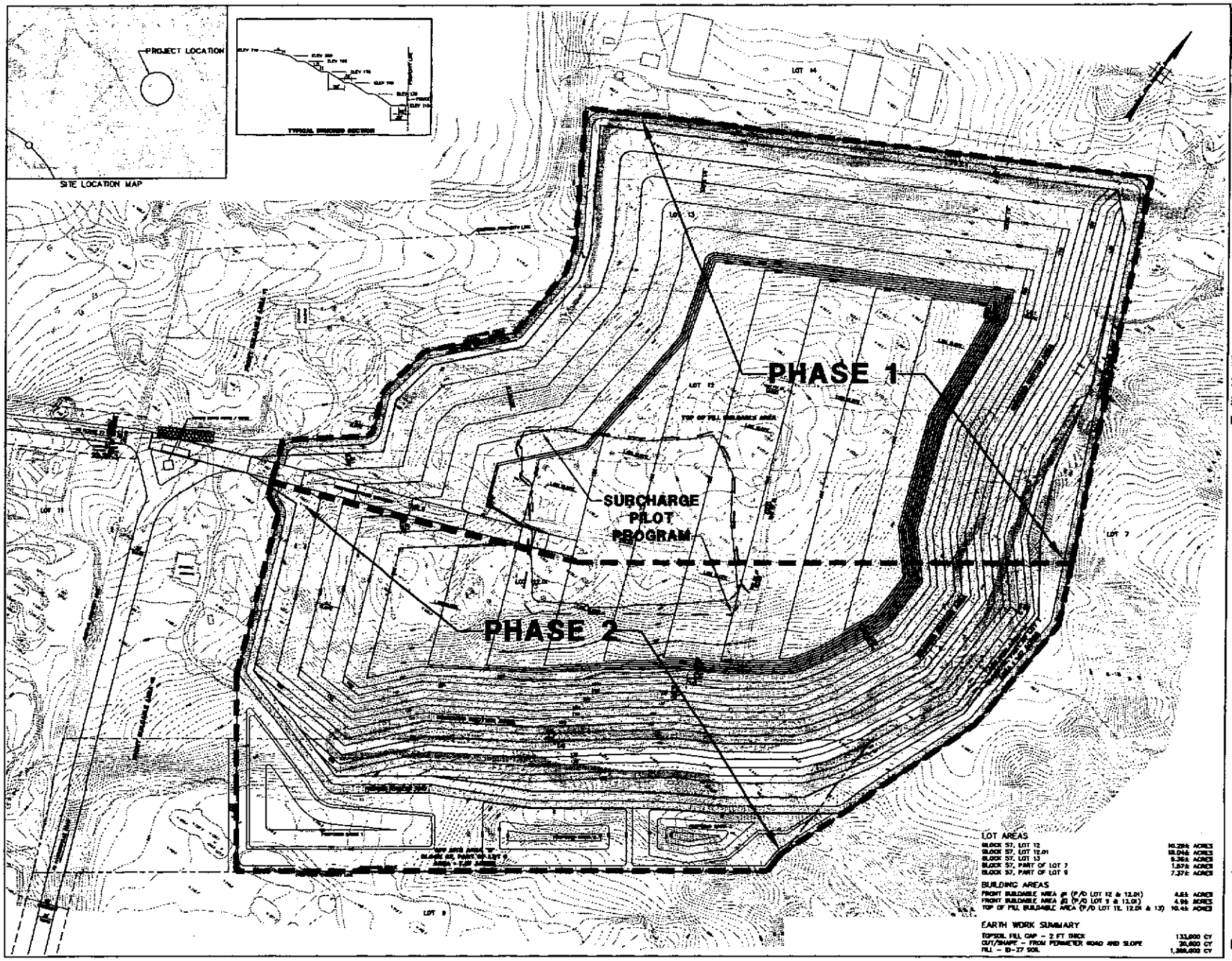
**Table 2**
**Sampling and Analyses Requirements**
**Material Acceptance Protocol**
**SLRD Company - Mullica Hill, LLC Site**
**Mullica Hill, New Jersey**

| | Sampling Frequency | Analytical Method | | | | | |
|---|---|---|---|---|---|---|---|
| Category of Source/Material | At Site of Generation | VOCs per 8260 | Semi VOCs per 8270 | Metals per 6010 | PCBs per 8082 | SPLP - SW846 - 1312 | Full TCLP SW846 |
| 1. Clean Fill /Virgin Soil | Clean Fill Certification signed by Generator; PA level assessment must be completed or results available indicating clean nature of material | | | | | | |
| 2. Recycled Aphalt and Recycled Masonry | Clean Fill Certification signed by Generator; PA level assessment must be completed or results available indicating clean nature of material | | | | | | |
| 3. Construction Fill and Other Fill | 1 Composite Sample per 1000 cy for first 2500 cy, based on discrete samples per each 200 cubic yards. TCL for VOCs run on biased grab sample, 1 Composite Sample per 2500 cy thereafter. Analyze for Target Compound List plus 30/Target Analyte List (TCL+30/TAL) | X | X | X | X | | X[1] |
| 4. Recycled Material from Class B Recycling Facility (such as soil, glass, concrete, etc.) | Sampled per Facility Specific Permit for restricted use in non-residential sites. Frequency for sampling and analysis (if any) shall be same as in Category 3 above. | As required per Permit | As required per Permit | As required per Permit | As required per Permit | | As required per Permit[1] |
| 5. Unprocessed and Amended Dredged Material | In accordance with a project-specific Sampling and Analysis Plan approved by NJDEP-ODST as part of an Acceptable Use Determination | As required per AUD | As required per AUD | As required per AUD | As required per AUD | As required per AUD | |
| 6. Coal Combustion Byproducts and off-spec Coker Materials | 1 Composite Sample per 5000 cy, based on discrete samples per each 1000 cubic yards. TCL for VOCs run on biased grab sample. Analyze for Target Compound List plus 30/Target Analyte List (TCL+30/TAL) | X | X | X | X | | X[1] |
| 7. Water Treatment Residuals | 1 Composite Sample per 5000 cy, based on discrete samples per each 1000 cubic yards. TCL for VOCs run on biased grab sample. Analyze for Target Compound List plus 30/Target Analyte List (TCL+30/TAL) | X | X | X | X | | X[1] |
| 8. Construction and Demolition Screenings | 1 Composite Sample per 1000 cy, based on discrete samples per each 200 cubic yards. TCL for VOCs run on biased grab sample. Analyze for Target Compound List plus 30/Target Analyte List (TCL+30/TAL) | X | X | X | X | | X[1] |
| | | | | | | | |

**Notes:**
[1] TCLP must be run in absence of generator certification only where bulk analysis indicates potential to exceed TCLP threshhold criteria

# FIGURE 1

## Phasing Plan
## Proposed Finished Grade
## SLRD Company - Mullica Hill, LLC




Pennoni Associates Inc.

515 Grove Street
Haddon Heights, N.J. 08035

Engineers · Surveyors · Planners · Landscape Architects

STAGS LEAP / HARRIS LANDFILL

BLOCK 57, LOTS 12, 12.01, & 13
BIG MULLICA HILL ROAD, MULLICA HILL, GLOUCESTER COUNTY, NJ

PHASING PLAN
PROPOSED FINISHED GRADE
SLRD COMPANY – MULLICA HILL, LLC
BIG MULLICA HILL ROAD
MULLICA HILL, GLOUCESTER COUNTY, NJ

RUSSELL C. SHIVELER, Jr.
PROFESSIONAL ENGINEER
NEW JERSEY LICENSE NO. GE 70713

Pennoni

1 OF 1

PH–1

SLRD Company – Mullica Hill, LLC
283 Mullica Hill Road
Mullica Hill, NJ 08062

Phone: 215-734-1400
Fax: 215-734-1416

# Material Characterization Request Form

**Generator/Fill Source Owner Information:**

Name: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Agent or Contact Point: _____ Telephone: _____

Company Name: _____

**Billing Information:**

Name: _____ Phone: _____

Address: _____

City: _____ State: _____ Zip Code: _____

**Location of Fill Material Origin / Site Description:**

Address: _____

City: _____ State: _____ Zip Code: _____

County of Origin if in New Jersey: _____

Existing Site Land Use: _____ How Many Years: _____

Is this Site a State or Federal Superfund Site? ☐ Yes ☐ No

**Fill Material Description:**

Estimated Volume of Fill Covered by this Form: _____

Type of Fill Material:
(Check One - See Attached Descriptions)

☐ Clean Fill ☐ Recycled Masonry/Asphalt
☐ Fill from Recycling Facility
☐ Construction Fill
☐ Dredged Material: ☐ Processed / ☐ Unprocessed
☐ Coal Combustion Ash ☐ Coker Byproducts
☐ Water Treatment Plant Residuals
☐ Construction & Demolition Screenings
☐ Other Fill: Describe _____

Source of Contamination (if any/known): _____

Type of Contamination: _____

If Contamination is other than above, please specify: _____

Are Laboratory Analytical Data Attached to this Form?: ☐ Yes ☐ No
If yes, a sampling diagram must be attached detailing the location of all samples.

Number of Samples for Analysis: _____

Date(s) of Sampling: _____

Name and Address of Independent Sampler: _____

_____

_____

Credentials of Independent Sampler: _____

Has this fill material source been fully and properly characterized?: ☐ Yes ☐ No

Is this fill material considered a hazardous waste pursuant to 40 CFR 261 or any other regulation?:
☐ Yes ☐ No

If no, the non-hazardous determination was made based on: ☐ Analysis ☐ Generator Knowledge
If Generator Knowledge, signed Non-Hazardous Waste Certification Form is required.

Were field or trip blanks used?: ☐ Yes ☐ No

Has geotechnical analysis been performed?: ☐ Yes ☐ No
Please attach, if yes. If no, please provide 5 gallon representative sample to SLRD.

**Certification of Source Owner**

As an authorized representative of the owner of the above described fill material, I hereby certify and warrant that, to the best of my knowledge and belief, the information provided herein is true and accurate and that it accurately represents the fill material intended for shipment to the SLRD-Mullica Hill Company Site in Mullica Hill, NJ. I further certify that the samples obtained and described above and/or attached to this form were collected in accordance with the NJDEP technical regulations (N.J.A.C. 7:26 E-2) and that sample collection has been performed in accordance with the Field Sampling Procedures Manual, May 1992, except as otherwise described and noted herein, and that the material meets the SLRD Fill Acceptance Criteria provided in Table 1 attached hereto.

I am fully authorized to make these certifications and warranties.

Signature of Owner: _____ Date: _____

Printed Name: _____ Title: _____

Attachments:
X Table 1
☐ Chemical Analysis
☐ Sampling Diagram
☐ Geotechnical Analysis
☐ Non-Hazardous Certification

SLRD Company – Mullica Hill, LLC
283 Mullica Hill Road
Mullica Hill, NJ 08062

Phone: 215-734-1400
Fax: 215-734-1416

Approval Number: _____

## SLRD-Non Hazardous Waste Certification

### Herbicide/Pesticides Certification

I, the undersigned, under penalty of law, do hereby certify that the material to be submitted to SLRD Company – Mullica Hill, LLC, does not contain Herbicides or Pesticides at concentrations that would render it hazardous waste as defined in 40 CFR 261.

### Non-Hazardous Waste Certification

I, the undersigned, under penalty of law, do hereby certify that the material submitted to the SLRD Company – Mullica Hill, LLC, is not a listed hazardous waste, nor does it contain a listed hazardous waste, nor does it exhibit any of the characteristics of a hazardous waste as defined in 40 CFR 261.

The undersigned also acknowledges they have used due diligence in determining the non-hazardous status, of the said material, as defined in 40 CFR. Should at any time after delivery, the material accepted by SLRD Company – Mullica Hill, LLC, at the facility be found non-conforming to the above, it shall become the responsibility of the Generator to remove the waste from the SLRD Company – Mullica Hill, LLC, property within five (5) days of notification (notification is to be verbal followed by written notification, over night receipted). It is the Generator or its Agent's responsibility to abide by all Federal, State, and Local regulations associated with the removal and transportation of any non-conforming waste. If the waste is not removed within the specified time period, disposal shall be arranged by a representative of SLRD Company – Mullica Hill, LLC, and billed to the Generator/Agent at cost plus basis. Furthermore, the Generator or its Agent shall be responsible for any and all costs for decontamination and restoration required at the SLRD Company – Mullica Hill, LLC, facility to the extent such is related to the Generator's material, and all liability for such non-conforming waste shall revert to the Generator.

**I CERTIFY THAT I AM AUTHORIZED TO EXECUTE THIS ON BEHALF OF:**

---

**Generator's Name**

---

**Authorized Signature** **Date**

---

**Printed Name** **Title**

Exhibit 12: Paterson Plank Road Authorization

**New Jersey Department of Environmental Protection**
Site Remediation Program

# REMEDIAL ACTION REPORT FORM

Date Stamp
(For Department use only)

## SECTION A. SITE NAME AND LOCATION

Site Name: Matheson Tri-Gas, Inc.

List all AKAs:

Street Address: 932 Paterson Plank Road

Municipality: Borough of East Rutherford (Township, Borough or City)

County: Bergen Zip Code: 07073

Program Interest (PI) Number(s): 014490

Case Tracking Number(s) for this submission: E20060357

Date Remediation Initiated Pursuant to N.J.A.C. 7:26C-2: 12/30/2008

State Plane Coordinates for a central location at the site: Easting: 606,423 Northing: 728,086

Municipal Block(s) and Lot(s):

| | | | |
|---|---|---|---|
| Block #: 105.01 | Lot #: 2 | Block #: | Lot #: |
| Block #: | Lot #: | Block #: | Lot #: |
| Block #: | Lot #: | Block #: | Lot #: |
| Block #: | Lot #: | Block #: | Lot #: |

## SECTION B. SUBMISSION STATUS

1. Indicate how the Electronic Data Deliverable (EDD) for this submission is being provided to the NJDEP:

   ☒ Via Email at srpedd@dep.state.nj.us (attach NJDEP confirmation email); or
   ☐ CD (attach to this submission)
   ☐ Not Applicable – No EDD

2. Complete the following Submission and Permit Status Table:

| | N/A | Included in this Submission | Previously Submitted | Date of Submission | Date of Revised Submission | Date of Previous NJDEP Approval | Date of Document Withdrawal |
|---|---|---|---|---|---|---|---|
| Alternative Soil Remediation Standard and/or Screening level Application Form | ☒ | ☐ | ☐ | | | | |
| Case Inventory Document | | ☒ | | 01/30/2015 | | | |
| Discharge to Ground Water Permit by Rule Authorization Request | ☒ | ☐ | ☐ | | | | |
| IEC Engineered System Response Action Report | ☒ | ☐ | ☐ | | | | |
| Immediate Environmental Concern Report | ☒ | ☐ | ☐ | | | | |
| LNAPL Interim Remedial Measure Report | ☒ | ☐ | ☐ | | | | |
| Preliminary Assessment Report | ☐ | ☐ | ☒ | 12/20/2007 | | | |
| Public Notification | ☐ | ☐ | ☒ | 05/02/2012 | | | |
| Receptor Evaluation *RE UPDATE | ☐ | ☒ | ☐ | 01/30/2015 | | | |
| Remedial Action Report | ☐ | ☒ | ☐ | 01/30/2015 | | | |
| Remedial Action Work Plan | ☐ | ☐ | ☒ | 05/16/2014 | | | |
| Remedial Investigation Report | ☐ | ☐ | ☒ | 05/16/2014 | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Response Action Outcome | ☐ | ☐ | ☐ | | | | |
| Site Investigation Report | ☐ | ☐ | ☒ | 04/29/2008 | | | |
| Technical Impracticability Determination | ☒ | ☐ | ☐ | | | | |
| Vapor Concern Mitigation Report | ☒ | ☐ | ☐ | | | | |
| Permit Application – list: | ☐ | | | | | | |
| Soil Remedial Action Permit | | ☒ | ☐ | 01/30/2015 | | | |
| Groundwater Remedial Action Permit | | ☒ | ☐ | 01/30/2015 | | | |
| | | ☐ | ☐ | | | | |
| | | ☐ | ☐ | | | | |
| Radionuclide Remedial Investigation Workplan | ☒ | ☐ | ☐ | | | | |
| Radionuclide Remedial Investigation Report | ☒ | ☐ | ☐ | | | | |
| Radionuclide Remedial Action Workplan | ☒ | ☐ | ☐ | | | | |
| Radionuclide Remedial Action Report | ☒ | ☐ | ☐ | | | | |

**SECTION C. SITE USE**

**Current Site Use** *(check all that apply)*

- ☒ Industrial
- ☐ Residential
- ☐ Commercial
- ☐ School or child care
- ☐ Agricultural
- ☐ Park or recreational use
- ☒ Vacant
- ☐ Government
- ☐ Other: _____

**Intended Future Site Use** *(check all that apply)*

- ☒ Industrial
- ☐ Residential
- ☒ Commercial
- ☐ School or child care
- ☐ Park or recreational use
- ☐ Vacant
- ☐ Government
- ☒ Future site use unknown
- ☐ Other: _____

**SECTION D. CASE TYPE:** *(check all that apply)*

- ☐ Administrative Consent Order (ACO)
- ☐ Brownfield Development Area (BDA)
- ☐ Child Care Facility
- ☐ Chrome Site (Chromate chemical production waste)
- ☐ Coal Gas
- ☐ Due Diligence with RAO
- ☐ Hazardous Discharge Remediation Fund (HDSRF) Grant/Loan
- ☒ ISRA
- ☐ Landfill (SRP subject only)
- ☐ Regulated Underground Storage Tank (UST)
- ☐ Remediation Agreement (RA)/ Remediation Certification
- ☐ School Development Authority (SDA)
- ☐ School facility
- ☐ Spill Act Defense – Government Entity
- ☐ Spill Act Discharge
- ☐ UST Grant/Loan
- ☐ Other: _____

**Federal Case** *(check all that apply)*

☐ RCRA GPRA 2020 ☐ CERCLA/NPL ☐ USDOD ☐ USDOE

1. Is the party conducting remediation a government entity? ..... ☐ Yes ☒ No
   If "Yes," check one: ☐ Federal ☐ State ☐ Municipal ☐ County

**SECTION E. PUBLIC FUNDS**

Did the remediation utilize public funds? ..... ☐ Yes ☒ No

If "Yes," check applicable:

- ☐ UST Grant
- ☐ HDSRF Grant
- ☐ Spill Fund
- ☐ UST Loan
- ☐ HDSRF Loan
- ☐ Schools Development Authority
- ☐ Brownfield Reimbursement Program
- ☐ Landfill Reimbursement Program
- ☐ Environmental Infrastructure Trust

**SECTION F. SCOPE OF REMEDIAL ACTION REPORT**

1. Does the RAR address:
   - ☐ Area(s) of Concern (AOCs) Only
   - ☒ Entire Site (Based on a completed and submitted Preliminary Assessment/Site Investigation)
2. Total number of contaminated AOCs associated with the case: 15

3. Total number of contaminated AOCs addressed in this submission: 15

4. Are there any outstanding contaminated AOCs associated with the case where the remedial action has NOT been performed? ☐ Yes ☒ No

**When answering the remaining questions on this form consider only the AOCs addressed in this submission.**

## SECTION G. GENERAL

1. Does this submission include Remedial Action Permit Application(s) that require Site Remediation Program approval? ☒ Yes ☐ No
2. Was a remediation initiated after May 6, 2010, for new construction or a change in the use of the site proposed for the purpose of residential use, use as a licensed child care center or use as a school? ☐ Yes ☒ No

   If "Yes," was an unrestricted use or a presumptive remedy implemented? ☐ Yes ☐ No
3. Was an alternative remedy approved by the NJDEP? ☐ Yes ☒ No

   If "Yes," provide the date of the approval: _____
4. Has the remediation varied from the Technical Rules? ☐ Yes ☒ No

   If "Yes," provide the citation(s) from which the remediation has varied and the page(s) in the attached document where the rationale for the variance is provided.

   N.J.A.C. 7:26E- _____ Page _____

   N.J.A.C. 7:26E- _____ Page _____

   N.J.A.C. 7:26E- _____ Page _____
5. Were the laboratory Reporting Limits below applicable remediation standards/screening levels criteria required for the contaminants of concern for the AOCs addressed in this submission? ☒ Yes ☐ No
6. Have past NJDEP-documented deficiencies been addressed in this submission? ☐ Yes ☐ No ☒ N/A
7. Did the remediation deviate from that proposed in the Remedial Action Workplan? ☐ Yes ☒ No

   If "Yes," specify the section/page(s) in the report where the deviation(s) are discussed:

   _____
8. Did the remedial action render the property unusable for future redevelopment or for recreational use (N.J.A.C. 7:26C-6.4(b)? ☐ Yes ☒ No

## SECTION H. SITE CONDITIONS

1. At any time, was there any radiological contamination detected at the AOCs addressed in this submission? ☐ Yes ☒ No
2. At any time, did any of the AOCs addressed in this submission contain Ordnance and Explosives/ Unexploded Ordnance (OE/UXO)? ☐ Yes ☒ No
3. Did the remedial action involve containment of free product? ☐ Yes ☒ No
4. Has dioxin been detected at levels above NJDEP's interim direct contact soil screening level of 50 ppt dioxin TEQ (TCDD Toxicity Equivalence Quotient) in any AOCs addressed in this submission? ☐ Yes ☒ No
5. Have any of the following contaminants *ever* been detected in sediment above the ecological screening levels at the AOCs addressed in this submission? ☒ Yes ☐ No

   If "Yes," check all that apply:

   ☒ Arsenic ☐ Dioxin ☒ Mercury ☒ PCBs ☐ Pesticides
6. Is remediation complete in all affected media at the AOCs addressed in this submission? ☒ Yes ☐ No
7. Did contaminants from the AOCs addressed in this submission discharge to surface water? ☐ Yes ☒ No
8. Did contaminants from the AOCs addressed in this submission discharge to an Environmentally Sensitive Natural Resource (ESNR)? ☐ Yes ☒ No

9. Are any of the following conditions currently present for the AOCs addressed in this submission? *(check all that apply)*:

**Groundwater:**

- ☒ Contaminated ground water in the overburden aquifer
- ☐ Contaminated ground water in a confined aquifer
- ☐ Contaminated ground water in the bedrock aquifer
- ☐ Contaminated ground water in multiple aquifer units
- ☒ Multiple distinct ground water plumes
- ☐ Contaminated ground water migrating off-site
- ☐ Natural background ground water contamination
- ☐ Contaminated ground water discharging to surface water or Environmentally Sensitive Natural Resource (ESNR)
- ☐ Residual or free product
- ☐ Radionuclides

**Soil:**

- ☐ On-site discharge(s) impacting soil off-site
- ☐ Chromate Chemical Production Waste/COPR
- ☐ Munitions and explosives of concern
- ☒ Contaminated soil in the saturated zone
- ☐ Historic pesticide impacts to soil
- ☐ Residual or free product
- ☐ Radionuclides
- ☒ Historic Fill
- ☐ Natural background only above Impact to Ground Water Cleanup Criteria
- ☐ Natural background above Direct Contact Remediation Standards
- ☐ Soil contamination in an ESNR

## SECTION I. APPLICABLE REMEDIATION STANDARDS

1. Were Default Remediation Standards used for all contaminants? ☒ Yes ☐ No

   If "Yes," check all that apply:

   - ☒ Direct Contact
   - ☐ Impact to Ground Water Soil Screening Levels
   - ☒ Ecological Screening Levels

2. Has compliance averaging been utilized to determine compliance with the Soil Remediation Standards? ☐ Yes ☒ No

   If "Yes," check all that apply:

| | Compliance Averaging Method Utilized | | | |
|---|---|---|---|---|
| Pathway | Arithmetic Mean | 95 Percent UCL | Spatially Weighted Average | 75 Percent/ 10X Procedure |
| ☐ Ingestion-Dermal Pathway | ☐ | ☐ | ☐ | ☐ |
| ☐ Inhalation Pathway | ☐ | ☐ | ☐ | ☐ |
| ☐ Impact to Ground Water Pathway | ☐ | ☐ | ☐ | ☐ |

3. Has a compliance option been utilized to determine compliance with the Impact to Ground Water Pathway? (If "Yes," check all that apply) ☐ Yes ☒ No

   - ☐ Immobile Compounds
   - ☐ Data evaluation for metals and semi-volatiles
   - ☐ Data evaluation for volatile organics derived from discharges of petroleum mixtures

4. Was an interim standard used for a contaminant where a standard does not exist? ☐ Yes ☐ No
5. Were Alternate Remediation Standards used for the Ingestion/Dermal Pathway? ☐ Yes ☐ No
6. Were Alternate Remediation Standards used for the Inhalation Pathway? ☐ Yes ☐ No
7. Were Site Specific Standards used for the Impact to Ground Water Pathway? ☐ Yes ☐ No

   If "Yes," check all that apply:

   ☐ Soil-Water Partitioning Equation ☐ SPLP ☐ Sesoil ☐ Sesoil/AT123D
   ☐ DAF Modification

8. Were Site Specific Ecological Remediation Goals used? ☐ Yes ☒ No
9. What is the ground water classification for this site as per N.J.A.C. 7:9C? (check all that apply)

   - ☐ Class I-A
   - ☐ Class I-PL Pinelands Protection Area
   - ☐ Class I-PL Pinelands Preservation Area
   - ☐ Class II-A
   - ☐ Class III-A
   - ☒ Class III-B

## SECTION J. ALTERNATIVE AND CLEAN FILL USE

1. Was alternative fill used? ☐ Yes ☒ No
2. Was clean fill used? ☒ Yes ☐ No
3. Was material sent off-site for use as alternative and/or clean fill? ☐ Yes ☒ No
   If "Yes," specify the section/page in the RAR where it states the SRP site receiving this alternative and/or clean fill: _____
4. Was material sent off-site for use as alternative and/or clean fill at a non-SRP site? ☐ Yes ☒ No
   If "Yes," specify the section/page in the RAR where it states the non-SRP site receiving this alternative and/or clean fill: _____
5. Was alternative fill used in excess of the amount required for the remedial action? ☐ Yes ☒ No
   If "Yes," was the NJDEP's preapproval obtained pursuant to N.J.A.C. 7:26E-5.2(b)3? ☐ Yes ☐ No

## SECTION K. REMEDIAL ACTION REPORT INFORMATION

**Soils**

1. Did the remedy include a remedial action for soils? ☒ Yes ☐ No
   If "No," skip to **Ground Water**
2. Is a restricted use required? ☒ Yes ☐ No
   If "Yes," indicate the type of restriction being implemented. Deed Restriction
3. If applicable, has consent from all involved property owners been obtained (i.e., for institutional or engineering controls)? ☒ Yes ☐ No
4. Was an engineering control required? ☒ Yes ☐ No
   If "Yes," indicate the receptor(s) each engineering control is intended to protect. *(check all that apply)*
   ☒ Human ☐ Ecological ☐ Offsite Impacts

**Ground Water**

5. Did the remedy include a remedial action for ground water? ☒ Yes ☐ No
   If "No," skip to **Ecological**
6. Is a restricted use required for ground water? ☒ Yes ☐ No
7. Is a revised CEA required? ☐ Yes ☒ No
8. Do any contaminant levels in ground water currently exceed the vapor intrusion ground water trigger? ☒ Yes ☐ No

**Ecological**

9. Did the remedy include a remedial action for Environmentally Sensitive Natural Resources (ESNRs)? ☐ Yes ☒ No
   If "No," skip to **Indoor Air**
10. Was post-remedial sampling performed to determine whether contaminant levels currently meet ecological screening levels or ecological remediation goals? ☐ Yes ☐ No
11. Did the remedial action require filling of State open waters or wetlands? ☐ Yes ☐ No
12. Have ecological risk-based remediation goals been developed? ☐ Yes ☐ No
    If "Yes," have the ecological risk-based remediation goals been approved by NJDEP? ☐ Yes ☐ No
13. Have Risk Management Decision (RMD) goals been developed? ☐ Yes ☐ No
    If "Yes," have the RMD goals been approved by NJDEP? ☐ Yes ☐ No

**Indoor Air**

14. Have any vapor intrusion engineering controls/mitigation systems been installed in order to mitigate a vapor condition in a structure? ☐ Yes ☒ No

If "Yes," check each type of engineering control that was implemented:

- ☐ Subsurface Depressurization System
- ☐ Subsurface Ventilation System
- ☐ Soil Vapor Extraction System
- ☐ HVAC Positive Pressure
- ☐ Other (specify): _____

**SECTION L. PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION**

Full Legal Name of the Person Responsible for Conducting the Remediation: Matheson Tri-Gas, Inc.

Representative First Name: Stephen Representative Last Name: Stroud

Title: General Counsel / Executive Vice President

Phone Number: (908) 991-9333 Ext: _____ Fax: (908) 991-9390

Mailing Address: 150 Allen Road

City/Town: Basking Ridge State: NJ Zip Code: 07920

Email Address: sstroud@matheson-trigas.com

This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

*I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.*

Signature: _____ Date: 01/28/15

Name/Title: Stephen Stroud / General Counsel, Executive V.P.

**No changes to contact information since last submission** ☒

## SECTION M. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND STATEMENT

LSRP ID Number: 580659

First Name: Thomas Last Name: Buggey

Phone Number: (856) 423-8800 Ext: 3742 Fax: (856) 241-4670

Mailing Address: 402 Heron Drive

City/Town: Logan Township State: NJ Zip Code: 08085

Email Address: tbuggey@rouxinc.com

This statement shall be signed by the LSRP who is submitting this notification in accordance with section 14 of P.L.2009 c.60 (N.J.S.A. 58:10C-14), and paragraphs (1) and (2) of subsection b. of section 30 of P.L.2009 c.60 (N.J.S.A. 58:10B=1.3b(1) and (2)).

*I certify that I am a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C to conduct business in New Jersey. As the Licensed Site Remediation Professional of record for this remediation, I:*

**[SELECT ONE OR BOTH OF THE FOLLOWING AS APPLICABLE]:**

☐ *directly oversaw and supervised all of the referenced remediation, and\or*

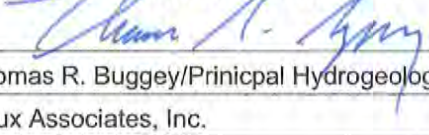
☒ *personally reviewed and accepted all of the referenced remediation presented herein.*

*I believe that the information contained herein, and including all attached documents, is true, accurate and complete.*

*It is my independent professional judgment and opinion that the remediation conducted at this site, as reflected in this submission to the Department, conforms to, and is consistent with, the remediation requirements in N.J.S.A. 58:10C-14.*

*My conduct and decisions in this matter were made upon the exercise of reasonable care and diligence, and by applying the knowledge and skill ordinarily exercised by licensed site remediation professionals practicing in good standing, in accordance with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I performed these professional services.*

*I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowingly or recklessly submitting false statement, representation or certification in any document or information submitted to the board or Department, etc., that there are significant civil, administrative and criminal penalties, including license revocation or suspension, fines and being punished by imprisonment for conviction of a crime of the third degree.*

LSRP Signature:  Date: 1/29/15

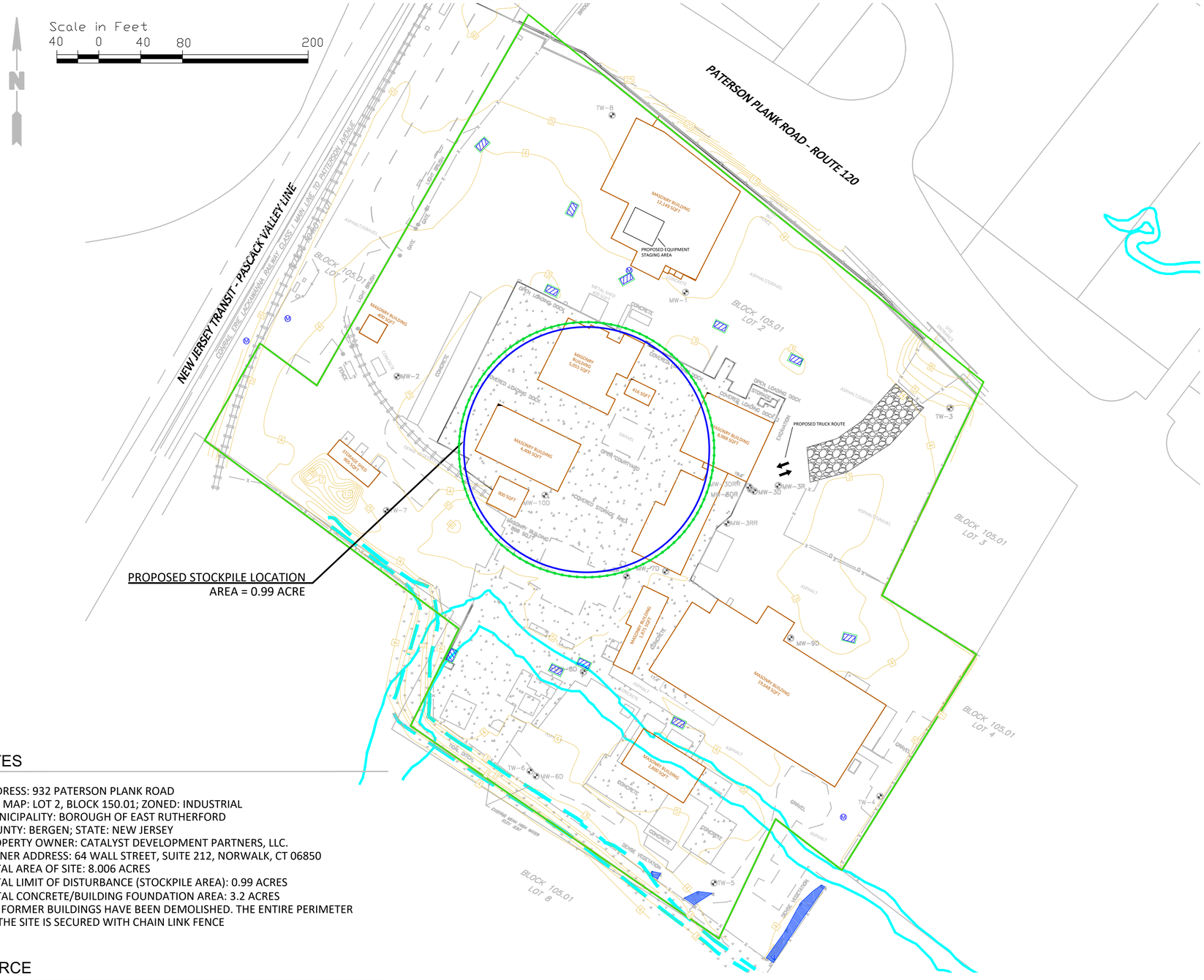
LSRP Name/Title: Thomas R. Buggey/Prinicpal Hydrogeologist

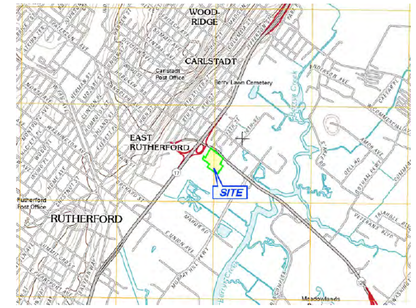
Company Name: Roux Associates, Inc.

**No changes to contact information since last submission** ☒

Completed forms should be sent to:

Bureau of Case Assignment & Initial Notice
Site Remediation Program
NJ Department of Environmental Protection
401-05H
PO Box 420
Trenton, NJ 08625-0420




KEY MAP
(NOT TO SCALE)

## LEGEND

- PROPERTY BOUNDARY
- PARCEL LINE
- TIDELANDS LINE
- MEAN HIGH WATER LINE
- DELINEATED WETLANDS
- EXISTING FENCE LINE
- EXISTING GUIDE RAIL
- EXISTING SURFACE GRADE ELEVATION CONTOUR (NAVD 88)
- EXISTING MANHOLE (TO REMAIN)
- EXISTING INLET (TO REMAIN & BE PROTECTED BY INLET FILTERS)
- PROPOSED INLET FILTER
- PROPOSED SILT FENCE WITH HAYBALE
- PROPOSED WHEEL CLEANING BLANKET (STABILIZED CONSTRUCTION ENTRANCE)
- MW-1 EXISTING MONITORING WELL LOCATION & IDENTIFICATION
- MW-3D ABANDONED MONITORING WELL LOCATION & IDENTIFICATION
- FORMER BUILDING FOUNDATION FOOTPRINT (ALL BUILDINGS DEMOLISHED; CONCRETE SLAB REMAINS)
- EXISTING CONCRETE
- EXISTING TIDAL DITCH
- PROPOSED STOCKPILE AREA (TOTAL 0.99 ACRES; MAX. HEIGHT OF STOCKPILE: 25')

## NOTES

1. ADDRESS: 932 PATERSON PLANK ROAD
   TAX MAP: LOT 2, BLOCK 150.01; ZONED: INDUSTRIAL
   MUNICIPALITY: BOROUGH OF EAST RUTHERFORD
   COUNTY: BERGEN; STATE: NEW JERSEY
   PROPERTY OWNER: CATALYST DEVELOPMENT PARTNERS, LLC.
   OWNER ADDRESS: 64 WALL STREET, SUITE 212, NORWALK, CT 06850
2. TOTAL AREA OF SITE: 8.006 ACRES
3. TOTAL LIMIT OF DISTURBANCE (STOCKPILE AREA): 0.99 ACRES
4. TOTAL CONCRETE/BUILDING FOUNDATION AREA: 3.2 ACRES
5. ALL FORMER BUILDINGS HAVE BEEN DEMOLISHED. THE ENTIRE PERIMETER OF THE SITE IS SECURED WITH CHAIN LINK FENCE

## SOURCE

1. BASE MAP #1: CURRENT SITE PLAN BY ROUX ASSOCIATES, INC. DATED 12/22/2014;
   BASE MAP #2: ALTA/ACSM LAND TITLE SURVEY BY DENNIS W. SKLAR, INC. DATED 11/25/2014

2. CONTOURS SHOWN AREA REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

3. REFER TO THE REMEDIAL ACTION REPORT BY ROUX ASSOCIATES, INC DATED 01/30/2015 FOR DETAILS OF REMEDIAL ACTIVITIES PERFORMED AT SITE.

4. FRESHWATER WETLANDS WERE DELINEATED BY ROUX ASSOCIATES, INC. ON DECEMBER 15, 2006.

# SOIL EROSION AND SEDIMENT CONTROL PLAN

932 Paterson Plank Road
East Rutherford, New Jersey

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | JR |
| DATE: | 04/30/2015 |
| SCALE: | 1"=50' |

| | |
|---|---|
| PROJECT # | 932PP |
| FIGURE # | 1 |

JOEL ROGERS, P.E.
NJ LICENSE NO.: 24GE04636400

IMPACT ENVIRONMENTAL
170 KEYLAND COURT
BOHEMIA, NEW YORK 11716
TEL (631) 269-8800 FAX (631) 269-1599

1000 PAGE, AVENUE
LYNDHURST, NEW JERSEY 07071
TEL (201) 268-5686 FAX (631) 269-1599

# SOIL EROSION AND SEDIMENT CONTROL NOTES:

1. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE INSTALLED IN ACCORDANCE WITH THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY (NJ STANDARDS), AND WILL BE INSTALLED IN PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT STABILIZATION IS ESTABLISHED.

2. ANY DISTURBED AREA THAT WILL BE LEFT EXPOSED FOR MORE THAN THIRTY (30) DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING AND MULCHING. IF THE SEASON PROHIBITS TEMPORARY SEEDING, THE DISTURBED AREA WILL BE MULCHED WITH UNROTTED STRAW AT A RATE OF 2 TONS PER ACRE ANCHORED BY APPROVED METHODS (I.E. PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH BINDER).

3. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AT A RATE OF 2 TONS PER ACRE, ACCORDING TO THE NJ STANDARDS.

4. STABILIZATION SPECIFICATIONS:

A. TEMPORARY SEEDING AND MULCHING:

*GROUND LIMESTONE* - APPLIED UNIFORMLY ACCORDING TO SOIL TEST RECOMMENDATIONS.

*FERTILIZER* - APPLY 11LBS./1,000 SF OF 10-20-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN (UNLESS A SOIL TEST INDICATES OTHERWISE) WORKED INTO THE SOIL A MINIMUM OF 4".

*SEED* - PERENNIAL RYEGRASS 100 LBS./ACRE (2.3 LBS./1,000 SF) OR OTHER APPROVED SEEDS; PLANT BETWEEN MARCH 1 AND MAY 15 OR BETWEEN AUGUST 15 AND OCTOBER 1.

*MULCH* - UNROTTED STRAW OR HAY AT A RATE OF 70 TO 90 LBS./1,000 SF APPLIED TO ACHIEVE 95% SOIL SURFACE COVERAGE. MULCH SHALL BE ANCHORED BY APPROVED METHODS (I.E. PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH BINDER).

B. PERMANENT SEEDING AND MULCHING:

*TOPSOIL* - UNIFORM APPLICATION TO A DEPTH OF 5" (UNSETTLED).

*GROUND LIMESTONE* - APPLIED UNIFORMLY ACCORDING TO SOIL TEST RECOMMENDATIONS.

*FERTILIZER* - APPLY 11 LBS./1,000 SF OF 10-10-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN (UNLESS A SOIL TEST INDICATES OTHERWISE) WORKED INTO THE SOIL A MINIMUM OF 4".

*SEED* - TURF TYPE TALL FESCUE (BLEND OF 3 CULTIVARS) 350 LBS./ACRE (8 LBS./1,000 SF) OR OTHER APPROVED SEEDS; PLANT BETWEEN MARCH 1 AND OCTOBER 1 (SUMMER SEEDINGS REQUIRE IRRIGATION)

*MULCH* - UNROTTED STRAW OR HAY AT A RATE OF 70 TO 90 LBS./1,000 SF APPLIED TO ACHIEVE 95% SOIL SURFACE COVERAGE. MULCH SHALL BE ANCHORED BY APPROVED METHODS (I.E. PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH BINDER).

5. THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT ALL STORMWATER RUNOFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES.

6. SOIL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS, INCLUDING AFTER EVERY STORM EVENT.

7. STOCKPILES ARE NOT TO BE LOCATED WITHIN 50' OF A FLOODPLAIN, SLOPE, ROADWAY OR DRAINAGE FACILITY. THE BASE OF ALL STOCKPILES SHALL BE CONTAINED BY A HAYBALE SEDIMENT BARRIER OR SILT FENCE. MAX. HEIGHT OF STOCKPILE IS NOT TO BE GREATER THAN 25'.

8. A CRUSHED STONE, VEHICLE WHEEL-CLEANING BLANKET WILL BE INSTALLED WHEREVER A CONSTRUCTION ACCESS ROAD INTERSECTS ANY PAVED ROADWAY. SAID BLANKET WILL BE COMPOSED OF 1" - 2½" CRUSHED STONE, 6" THICK, WILL BE AT LEAST 30' X 100' AND SHOULD BE UNDERLAIN WITH A SUITABLE SYNTHETIC SEDIMENT FILTER FABRIC AND MAINTAINED.

9. MAXIMUM SIDE SLOPES OF ALL EXPOSED SURFACES SHALL NOT EXCEED 3:1.

10. DRIVEWAYS MUST BE STABILIZED WITH 1" - 2½" CRUSHED STONE OR SUBBASE PRIOR TO INDIVIDUAL LOT CONSTRUCTION.

11. ALL SOIL WASHED, DROPPED, SPILLED OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHT-OF-WAYS, WILL BE REMOVED IMMEDIATELY. PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES.

12. CATCH BASIN INLETS WILL BE PROTECTED WITH AN INLET FILTER DESIGNED IN ACCORDANCE WITH SECTION 28 -1 OF THE NJ STANDARDS.

13. STORM DRAINAGE OUTLETS WILL BE STABILIZED, AS REQUIRED, BEFORE THE DISCHARGE POINTS BECOME OPERATIONAL.

14. DEWATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT CONTROL BAG OR OTHER APPROVED FILTER IN ACCORDANCE WITH SECTION 14-1 OF THE NJ STANDARDS.

15. DUST SHALL BE CONTROLLED VIA THE APPLICATION OF WATER, CALCIUM CHLORIDE OR OTHER APPROVED METHOD IN ACCORDANCE WITH SECTION 16-1 OF THE NJ STANDARDS.

16. TREES TO REMAIN AFTER CONSTRUCTION ARE TO BE PROTECTED WITH A SUITABLE FENCE INSTALLED AT THE DRIP LINE OR BEYOND IN ACCORDANCE WITH SECTION 9-1 OF THE NJ STANDARDS.

17. THE PROJECT OWNER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFF-SITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.

18. ANY REVISION TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN MUST BE SUBMITTED TO THE DISTRICT FOR REVIEW AND APPROVAL PRIOR TO IMPLEMENTATION IN THE FIELD.

19. A COPY OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN MUST BE AVAILABLE AT THE PROJECT SITE THROUGHOUT CONSTRUCTION.

20. THE BERGEN COUNTY SOIL CONSERVATION DISTRICT MUST BE NOTIFIED, **IN WRITING**, AT LEAST 48 HOURS PRIOR TO ANY LAND DISTURBANCE: BERGEN COUNTY SCD, 700 KINDERKAMACK ROAD, SUITE 106, ORADELL, NJ 07649. TEL: 201-261-4407; FAX 201-261-7573.

21. THE BERGEN COUNTY SOIL CONSERVATION DISTRICT MAY REQUEST ADDITIONAL MEASURES TO MINIMIZE ON OR OFF-SITE EROSION PROBLEMS DURING CONSTRUCTION.

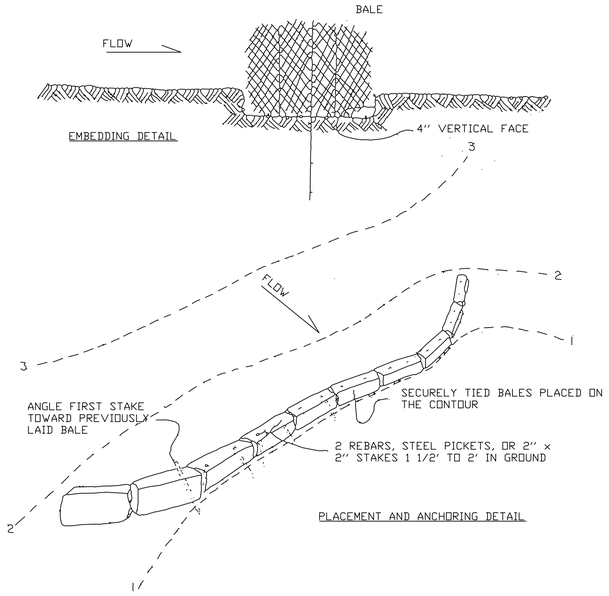
22. THE OWNER MUST OBTAIN A DISTRICT ISSUED REPORT OF COMPLIANCE PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY. **THE DISTRICT REQUIRES AT LEAST ONE WEEK'S NOTICE TO FACILITATE THE SCHEDULING OF ALL REPORT OF COMPLIANCE INSPECTIONS**. ALL SITE WORK MUST BE COMPLETED, INCLUDING TEMPORARY/PERMANENT STABILIZATION OF ALL EXPOSED AREAS, PRIOR TO THE ISSUANCE OF A REPORT OF COMPLIANCE BY THE DISTRICT.

23. PROPOSED CONSTRUCTION SEQUENCE:

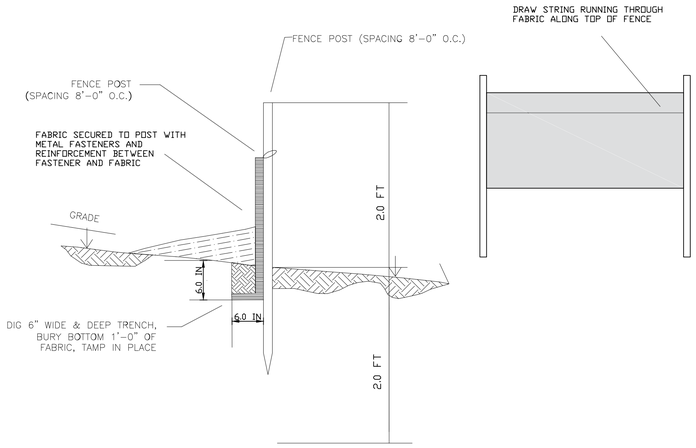
PHASE A: BUILDING DEMOLITION, PERIMETER FENCE INSTALLATION (COMPLETED)
PHASE B: CLEAN FILL IMPORT & STOCKPILING (JUNE-DECEMBER, 2015)
PHASE C: FILL PLACEMENT & SITE GRADING (JANUARY-DECEMBER, 2016; PLAN TO BE FINALIZED)
PHASE D: SITE REDEVELOPMENT (JANUARY-DECEMBER, 2017; PLAN TO BE FINALIZED)

APPROX. 20,000 CUBIC YARDS OF CLEAN FILL IS PROPOSED TO BE IMPORTED DURING PHASE B. WATERING, TEMPORARY SEEDING, MULCHING AND/OR OTHER NECESSARY MEASURES WILL BE CONDUCTED ON EXPOSED SURFACES TO PREVENT DUST AND EROSION.

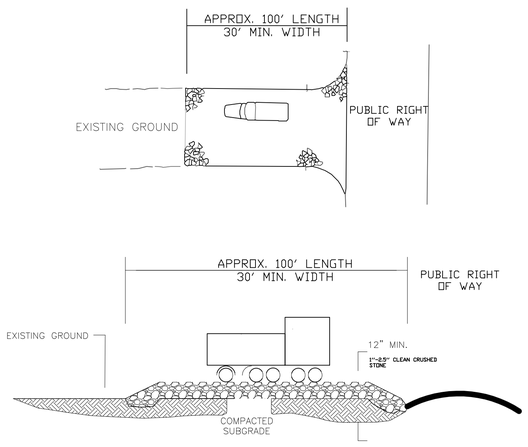
# TYP. DETAILS OF HAYBALE BARRIER



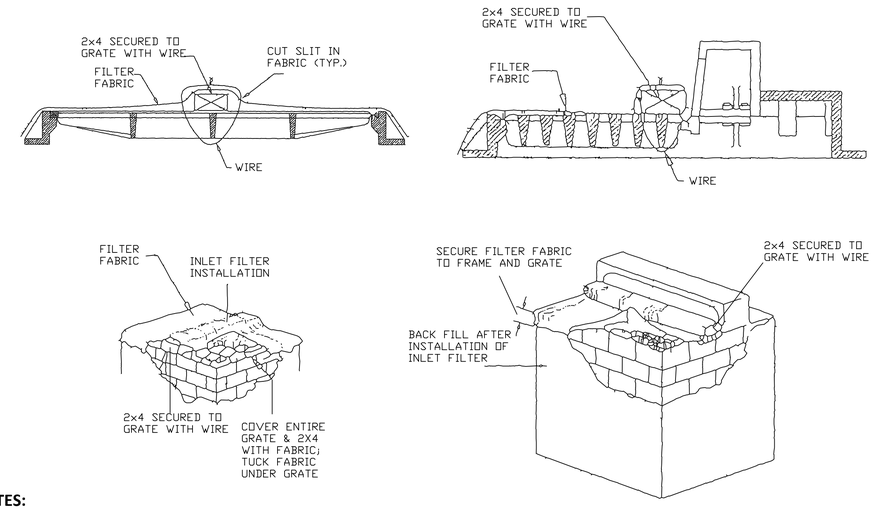

# TYP. DETAILS OF SILT FENCE




# TYP. DETAILS OF WHEEL CLEANING BLANKET (STABILIZED CONSTRUCTION ENTRANCE)




# TYP. DETAILS OF INLET FILTER




**NOTES:**

1. CONTRACTOR IS TO CLEAN INLET FILTER AFTER EVERY STORM;
2. CONTRACTOR TO REMOVE FABRIC PRIOR TO PAVING;
3. FILTER WILL SAFELY PASS FLOWS GREATER THAN 1 YEAR 24 HR STORM (2.8'' PER NJDA STATE SOIL CONSERVATION COMMITTEE)

| | | | |
|---|---|---|---|
| JOEL ROGERS, P.E.<br>NJ LICENSE NO.: 24GE04636400 | **SOIL EROSION AND SEDIMENT CONTROL NOTES & DETAILS** | PROJECT # | 932PP |
| | | FIGURE # | 1-1 |
| 932 Paterson Plank Road<br>East Rutherford, New Jersey | DRAWN BY: XY<br>CHECKED BY: JR<br>DATE: 04/30/2015<br>SCALE: NOT TO SCALE | | |


**IMPACT ENVIRONMENTAL**
170 KEYLAND COURT
BOHEMIA, NEW YORK 11716
TEL (631) 269-8800 FAX (631) 269-1599

1000 PAGE, AVENUE
LYNDHURST, NEW JERSEY 07071
TEL (201) 268-5686 FAX (631) 269-1599

Exhibit 13: Former Griffin Pipe Products Site Authorization

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Case Management
Mail Code 401-05F
P.O. Box 420
Trenton, New Jersey 08625-0420
Telephone: 609-633-1455

CHRIS CHRISTIE
*Governor*

KIM GUADAGNO
*Lt. Governor*

BOB MARTIN
*Commissioner*

March 18, 2016

Attn: Scott Gray
Florence Griffin Advisors, LP.
919 Milam Street, Suite 2300
Houston, TX 77002

**Material Acceptance Plan Approval**

RE: Former Griffin Pipe Products Site
1100 West Front Street
Florence Township, Burlington County
PI #: 000047
Activity Number: RPC120001
Documents Reviewed:
Final Material Acceptance Plan Received: *March 10, 2016*
Final Material Acceptance Plan Revised: *March 18, 2016*

Dear Mr. Gray:

The New Jersey Department of Environmental Protection (Department) has completed its review of the Material Acceptance Plan (MAP) that was submitted in regard to the above referenced site. The MAP, which was received on March 10, 2016, was submitted by Impact Environmental (Impact) on behalf of Florence Griffin Advisors (Griffin). A Revised MAP was submitted, via email, on March 18, 2016, in response to Department comments.

The March 2016 MAP, as updated and revised, establishes protocol for the review, approval, transportation and on-site management of material to be used as Alternate Fill as part of remedial activities associated with the former Griffin Pipe site. This MAP will be utilized in concert with the Remedial Action Workplan (RAW) approval(s) issued in regard to the former Griffin Pipe site.

A critical aspect of the MAP is the criteria that determine the acceptability of the proposed Alternate Fill for placement at the site. In regard to this, Department approval was based on the following weight of evidence approach used by Impact on behalf of Florence Griffin Advisors:

1. The entire site is one area of concern for each of the contaminants of concern being considered for placement (or the groupings thereof).

2. N.J.A.C. 7:26E-5.2 (b)1, the like-on-like requirement, is complied with.

3. N.J.A.C. 7:26E-5.2(b)3, the excess volume preclusion, is complied with by getting Department preapproval if excess fill is going to be used. IE has indicated the 100 year/1% storm

flood elevation established by the Federal Emergency Management Agency will not be exceeded in the area of fill placement. Consequently, excess fill should not be an issue.

4. The variance (under N.J.A.C. 7:26E-1.7) with respect to N.J.A.C. 7:26E-5.2(b)2, the 75th percentile requirement, will be obtained as IE intends to employ the 95 % Upper Confidence Limit of the Mean instead of the 75th percentile.

5. The fill placement locations are not impacted by single point discharges (historical fill excluded).

6. IE has examined the large number of samples collected and determined that it is appropriate to excluded a number of the high values from fill acceptability calculations as non-representative. Because of the large data base and the conservative act of excluding a number of high values, the Department approves the use of the 95 % Upper Confidence Limit of the Mean.

7. The proposed alternative fill material will be evaluated by appropriate analytical testing and sampling to obtain representative data and are expected to show the material exhibits a variable concentration range including values below the maximum allowable limit. This will confirm the IE commitment to not use materials "decontaminated, manufactured or blended from different Donor Sites to measure just up to the limits of the proposed variance Acceptance Criteria." In addition, it is the Department's expectation that the PAH grouping strategy used to evaluate the placement location will similarly be applied to the proposed alternative fill.

The Department has determined that the referenced MAP is in compliance with the Technical Requirements for Site Remediation, N.J.A.C. 7:26E and other applicable requirements. The Department hereby approves the March 2016 MAP, as revised and discussed above, effective the date of this letter. Please note that this approval is being given on a site-specific basis and should not be construed as precedent setting.

Thank you for your cooperation in this matter. If you have any questions regarding this correspondence, please contact Jill McKenzie, Case Manager, at (609) 292-1993 or email at Jill.McKenzie@dep.nj.gov.

Sincerely,

Maurice Migliarino, Section Chief
Bureau of Case Management

cc: Jill McKenzie, BCM
Greg Neumann, BEERA
Adolph Everett, EPA
David Pry, LSRP
Mike McMullen, Florence Griffin Advisors
Joel Rogers, Impact Environmental
Jack Koczan, Principal Consultant
Craig Wilkie - Mayor Florence Township
Holly Funkhouser- Director Burlington County Health Department

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Case Management
Mail Code 401-05F
P.O. Box 420
Trenton, New Jersey 08625-0420
Telephone: 609-633-1455

CHRIS CHRISTIE
*Governor*

KIM GUADAGNO
*Lt. Governor*

BOB MARTIN
*Commissioner*

March 18, 2016

Attn: Scott Gray
Florence Griffin Advisors, LP
919 Milam Street, Suite 2300
Houston TX 77002

**Target Area RIR/RAW Approval**

RE: Former Griffin Pipe Products Site
1100 West Front Street
Florence Township, Burlington County
PI #: 000047
Activity Number: RPC120001
Documents Reviewed:
Target Area RIR / RAW Dated: *January 22, 2016*
Target Area RIR/RAW Addendum Dated: *March 11, 2016*
Target Area RIR/RAW Addendum Dated: *March 17, 2016*

Dear Mr. Gray:

The Department of Environmental Protection (Department) is in receipt of the January 2016 Remedial Investigation Report / Remedial Action Workplan (RIR/RAW) and the March 2016 RIR/RAW Addendums which were submitted in regard to the above referenced site. These documents were submitted by Impact Environmental on behalf of Florence Griffin Advisors, LP. The referenced RIR/RAW and RIR/RAW Addendums are associated with the southern – most portion of the former Griffin Pipe site designated as the Target Area, and no other portions of the property. It is noted that in the March 18, 2016 RIR / RAW Addendum the Target Area being addressed with this approval has been appropriately reduced in aerial extent from what was included in the original (January 2016) RIR/RAW. As discussed in that Addendum, neither the tree-line area nor the embankment bordering the Delaware River, are included within the defined Target Area for purposes of this RIR/RAW approval.

The referenced documents include updated sampling data that was collected to complete the SI / RI requirements associated with the Areas of Concern (AOCs) identified on this southern portion of the Griffin site; a proposal to utilize capping with Alternate Fill with an overlying final layer of clean cap material; and the establishment of a deed notice to address the identified soil contamination that will remain at this portion of the site. The RAW also proposes to utilize the establishment of an institutional control in the form of a Classification Exception Area (CEA) for the dissolved phase contamination remaining in the shallow aquifer beneath this portion of the property.

The Department has determined that the referenced Target Area RIR/RAW, as revised and amended, is in compliance with the Technical Requirements for Site Remediation, N.J.A.C. 7:26E and other applicable requirements. The Department hereby approves the Target Area RIR/RAW, as revised and amended, effective the date of this letter.

Thank you for your cooperation in this matter. If you have any questions regarding this correspondence, call Jill McKenzie at (609)292-1993, or email at Jill.McKenzie@dep.nj.gov.

Sincerely,

Maurice Migliarino, Section Chief
Bureau of Case Management

cc: Jill McKenzie, BCM
Greg Neumann, BEERA
Daryl Clark, BGWPA
Adolph Everett, EPA
David Pry, LSRP
Mike McMullen, Florence Griffin Advisors, LP
Joel Rogers, Impact Environmental
Jack Koczan, Principal Consultant
Craig Wilkie, - Mayor Florence Township
Holly Funkhouser – Director Burlington County Health Department

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF DREDGING AND SEDIMENT TECHNOLOGY
P.O. BOX 420
MAIL CODE #401-06C
TRENTON, NEW JERSEY 08625-0420
(609) 292-1250
FAX: (609) 777-1914

CHRIS CHRISTIE
*Governor*

KIM GUADAGNO
*Lt. Governor*

BOB MARTIN
*Commissioner*

**March 22, 2016**

Mr. Scott Gray
Florence Griffin Advisors, LP
919 Milam Ste. 2300
Houston, TX 77002

RE: NJDEP File No: 0315-05-0003.2
Coastal General Permit No. 11 (CAF160001)
Project: Florence Griffin Advisors – Stockpile
Florence Township, Burlington County

Dear Mr. Gray:

The Office of Dredging and Sediment Technology acting under the provisions of the Coastal Area Facility Review Act (N.J.S.A. 13:19 et seq.) and/or the Waterfront Development Law (N.J.S.A. 12:5-3) has determined to conditionally approve your application for a Coastal General Permit No. 11.

Acceptance of this permit and all permit conditions shall be assumed, unless the permittee requests an adjudicatory hearing to contest the permit and/or permit conditions, in accordance with the requirements of the Coastal Zone Management Rules (N.J.A.C. 7:7).

In order to promote cooperation in the management of our natural resources, a copy of this decision shall be shared with appropriate local and federal agencies.

If you should have any questions regarding this decision, please contact me at (609) 633-1357 or by email at mark.davis@dep.nj.gov.

Sincerely,

Mark C. Davis

Mark C. Davis, Acting Supervisor
Office of Dredging and Sediment Technology

Attachment: Approved Plans

c: Florence Township Municipal Clerk
Kristopher Krzyston, T&M Associates

# Materials Acceptance Plan

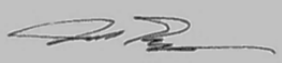
Former Griffin Pipe Products Site

*Prepared for:*
Former Griffin Pipe Products Site
1100 W. Front Street
Florence Township, NJ
Block 179, Lots 1.02, 1.03, 1.04 and 1.05
NJDEP Program Interest #000047

*Prepared by:*
Impact Environmental
1000 Page Avenue
Lyndhurst, NJ 07071

*IE Project Number:*
8746-11

**Document Control**

| Issue Date | Version No. | Approved By | Signature |
|---|---|---|---|
| March 18, 2016 | 1.4 | JR |  |

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# 1. Introduction

## 1.1. Purpose of Material Acceptance Plan

This *Material Acceptance Plan* ("MAP") has been prepared in accordance with NJAC 7:26E to establish protocols for review, approval, transportation, and on-site management of materials proposed for importation to the former Griffin Pipe Products Company ("GPP") site West Side located at 1100 West Front Street, Florence Township, Burlington County, New Jersey (the "Site"), as required to construct an earthen protective cap to raise grade away from residual contamination. Construction of the cap is a necessary part of the cleanup of the Site that is required under a New Jersey Department of Environmental Protection ("NJDEP") stipulated ISRA Remediation protocol. The earthen protective cap will include an Interim Cap composed of materials meeting site-specific Alternative Fill standards and a Final Cap of earthen material, or product that will meet Unrestricted Use Standards.

The Site is bound by West Front Street to the east, the Delaware River to the west, undeveloped woodlands to the south, and an industrial property to the north. The Site is separate from the farmland parcel (also known as the "East Side") located east to West Front Street.

The intention of this document is to outline the means and methods required to ensure protection of the public and the environment, and to maintain compliance with requirements of the New Jersey Department of Environmental Protection ("NJDEP") Site Remediation Program ("SRP") and the codes, rules and regulations of Florence Township, and other applicable regulatory Agencies with jurisdiction over the Site.

## 1.2. Project Overview and Schedule

Florence Griffin Advisors, LP ("FGA") has been the owner of the Site since July 2015. FGA is conducting environmental investigation and cleanup at the Site under oversight of the NJDEP under the terms of the SRP. The SRP provides for a Licensed Site Remediation Professional (LSRP) to act as the NJDEP Program Representative. The Site currently has no operations, and all former building structures have been demolished. The final environmental remedy at the Site requires importation of materials to construct an engineered 'cap' to

serve as a protective barrier over existing residual contamination at the Site. The proposed earthen protective cap materials will consist of inert, non-water soluble, non-decomposable, soil and non-soil beneficial reuse products consistent with existing physical Site characteristics, which have favorable geotechnical properties to support future redevelopment, and that meet chemical and physical requirements that are protective of human health and the environment. The earthen protective cap will primarily originate from excavations on construction/development sites or other types of excavation projects ("Donor Sites") in the region, or from NJDEP permitted Class B Recycling Facilities, although other sources of beneficially reused materials acceptable to NJDEP may be considered. Following construction of the earthen protective cap, the Site will undergo final stabilization and redevelopment with improvements to support future planned commercial uses.

FGA has contracted with Impact Environmental ("IE") to source appropriate earthen protective cap materials for importation and cap construction activities. Earthen protective cap material import is scheduled to begin in the first quarter of 2016 and is to be completed in approximately eighteen months. The volume of required Interim Cap material is estimated to be 370,000 cubic yards and the Final Cap material is estimated to require 90,000 cubic yards.

Engineering plan drawings are included with this MAP as **EXHIBIT 1**, and provide details on the Site location, the current Site surface elevation grades, proposed earthen protective cap material deposition areas/extents, post-deposition surface slopes and elevation grades, erosion/sediment control and stormwater drainage features during construction and post-stabilization, Site proximity to adjacent surface water bodies, and Site floodplain lines.

### 1.3. Site Description and History

The Site is located at 1100 West Front Street, Township of Florence, Burlington County, New Jersey, and is bounded by West Front Street to the east, the Delaware River to the west, undeveloped woodlands to the south, and a industrial property (previously subdivided from the Site) currently owned by DC Fabricators, Inc. to the north. The Site includes individual upland tax lots (Block 179, Lots 1.02, 1.03, 1.04 and 1.05) and a riparian grant area that have a combined area of approximately 53 acres (see **Figure 1**, Site Location Map).

Since the late 1850s, the Site has been home to leading iron product manufacturers. In 1867, Richard D. Wood purchased the Site and established R.D. Wood Company, which became the driving force behind the continued development of the community. The Site was used for manufacturing and distribution of including iron pipes, pipe fittings, manufactured gas lamp posts, fire hydrants, hydraulic machinery and other foundry related activities, which continued on under Site ownership by GPP. Manufacturing activities ceased in February 2009. The manufacturing facilities and auxiliary structures at the Site have been demolished. Some remnants of the former infrastructure still remain at the Site, such as building slabs, roadways, stormwater collection and retention features, electrical transformers, perimeter fencing, and other such structures.

The majority of the Site exhibits low topographic relief, aside from a centralized elevated mound and some soil berms running along the perimeters of the northeast quadrant. A shoreline and point bar (mud flat) exist along the Delaware River (a tidal estuary) on the west side of the Site, but are submerged during high tide. No wetlands exist at the Site. The majority of the surficial overburden material at the Site consists of non-indigenous fill material, containing soil intermingled with brick fragments, ash, slag, cinder, foundry sand and refractory glass from foundry operations, as well as a co-located zone of NJDEP-mapped historic fill running the length of the Site (from north to south) along the western upland extent. Depth of the fill material ranges from approximately 5 feet to 15 feet below ground surface. Native soils consisting of light brown silty sand underlay the fill materials. Groundwater is generally located between 12 feet to 14 feet below surface grade in the level areas of the Site, and is subject to site-wide semi-diurnal tidal fluctuations ranging from less than 1 foot near the river to less than 0.5 foot near the eastern site boundary.

### 1.3.1. *Existing Contaminants of Concern*

Numerous contaminants have been detected in onsite soil at concentrations greater than New Jersey Non-Residential Direct Contact Soil Remediation Standard. Of significance, for example, Benzo(a)anthracene was detected at levels up to 310 milligrams per kilogram (mg/kg); Benzo(a)pyrene was detected at levels up to 260 mg/kg; Benzo(b)fluoranthene was detected at levels up to 330 mg/kg; Dibenzo(a,h)anthracene was detected at levels up to 42 mg/kg; and Indeno(1,2,3-cd)pyrene was detected at levels up to 140 mg/kg.

## 1.4. Regulatory Setting and Authority

The Site is subject to Traditional Oversight by NJDEP, under NJDEP Program Interest #000047. A LSRP coordinates the investigative and remedial approach with NJDEP (**EXHIBIT 2,** LSRP Retention Notice).

The Site has undergone previous investigation and interim remedial actions. Recent Site Investigation (SI) activities conducted by AECOM in 2012 identified more than 200 Areas of Concern (AOCs) for chemical storage areas such as former underground storage tanks (USTs) and aboveground storage tanks (ASTs), and included a Site-wide AOC for surficial and shallow soils across the entire Site footprint contaminated by historic on-site manufacturing processes and industrial foundry waste deposition. Large areas of historic fill have been mapped at the site by the NJDEP. The presence of this historic fill has been confirmed in field observations throughout the site commingled with foundry waste, including in areas outside of the NJDEP mapped areas of historic fill. IE is currently conducting additional investigations as required by NJDEP to establish and delineate the environmental impacts at the Site, including Remedial Investigation (RI) of soil and groundwater in the upland areas, Ecological Risk Assessment (ERA) of near shore sediments and surface water along the Delaware River, and development of a Site-wide RAWP. Limited Interim Remedial Measures (IRMs) will also be conducted to address light non-aqueous phase liquids (LNAPLs) in discrete locations, followed by longer term remedial or control measures, if needed.

Following Site investigation, completion of IRMs, and approval by NJDEP, importation of earthen protective cap material will commence to facilitate on-site construction of an earthen cap, a remedy designed as a protective barrier (engineering control) to eliminate future direct contact pathways with existing Site contamination. As part of the remedy, institutional controls will be implemented to the extent required, including, as necessary, establishment of a Site-wide deed restriction for soil, a classification exception area (CEA) for groundwater, and respective NJDEP remedial action permits (RAPs).

Initial importation and placement/stockpiling of alternative fill may commence in the southern portion ("Target Area") of the Site upon achievement of the following milestones:

1. Certification of a Soil Erosion and Sediment Control Plan (SESCP) by the Burlington County Soil Conservation District (Site Wide).
2. NJDEP approval of the Target Area Remedial Investigation Report/Remedial Action Workplan (RIR/RAW).
3. NJDEP approval of this MAP.

4. Receipt of authorization of coverage under a NJDEP GP-11 General Permit for planned stockpiling areas within the Target Area.

Importation and placement of alternative fill over approved areas on the balance of the Site may commence upon achievement of the following milestones:

1. NJDEP approval of the RIR/RAW for the balance of the Site outside the Target Area.
2. Receipt of a NJDEP Waterfront Development Permit.

In accordance with NJDEP guidance, materials that can be beneficially reused for the Interim Cap may include materials that are both physically and chemically consistent with the existing overburden material and supportive of the selected remedial action at the Site. This beneficial reuse is established and detailed by the NJDEP as described in the *Technical Requirements for Site Remediation* (N.J.A.C. 7:26E, most recent version dated May 7, 2012), *Technical Guidance on the Capping of Sites Undergoing Remediation* (Version 1.0, issued 7/14/2014), and *Fill Material Guidance for SRP Sites* (Version 3.0, issued April 2015). This includes materials from a NJDEP permitted Class B Recycling Facility, approved material from Donor Sites, or other allowed sources. Earthen protective cap material sources will be vetted to demonstrate that they will not introduce new contaminants to the Site (see below). Thus, all Donor Site materials used for construction of the Interim Cap will meet either the Unrestricted Use Standard, which is equivalent to the lessor of the Default Impact to Groundwater (IGW), Residential Direct Contact or Non-Residential Direct Contact Soil Remediation Standards (RDCSRS or NRDCSRS), or analyte-specific Alternative Use threshold Acceptance Criteria established under the SRP "like-on-like" rule and defined herein. The Final Cap will require the use of materials that meet the Unrestricted Use Standard.

### 1.4.1. *Alternative Fill Limits for Interim Cap*

The Site soils have been demonstrated to be contaminated with semi-volatile organic compounds and metals. Several like-on-like evaluation methodologies are authorized by NJDEP to establish the baseline concentrations of individual contaminants existing at a receiving site. Five specific semi-volatile organic compounds (SVOCs) and four specific metals are associated with historic fill and historic foundry operations that have occurred at the Site and have been documented ubiquitously at elevated levels at locations site-wide as follows:

| Site-Wide SVOCs | Site-Wide Metals |
|---|---|
| Benzo-a-Pyrene (Group A) | Lead |
| Dibenzo-a,h-Anthracene (Group A) | Mercury |
| Benzo-a-Anthracene (Group B) | Silver |
| Benzo-b-Fluoranthene (Group B) | Zinc |
| Indeno(1,2,3-cd)Pyrene (Group B) | |

The like-on-like evaluation methodology utilized for constituents ubiquitously identified site-wide is the 95$^{th}$ percent upper confidence limit (95$^{th}$ UCL) analysis. The analysis was performed using the most recent version of the USEPA's ProUCL software to calculate the 95$^{th}$ UCL for each contaminant of concern. The site-wide SVOCs are grouped based on their relevant direct contact ingestion-dermal health-based limits (i.e., Benzo-a-Pyrene and Dibenzo-a,h-Anthracene both have direct contact ingestion-dermal health-based limits of 0.2 mg/kg are referred to as Group A; Benzo-a-Anthracene, Benzo-b-Fluoranthene and Indeno(1,2,3-cd)Pyrene all have direct contact ingestion-dermal health-based limits of 0.6 mg/kg are referred to as Group B).

The 95$^{th}$ UCL was used for calculating Alternative Fill contaminant concentration limits consistent with the NJDEP Guidance Document, *Fill Material Guidance for SRP Sites*. The 95$^{th}$ UCL will also be used for determining the suitability of Donor Site material to meet the acceptance criteria for earthen protective cap materials.. The use of the 95$^{th}$ UCL is not immediately authorized by the *Technical Requirements for Site Remediation* standards promulgated under 7:26E. Said standards establish the use of the 75$^{th}$ percentile for deriving contaminant concentration limits for Alternative Fill (Interim Cap). Thus, the use of the 95$^{th}$ UCL requires a variance from the standards, specifically, 7:26E Section 5.2 b (2). The variance is tendered on the Remedial Action Workplan Form version 2.1, submitted coincidently with this MAP, dated, March 4, 2016.

Protection of human health and the environment is maintained given the use of the 95$^{th}$ UCL as described above will not result in a new discharge or worsened contamination of the Site. The 95$^{th}$ UCL is a widely used method for conservative statistical analysis of environmental data. The program used for determining 95$^{th}$ UCL is ProUCL that was developed by the USEPA. ProUCL provides rigorous data processing methods and statistical models that cover the wide-range of variability, distribution, skewness and size of environmental data. In addition, 95$^{th}$ UCL is a suitable method for larger dataset while the 75$^{th}$ percentile was developed for smaller data population of typical remedial investigation sampling. There are over 300 soil samples available at the Site for 95$^{th}$ UCL

analysis. All Donor Sites will also be required to provide representative environmental data that is sufficient to generate truly valid 95th UCL.

In generating a 95th UCL threshold for Interim Cap material acceptance criteria ("Acceptance Criteria") for each Site-Wide contaminant, factors including sample size, distribution, skewness and variability of the site specific dataset were carefully considered by selecting the most appropriate data processing method and statistical model. Among 344 soil samples that were tested for Group A and Group B SVOCs, six (6) that contain the highest levels of these compounds are impacted by a combination of site-wide contamination and potential contamination of specific areas of concern (AOCs). In further evaluation, these samples are found to cause statistically significant skewness to the data distribution. Thus, these six samples are winsorized to remove AOC-specific impacts while maintaining the integrity of Site-Wide contamination. A total of 333 soil samples were tested for Lead, Mercury, Silver and Zinc. These results are found representative of the Site-Wide contamination and require no winsorization. A most appropriate statistical model was then recommended by the ProUCL program based on the specific data distribution of each contaminant.

The following table presents the number of detections, maximum detected concentrations, 75th percentile and 95th UCL of each Site-Wide Group A and Group B SVOC, and of metal contaminants in soil.

| **Contaminant(s)** | **# of Detections** | **Maximum Detected Level (mg/kg)** | **75th Percentile (mg/kg)** | **95th UCL (mg/kg)** |
|---|---|---|---|---|
| Group A (Benzo-a-Pyrene+Dibenzo-a,h-Anthracene) | 247 | 300 | 1.075 | 2.448 |
| Group B (Benzo-a-Anthracene+Benzo-b-Fluoranthene+Indeno(1,2,3-cd)Pyrene) | 270 | 780 | 2.488 | 5.997 |
| Lead | 303 | 6020 | 335 | 556 |
| Mercury | 195 | 3.3 | 0.15 | 0.291 |
| Silver | 136 | 148 | 1.3 | 2.612 |
| Zinc | 330 | 56100 | 1278 | 2761 |

Group A compounds were detected in 247 samples with a maximum level at 300 mg/kg. This data distribution yields a 75th percentile of 1.075 mg/kg and a 95th UCL of 2.448 mg/kg. Group B compounds were detected in 270

samples with a maximum level at 780 mg/kg. The 75th percentile of Group B compounds is 2.488 mg/kg and the 95th UCL is 5.997 mg/kg. Similar analysis was performed for Lead, Mercury, Silver and Zinc. Their 75th percentiles are 335, 0.15, 1.3 and 1278 mg/kg, respectively. The 95th UCLs of these four metals are 556, 0.291, 2.612 and 2761, respectively. These 95th UCL values are selected as the Acceptance Criteria of the corresponding parameters. Details of relevant statistical analysis are provided in **Exhibit 3,** 95th UCL Analysis.

The variance is not a means to maximize the concentration of Site-wide contaminants being used for the Interim Cap. Interim Cap materials will not include materials decontaminated, manufactured or blended from different Donor Sites to measure just up to the limits of the proposed variance Acceptance Criteria. Ten percent of Interim Cap material will be sourced from a single Donor Site that has been identified and approved for use by the LSRP (see **Exhibit 5**, LSRP Approval Letter). This material has Site-wide SVOC and metal concentrations that meet NJDEP Direct Contact Residential Soil Remediation Standards. The variance is necessary as Donor Sites can have incidences of anomalous outlier data that would skew otherwise suitable Interim Cap material to become statistically incapable of meeting the Acceptance Criteria.

Given all of the factors presented above, it is not expected that the overall, cumulative Site-wide contaminant concentrations in Donor Site material used at the time of completion of the Interim Cap will near the corresponding 95th UCL threshold Acceptance Criteria. The statistical analysis of all of the Interim Cap material sample data will be provided to the Department as verification of this fact at the conclusion of the remediation. Moreover, the use of the 95th UCL was developed by the USEPA to be a verifiable and reproducible means of evaluating environmental data. Thus, the variance will not create a situation wherein the contaminant in the Alternative Fill of the Interim Cap is higher than what exists at the Site, in general, across the Site.

### 1.4.2. *Variance Benefits*

The use of the 95th UCL for deriving an Alternative Fill Acceptance Criteria for Interim Cap material requires a variance from the SRP standards, specifically, 7:26E Section 5.2 b (2). Utilization of a more representative and defined threshold limit Acceptance Criteria of Site-Wide contaminants in Alternative Fill for Interim Cap material will provide the public with benefits as discussed below.

Utilization of a more representative and defined Acceptance Criteria of Site-Wide contaminants in Alternative Fill for Interim Cap material will provide for a larger population of potential Donor Sites. Currently, there are at least twenty SRP sites in the region that are competing for Donor Site materials (this does not include out-of-

state demand). The increase in supply will satisfy the demand for Interim Cap materials and expedite its construction. The earthen protective cap, which includes an Interim Cap and Final Cap, is the chosen remedy to protect the surrounding community from the existing on-site chemical contamination.

Expediting the redevelopment of the Site in accordance with plans filed and approved by the Township of Florence will also work to revitalize the Site so it can be an asset to the community (see **Exhibit 4**, Letter from Township of Florence). The revitalization will generate high level, industrial, tax base that can be utilized by the community for schools, emergency services and other quality of life enhancements. Additionally, it will create many new employment opportunities and will work to increase property values locally.

Furthermore, the expedited construction of the cap will more rapidly protect the ecological resources of the Site and surrounding areas. This includes any impacts to wildlife, groundwater, air and surface water quality.

# 2. Earthen Protective Cap Material Vetting Procedures

## 2.1. Review Engineer

IE has been retained as the designated entity responsible for vetting and quality control of proposed Donor Sites and earthen protective cap materials, in accordance with the procedures outlined in this section. The IE review team will include, at minimum, a project manager, materials analysts, and a New Jersey licensed Professional Engineer (collectively referred to herein as the "Review Engineer"). IE maintains a $23 million insurance policy that sits over Professional Liability (errors and omissions) and Pollution Legal Liability individual coverages (see **Exhibit 6**, Impact Environmental Certificate of Insurance). The Review Engineer will maintain documentation related to proposed source review, technical justifications, and other relevant environmental data pertaining to protective cap material importation. The data collected and approved by the Review Engineer will be submitted to the LSRP of record, who will serve as the NJDEP Program Representative, for final approval (Section 2.7).

## 2.2. Vetting of Donor Sites

With the exception of proposed soil or aggregate products from a vetted permitted NJDEP Class B Recycling Facility, proposed earthen protective cap material from Donor Sites will be subject to a vetting process to determine suitability for beneficial reuse and compliance with NJDEP requirements. Donor Sites under consideration will be required to submit a Donor Compliance Package ("DCP") for proposed earthen protective cap material, including certified laboratory report, available site environmental investigation reports, available site geotechnical investigation reports, relevant statistical analysis of sample results (e.g., 95$^{th}$ UCL), and a completed Donor Source Profile (included as **Exhibit 7**). The Donor Source Profile will be signed by the generator to provide and certify the proposed quantity of earthen protective cap material, the physical and chemical characteristics of the material, history of the Donor Site, environmental regulatory involvement, and available reports/sample data.

As part of each DCP review, the Review Engineer will evaluate the environmental setting of each proposed Donor Site by: 1) reviewing laboratory analysis; 2) obtaining additional chemical testing consistent with the Fill Material Guidance for SRP Sites (Version 3.0, issued April 2015); 3) inspecting the Donor Site (if/as needed); and 4) reviewing relevant database. Following review of a suitable Donor Site source, IE will issue an approval letter

to the generator for proposed protective cap material meeting Site-specific criteria and NJDEP requirements. This approval letter will bear the seal of a licensed Professional Engineer.

## 2.3. Chemical Acceptance Criteria

Like-on-like evaluation at the Site is fully incorporated into this MAP (**Table 1**), based on analysis of sample results from over 300 upland soil SI and RI activities conducted by AECOM and IE to date utilizing the 95$^{th}$ UCL methodology, to establish chemical constituent concentrations allowed for proposed Interim Cap material ("Acceptance Criteria"). No material will be approved for import to the Site that is classified as hazardous by definition or by characteristics under the Resource Conservation and Recovery Act (RCRA) or Toxic Substances Control Act (TSCA).

## 2.4. Physical Acceptance Criteria

Earthen protective cap material will be physically consistent with existing Site characteristics, and will be free of municipal solid waste ("MSW"), putrescible wastes, free liquids/product, vegetation wastes, friable asbestos wastes, medical/bio-hazard wastes, and special/universal wastes. Earthen protective cap material may be subject to conformance with additional physical or geotechnical specifications (in accordance with testing protocols herein) as defined outside of this document, or as appended to this document following NJDEP review and approval.

## 2.5. Chemical Testing Protocols

Chemical testing will be performed at proposed Donor Sites by IE, an agent or representative designated/contracted by IE, the generator, or a third-party environmental engineer or consultant contracted by the generator (collectively, the "Testing Entity"). Sampling may be conducted ex-situ from cordoned-off ("closed") stockpiles, or in-situ using test pits or soil borings collected from demarcated boxes of fixed volumes over the proposed excavation area. Default sampling frequency will be consistent with the Fill Material Guidance for SRP dated April 2015. Sampling will be performed following protocols in the *NJDEP Field Sampling Procedures Manual* (August 2005), and as discussed in the Fill Material Guidance for SRP Sites, including proper decontamination and sample preservation methods, and shipped under chain-of-custody documentation to an

NJDEP-certified laboratory for analyses. Samples should be analyzed in accordance with USEPA Target Compound List/Target Analyte List parameters plus 30 non-targeted organic compounds (TCL/TAL+30), including semi-volatile organic compounds (SVOCs), PCBs, pesticides/herbicides, metals, and extractable petroleum hydrocarbons (EPH), and volatile organic compounds (VOCs).

The LSRP of record or the designated Review Engineer may also require or allow a modified sampling methodology (such as adjusted sample collection frequency, use of composites samples in place of discrete, additional QA/QC sampling and reporting, additional sampling at the Donor Site or incoming loads prior to placement, or modified/supplemental analytical parameters) on a case-by-case basis, based on Donor Site considerations such as site-specific conditions, homogeneity, or environmental setting and site history. In other cases, the LSRP or Review Engineer may be provided with a DCP including sample analyses that lack results for certain individual parameters for comparison against the Acceptance Criteria, but that otherwise allows for satisfactory characterization of the chemical nature of the donor material. In either case, the LSRP or Review Engineer will document the technical justification for approving the donor material for Site importation.

## 2.6. Geotechnical Testing Protocols

Geotechnical testing of proposed earthen protective cap materials will be required if deemed necessary by the Review Engineer, earthen protective cap material placement contractor, Site owner, or owner's geotechnical or structural engineer. Testing requirements will be implemented as needed to ensure that proposed protective cap material will be suitable for placement logistics, proper slope stabilization and compaction, Site safety, structural / geotechnical specifications for planned Site development, protection of the public health and environment, and compliance with NJDEP and Florence Township requirements. If required, the Testing Entity will collect geotechnical samples at a default sampling frequency of one (1) composite sample per 5,000 cubic yards of proposed donor material, for shipment under chain-of-custody documentation to a certified materials testing laboratory for gradation analyses using ASTM Method D-421/422. Earthen protective cap material may be subject to conformance with additional physical or geotechnical testing as further established outside of this document, or as appended to **EXHIBIT 5** following NJDEP review and approval.

## 2.7. Final Approvals

When the Review Engineer has completed the vetting process for a Donor Site, notice will be sent to the NJDEP Program Representative for final determination of environmental suitability of the proposed earthen protective cap material. The notice will include a written approval and all supporting documentation used in the decision. The notice will also bear the seal of a licensed Professional Engineer. The NJDEP Program Representative will review the notice and provide a confirmation approval letter within fourteen (14) days. Such documentation will be provided to NJDEP in a final Remedial Action Report (RAR) detailing the construction of the earthen protective cap, and will otherwise be made available to the NJDEP on an interim basis upon request.

# 3. Quality Controls, Monitoring, and Site Protective Measures

IE will implement Best Management Practices (BMPs) and Quality Control measures at the Site during protective cap material importation activities to ensure: 1) protection of human health and the environment, 2) accountability of earthen protective cap materials from receipt at each Donor Site through material placement at the Site, 3) compliance with permits, codes, regulations, guidance and other requirements for the Site established by NJDEP, Florence Township, and other agencies with jurisdiction over protective cap material importation and placement activities, and 4) establishment of proper contingency plans.

## 3.1. Site Controls

### 3.1.1. *Soil Erosion & Sediment Control Certification and Stormwater Permits*

The Site is currently subject to an Administrative Consent Order ("ACO"), which outlines specific testing requirements and BMPs to meet specific chemical discharge limits, including hydraulic control of stormwater, treatment (as required), and limitation of discharge to a single outfall.

To address soil disturbances during the planned capping activities, a new Soil Erosion and Sediment Control Plan ("SESCP") application package has been prepared in accordance with *The Standards for Soil Erosion and Sediment Control in New Jersey*, and submitted to the Burlington County Soil Conservation District for review and comment. Upon Certification of the SESCP by the County, and pending submittal of the planned Remedial Action Workplan (RAW) for the Site, a Request for Authorization ("RFA") will be submitted to NJDEP to replace coverage under the ACO to coverage under the 5G3 NJPDES General Permit (for Stormwater during Construction Activities for soil disturbances greater than 1 acre in size), and a Stormwater Pollution Prevention Plan (SPPP) will be prepared. Once received, documentation for the SESCP and NJPDES Permit approvals will be appended to this MAP in **Exhibit 8**.

### 3.1.2. *Stormwater Monitoring and Controls*

The attached engineering plan drawings (EXHIBIT 1), the current ACO, and the pending certified SESCP, NJPDES 5G3 permit (if applicable), and SPPP include detailed measures to monitor and control soil erosion, sediment

migration, stormwater quality and drainage for the entire Site during earthen protective cap material importation/cap construction and post-construction.

During construction soil disturbances, implementation of stormwater controls may include such measures as silt-fence, hay bales, sedimentation basins, erosion control matting, cessation of protective cap material unloading during heavy rain events (greater than 1-inch per hour), and temporary cover of uncontrolled material piles during rain events. Erosion and sedimentation control measures will be subject to SPPP inspections and maintenance on a weekly basis and after each period of significant rainfall. In addition, the existing detention basin and sand filter will be maintained to the extent and duration required under the ACO (and future NJPDES 5G3 Permit, if applicable) to achieve Site-wide stormwater drainage control and to meet effluent discharge criteria for the Site. Final post-construction stabilization of the capped areas will include properly compacted and leveled/graded relief covered with a combination of paved surfaces, building foundation/slab elements, and unpaved areas with a minimum of 6-inches of acceptable topsoil, free of debris, that is stabilized with new vegetative plantings. Final stormwater quality and drainage features will be implemented to meet NJDEP and USACE requirements, as shown in the attached plans.

### 3.1.3. *Fugitive Airborne Particulate (Dust) Monitoring and Controls*

The IE Project Safety Team will measure airborne particulate concentrations during protective cap material importation and material handling activities at the nearest downwind property-line on a continuous basis, and at upwind locations, as needed. The measurements will be made using portable particulate monitoring devices equipped with an audible alarm (Thermo Scientific™ ADR1500 Area Dust Monitor or equivalent model) capable of detecting airborne particulate less than 10 micrometers in size (PM-10) at concentrations ranging from 1 to 1000 micrograms per cubic meter ($\mu g/m^3$). Monitoring results will be automatically logged in 15-minute time averaged intervals in the instrument memory and downloaded periodically to maintain Site records.

In the event that Soil disturbances (from protective cap material importation and handling activities) result in a total downwind 15-minute average PM-10 particulate level that is 100 $\lceil g/m^3$ greater than background concentrations at the upwind perimeter, or if visible airborne dust is observed leaving the work area, soil disturbing work activities will be halted and the dust suppression techniques presented herein will be employed. Activities will not resume until mitigation results in a net downwind PM-10 particulate concentration of less than 150 $\mu g/m^3$ above background.

If downwind PM-10 particulate levels are greater than 150 µg/$m^3$ above the upwind level after implementation of dust suppression measures, work will be stopped and a re-evaluation of dust suppression and work activities will be initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 µg/$m^3$ of the upwind level and in preventing visible dust migration.

Measures for controlling fugitive dust emissions may include the following:

- Enforcement of an on-Site truck speed limit set at 15 miles per hour.
- Wetting or misting exposed protective cap material in unloading areas and placement areas with potable water.
- Coverage of uncontrolled exposed protective cap material piles with tarps or poly sheeting during extended periods of inactivity.
- Halting unloading and placement activities when winds exceed 40 miles per hour.
- Centralization of protective cap material unloading areas to increase the distance to the downwind property boundary.
- Installation of wind-screen fencing.

### *3.1.4. Vehicle Transportation and Unloading Controls*

Earthen protective cap materials will be transported to the Site by permitted and insured transportation companies, in vehicles that are in good working order and that meet current diesel emission control requirements, in accordance with NJDEP and Department of Transportation (DOT) regulations. Truckers will transport loads under tarped covers, and will be required to follow DOT truck routes to the Site and to use local roads and approaches to the Site that are acceptable to Florence Township. Each load brought to the Site will be accompanied by a manifest signed by the generator and driver that identifies the material, site of origin, and truck information. Site security is provided by fencing along the Site perimeter, and truck access to the Site will be restricted to a single gated entrance. Trucks entering the Site will be directed to proceed over a certified scale upon arrival at the Site, to allow for review of transport charters (manifests), followed by visual inspection and instrumental (e.g., photo-ionization detector, abbreviated as “PID”) vetting of load materials prior to issuance of a certified weight ticket and dumping. Loads will be inspected again during unloading. Instrumental screening will be performed to examine discrepancies between PID readings obtained at the Donor Site versus those

obtained at the scale. Trucks with loads that are not approved, inconsistent with physical characteristics of expected protective cap material, or are otherwise not in conformance, will be rejected, documented in a rejection log, and sent back to the Site of origin prior to dumping, or will trigger an applicable contingency plan measure outlined in the following sections. Trucks will exit the Site over a coarse aggregate tracking pad to shake loose soils from the truck tires and body, and will proceed through a wash station prior to leaving the site. IE will monitor the adjacent streets for soil spillage and deploy street cleaning measures as needed.

## 3.2. Administrative Controls

### 3.2.1. *Load Tracking*

Each day prior to scheduled transportation of earthen protective cap materials from a given Donor Site, the Review Engineer will email a *Transportation and Disposal Notification* to the owner, material placement contractor, Project Safety Team, and other required parties. The notification will include the IE project number, Donor Site address, material type (code), receiving site, trucking company, number of trucks and rounds scheduled, start time, managing company, and a job type code assigned by Impact (**Exhibit 9**, Sample Transportation and Disposal Notification).

Trucks scheduled to import earthen protective cap material will be provided with a transport charter for each load to act as a transportation manifest. The charters are printed on sequentially numbered five-part carbonless forms consisting of white, yellow, pink, goldenrod and blue sheets (see **Exhibit 10**, Transportation Charter). Before each loaded truck leaves the Donor Site, the respective truck driver will complete and execute *Section 1* of the charter and the generator will complete and execute *Section 2* of the charter. The Project Safety Team will fill out *Section 3* of the charter at the Site following inspection, weighing and unloading of the earthen protective cap material. The generator will retain the blue sheet of the charter for its records prior to the truck leaving the Donor Site, and the transporter will retain the goldenrod sheet after crossing the scale at the Site.

The Project Safety Team will retain the remaining executed sheets (white, yellow, pink) of the charter at the Site, which will in turn be paired to a numbered two-part weight receipt from a certified scale located at the project. The Project Safety Team will retain a duplicate of the weight ticket for reconciliation, and the pink sheet of the charter. Following reconciliation, the generator will be provided with the yellow sheet of the charter and the second part of the weight ticket. IE will retain the white sheet of the charter and a photocopy of the weight

ticket as corporate records. Manifests and weight tickets will be provided as backup in the RAR submitted to NJDEP, and are available on an interim basis to be transmitted to NJDEP upon request.

The charters of all trucks arriving from the project will be reviewed at the weigh scale prior to any other activities (i.e. inspection or tipping). Rejected loads of materials arriving at the project will be documented in a rejection log.

#### 3.2.2. *On-Site Scale Protocols*

Trucks entering the Site will proceed across a certified scale prior to unloading, and all trucks will require an empty (tare) weight reading during initial Site visit and at set intervals thereafter to maintain quality control. Each project scale operators will maintain a valid public Weigh Master license. A scale calibration notification will be automatically prompted by computer on a monthly basis, and will be implemented as required.

### 3.3. Contingency Plans

The Contingency Plans included below have been designed to address unacceptable materials that could be encountered as part of earthen protective cap material importation and placement activities, by establishing criteria for implementation and alternative handling procedures for such materials.

#### 3.3.1. *Non-Compliant Material Plan*

In the event of identification of imported earthen protective cap material of unknown source placed at the Site that is not physically or chemically acceptable pursuant to the Site approval criteria, it will be characterized and submitted under application to an alternate disposal or beneficial reuse facility that is permitted to accept the material. Currently the alternate disposal facility is identified as Phase III Environmental located at 1120 Mauch Chunk Road, Palmerton, Pennsylvania, and may be subject to change based on characteristics of the non-complaint material and available alternate facility options at the time. Upon receipt of approval to dispose, the material will be loaded into permitted trucks and shipped to the facility under a new transport charter. This contingency will include documentation of the incident and corrective measures taken, and notification to NJDEP.

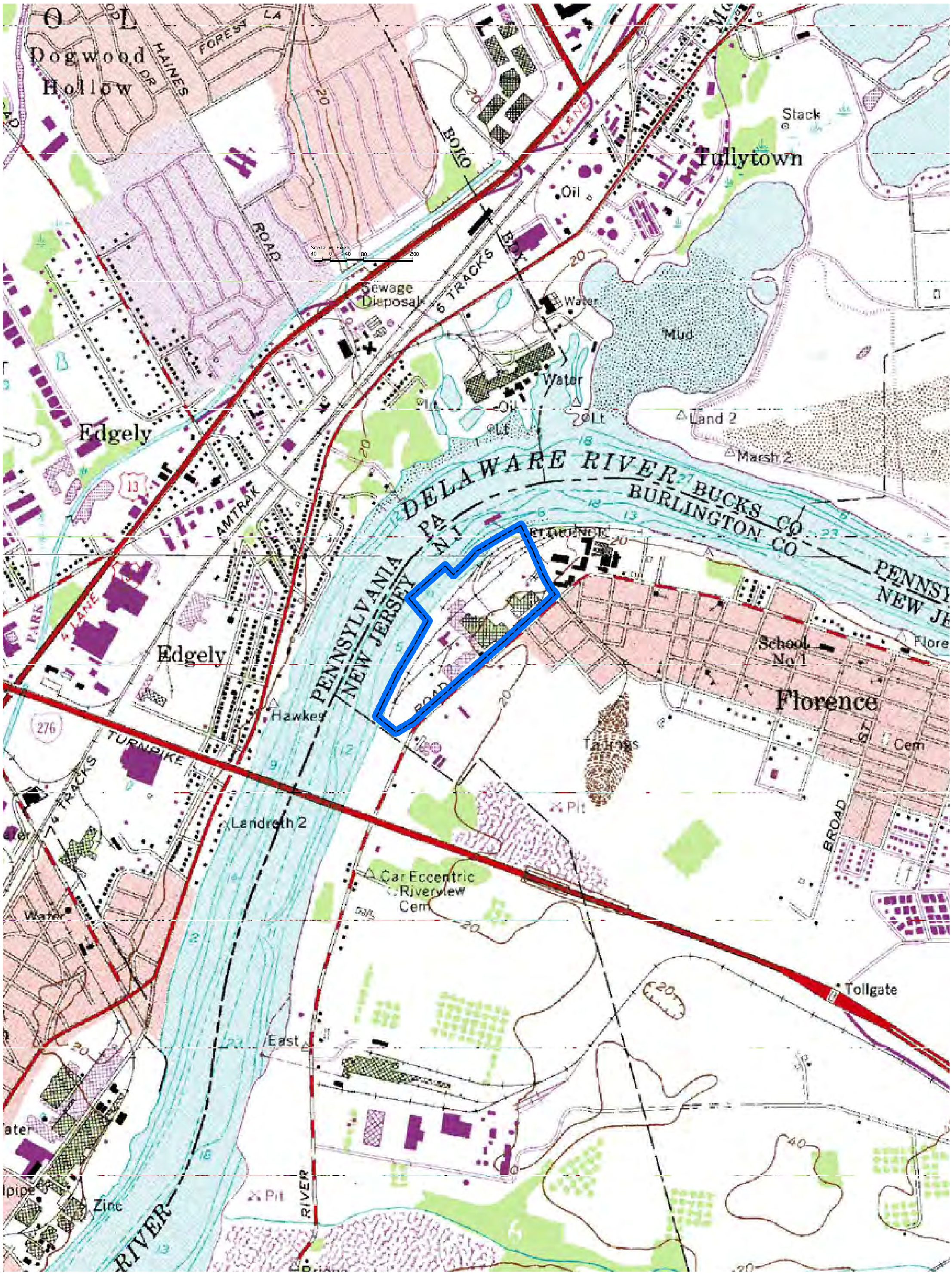
### 3.3.2. *Trucking Temporal Disparity Evaluation Plan*

In the event that the Project Safety Team has determined that a vehicle has taken an excessive period of time to arrive at the project from the source location, the occurrence will be documented and the truck driver and transportation company management will be contacted to provide written justification of the temporal disparity. If the cause is deemed justified, the earthen protective cap material will be accepted at the Site and inspected as required before unloading. Otherwise, the vehicle will be rejected and the load will be returned to the source location following notification to the generator.

### 3.3.3. *Failed Inspection Plan*

Where the Review Engineer or Project Safety Team has determined that a vehicle load contains non-compliant, unexpected, or otherwise unacceptable materials, or suspects that the truck load has been altered, replaced or added to in any way, the material will be rejected and the vehicle and the load will be returned to the Donor Site following notification to the generator. If rejection occurs after unloading at the Site, the unloaded truck will be re-loaded with the same material using on-site equipment and transported back to the Donor Site.

# FIGURES




## LEGEND

PROJECT BOUNDARY

## SOURCE

USGS 7.5-MINUTE QUADRANGLE, BRISTOL, PA AND TRENTON WEST, NJ

# PROJECT LOCATION MAP

| | |
|---|---|
| PROJECT # | FLO |
| FIGURE # | 1 |

110 WEST FRONT STREET
FLORENCE, NJ

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | JR |
| DATE: | 10/28/2015 |
| SCALE: | SEE GRAPHIC |


**IMPACT ENVIRONMENTAL**

170 KEYLAND COURT
BOHEMIA, NEW YORK 11716
TEL (631) 269-8800 FAX (631) 269-1599

1000 PAGE, AVENUE
LYNDHURST, NEW JERSEY 07071
TEL (201) 268-5686 FAX (631) 269-1599

# TABLES

**TABLE 1 Site Specific Acceptance Criteria**

| CAS Number | Parameter Name | Parameter ID | NJ Impact to GW Soil Screening Level | NJ RDCSRS 2012 | NJ NRDCSRS 2012 | Griffin Pipe Alternate Acceptance Criteria |
|---|---|---|---|---|---|---|
| | Unit | | *mg/kg* | *mg/kg* | *mg/kg* | *mg/kg* |
| 71-55-6 | 1,1,1-Trichloroethane | VOC | 0.3 | 290 | 4200 | 0.3 |
| 79-34-5 | 1,1,2,2-Tetrachloroethane | VOC | 0.007 | 1 | 3 | 0.007 |
| 79-00-5 | 1,1,2-Trichloroethane | VOC | 0.02 | 2 | 6 | 0.02 |
| 75-34-3 | 1,1-Dichloroethane | VOC | 0.2 | 8 | 24 | 0.2 |
| 75-35-4 | 1,1-Dichloroethene | VOC | 0.008 | 11 | 150 | 0.008 |
| 96-12-8 | 1,2-Dibromo-3-Chloropropane | VOC | 0.005 | 0.08 | 0.2 | 0.005 |
| 106-93-4 | 1,2-Dibromoethane | VOC | 0.005 | 0.008 | 0.04 | 0.005 |
| 95-50-1 | 1,2-Dichlorobenzene | VOC | 17 | 5300 | 59000 | 17 |
| 107-06-2 | 1,2-Dichloroethane | VOC | 0.005 | 0.9 | 3 | 0.005 |
| 78-87-5 | 1,2-Dichloropropane | VOC | 0.005 | 2 | 5 | 0.005 |
| 120-82-1 | 1,2,4-Trichlorobenzene | VOC | 0.7 | 73 | 820 | 0.7 |
| 541-73-1 | 1,3-Dichlorobenzene | VOC | 19 | 5300 | 59000 | 19 |
| 542-75-6 | 1,3-Dichloropropene(cis and trans) | VOC | 0.005 | 2 | 7 | 0.005 |
| 106-46-7 | 1,4-Dichlorobenzene | VOC | 2 | 5 | 13 | 2 |
| 78-93-3 | 2-Butanone | VOC | 0.9 | 3100 | 44000 | 0.9 |
| 67-64-1 | Acetone | VOC | 19 | 70000 | NA | 19 |
| 107-02-8 | Acrolein | VOC | 0.5 | 0.5 | 1 | 0.5 |
| 107-13-1 | Acrylonitrile | VOC | 0.5 | 0.9 | 3 | 0.5 |
| 71-43-2 | Benzene | VOC | 0.005 | 2 | 5 | 0.005 |
| 75-27-4 | Bromodichloromethane | VOC | 0.005 | 1 | 3 | 0.005 |
| 75-25-2 | Bromoform | VOC | 0.03 | 81 | 280 | 0.03 |
| 74-83-9 | Bromomethane | VOC | 0.04 | 25 | 59 | 0.04 |
| 75-15-0 | Carbon Disulfide | VOC | 6 | 7800 | 110000 | 6 |
| 56-23-5 | Carbon Tetrachloride | VOC | 0.005 | 0.6 | 2 | 0.005 |
| 108-90-7 | Chlorobenzene | VOC | 0.6 | 510 | 7400 | 0.6 |
| 124-48-1 | Chlorodibromomethane | VOC | 0.005 | 3 | 8 | 0.005 |
| 75-00-3 | Chloroethane | VOC | NA | 220 | 1100 | 220 |
| 67-66-3 | Chloroform | VOC | 0.4 | 0.6 | 2 | 0.4 |
| 74-87-3 | Chloromethane | VOC | NA | 4 | 12 | 4 |
| 156-59-2 | cis-1,2-Dichloroethene | VOC | 0.3 | 230 | 560 | 0.3 |
| 75-71-8 | Dichlorodifluoromethane | VOC | 39 | 490 | 230000 | 39 |
| 100-41-4 | Ethylbenzene | VOC | 13 | 7800 | 110000 | 13 |
| 79-20-9 | Methyl Acetate | VOC | 22 | 78000 | NA | 22 |
| 75-09-2 | Methylene Chloride | VOC | 0.01 | 34 | 97 | 0.01 |
| 1634-04-4 | Methyl Tert-Butyl Ether | VOC | 0.2 | 110 | 320 | 0.2 |
| 100-42-5 | Styrene | VOC | 3 | 90 | 260 | 3 |
| 75-65-0 | Tertiary Butyl Alcohol | VOC | 0.3 | 1400 | 11000 | 0.3 |
| 127-18-4 | Tetrachloroethene | VOC | 0.005 | 2 | 5 | 0.005 |
| 108-88-3 | Toluene | VOC | 7 | 6300 | 91000 | 7 |
| 1330-20-7 | Total Xylenes | VOC | 19 | 12000 | 170000 | 19 |
| 156-60-5 | trans-1,2-Dichloroethene | VOC | 0.6 | 300 | 720 | 0.6 |
| 79-01-6 | Trichloroethene | VOC | 0.01 | 7 | 20 | 0.01 |
| 75-69-4 | Trichlorofluoromethane | VOC | 34 | 23000 | 340000 | 34 |
| 75-01-4 | Vinyl Chloride | VOC | 0.005 | 0.7 | 2 | 0.005 |

**TABLE 1 Site Specific Acceptance Criteria**

| CAS Number | Parameter Name | Parameter ID | NJ Impact to GW Soil Screening Level | NJ RDCSRS 2012 | NJ NRDCSRS 2012 | Griffin Pipe Alternate Acceptance Criteria |
|---|---|---|---|---|---|---|
| | Unit | | *mg/kg* | *mg/kg* | *mg/kg* | *mg/kg* |
| 92-52-4 | 1-1- Biphenyl | SVOC | 140 | 3100 | 34000 | 140 |
| 92-87-5 | Benzidine | SVOC | 0.7 | 0.7 | 0.7 | 0.7 |
| 91-20-3 | Naphthalene | SVOC | 25 | 6 | 17 | 6 |
| 87-68-3 | Hexachlorobutadiene | SVOC | 0.9 | 6 | 25 | 0.9 |
| 122-66-7 | 1,2- Diphenylhydrazine | SVOC | 0.7 | 0.7 | 2 | 0.7 |
| 95-95-4 | 2,4,5-Trichlorophenol | SVOC | 68 | 6100 | 68000 | 68 |
| 88-06-2 | 2,4,6-Trichlorophenol | SVOC | 0.2 | 19 | 74 | 0.2 |
| 102-83-2 | 2,4-Dichlorophenol | SVOC | 0.2 | 180 | 2100 | 0.2 |
| 105-67-9 | 2,4-Dimethylphenol | SVOC | 1 | 1200 | 14000 | 1 |
| 51-28-5 | 2,4-Dinitrophenol | SVOC | 0.3 | 120 | 1400 | 0.3 |
| 121-14-2 | 2,4-Dinitrotoluene | SVOC | NA | 0.7 | 3 | 0.7 |
| 606-20-2 | 2,6-Dinitrotoluene | SVOC | NA | 0.7 | 3 | 0.7 |
| 95-57-8 | 2-Chlorophenol | SVOC | 0.8 | 310 | 2200 | 0.8 |
| 91-57-6 | 2-Methylnaphthalene | SVOC | 8 | 230 | 2400 | 8 |
| 95-48-7 | 2-Methylphenol | SVOC | NA | 310 | 3400 | 310 |
| 88-74-4 | 2-Nitroaniline | SVOC | NA | 39 | 23000 | 39 |
| 91-94-1 | 3,3-Dichlorobenzidine | SVOC | 0.2 | 1 | 4 | 0.2 |
| 534-52-1 | 4,6-Dinitro-2-methylphenol | SVOC | 0.3 | 6 | 68 | 0.3 |
| 106-44-5 | 3&4-Methylphenol | SVOC | NA | 31 | 340 | 31 |
| 83-32-9 | Acenaphthene | SVOC | 110 | 3400 | 37000 | 110 |
| 208-96-8 | Acenaphthylene | SVOC | NA | NA | 300000 | 300000 |
| 98-86-2 | Acetophenone | SVOC | 3 | 2 | 5 | 2 |
| 120-12-7 | Anthracene | SVOC | 2400 | 17000 | 30000 | 2400 |
| 1912-24-9 | Atrazine | SVOC | 0.2 | 210 | 2400 | 0.2 |
| 100-52-7 | Benzaldehyde | SVOC | NA | 6100 | 68000 | 6100 |
| 56-55-3 | Benzo-a-Anthracene | SVOC | 0.8 | 0.6 | 2 | 5.997 (B) |
| 50-32-8 | Benzo-a-Pyrene | SVOC | 0.2 | 0.2 | 0.2 | 2.448 (A) |
| 205-99-2 | Benzo-b-Fluoranthene | SVOC | 2 | 0.6 | 2 | 5.997 (B) |
| 207-08-9 | Benzo-k-Fluoranthene | SVOC | 25 | 6 | 23 | 6 |
| 191-24-2 | Benzo-g,h,i-Perylene | SVOC | NA | 380000 | 30000 | 30000 |
| 111-44-4 | Bis(2-Chloroethyl)ether | SVOC | 0.2 | 0.4 | 2 | 0.2 |
| 108-60-1 | Bis(2-Chloroisopropyl)ether | SVOC | 5 | 23 | 67 | 5 |
| 117-81-7 | Bis(2-Ethylhexyl)Phthalate | SVOC | 1200 | 35 | 140 | 35 |
| 85-68-7 | Butylbenzylphthalate | SVOC | 230 | 1200 | 14000 | 230 |
| 105-60-2 | Caprolactam | SVOC | 12 | 31000 | 340000 | 12 |
| 86-74-8 | Carbazole | SVOC | NA | 24 | 96 | 24 |
| 218-01-9 | Chrysene | SVOC | 80 | 62 | 230 | 62 |
| 53-70-3 | Dibenzo-a,h-Anthracene | SVOC | 0.8 | 0.2 | 0.2 | 2.448 (A) |
| 84-66-2 | Diethyl Phthalate | SVOC | 88 | 49000 | 550000 | 88 |
| 84-74-2 | Di-n-Butyl Phthalate | SVOC | 760 | 6100 | 68000 | 760 |
| 25321-14-6 | Dinitrotoluene(2,4-/2,6-) | SVOC | 0.2 | 0.7 | 3 | 0.2 |
| 117-84-0 | Di-n-Octyl Phthalate | SVOC | 3300 | 2400 | 27000 | 2400 |
| 206-44-0 | Fluoranthene | SVOC | 1300 | 2300 | 24000 | 1300 |
| 86-73-7 | Fluorene | SVOC | 170 | 2300 | 24000 | 170 |
| 118-74-1 | Hexachlorobenzene | SVOC | 0.2 | 0.3 | 1 | 0.2 |
| 77-47-4 | Hexachlorocyclopentadiene | SVOC | 320 | 45 | 110 | 45 |
| 67-72-1 | Hexachloroethane | SVOC | 0.2 | 35 | 140 | 0.2 |
| 193-39-5 | Indeno(1,2,3-cd)Pyrene | SVOC | 7 | 0.6 | 2 | 5.997 (B) |
| 78-59-1 | Isophorone | SVOC | 0.2 | 510 | 2000 | 0.2 |
| 98-95-3 | Nitrobenzene | SVOC | 0.2 | 31 | 340 | 0.2 |
| 62-75-9 | N-Nitrosodimethylamine | SVOC | 0.7 | 0.7 | 0.7 | 0.7 |
| 621-64-7 | N-Nitroso-di-n-Propylamine | SVOC | 0.2 | 0.2 | 0.3 | 0.2 |
| 86-30-6 | N-Nitrosodiphenylamine | SVOC | 0.4 | 99 | 390 | 0.4 |
| 87-86-5 | Pentachlorophenol | SVOC | 0.3 | 3 | 10 | 0.3 |
| 85-01-8 | Phenanthrene | SVOC | NA | NA | 300000 | 300000 |
| 108-95-2 | Phenol | SVOC | 8 | 18000 | 210000 | 8 |
| 129-00-0 | Pyrene | SVOC | 840 | 1700 | 18000 | 840 |

# TABLE 1 Site Specific Acceptance Criteria

| CAS Number | Parameter Name | Parameter ID | NJ Impact to GW Soil Screening Level | NJ RDCSRS 2012 | NJ NRDCSRS 2012 | Griffin Pipe Alternate Acceptance Criteria |
|---|---|---|---|---|---|---|
| | Unit | | *mg/kg* | *mg/kg* | *mg/kg* | *mg/kg* |
| 72-54-8 | 4,4-DDD | PESTICIDE | 4 | 3 | 13 | 3 |
| 72-55-9 | 4,4-DDE | PESTICIDE | 18 | 2 | 9 | 2 |
| 50-29-3 | 4,4-DDT | PESTICIDE | 11 | 2 | 8 | 2 |
| 309-00-2 | Aldrin | PESTICIDE | 0.2 | 0.04 | 0.2 | 0.04 |
| 319-84-6 | alpha-BHC | PESTICIDE | 0.002 | 0.1 | 0.5 | 0.002 |
| 5103-71-9 | Alpha Chlordane | PESTICIDE | NA | 0.7 | NA | 0.7 |
| 319-85-7 | beta-BHC | PESTICIDE | 0.002 | 0.4 | 2 | 0.002 |
| 57-74-9 | Chlordane | PESTICIDE | 0.05 | 0.2 | 1 | 0.05 |
| 60-57-1 | Dieldrin | PESTICIDE | 0.003 | 0.04 | 0.2 | 0.003 |
| 115-29-7 | Endosulfan | PESTICIDE | 4 | 470 | 6800 | 4 |
| 1031-07-8 | Endosulfan Sulfate | PESTICIDE | 2 | 470 | 6800 | 2 |
| 72-20-8 | Endrin | PESTICIDE | 1 | 23 | 340 | 1 |
| 58-89-9 | gamma-BHC | PESTICIDE | 0.002 | 0.4 | 2 | 0.002 |
| 76-44-8 | Heptachlor | PESTICIDE | 0.5 | 0.1 | 0.7 | 0.1 |
| 1024-57-3 | Heptachlor Epoxide | PESTICIDE | 0.01 | 0.07 | 0.3 | 0.01 |
| 72-43-5 | Methoxychlor | PESTICIDE | 160 | 390 | 5700 | 160 |
| 8001-35-2 | Toxaphene | PESTICIDE | 0.3 | 0.6 | 3 | 0.3 |
| 1336-36-3 | Polychlorinated Biphenyls | PCBs | 0.2 | 0.2 | 1 | 0.2 |
| 7429-90-5 | Aluminum, Al | METAL | 6,000 | 78,000 | NA | 6,000 |
| 7440-36-0 | Antimony, Sb | METAL | 6 | 31 | 450 | 6 |
| 7440-38-2 | Arsenic, As | METAL | 19 | 19 | 19 | 19 |
| 7440-39-3 | Barium, Ba | METAL | 2,100 | 16,000 | 59,000 | 2,100 |
| 7440-41-7 | Beryllium, Be | METAL | 0.7 | 16 | 140 | 0.7 |
| 7440-43-9 | Cadmium, Cd | METAL | 2.0 | 78 | 78 | 2.0 |
| 7440-47-3 | Chromium, Cr | METAL | NA | NA | NA | NA |
| 18540-29-9 | Chromium, hexavalent | METAL | NA | 240; ACD | 20 | 20 |
| 16065-83-1 | Chromium, trivalent | METAL | NA | 120,000 | NA | 120,000 |
| 7440-48-4 | Cobalt, Co | METAL | 90 | 1,600 | 590 | 90 |
| 7440-50-8 | Copper, Cu | METAL | 11,000 | 3,100 | 45,000 | 3,100 |
| 57-12-5 | Cyanide | METAL | 20 | 1,600 | 23,000 | 20 |
| 7439-92-1 | Lead, Pb | METAL | 90 | 400 | 800 | 556 |
| 7439-96-5 | Manganese, Mn | METAL | 65 | 11,000 | 5,900 | 65 |
| 7439-97-6 | Mercury, Hg | METAL | 0.1 | 23 | 65 | 0.291 |
| 7440-02-0 | Nickel, Ni | METAL | 48 | 1,600 | 23,000 | 48 |
| 7782-49-2 | Selenium, Se | METAL | 11 | 390 | 5,700 | 11 |
| 7440-22-4 | Silver, Ag | METAL | 1 | 390 | 5,700 | 2.612 |
| 7440-28-0 | Thallium, Ti | METAL | 3 | 5 | 79 | 3 |
| 7440-62-2 | Vanadium, V | METAL | NA | 78 | 1,100 | 78 |
| 7440-66-6 | Zinc, Zn | METAL | 930 | 23,000 | 110,000 | 2,761 |

Notes
ug/kg = micrograms per kilogram (ppb)
mg/kg = milligrams per kilogram (ppm)
ug/L = micrograms per liter
mg/L = milligrams per liter
ND = Not Detected
NA = Not Analyzed/Not Available

Alternate Acceptance Criteria of bolded parameters are based on 95th UCL analysis.

(A) based on 95th UCL of the sum of Benzo-a-Pyrene and Dibenzo-a,h-Anthracene. The total of these two compounds cannot exceed 2.448 ppm.

(B) based on 95th UCL of the sum of Benzo-a-Anthracene, Benzo-b-Fluoranthene and Indeno(1,2,3-cd)Pyrene. The total of these three compounds cannot exceed 5.997 ppm

# EXHIBITS

**Exhibit 1: Engineering Plan Drawings**

# SOIL IMPORTATION PLANS FOR

# BLOCK 179, LOTS 1.02, 1.03, 1.04 & 1.05

## FLORENCE TOWNSHIP
## BURLINGTON COUNTY, NEW JERSEY

**CONTRACT No. FLGA00020**

### UTILITY OWNERS

GAS & ELECTRIC – PUBLIC SERVICE ELECTRIC & GAS COMPANY
ATTN: MANAGER – CORPORATE PROPERTIES
80 PARK PLAZA, T6B
NEWARK, NJ, 07102

TELEPHONE – VERIZON
ATTN: GENERAL MANAGER
540 BROAD STREET
NEWARK, NJ, 07101

WATER – FLORENCE TOWNSHIP WATER & SEWER DEPARTMENT
C/O JOY M. WEILER, TOWNSHIP CLERK
711 BROAD STREET
FLORENCE, NJ, 08518–2323

SEWER – FLORENCE TOWNSHIP WATER & SEWER DEPARTMENT
C/O JOY M. WEILER, TOWNSHIP CLERK
711 BROAD STREET
FLORENCE, NJ, 08518–2323

CABLE – COMCAST
ATTN: GENERAL MANAGER
1250 HADDONFIELD ROAD
CHERRY HILL, NJ 08034

LOCATION OF UTILITIES SHOWN ON THESE PLANS ARE NOT WARRANTED AS TO EXACTNESS. CONTRACTOR SHALL DETERMINE EXACT LOCATION AND DEPTH OF UTILITIES PRIOR TO CONSTRUCTION IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AND OTHER APPLICABLE LAWS.

PRIOR TO DIGGING CALL 1–800–272–1000

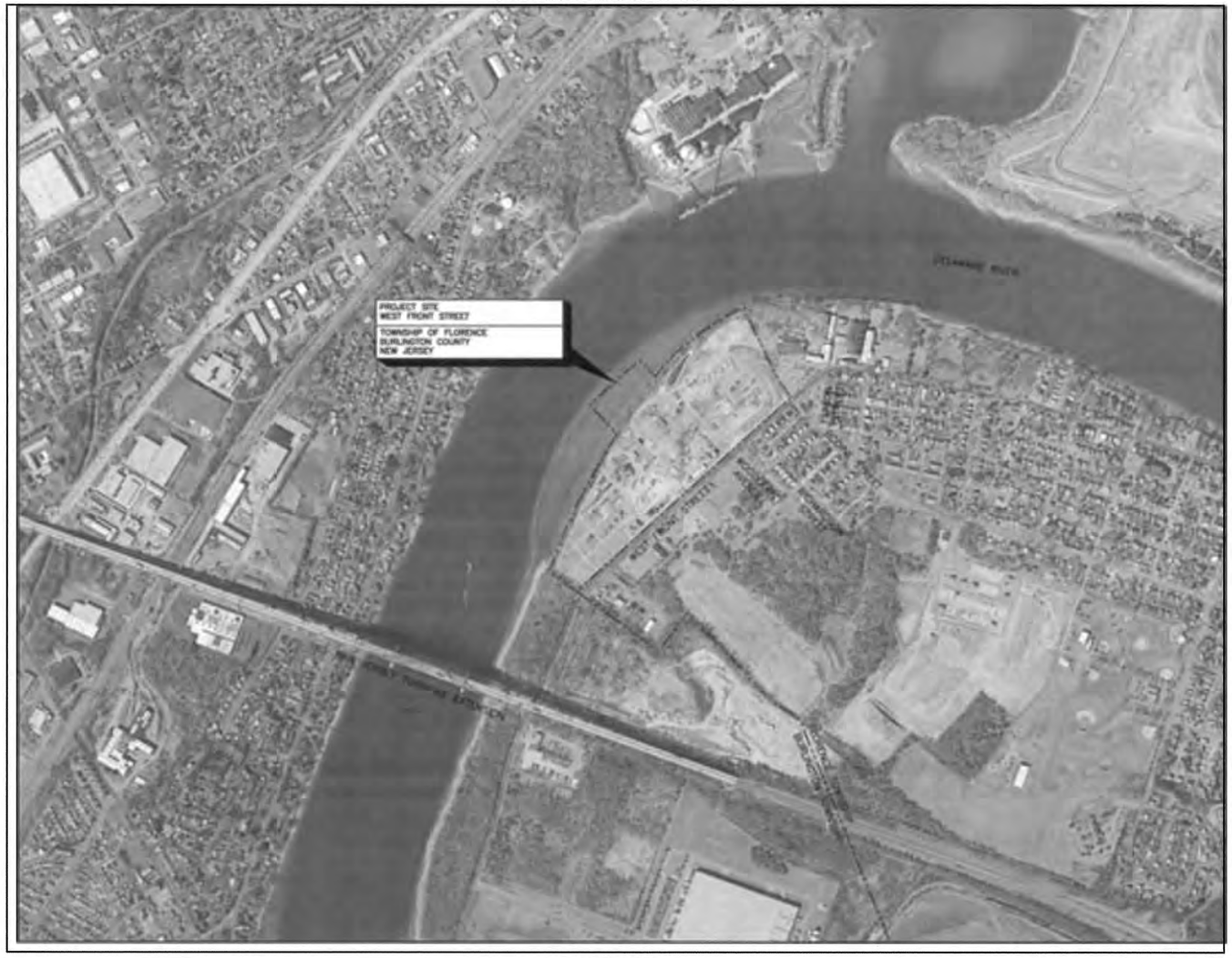
### PERMITS

N.J.D.E.P. FRESHWATER WETLANDS LOI
(PRESENCE/ABSENCE DETERMINATION)
ISSUE DATE: 11/10/2015
N.J.D.E.P. FILE NO. 0315–05–0003.2 (FWW 150002)

N.J.D.E.P. WATERFRONT DEVELOPMENT PERMIT APPLICATION
(UPLAND AND IN–WATER)
SUBMISSION DATE: 10/29/2015
N.J.D.E.P. FILE STATUS: PENDING, UNDER REVIEW

U.S. ARMY CORPS OF ENGINEERS NATIONWIDE PERMIT (NWP) NO. 7 & 38
SUBMISSION DATE: 11/19/2015
A.C.O.E. FILE STATUS: PENDING, UNDER REVIEW

SOIL EROSION AND SEDIMENT CONTROL PLAN CERTIFICATION
BURLINGTON COUNTY SOIL CONSERVATION DISTRICT
SUBMISSION DATE: 10/22/2015
B.C.S.C.D. FILE STATUS: PENDING, UNDER REVIEW




KEY MAP

500' 250' 0 500' 1000'
1" = 500'

### INDEX OF DRAWINGS

| SHEET NO. | DRAWING NO. | DESCRIPTION |
|---|---|---|
| PLANS | | |
| 01 | CVR | COVER SHEET |
| 02 | EX1 | EXISTING CONDITIONS PLAN |
| 03 | GR1 | PHASE 1 GRADING AND SOIL EROSION & SEDIMENT CONTROL PLAN |
| 04 | GR2 | PHASE 2 GRADING AND SOIL EROSION & SEDIMENT CONTROL PLAN |
| 05 | LS1 | FINISHED GRADING & LANDSCAPE PLAN |
| 06 | SD1 | SOIL EROSION & SEDIMENT CONTROL NOTES AND DETAILS |
| 07 | CD1 | CONSTRUCTION DETAILS |
| SURVEY | | |
| 01 | ALTA | ALTA/ACSM LAND TITLE SURVEY |

PREPARED BY

RICHARD A. MORALLE
PROFESSIONAL ENGINEER
STATE OF NJ LICENSE NO. GB25863
DATE: 10/26/2015


11 TINDALL ROAD
MIDDLETOWN, NJ 07748
TEL 732-671-6400
FAX 732-671-7305


PROJECT COORDINATE SYSTEMS AND DATUMS:

HORIZONTAL – NAD 83 NEW JERSEY STATE PLANE, US SURVEY FT

VERTICAL – NAVD88, US SURVEY FT



N:\FLGA\00020\Plans\FLGA00-SP-CVR.dwg

# Flood Hazard Area Notes

1. The project site is located within the 100-year and 500-year tidal flood hazard area of the Delaware River. Certain activities in a flood hazard area are regulated by the New Jersey Department of Environmental Protection and some activities may be prohibited on this site or may first require a permit. Contact the Division of Land Use Regulation at (609) 292-0060 for more information prior to any construction onsite.

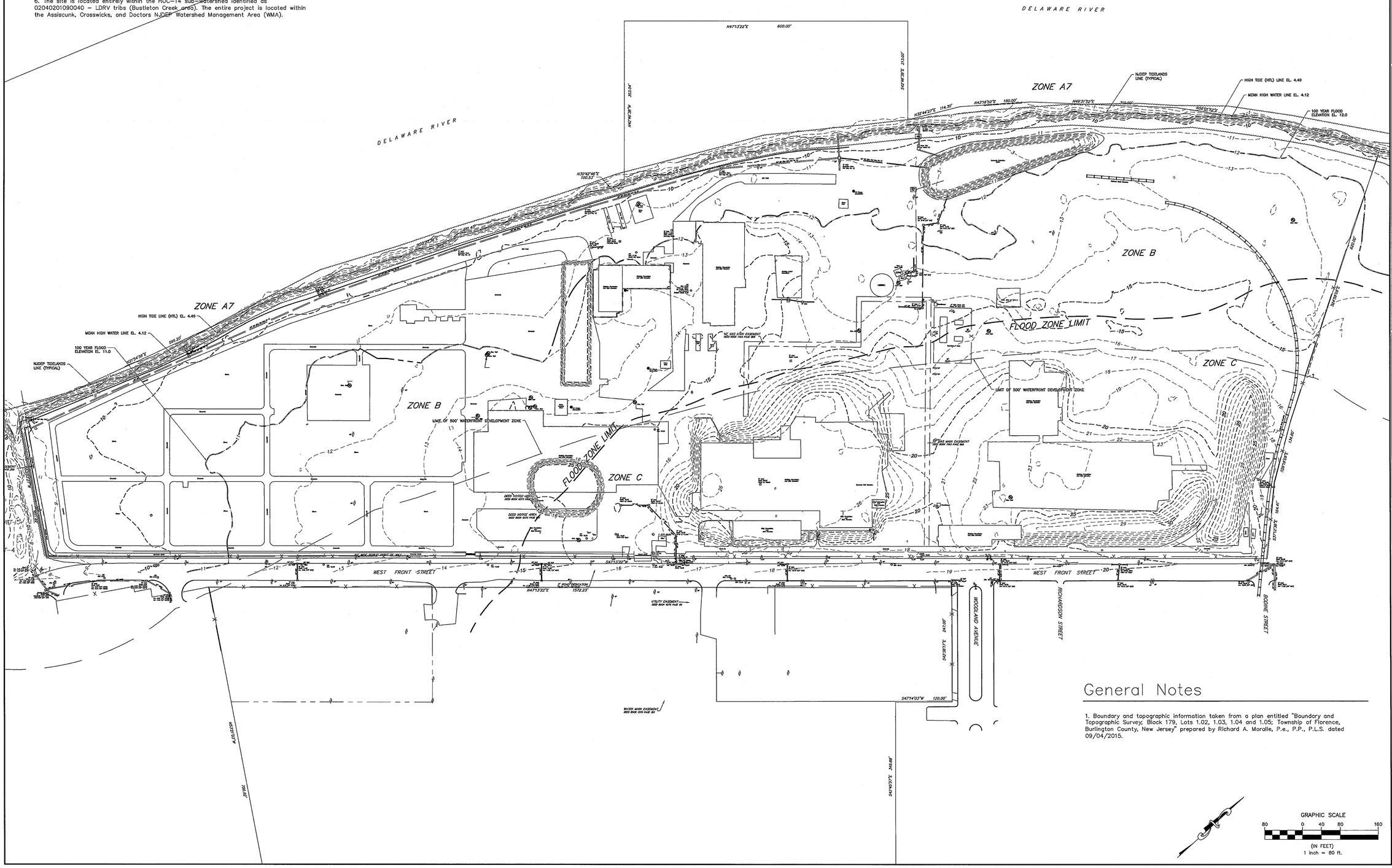
2. The 100-year base flood elevation (BFE) at the project site is 12.00' in NAVD88 vertical datum, per FEMA Preliminary Work Maps for Burlington County, NJ, map numbers 34005C0127F and 34005C0014F, dated December 2014. For this project site, Method 2 per N.J.A.C. 7:13-3 was used to determine the limit of the flood hazard area and flood hazard area design flood elevation (FHADF).

3. To convert between NAVD88 and NGVD29 vertical datums, use the following formulae:
   Elevation in NAVD88 = Elevation in NGVD29 Datum - 1.066'
   Elevation in NGVD29 = Elevation in NAVD88 Datum + 1.066'

4. The project site is located within the riparian buffer zone of the Delaware River and an Unnamed Tributary to the Delaware River. Riparian zone disturbance will be limited to N.J.A.C. 7:13 Table C allowable disturbance limits.

5. The project site is not located within the floodway of the Delaware River, as determined based on FEMA and NJDEP Flood Hazard Area Mapping.

6. The site is located entirely within the HUC-14 sub-watershed identified as 02040201090040 - LDRV trib (Bustleton Creek area). The entire project is located within the Assiscunk, Crosswicks, and Doctors NJDEP Watershed Management Area (WMA).




## General Notes

1. Boundary and topographic information taken from a plan entitled "Boundary and Topographic Survey, Block 179, Lots 1.02, 1.03, 1.04 and 1.05; Township of Florence, Burlington County, New Jersey" prepared by Richard A. Moralle, P.e., P.P., P.L.S. dated 09/04/2015.

| NO. | BY | REVISIONS | DATE |
|---|---|---|---|
| 1 | LDV | REVISIONS PER FLORENCE TOWNSHIP REVIEW COMMENTS DATED NOVEMBER 23, 2015 | 12/04/15 |

RICHARD A. MORALLE, P.E., P.L.S.
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STATE OF NJ LICENSE No. GB25863
10/26/2015

FLORENCE GRIFFIN ADVISORS, LP

SOIL IMPORTATION PLANS FOR
BLOCK 179, LOTS 1.02, 1.03, 1.04 & 1.05

FLORENCE TOWNSHIP
BURLINGTON COUNTY, NEW JERSEY

EXISTING CONDITIONS PLAN


T AND M ASSOCIATES
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DELAWARE, INDIANA, KENTUCKY, MASSACHUSETTS, MICHIGAN, NEW JERSEY, OHIO AND PENNSYLVANIA


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|---|---|
| DESIGNED BY ASM | DRAWING EX1 |
| CHECKED BY RAM | |
| DRAWN BY LDV | SHEET 2 |
| DATE 10/26/2015 | OF 7 |
| SCALE 1"=80' | |
| PROJ. NO. FLGA-00020 | |


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PROJECT INFORMATION:
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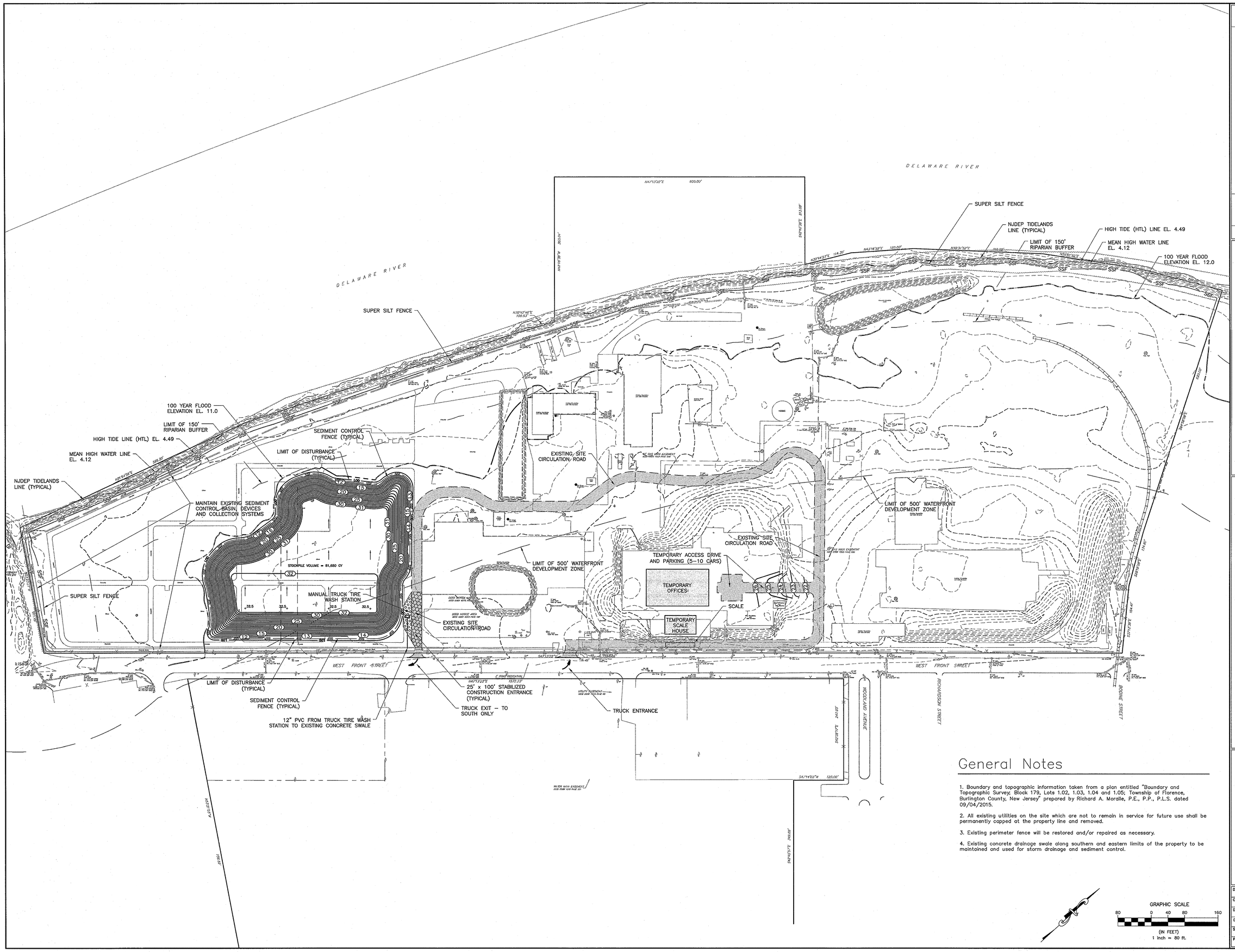
LAST SAVE BY: LDArriea




## General Notes

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2. All existing utilities on the site which are not to remain in service for future use shall be permanently capped at the property line and removed.

3. Existing perimeter fence will be restored and/or repaired as necessary.

4. Existing concrete drainage swale along southern and eastern limits of the property to be maintained and used for storm drainage and sediment control.

| NO. | BY | REVISIONS | DATE |
|---|---|---|---|
| | | | 12/04/15 |
| | | | 11/19/15 |

RICHARD A. MORALLE, P.E., P.L.S.
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STATE OF NJ LICENSE No. GB25863
10/26/2015

FLORENCE GRIFFIN ADVISORS, LP

SOIL IMPORTATION PLANS FOR BLOCK 179, LOTS 1.02, 1.03, 1.04 & 1.05

FLORENCE TOWNSHIP, BURLINGTON COUNTY, NEW JERSEY

PHASE 1 GRADING AND SOIL EROSION & SEDIMENT CONTROL PLAN

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|---|---|
| DESIGNED BY ASM | DRAWING GR1 |
| CHECKED BY RAM | |
| DRAWN BY LDV | SHEET 3 OF 7 |
| DATE 10/26/2015 | |
| SCALE 1"=80' | |
| PROJ. NO. FLGA-00020 | |

PROJECT INFORMATION:
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FILE NAME: FLGA20-SIP-VGR-PH1A.dwg
LAST SAVED DATE AND TIME: 08 Dec 2015, 4:24PM
LAST SAVE BY: kdenries

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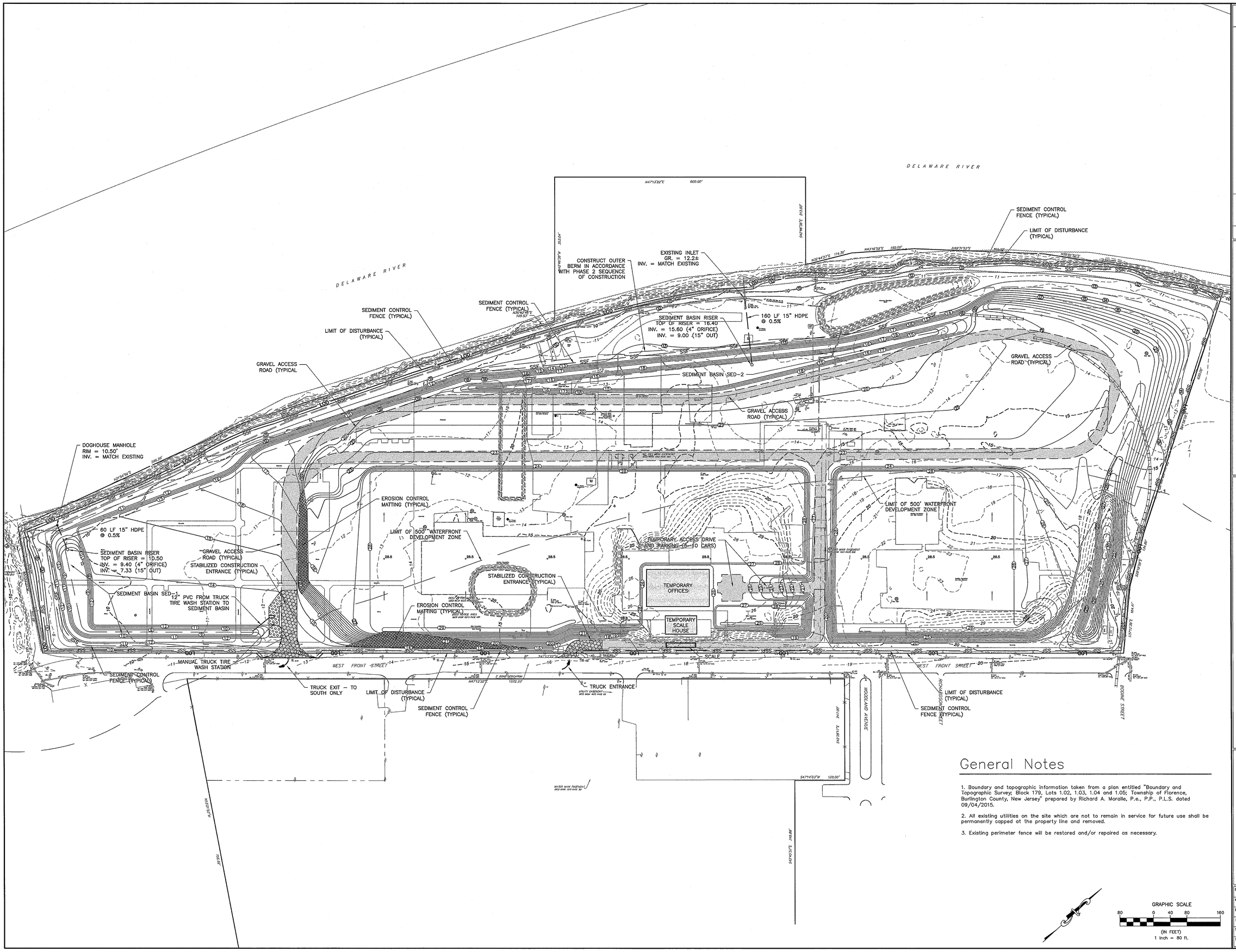


## General Notes

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2. All existing utilities on the site which are not to remain in service for future use shall be permanently capped at the property line and removed.

3. Existing perimeter fence will be restored and/or repaired as necessary.

| NO. | BY | REVISIONS | DATE |
|---|---|---|---|
| 3 | LDV | REVISIONS PER FLORENCE TOWNSHIP REVIEW COMMENTS DATED NOVEMBER 29, 2015 | 12/04/15 |
| 2 | LDV | REVISIONS PER BURLINGTON COUNTY SCD COMMENTS DATED NOVEMBER 17, 2015 | 11/19/15 |
| 1 | ASM | TOWNSHIP AND BCSCD COMMENTS | 11/02/15 |

RICHARD A. MORALLE, P.E., P.L.S.
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STATE OF NJ LICENSE No. GE25863
10/26/2015

FLORENCE GRIFFIN ADVISORS, LP

SOIL IMPORTATION PLANS FOR BLOCK 179, LOTS 1.02, 1.03, 1.04 & 1.05

FLORENCE TOWNSHIP, BURLINGTON COUNTY, NEW JERSEY

PHASE 2 GRADING AND SOIL EROSION & SEDIMENT CONTROL PLAN

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| DESIGNED BY | ASM |
| CHECKED BY | RAM |
| DRAWN BY | LDV |
| DATE | 10/26/2015 |
| SCALE | 1"=80' |
| PROJ. NO. | FLGA-00020 |
| DRAWING | GR2 |
| SHEET | 4 OF 7 |

PROJECT INFORMATION:
FILE PATH: H:\FLGA\00020\Plans\
FILE NAME: FLGA00-SIP-VGR-PH2.dwg
LAST SAVED DATE AND TIME: 03 Dec 2015, 3:04PM
LAST SAVE BY: LDeVries

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LANDSCAPE PLANTING NOTES AND SPECIFICATIONS:

1. ALL PLANT MATERIAL SHALL BE PROVIDED AND INSTALLED IN STRICT CONFORMANCE WITH USDA STANDARDS FOR NURSERY STOCK AND THE "AMERICAN NURSERY AND LANDSCAPE ASSOCIATION" STANDARDS LATEST EDITIONS.

2. THE CONTRACTOR SHALL VERIFY ALL UTILITIES WITHIN WORK AREA PRIOR TO COMMENCING WITH ANY EXCAVATIONS AND SHALL BE RESPONSIBLE FOR THEIR PROTECTION.

3. THE CONTRACTOR SHALL FURNISH AND PLANT ALL PLANTS SHOWN ON THE DRAWINGS, AS SPECIFIED, AND IN QUANTITIES INDICATED ON THE PLANT LIST. IF A DISCREPANCY SHOULD ARISE BETWEEN THE AMOUNT OF PLANTS SHOWN ON THE PLAN VS. THE PLANT SCHEDULE, THE PLAN SHALL GOVERN.

4. ALL PLANTS SHALL BE NURSERY GROWN.

5. ALL PLANTS SHALL BE HARDY UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT.

6. ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OF GROWTH. THEY SHALL BE SOUND, HEALTHY AND VIGOROUS WELL BRANCHED AND DENSELY FOLIATED WHEN IN LEAF. THEY SHALL BE FREE OF DISEASE AND INSECT PESTS, EGGS OR LARVAE. THEY SHALL HAVE HEALTHY WELL-DEVELOPED ROOT SYSTEMS.

7. SUBSTITUTIONS: WHEN PLANTS OF A SPECIFIED KIND OR SIZE ARE NOT AVAILABLE WITHIN A REASONABLE DISTANCE, SUBSTITUTIONS MAY BE MADE UPON REQUEST BY THE CONTRACTOR IF APPROVED BY THE LANDSCAPE ARCHITECT OR HIS/HER REPRESENTATIVE.

8. ALL AREAS TO BE SHOWN AS LAWN SHALL BE SEEDED, AS SPECIFIED, AND MATERED UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.

9. TREE LOCATIONS MAY NEED TO BE ADJUSTED BASED ON LOCATIONS OF UTILITIES, FIELD CONDITIONS, OR FINAL GRADING. THE CONTRACTOR SHALL NOTIFY THE OWNER AND/OR THEIR REPRESENTATIVE IF ADJUSTMENTS ARE NECESSARY.

10. ROOT BALLS OF ALL PLANTS SHALL BE ADEQUATELY PROTECTED AT ALL TIMES FROM SUN AND DRYING WINDS OR FROST.

11. PLANTS WITH BROKEN ROOT BALLS, TRUNK AND BARK DAMAGE OR EXCESSIVE DAMAGE TO THE CROWN SHALL BE REPLACED PRIOR TO PLANTING.

12. ROPES AT TOP OF BALL SHALL BE CUT. REMOVE TOP 1/3 OF BURLAP. ALL NON- BIODEGRADABLE MATERIAL SHALL BE TOTALLY REMOVED. WIRE BASKETS SHALL BE CAREFULLY REMOVED ENTIRELY AT THE TIME OF PLANTING, PREFERABLY AFTER THE ROOT BALL HAS BEEN INSTALLED IN THE PLANTING PIT.

13. PREPARATION OF PLANTING: CLEAN SOIL EXCAVATED FROM PLANTING PIT OF ROOTS, PLANTS, STONES LARGER THAN 2", CLAY LUMPS, AND OTHER EXTRANEOUS MATERIALS HARMFUL OR TOXIC TO PLANT GROWTH.

14. DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING.

15. NO PLANT SHALL BE PLACED IN THE GROUND BEFORE ROUGH GRADING HAS BEEN COMPLETED AND APPROVED BY THE PROJECT LANDSCAPE ARCHITECT OR HIS/HER EQUAL.

16. INSTALL ALL PLANTS SO THAT THE TOP OF THE ROOTBALL IS SLIGHTLY ABOVE FINISHED GRADE. IN NO CASE SHALL THE PLAN BE INSTALLED WITH NO LESS THAN THE SAME RELATIONSHIP TO FINISHED GRADE AS THE PLANTS ORIGINAL ROOT CROWN. EXCESS SOIL MAY EXIST AROUND THE ROOT CROWN FROM NURSERY OPERATIONS. THIS EXCESS MATERIAL SHALL BE REMOVED PRIOR TO PLANTING TO DETERMINE THE PROPER BALL INSTALLATION DEPTH.

17. ALL EXISTING TREES THAT ARE TO BE SAVED AS DETERMINED BY LANDSCAPE ARCHITECT SHALL BE PROTECTED UNTIL CONSTRUCTION HAS BEEN COMPLETED. AREA WITHIN DRIPLINE SHALL NOT BE TRAVELED ACROSS BY CONSTRUCTION TRAFFIC.

18. ALL PLANTS SHALL BE BALLED AND WRAPPED OR CONTAINER GROWN AS SPECIFIED. NO CONTAINER GROWN STOCK WILL BE ACCEPTED IF IT IS ROOT BOUND. ALL NON-BIODEGRADEABLE ROOT WRAPPING MATERIAL SHALL BE REMOVED AT TIME OF PLANTING.

19. THE CONTRACTOR SHALL LAYOUT WITH IDENTIFIABLE STAKES INDIVIDUAL TREE LOCATIONS AND AREAS FOR MULTIPLE PLANTING AS INDICATED ON DRAWING. THE LAYOUT OF PLANTING WILL THEN BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO ANY EXCAVATION OF PLANT PITS OR PLANT BEDS.

20. AT PLANTING TIME, ALL PLANT MATERIAL SHALL TRIMMED TO REMOVE BROKEN AND/OR DEAD VEGETATIVE MATERIAL.

21. ALL PLANTS SHALL BE INSTALLED AS PER THE PLANTING DETAILS, WHERE APPLICABLE.

22. ALL PLANTS SHALL BE INSTALLED PLUMB UNLESS OTHERWISE SPECIFIED.

23. ALL PLANTS SHALL BE THOROUGHLY MATERED TWICE DURING THE FIRST 24 HOUR PERIOD AFTER PLANTING. ALL PLANTS SHALL THEN BE MATERED WEEKLY OR MORE OFTEN, IF NECESSARY, DURING THE FIRST GROWING SEASON.

24. CONDITIONS DETRIMENTAL TO PLANTS: THE CONTRACTOR SHALL NOTIFY THE PROJECT REPRESENTATIVE IN WRITING OF ALL SOIL OR DRAINAGE CONDITIONS WHICH THE CONTRACTOR CONSIDERS DETRIMENTAL TO THE GROWTH OF PLANTS. HE SHALL STATE THE CONDITIONS AND SUBMIT A PROPOSAL FOR CORRECTING THE CONDITIONS INCLUDING ANY CHANGE IN COST FOR REVIEW AND ACCEPTANCE BY THE PROJECT REPRESENTATIVE.

25. WARRANT TREES FOR A MINIMUM PERIOD OF ONE (1) YEAR AFTER DATE OF WRITTEN FINAL ACCEPTANCE BY THE LANDSCAPE ARCHITECT AND/OR THE OWNERS AUTHORIZED REPRESENTATIVE AGAINST DEFECTS INCLUDING DEATH AND UNSATISFACTORY GROWTH. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO MONITOR THE PROJECT PLANTINGS DURING THE WARRANTY PERIOD AND NOTIFY THE OWNER IF PROBLEMS DEVELOP. PLANTS THAT DIE DURING THE WARRANTY PERIOD SHALL BE REMOVED IMMEDIATELY AND REPLACED.

SEED MIXES FOR PERMANENT VEGETATIVE STABILIZATION

A. UPLAND AREAS WITH SLOPES MHICH EXCEED 3:1 SHALL BE SEEDED WITH "SHOMY NORTHEAST NATIVE MILDFLOWER & GRASS MIX" AS MANUFACTURED BY ERNST SEED COMPANY AT A RATE OF 5 LBS/AC. WITH A COVER CROP AT A RATE OF 20 LBS/AC. AS FOLLOWS.

JAN 1 - AUG 1
GRAIN OATS
AUG 1 - JAN 1
GRAIN RYE

SHOMY NORTHEAST NATIVE MILDFLOWER & GRASS MIX

31.5% LITTLE BLUESTEM
20% SIDEOATS GRAMA
4% TALL WHITE BEARDTONGUE
4% PARTRIDGE PEA
5% PURPLE CONEFLOWER
2.5% MARSH BLAZING STAR
2% BUTTERFLY MILKWEED
2% LANCELEAF COREOPSIS
2% OXEYE SUNFLOWER
2% BLACKEYED SUSAN
1.5% NEW ENGLAND ASTER
1.5% SMOOTH BLUE ASTER
1.5% OHIO SPIDERWORT
1% AUTUMN BENTGRASS
0.8% BROWNEYED SUSAN
0.5% WILD SENNA
0.5% WILD BERGAMOT
0.5% MARYLAND SENNA
0.3% BLUE FALSE INDIGO
0.5% EARLY GOLDENROD
0.2% HOARY MOUNTAIN-MINT

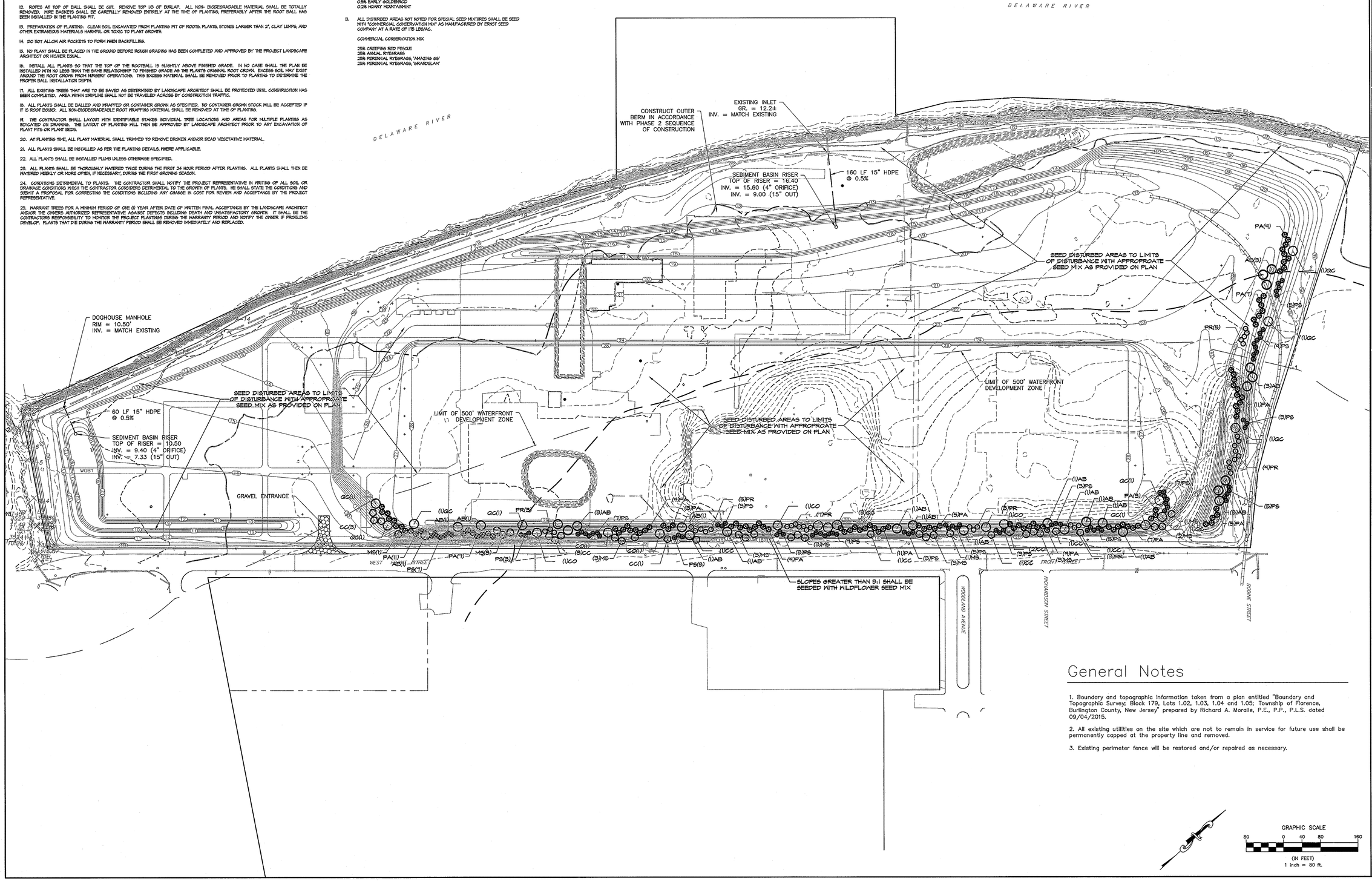
B. ALL DISTURBED AREAS NOT NOTED FOR SPECIAL SEED MIXTURES SHALL BE SEED WITH "COMMERCIAL CONSERVATION MIX" AS MANUFACTURED BY ERNST SEED COMPANY AT A RATE OF 175 LBS/AC.

COMMERCIAL CONSERVATION MIX

25% CREEPING RED FESCUE
25% ANNUAL RYEGRASS
25% PERENNIAL RYEGRASS, 'AMAZING 65'
25% PERENNIAL RYEGRASS, 'GRANDSLAM'

# PLANT SCHEDULE

| DECIDUOUS TREES | QTY | BOTANICAL NAME | COMMON NAME | CONT | CAL | SIZE | REMARKS |
|---|---|---|---|---|---|---|---|
| AB | 26 | ACER SACCHARUM 'BONFIRE' | BONFIRE SUGAR MAPLE | B & B | 2"-2.5" CAL | | |
| CO | 7 | CELTIS OCCIDENTALIS | COMMON HACKBERRY | B & B | 2"-2.5" CAL | | |
| CC | 12 | CERCIS CANADENSIS | EASTERN REDBUD | B & B | 2"-2.5" CAL | | |
| MS | 23 | MALUS X 'SNOWDRIFT' | SNOWDRIFT CRAB APPLE | B & B | 2"-2.5" CAL | | |
| QC | 13 | QUERCUS COCCINEA | SCARLET OAK | B & B | 2"-2.5" CAL | | |
| **EVERGREEN TREES** | **QTY** | **BOTANICAL NAME** | **COMMON NAME** | **CONT** | **CAL** | **SIZE** | **REMARKS** |
| PA | 106 | PICEA ABIES | NORWAY SPRUCE | B & B | | 7'-8' | |
| PR | 35 | PINUS RIGIDA | PITCH PINE | B & B | | 5'-6' | |
| PS | 21 | PINUS STROBUS | WHITE PINE | B & B | | 6'-7' | |




## General Notes

1. Boundary and topographic information taken from a plan entitled "Boundary and Topographic Survey; Block 179, Lots 1.02, 1.03, 1.04 and 1.05; Township of Florence, Burlington County, New Jersey" prepared by Richard A. Moralle, P.E., P.P., P.L.S. dated 09/04/2015.

2. All existing utilities on the site which are not to remain in service for future use shall be permanently capped at the property line and removed.

3. Existing perimeter fence will be restored and/or repaired as necessary.

GRAPHIC SCALE
80 0 40 80 160
(IN FEET)
1 inch = 80 ft.

| NO. | BY | REVISIONS | DATE |
|---|---|---|---|
| 3 | BL | REVISIONS PER FLORENCE TOWNSHIP REVIEW COMMENTS DATED NOVEMBER 23, 2015 | 12/04/15 |
| 2 | LDV | REVISIONS PER BURLINGTON COUNTY SCD COMMENTS DATED NOVEMBER 17, 2015 | 11/19/15 |
| 1 | ASM | TOWNSHIP AND BCSCD COMMENTS | 11/02/15 |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STATE OF NJ LICENSE No. GB23883
10/26/2015


FLORENCE GRIFFIN ADVISORS, LP

SOIL IMPORTATION PLANS FOR
BLOCK 179, LOTS 1.02, 1.03, 1.04 & 1.05

FLORENCE TOWNSHIP
BURLINGTON COUNTY, NEW JERSEY

FINISHED GRADING & LANDSCAPE PLAN


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| | |
|---|---|
| DESIGNED BY | ASM |
| CHECKED BY | RAM |
| DRAWN BY | LDV |
| DATE | 10/26/2015 |
| SCALE | 1"=80' |
| PROJ. NO. | FLGA-00020 |
| DRAWING | LS1 |
| SHEET | 5 OF 7 |


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PROJECT INFORMATION:
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FILE NAME: FLGA20-SBP-XLS-PH2.dwg
LAST SAVED DATE AND TIME: 03 Dec 2015, 5:22PM
LAST SAVE BY: LDVMM

# PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION

STANDARD FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION

Definition

Establishment of permanent vegetative cover on exposed soils where perennial vegetation is needed for long-term protection.

Purpose

To permanently stabilize the soil, ensuring conservation of soil and water, and to enhance the environment. Water Quality Enhancement
Slows the over-land movement of stormwater runoff, increases infiltration and retains soil and nutrients on site, protecting streams or other stormwater conveyances.

Where Applicable

On exposed soils that have a potential for causing off-site environmental damage.

Methods and Materials

1. Site Preparation

   A. Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. All grading should be done in accordance with Standard for Land Grading.

   B. Immediately prior to seeding and topsoil application, the subsoil shall be evaluated for compaction in accordance with the Standard for Land Grading.

   C. Topsoil should be handled only when it is dry enough to work without damaging the soil structure. A uniform application to a depth of 5 inches (unsettled) is required on all sites. Topsoil shall be amended with organic matter, as needed, in accordance with the Standard for Topsoiling.

   D. Install needed erosion control practices or facilities such as diversions, grade-stabilization structures, channel stabilization measures, sediment basins, and waterways.

2. Seedbed Preparation

   A. Uniformly apply ground limestone and fertilizer to topsoil which has been spread and firmed, according to soil test recommendations such as offered by Rutgers Co-operative Extension Soil sample mailers are available from the local Rutgers Cooperative Extension offices (http://nj.pass.rutgers.edu/county/). Fertilizer shall be applied at the rate of 500 pounds per acre or 11 pounds per 1,000 square feet of 10-10-10 or equivalent with 50% water insoluble nitrogen unless a soil test indicates otherwise and incorporated into the surface 4 inches. If fertilizer is not incorporated, apply one-half the rate described above during seedbed preparation and repeat another one-half rate application of the same fertilizer within 3 to 5 weeks after seeding.

   B. Work lime and fertilizer into the topsoil as nearly as practical to a depth of 4 inches with a disc, spring-tooth harrow, or other suitable equipment. The final harrowing or disking operation should be on the general contour. Continue tillage until a reasonable uniform seedbed is prepared.

   C. High acid producing soil. Soils having a pH of 4 or less or containing iron sulfide shall be covered with a minimum of 12 inches of soil having a pH of 5 or more before initiating seedbed reparation. See Standard for Management of High Acid-Producing Soils for specific requirements.

3. Seeding

   A. Select a mixture from Table 4–3 or use a mixture recommended by Rutgers Cooperative Extension or Natural Resources Conservation Service which is approved by the Soil Conservation District. Seed germination shall have been tested within 12 months of the planting date. No seed shall be accepted with a germination test date more than 12 months old unless retested.

      1. Seeding rates specified are required when a report of compliance is requested prior to actual establishment of permanent vegetation. Up to 50% reduction in rates may be used when permanent vegetation is established prior to a report of compliance inspection. These rates apply to all methods of seeding. Establishing permanent vegetation means 80% vegetative coverage with the specified seed mixture for the seeded area and mowed once.

      2. Warm–season mixtures are grasses and legumes which maximize growth at high temperatures, generally 85o F and above. See Table 4–3 mixtures 1 to 7. Planting rates for warm–season grasses shall be the amount of Pure Live Seed (PLS) as determined by germination testing results.

      3. Cool–season mixtures are grasses and legumes which maximize growth at temperatures below 85oF. Many grasses become active at 65oF. See Table 4–3, mixtures 8–20. Adjustment of planting rates to compensate for the amount of PLS is not required for cool season grasses.

   B. Conventional Seeding is performed by applying seed uniformly by hand, cyclone (centrifugal) seeder, drop seeder, drill or cultipacker seeder. Except for drilled, hydroseeded or cultipacked seedings, seed shall be incorporated into the soil within 24 hours of seedbed preparation to a depth of 1/4 to 1/2 inch, by raking or dragging. Depth of seed placement may be 1/4 inch deeper on coarse–textured soil.

   C. After seeding, firming the soil with a corrugated roller will assure good seed–to–soil contact, restore capillarity, and improve seedling emergence. This is the preferred method. When performed on the contour, sheet erosion will be minimized and water conservation on site will be maximized.

   D. Hydroseeding is a broadcast seeding method usually involving a truck, or trailer–mounted tank, with an agitation system and hydraulic pump for mixing seed, water and fertilizer and spraying the mix onto the prepared seedbed. Mulch shall not be included in the tank with seed. Short–fibered mulch may be applied with a hydroseeder following seeding. (also see Section 4–Mulching below). Hydroseeding is not a preferred seeding method because seed and fertilizer are applied to the surface and not incorporated into the soil. When poor seed to soil contact occurs, there is a reduced seed germination and growth.

4. Mulching

   Mulching is required on all seeding. Mulch will protect against erosion before grass is established and will promote faster and earlier establishment. The existence of vegetation sufficient to control soil erosion shall be deemed compliance with this mulching requirement.

   A. Straw or Hay. Unrotted small grain straw, hay free of seeds, to be applied at the rate of 1–1/2 to 2 tons per acre (70 to 90 pounds per 1,000 square feet), except that where a crimper is used instead of a liquid mulch–binder (tackifying or adhesive agent), the rate of application is 3 tons per acre. Mulch chopper–blowers must not grind the mulch. Hay mulch is not recommended for establishing fine turf or lawns due to the presence of weed seed.

      Application – Spread mulch uniformly by hand or mechanically so that at least 85% of the soil surface is covered. For uniform distribution of hand–spread mulch, divide area into approximately 1,000 square feet sections and distribute 70 to 90 pounds within each section.

      Anchoring shall be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area, steepness of slopes, and costs.

      1. Peg and Twine. Drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a criss–cross and a square pattern. Secure twine around each peg with two or more round turns.

      2. Mulch Nettings. Staple paper, jute, cotton, or plastic nettings to the soil surface. Use a degradable netting in areas to be mowed.

      3. Crimper (mulch anchoring tool). A tractor–drawn implement, somewhat like a disc harrow, especially designed to push or cut some of the broadcast long fiber mulch 3 to 4 inches into the soil so as to anchor it and leave part standing upright. This technique is limited to areas traversable by a tractor, which must operate on the contour of slopes. Straw mulch rate must be 3 tons per acre. No tackifying or adhesive agent is required.

      4. Liquid Mulch–Binders. – May be used to anchor hay or straw mulch.

         a. Applications should be heavier at edges where wind may catch the mulch, in valleys, and at crests of banks. The remainder of the area should be uniform in appearance.

         b. Use one of the following:

            (1) Organic and Vegetable Based Binders – Naturally occurring, powder–based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membrained networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turf grass. Use at rates and weather conditions as recommended by the manufacturer to anchor mulch materials. Many new products are available, some of which may need further evaluation for use in this state.

            (2) Synthetic Binders – High polymer synthetic emulsion, miscible with water when diluted and, following application of mulch, drying and curing, shall no longer be soluble or dispersible in water. Binder shall be applied at rates recommended by the manufacturer and remain tacky until germination of grass.

            Note: All names given above are registered trade names. This does not constitute a recommendation of these products to the exclusion of other products.

      B. Wood–fiber or paper–fiber mulch – shall be made from wood, plant fibers or paper containing no growth or germination inhibiting materials, used at the rate of 1,500 pounds per acre (or as recommended by the product manufacturer) and may be applied by a hydroseeder. Mulch shall not be mixed in the tank with seed. Use is limited to flatter slopes and during optimum seeding periods in spring and fall.

      C. Pelletized mulch – compressed and extruded paper and/or wood fiber product, which may contain co–polymers, tackifiers, fertilizers, and coloring agents. The dry pellets, when applied to a seeded area and watered, form a mulch mat. Pelletized mulch shall be applied in accordance with the manufacturer's recommendations. Mulch may be applied by hand or mechanical spreader at the rate of 60–75 lbs/1,000 square feet and activated with 0.2 to 0.4 inches of water. This material has been found to be beneficial for use on small lawn or renovation areas, seeded areas where weed–seed free mulch is desired, or on sites where straw mulch and tackifier agent are not practical or desirable. Applying the full 0.2 to 0.4 inches of water after spreading pelletized mulch on the seed bed is extremely important for sufficient activation and expansion of the mulch to provide soil coverage.

5. Irrigation (where feasible)

   If soil moisture is deficient supply new seeding with adequate water (a minimum of 1/4 inch applied up to twice a day until vegetation is well established). This is especially true when seedings are made in abnormally dry or hot weather or on droughty sites.

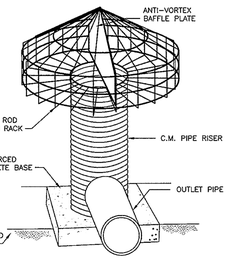
6. Topdressing

   Since soil organic matter content and slow release nitrogen fertilizer (water insoluble) are prescribed in Section 2A – Seedbed Preparation in this Standard, no follow–up of topdressing is mandatory. An exception may be made where gross nitrogen deficiency exists in the soil to the extent that turf failure may develop. In that instance, topdress with 10–10–10 or equivalent at 300 pounds per acre or 7 pounds per 1,000 square feet every 3 to 5 weeks until the gross nitrogen deficiency in the turf is ameliorated.

7. Establishing Permanent Vegetative Stabilization

   The quality of permanent vegetation rests with the contractor. The timing of seeding, preparing the seedbed, applying nutrients, mulch and other management are essential. The seed application rates in Table 4–3 are required when a Report of Compliance is requested prior to actual establishment of permanent vegetation. Up to 50% reduction in application rates may be used when permanent vegetation is established prior to requesting a Report of Compliance from the district. These rates apply to all methods of seeding. Establishing permanent vegetation means 80% vegetative cover (of the seeded species) and mowed once. Note this designation of mowed once does not guarantee the permanency of the turf should other maintenance factors be neglected or otherwise mismanaged. mulch shall not be mixed in the tank with seed. Use is limited to flatter slopes and during optimum seeding periods in spring and fall.

| SEDIMENT BASIN | SEDIMENT RISER | | | CONCRETE BASE | | | OUTLET PIPE | |
|---|---|---|---|---|---|---|---|---|
| | "A" DIAMETER (INCHES) | "B" TOP ELEVATION (FEET) | "C" ORIFICE INVERT (FEET) | LENGTH (FEET) | WIDTH (FEET) | THICKNESS (FEET) | "D" DIAMETER (INCHES) | "E" INVERT (INCHES) |
| SED–1 | 24" | 10.50 | 9.40 | 4.00' | 4.00' | 12" | 15" | 7.33 |
| SED–2 | 24" | 16.40 | 15.60 | 4.00' | 4.00' | 12" | 15" | 9.00 |




NOTES:

1. The temporary standpipe risers shall be installed immediately after the construction of the pond and remain in place until all contributing drainage areas are stabilized, and their removal is authorized by the Respective County Soil Conservation District.
2. All sediment basins shall be cleaned out as required.
3. See detail for sediment riser cross section.

## SEDIMENT RISER WITH TRASH RACK AND BAFFLE

NOT TO SCALE

# TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

STANDARD FOR TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

Definition

Establishment of temporary vegetative cover on soils exposed for periods of two to 6 months which are not being graded, not under active construction or not scheduled for permanent seeding within 60 days.

Purpose

To temporarily stabilize the soil and reduce damage from wind and water erosion until permanent stabilization is accomplished.

Water Quality Enhancement

Provides temporary protection against the impacts of wind and rain, slows the over land movement of stormwater runoff, increases infiltration and retains soil and nutrients on site, protecting streams or other stormwater conveyances.

Where Applicable

On exposed soils that have the potential for causing off–site environmental damage.

Methods and Materials

1. Site Preparation

   A. Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. All grading should be done in accordance with Standards for Land Grading, pg. 19–1.

   B. Install needed erosion control practices or facilities such as diversions, grade stabilization structures, channel stabilization measures, sediment basins, and waterways. See Standards 11 through 42.

   C. Immediately prior to seeding, the surface should be scarified 6" to 12" where there has been soil compaction. This practice is permissible only where there is no danger to underground utilities (cables, irrigation systems, etc.).

2. Seedbed Preparation

   A. Apply ground limestone and fertilizer according to soil test recommendations such as offered by Rutgers Co–operative Extension. Soil sample mailers are available from the local Rutgers Cooperative Extension offices. Fertilizer shall be applied at the rate of 500 pounds per acre or 11 pounds per 1,000 square feet of 10–20–10 or equivalent with 50% water insoluble nitrogen unless a soil test indicates otherwise. Apply limestone at the rate of 2 tons/acre unless soil testing indicates otherwise. Calcium carbonate is the equivalent and standard for measuring the ability of liming materials to neutralize soil acidity and supply calcium and magnesium to grasses and legumes.

   B. Work lime and fertilizer into the soil as nearly as practical to a depth of 4 inches with a disc, springtooth harrow, or other suitable equipment. The final harrowing or disking operation should be on the general contour. Continue tillage until a reasonable uniform seedbed is prepared.

   C. Inspect seedbed just before seeding. If traffic has left the soil compacted, the area must be relilled in accordance with the above.

   D. Soils high in sulfides or having a pH of 4 or less refer to Standard for Management of High Acid Producing Soils, pg. 1–1.

3. Seeding

   A. Select seed from recommendations in Table 7–2.

TABLE 7–2

TEMPORARY VEGETATIVE STABILIZATION GRASSES, SEEDING RATES, DATES AND DEPTH

| SEED SELECTIONS | SEEDING RATE (pounds) | | OPTIMUM SEEDING DATE Based on Plant Hardiness Zone | | | OPTIMUM SEED DEPTH (inches) |
|---|---|---|---|---|---|---|
| | Per Acre | Per 1000 Sq. Ft. | ZONE 5b, 6a | ZONE 6b | ZONE 7a, b | |
| **COOL–SEASON GRASSES** | | | | | | |
| 1. Perennial ryegrass | 100 | 1.0 | 3/15–6/1 8/1–9/15 | 3/1–5/15 8/15–10/1 | 2/15–5/1 8/15–10/15 | 0.5 |
| 2. Spring oats | 86 | 2.0 | 3/15–6/1 8/1–9/15 | 3/1–5/15 8/15–10/1 | 2/15–5/1 8/15–10/15 | 1.0 |
| 3. Winter Barley | 96 | 2.2 | 8/1–9/15 | 8/15–10/1 | 8/15–10/15 | 1.0 |
| 4. Annual ryegrass | 100 | 1.0 | 3/15–6/1 8/1–9/15 | 3/15–6/1 8/15–9/15 | 2/15–5/1 8/15–10/15 | 0.5 |
| 5. Winter Cereal Rye | 112 | 2.8 | 8/1 –11/1 | 8/1 –11/15 | 8/1 –12/15 | 1.0 |
| **WARM SEASON GRASSES** | | | | | | |
| 6. Pearl millet | 20 | 0.5 | 6/1–8/1 | 5/15–8/15 | 5/1–9/1 | 1.0 |
| 7. Millet (German or Hungarian) | 30 | 0.7 | 6/1–8/1 | 5/15–8/15 | 5/1–9/1 | 1.0 |

1 Seeding rate for warm season grass, selections 5 – 7 shall be adjusted to reflect the amount of Pure Line Seed (PLS) as determined by a germination test result. No adjustment is required for cool season grasses.
2 May be planted throughout summer if soil moisture is adequate or seeded area can be irrigated.
3 Plant Hardiness Zone (see figure 7–1, pg. 7–4.)
4 Twice the depth for sandy soils.

   B. Conventional Seeding, Apply seed uniformly by hand, cyclone (centrifugal) seeder, drop seeder, drill or cultipacker seeder. Except for drilled, hydroseeded or cultipacked seedings, seed shall be incorporated into the soil, to a depth of 1/4 to 1/2 inch, by raking or dragging. Depth of seed placement may be 1/4 inch deeper on coarse textured soil.

   C. Hydroseeding is a broadcast seeding method usually involving a truck or trailer mounted tank, with an agitation system and hydraulic pump for mixing seed, water and fertilizer and spraying the mix onto the prepared seedbed. Mulch shall not be included in the tank with seed. Short fibered mulch may be applied with a hydroseeder following seeding. (also see Section IV Mulching) Hydroseeding is not a preferred seeding method because seed and fertilizer are applied to the surface and not incorporated into the soil. Poor seed to soil contact occurs reducing seed germination and growth. Hydroseeding may be used for areas too steep for conventional equipment to traverse or too obstructed with rocks, stumps, etc.

   D. After seeding, firming the soil with a corrugated roller will assure good seed–to–soil contact, restore capillarity, and improve seedling emergence. This is the preferred method. When performed on the contour, sheet erosion will be minimized and water conservation on site will be maximized.

4. Mulching

   Mulching is required on all seeding. Mulch will insure against erosion before grass is established and will promote faster and earlier establishment. The existence of vegetation sufficient to control soil erosion shall be deemed compliance with this mulching requirement.

   A. Straw or Hay. Unrotted small grain straw, hay free of seeds, applied at the rate of 1–1/2 to 2 tons per acre (70 to 90 pounds per 1,000 square feet), except that where a crimper is used instead of a liquid mulch–binder (tackifying or adhesive agent), the rate of application is 3 tons per acre. Mulch chopper–blowers must not grind the mulch. Hay mulch is not recommended for establishing fine turf or lawns due to the presence of weed seed.

      Application. Spread mulch uniformly by hand or mechanically so that approximately 95% of the soil surface will be covered. For uniform distribution of hand–spread mulch, divide area into approximately 1,000 square feet sections and distribute 70 to 90 pounds within each section.

      Anchoring shall be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area, steepness of slopes, and costs.

      1. Peg and Twine. Drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a criss–cross and a square pattern. Secure twine around each peg with two or more round turns.

      2. Mulch Nettings. Staple paper, jute, cotton, or plastic nettings to the soil surface. Use a degradable netting in areas to be mowed.

      3. Crimper (mulch anchoring tool). A tractor–drawn implement, somewhat like a disc harrow, especially designed to push or cut some of the broadcast long fiber mulch 3 to 4 inches into the soil so as to anchor it and leave part standing upright. This technique is limited to areas traversable by a tractor, which must operate on the contour of slopes. Straw mulch rate must be 3 tons per acre. No tackifying or adhesive agent is required.

      4. Liquid Mulch–Binders. – May be used to anchor hay or straw mulch.

         a. Applications should be heavier at edges where wind may catch the mulch, in valleys, and at crests of banks. The remainder of the area should be uniform in appearance.

         b. Use one of the following:

            (1) Organic and Vegetable Based Binders – Naturally occurring, powder based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membrained networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turfgrass. Use at rates and weather conditions as recommended by the manufacturer to anchor mulch materials. Many new products are available, some of which may need further evaluation for use in this state.

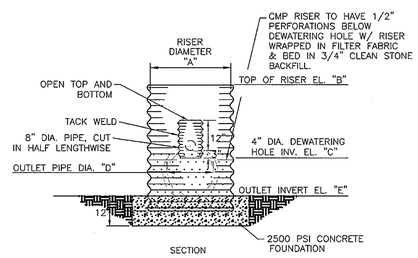
            (2) Synthetic Binders – High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates recommended by the manufacturer and remain tacky until germination of grass.

            Note: All names give above are registered trade names. This does not constitute a commendation of these products to the exclusion of other products.

   B. Wood–fiber or paper–fiber mulch. Shall be made from wood, plant fibers or paper containing no growth or germination inhibiting materials, used at the rate of 1,500 ponds per acre (or as recommended by the project manufacturer) and may be applied by a hydroseeder. This mulch shall not be mixed in the tank with seed. Use is limited to flatter slopes and during optimum seeding periods in spring and fall.

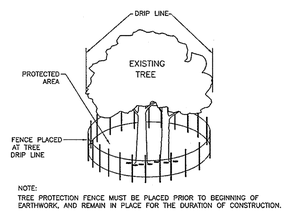
   C. Pelletized mulch. Compressed and extruded paper and/or wood fiber product, which may contain co–polymers, tackifiers, fertilizers and coloring agents. The dry pellets, when applied to a seeded area and watered, forma mulch mat. Pelletized mulch shall be applies in accordance with the manufacturers recommendations. Mulch may be applied by hand or mechanical spreader at the rate of 60–75 lbs./1,000 square feet and activated with 0.2 to 0.4inches of water. This material has bee found to be beneficial for use on small lawn or renovation areas, seeded areas where weed–seed free mulch is desired or on sites where straw mulch and tackifier agent are not practical or desirable.

   Applying the full 0.2 to 0.4 inches of water after spreading pelletized mulch on the seed bed is extremely important for sufficient activation and expansion of the mulch to provide soil coverage.




## SEDIMENT RISER WITH TRASH RACK AND BAFFLE

NOT TO SCALE




NOTE:
TREE PROTECTION FENCE MUST BE PLACED PRIOR TO BEGINNING OF EARTHWORK, AND REMAIN IN PLACE FOR THE DURATION OF CONSTRUCTION.

## TREE PROTECTION DETAIL

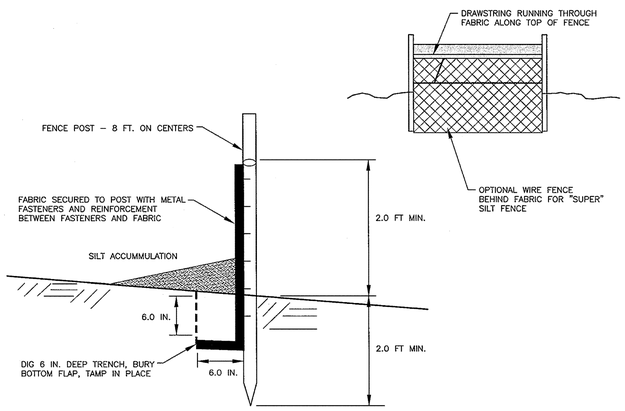
NOT TO SCALE

# BURLINGTON COUNTY SOIL CONSERVATION DISTRICT NOTES FOR SOIL EROSION AND SEDIMENT CONTROL

1. All applicable erosion and sediment control practices shall be in place prior to any grading operation and/or installation of proposed utilities.
2. Soil erosion and sediment control practices on the plan shall be constructed in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey.
3. All applicable erosion and sediment control practices shall be left in place until construction is completed and/or the area is stabilized.
4. Any disturbed area that will be left exposed for more than sixty (60) days and not subject to construction traffic shall immediately receive a temporary seeding and fertilization in accordance with the Standards. If the season prohibits temporary seeding, the disturbed areas will be mulched with salt hay or equivalent and anchored in accordance with the Standards.
5. All critical areas subject to erosion will receive a temporary seeding in combination with straw mulch in accordance with the Standards immediately following rough grading.
6. The site shall at all times be graded and maintained such that all stormwater runoff is diverted to soil erosion and sediment control facilities.
7. All erosion and sediment control structures will be inspected and maintained on a regular basis and after every storm event.
8. Soil stockpiles are not to be located within fifty (50) feet of a floodplain, slope, roadway or drainage facility. The base of all stockpiles should be protected by a hay bale barrier or sediment fence. Proposed locations must be delineated on the plans.
9. A crushed stone tire cleaning pad will be installed wherever a construction access exists. The rip rap pad must be 100 feet in length and the stone must be 1.5" – 4" in size, placed 12" thick and the full width of the entrance. It should be underlain with a suitable synthetic filter fabric and maintained. The structure must be delineated and detailed on the plans.
10. If a stone construction access is to be used as an exit onto a major highway, a thirty (30) foot paved transition area shall be installed.
11. All driveways must be stabilized with 2 1/2" crushed stone or sub base prior to individual lot construction.
12. Paved roadways must be kept clean at all times.
13. All catch basin inlets will be protected during construction (filter details appear on plan).
14. All storm drainage outlets will be stabilized before the discharge points become operational.
15. All dewatering operations must discharge directly into a sediment filtration device. The sediment filter must be placed so as not to cause erosion of the downstream area. Filed placement and use of the structure must be approved by the District Erosion Control Inspector prior to commencement of dewatering activities.
16. The Burlington County Soil Conservation District shall be notified 72 hours prior to any land disturbance.
17. Soil having a pH of 4.0 or less or containing iron sulfide must be covered with a minimum of 12 inches of soil having a pH on 5.0 or more before seedbed preparation.
18. It shall be the responsibility of the developer to provide confirmation of time, fertilizer and seed application rates at the request of the Burlington County Soil Conservation District.
19. NJSA 4:24–39, et seq. requires that no Certificate of Occupancy be issued before all the provisions of the certified soil erosion and sediment control plan have been complied with for permanent measures. All site work for the project must be completed prior to the District issuing a report of compliance as a prerequisite to the issuance of a Certificate of Occupancy by the municipality.
20. NJSA 4:24–39, et seq. requires that upon permanent site stabilization and completion of construction the contractor shall apply to the Soil Conservation District for a final compliance inspection to check that all the provisions of the certified soil erosion and sediment control plan have been complied with for permanent measures.
21. Off site sediment disturbance may require additional control measures to be determined by the District Erosion Control Inspector.
22. A copy of the certified soil erosion and sediment control plan must be maintained on the project site during construction.
23. Any conveyance of this project prior to its completion will transfer full responsibility for compliance with the certified plan to all subsequent owners.
24. Immediately after the completion of stripping and stockpiling topsoil, the stockpile shall be seeded with temporary vegetation. Stabilize topsoil stockpiles with straw mulch for protection if the season does not permit the establishment of temporary seed.
25. Any changes to the site plan will require the submission of a revised soil erosion and sediment control plan to the Burlington County Soil Conservation District. The revised plan must be in accordance with the current Standards for Soil Erosion and Sediment Control in New Jersey.
26. Maximum side slopes of all exposed surfaces shall not be constructed steeper than 3:1.
27. The District Erosion Control Inspector may require additional measures to be installed.
28. The responsibility for erosion controls for individual lots will transfer to subsequent owners of the lot. The responsibility will be described in the deed, and a single family home plan containing all necessary erosion controls will be provided to the owner.
29. Concrete truck washout areas will be maintained on a continual basis and as needed.
30. The Stormwater Pollution Prevention Plan and the Spill Response Plan shall be available on site for review by the SCD Inspector and/or the NJDEP Inspector.
31. The SCD Inspector or NJDEP Inspector may require additional measures for Stormwater Pollution Prevention to be installed.
32. Inspections of all Stormwater Pollution Prevention Plan measures will be conducted and documented on a regular basis and after every storm event.
33. Waste collection containers will not be permitted to overflow.
34. Any spills of hazardous or sanitary wastes will be cleaned up immediately, and in accordance with the spill response plan. Spill kits must be available onsite or adjacent to the site.
35. Any Hazardous Substance release in excess of reportable quantities (RQ) established under 40 C.F.R. 110, 117 and 302 that occur within a 24 hour period must be reported to the National Response Center (800 424–8802).

Requirements for silt fence:

1. Fence posts shall be spaced 8 feet center-to-center or closer. They shall extend at least 2 feet into the ground and extend at least 2 feet above ground (Fig. 23-2). Posts shall be constructed of hardwood with a minimum diameter thickness of 1 ½ inches.
2. "Super" silt fence - A metal fence with 6 inch or smaller mesh openings and at least 2 feet high may be utilized, fastened to the fence posts, to provide reinforcement and support to the geotextile fabric. Posts may be spaced less than 8 feet on center and may be constructed of heavier wood or metal as needed to withstand heavier sediment loading. This practice is appropriate where space for other practices is limited and heavy sediment loading is expected. "Super" silt fence is not to be used in place of properly designed diversions (pg. 15-1) which may be needed to control surface runoff rates and velocities.
3. A geotextile fabric, recommended for such use by the manufacturer, shall be buried at least 6 inches deep in the ground. The fabric shall extend at least 2 feet above the ground. The fabric must be securely fastened to the posts using a system consisting of metal fasteners (nails or staples) and a high strength reinforcement material (nylon webbing, grommets, washers etc.) placed between the fastener and the geotextile fabric. The fastening system shall resist tearing away from the post. The fabric shall incorporate a drawstring in the top portion of the fence for added strength.




## SEDIMENT CONTROL FENCE

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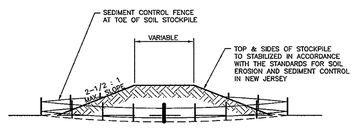



## TYPICAL STOCKPILE SECTION

NOT TO SCALE

# GENERAL NOTES PERMANENT STABILIZATION MIXTURES

1. See Appendix B for descriptions of turf grass mixtures and cultivars. The actual amount of warm-season grass mixture used in Table 3 (seed mix 1-7) shall be adjusted to reflect the amount of PLS as determined by germination testing results. No adjustment is required for cool-season grasses (seed mixtures 8-20).
2. Seeding mixtures and/or rates not listed above may be used if recommended by the local Soil Conservation District, Natural Resources Conservation Service, recommendations of Rutgers Cooperative Extension may be used if approved by the Soil Conservation District. Legumes (white clover, flatpea, bicolor) should be mixed with proper inoculant prior to planting.
3. Seeding rates specified are required when a report of compliance is requested prior to actual establishment of permanent vegetation. Up to 50% reduction in rates may be used when permanent vegetation is established prior to a report of compliance inspection. These rates apply to all methods of seeding. Establishing permanent vegetation means 80% vegetative coverage of the seeded area and mowed once. Grass seed mixture checked by the State Seed Analyst, New Jersey Department of Agriculture, Trenton, New Jersey, will ensure the purchaser that the mixture obtained is the mixture ordered, pursuant to the N.J. State Seed Law, N.J.S.A. 4:8-17.13 et. seq.

   O = optimal planting period A = acceptable planting period

4. Maintenance Level

   A: Intensive mowing, (2-4 days), fertilization, lime, pest control and irrigation (Examples – high maintenance lawns, commercial and recreation areas, public facilities).

   B: Frequent mowing, (4-7 days), occasional fertilization, lime and weed control (Examples – home lawns, commercial sites, school sites).

   C: Periodic mowing (7-14 days), occasional fertilization and lime (Examples - home lawns, parks).

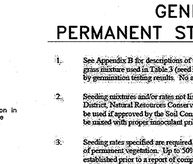
   D: Infrequent or no mowing, fertilization and lime the first year of establishment (Examples - roadsides, recreation areas, public open spaces).

5. Summer seedings should only be conducted when the site is irrigated. Mixes including white clover require that at least six weeks of growing season remain after seeding to ensure establishment before freezing conditions.

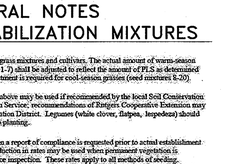
# SEQUENCE OF CONSTRUCTION

| DURATION | PHASE 1 |
|---|---|
| 3 Days | 1. Notify Burlington County Soil Conservation District 72 hours prior to any land disturbance. |
| 7 Days | 2. Install soil erosion control measures as shown on Soil Erosion and Sediment Control Plan. |
| 365 Days | 3. Place, grade and compact fill material to the grades as shown on the Phase 1 Grading and Soil Erosion & Sediment Control Plan. |
| 7 Days | 4. Stabilize all disturbed areas. |
| 7 Days | 5. Install permanent stabilization where required. |
| 7 Days | 6. Remove erosion and sediment control measures and general site clean up. |

| DURATION | PHASE 2 |
|---|---|
| 3 Days | 1. Notify Burlington County Soil Conservation District 72 hours prior to any land disturbance. |
| 7 Days | 2. Install soil erosion control measures as shown on Soil Erosion and Sediment Control Plan. |
| 30 Days | 3. Construct sediment basins as follows: Install sediment risers and outlet piping then construct berms along top of river bank. Extend the berms to form the outer walls of both basins. Also extend the berms and tie into existing berms at north end of the site. Use Phase 2 grading plan for top of berm elevations. |
| 335 Days | 4. Place, grade and compact fill material to the grades as shown on the Phase 2 Grading and Soil Erosion & Sediment Control Plan. Move construction entrance, weigh station & offices after southern area is filled and when needed to fill central area of the site. |
| 7 Days | 5. Stabilize all disturbed areas. |
| 14 Days | 6. Install permanent stabilization & landscape where required. |
| 7 Days | 7. Remove erosion and sediment control measures and temporary sediment risers. Perform general site clean up. |




SECTION A–A



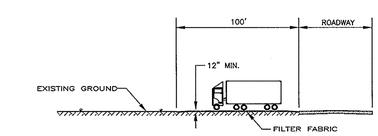

ISOMETRIC VIEW– TRUCK TIRE WASH STATION

CONSTRUCTION SPECIFICATIONS

1. USE A WASH RACK DESIGNED AND CONSTRUCTED/MANUFACTURED FOR THE ANTICIPATED TRAFFIC LOADS. CONCRETE, STEEL, OR OTHER MATERIALS ARE ACCEPTABLE. PRE–FABRICATED UNITS SUCH AS CATTLE GUARDS ARE ACCEPTABLE. USE MINIMUM DIMENSION OF 6 FEET x 10 FEET. ORIENT DIRECTION OF RIBS AS SHOWN ON THE DETAIL.
2. INSTALL ALONG SIDE OF THE STABILIZED CONSTRUCTION ENTRANCE.
3. DIRECT WASH WATER TO THE EXISTING SEDIMENT TRAPPING DEVICE.
4. KEEP AREA UNDER WASH RACK FREE OF ACCUMULATED SEDIMENT. IF DAMAGED, REPAIR OR REPLACE WASH RACK.

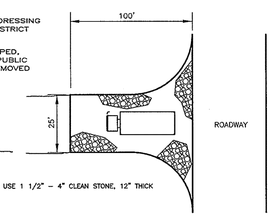
## MANUAL TRUCK TIRE WASH STATION

NOT TO SCALE




NOTES:

1. ADDITIONAL LENGTH OR TOP DRESSING MAY BE REQUIRED BY THE DISTRICT AS CONDITIONS DEMAND.
2. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS–OF–WAY MUST BE REMOVED IMMEDIATELY.
3. PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION ENTRANCE AND ROADWAY.




NOTE: USE 1 1/2" – 4" CLEAN STONE, 12" THICK

## STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

| NO. | BY | REVISIONS | DATE |
|---|---|---|---|
| 3 | LDV | REVISIONS PER FLORENCE TOWNSHIP REVIEW COMMENTS DATED NOVEMBER 23, 2015 | 12/04/15 |
| 2 | LDV | REVISIONS PER BURLINGTON COUNTY SCD COMMENTS DATED NOVEMBER 17, 2015 | 11/30/15 |
| 1 | ASM | TOWNSHIP AND BCSCD COMMENTS | 11/02/15 |

RICHARD A. MORALLE, P.E., P.L.S.
PROFESSIONAL ENGINEER & LAND SURVEYOR
LICENSED PROFESSIONAL ENGINEER
STATE OF NJ LICENSE No. GE25863

10/26/2015

FLORENCE GRIFFIN ADVISORS, LP

SOIL IMPORTATION PLANS FOR
BLOCK 179, LOTS 1.02, 1.03, 1.04 & 1.05

FLORENCE TOWNSHIP,
BURLINGTON COUNTY, NEW JERSEY

SOIL EROSION & SEDIMENT CONTROL NOTES AND DETAILS


AND
YOUR GOALS. OUR MISSION.
11 TINDALL ROAD
MIDDLETOWN, NJ 07748
TEL 732-671-6400
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NEW JERSEY BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS
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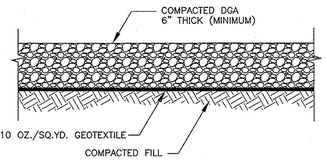
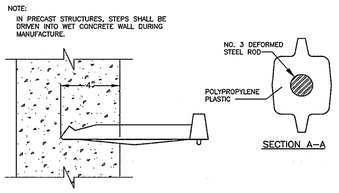
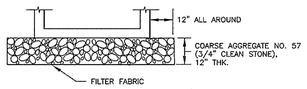
| | |
|---|---|
| DESIGNED BY ASM | DRAWING SD1 |
| CHECKED BY RAM | |
| DRAWN BY LDV | SHEET 6 



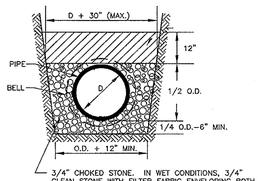

## PHASE 2 GRAVEL ACCESS ROAD
NOT TO SCALE




## POLYPROPYLENE STEP DETAIL
NOT TO SCALE

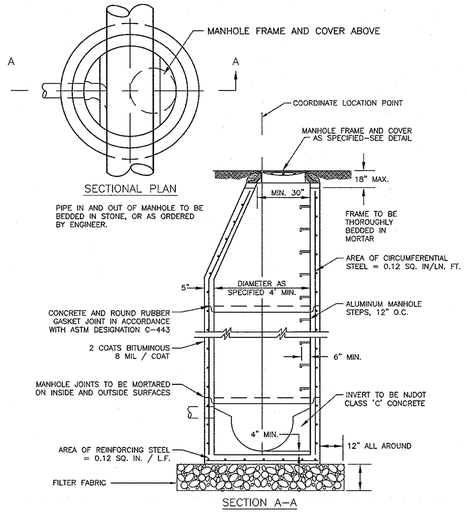



## STONE BEDDING UNDER STRUCTURES
NOT TO SCALE




CLASS 'C' BEDDING

## PIPE BEDDING
NOT TO SCALE




CONSTRUCTION NOTES:

1. PRECAST MANHOLE SECTIONS TO BE IN ACCORDANCE WITH LATEST ASTM DESIGNATION C–478, MINIMUM COMPRESSION STRENGTH TO BE 4000 PSI
2. FLEXIBLE RUBBER BOOT SHALL BE USED FOR CONNECTION OF PVC PIPE TO MANHOLE.
3. PRECAST CHANNELS SHALL NOT BE USED FOR BENDS GREATER THAN 45°. POURED CONCRETE LONG RADIUS CHANNELS SHALL BE CONSTRUCTED.
4. EXTERIOR COATING ON MANHOLES SHALL CONSIST OF TWO COATS, 4 MILS EACH, OF KOPPERS 300 M EPOXY OR PENNSBURY 32–B–4 COATING, OR APPROVED EQUAL.
5. INTERIOR COATING ON MANHOLES SHALL CONSIST OF TWO COATS, 4 MILS EACH, OF SIKAGUARD 62, HIGH BUILD (GREY COLOR), OR APPROVED EQUAL.

## PRECAST DRAINAGE MANHOLE
NOT TO SCALE

Table 16-1 Dust Control Materials

| MATERIAL | WATER DILUTION | TYPE OF NOZZLE | APPLY GALLONS/ACRE |
|---|---|---|---|
| Anionic asphalt emulsion | 7:1 | Coarse Spray | 1200 |
| Latex emulsion | 12.5:1 | Fine Spray | 235 |
| Resin in water | 4:1 | Fine Spray | 300 |
| Polyacrylamide (PAM) - spray on Polyacrylamide (PAM) - dry spread | Apply according to manufacturer's instructions. May also be used as an additive to sediment basins to flocculate and precipitate suspended colloids. See Sediment Basin standard, p. 26-1 | | |
| Acidulated Soy Bean Soap Stick | None | Coarse Spray | 1200 |

Tillage - To roughen surface and bring clods to the surface. This is a temporary emergency measure which should be used before soil blowing starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12 inches apart and spring-toothed harrows are examples of equipment which may produce the desired effect.

Sprinkling - Site is sprinkled until the surface is wet.

Barriers - Solid board fences, snow fences, burlap fences, crate walls, bales of hay and similar material can be used to control air currents and soil blowing.

Calcium Chloride - Shall be in the form of loose, dry granules or flakes fine enough to feed through commonly used spreaders at a rate that will keep surface moist but not cause pollution or plant damage. If used on steeper slopes, then use other practices to prevent washing into streams or accumulation around plants.

Stone - Cover surface with crushed stone or coarse gravel.

**STANDARD FOR DUST CONTROL**

Definition

The control of dust on construction sites and roads.

Purpose

To prevent blowing and movement of dust from exposed soil surfaces, reduced on-site and off-site damage and health hazards and improve traffic safety.

Condition Where Practice Applies

This practice is applicable to areas subject to dust blowing and movement where on-site and off-site damage is likely without treatment. Consult with local municipal ordinances on any restrictions.

Water Quality Enhancement

Sediments deposited as "dust" are often fine colloidal material which is extremely difficult to remove from water once it becomes suspended Use of this standard will help to control the generation of dust from construction sites and subsequent blowing and deposition into local surface water resources.

Planning Criteria

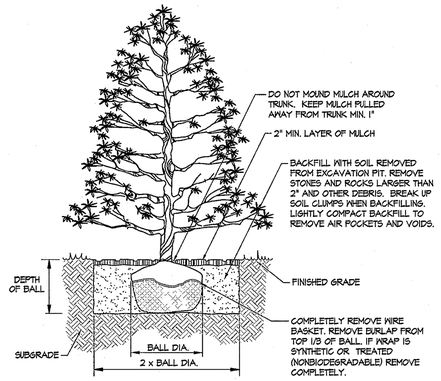
The following methods should be considered for controlling dust:

Mulches - See Standard of Stabilization with Mulches Only, pg. 5-1

Vegetative Cover - See Standard for: Temporary Vegetative Cover, pg. 7-1, Permanent Vegetative Cover for Soil Stabilization pg. 4-1 and Permanent Stabilization with Sod, pg. 6-1

Spray-On Adhesives - On mineral soils (not effective on muck soils). Keep traffic off these areas.

## DUST CONTROL NOTES
NOT TO SCALE




## EVERGREEN TREE PLANTING
NOT TO SCALE

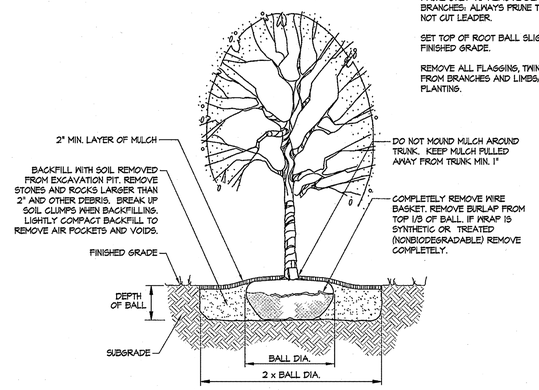
PLANTING NOTES:

SET PLANTS PLUMB AND FACE TO GIVE THE BEST APPEARANCE OR RELATIONSHIP TO ADJACENT AREAS.

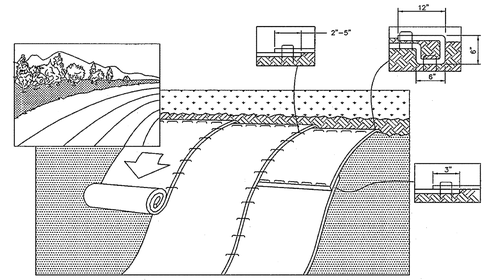
PRUNE ONLY TO REMOVE DEAD AND/OR BROKEN BRANCHES; ALWAYS PRUNE TO NODE OR CROTCH; DO NOT CUT LEADER.

SET TOP OF ROOT BALL SLIGHTLY ABOVE ADJACENT FINISHED GRADE.

REMOVE ALL FLAGGING, TWINE, STRING, TAGS, ETC., FROM BRANCHES AND LIMBS/TRUNKS FOLLOWING PLANTING.




## DECIDUOUS TREE PLANTING
NOT TO SCALE

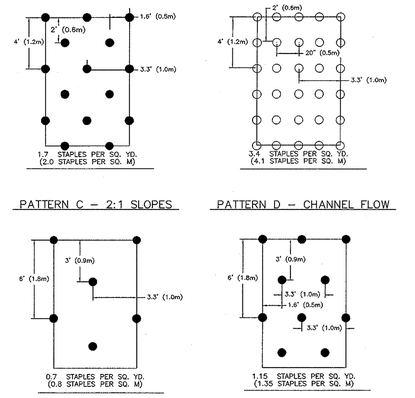



1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's) INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL–O–SEED, DO NOT SEED PREPARED AREA. CELL–O–SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE RECP's IN A 6" DEEP x 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECP's EXTENDED BEYOND THE UP–SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP's WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP's BACK OVER SEED AND COMPACTED SOIL. SECURE RECP's OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" ACROSS THE WIDTH OF THE RECP's.
3. ROLL THE RECP's (A) DOWN GRID) HORIZONTALLY ACROSS THE SLOPE. RECP's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP's MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM™, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL RECP's MUST BE STAPLED WITH APPROXIMATELY 2" – 5" (5 CM – 12.5 CM) OVERLAP DEPENDING ON RECP's TYPE.
5. CONSECUTIVE RECP's SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECP's WIDTH.
6. THE RECPS SHALL BE COMPOSED OF A POLYPROPYLENE MATERIAL (WOVEN GEOTEXTILE) WITHIN THE PROPOSED WET POND SIDE SLOPES

NOTE:
* IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY ANCHOR THE RECP's.

SLOPE INSTALLATION

## EROSION CONTROL MATTING INSTALLATION
NOT TO SCALE




PATTERN C – 2:1 SLOPES

PATTERN D – CHANNEL FLOW



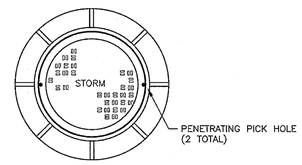

PATTERN A – 4:1 SLOPES PATTERN B – 3:1 SLOPES

FABRIC: S75BN
6.67' (2.03 M) WIDE ROLLS

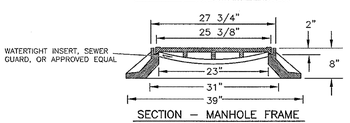
NOTE: SOIL STABILIZATION MATTING TO USE THE ROLLMAX BIONET S75BN SHORT TERM BIODEGRADABLE SINGLE–NET STRAW BLANKET MANUFACTURED BY TENSAR–NORTH AMERICAN GREEN OR APPROVED EQUAL (BSQ) 813–5000

## EROSION CONTROL MATTING STAPLE PATTERN GUIDES
NOT TO SCALE

MANHOLE COVERS AND FRAMES SHALL BE:
STANDARD (Heavy Traffic Type)
Campbell Foundry Company ———Pattern No. 1202, OR EQUAL




PLAN – MANHOLE FRAME




SECTION – MANHOLE FRAME

CONSTRUCTION NOTES:

1. MANHOLE FRAME AND COVER CASTINGS SHALL CONFORM TO THE LATEST ASTM A–48 CLASS 30 SPECIFICATION.
2. FRAME AND COVERS SHALL BE COATED WITH TWO COATS OF ASPHALTUM VARNISH.

## TYPICAL MANHOLE FRAME AND COVER
NOT TO SCALE

| NO. | BY | REVISIONS | DATE |
|---|---|---|---|
| 2 | LDV | REVISIONS PER FLORENCE TOWNSHIP REVIEW COMMENTS DATED NOVEMBER 23, 2015 | 12/04/15 |
| 1 | LDV | REVISIONS PER BURLINGTON COUNTY DCD COMMENTS DATED NOVEMBER 17, 2015 | 11/19/15 |

10/26/2015

RICHARD A. MORALLE, P.E., P.L.S.
PROFESSIONAL ENGINEER & LAND SURVEYOR
LICENSED PROFESSIONAL ENGINEER
STATE OF NJ LICENSE No. GB23583

FLORENCE GRIFFIN ADVISORS, LP

SOIL IMPORTATION PLANS FOR
BLOCK 179, LOTS 1.02, 1.03, 1.04 & 1.05

FLORENCE TOWNSHIP
BURLINGTON COUNTY, NEW JERSEY

CONSTRUCTION DETAILS


YOUR GOALS. OUR MISSION.

11 TINDALL ROAD
MIDDLETOWN, NJ 07748
TEL 732-671-6400
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| | |
|---|---|
| DESIGNED BY | ASM |
| CHECKED BY | RAM |
| DRAWN BY | LDV |
| DATE | 10/26/2015 |
| SCALE | AS NOTED |
| PROJ. NO. | FLGA-00020 |
| DRAWING | CD1 |
| SHEET | 7 OF 7 |


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PROJECT INFORMATION:
PATH: N:\FLGA\00020\Plans\
FILE NAME: FLGA-00020-CD1.dwg
LAST SAVED DATE AND TIME: 03 Dec 2015, 3:26PM
LAST SAVE BY: LDeVries

**Exhibit 2: LSRP Notice of Retention**

**New Jersey Department of Environmental Protection**
Site Remediation Program

# ISRA REMEDIATION CERTIFICATION

Date Stamp
(For Department use only)

## SECTION A. SITE LOCATION

Site Name (Operator subject to ISRA): Former Griffin Pipe Products Site

Street Address: 1100 West Front Street

Municipality: Florence *(Township, Borough or City)*

County: Burlington Zip Code: 08518

Program Interest (PI) Number(s): 000047 Case Tracking Number(s): E20100044

Municipal Block(s) and Lot(s):

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Block #: | 179 | Lot #: | 1.02 | Block #: | 179 | Lot #: | 1.03 |
| Block #: | 179 | Lot #: | 1.04 | Block #: | 179 | Lot #: | 1.05 |
| Block #: | | Lot #: | | Block #: | | Lot #: | |
| Block #: | | Lot #: | | Block #: | | Lot #: | |

## SECTION B. SITE OPERATIONS AND OWNERSHIP

**CURRENT OPERATOR(s)** (Subject to ISRA) – Attach additional sheets if multi-tenant facility

Corporate Name: Telephone #:

Street Address:

City or Town: State: Zip Code:

Municipality: County:

Tax Block and Lot Number(s):

State of Incorporation or Partnership information:

North American Industry Classification System (NAICS) Number:

**CURRENT PROPERTY OWNER**

Corporate or Individual Name: GPP-Florence, LLC Telephone #: (713) 358-9728

Street Address: c/o Amsted Industries Inc., 180 N. Stetson St., Suite 1800

Municipality: Chicago State: IL Zip Code: 60601

State of Incorporation or Part, if applicable: Illinois

Property Owner(s) type of Business Association and General Partner(s), as applicable:
Limited Liability Corporation

Date(s) of ownership of the Site: January, 2014

List all Site Property Owners and Operators since December 31, 1983 (Attach additional sheets if necessary.)

| **Name (Identify EACH ENTITY as either Operator or Owner)** | **Dates of Ownership/Operation** |
|---|---|
| Amsted Industries, Inc. and/or Florence Pipe, Foundry & Machine Company | 1983 - 10/2005 |
| Griffin Pipe Products Company | 10/2005 - 1/2014 |
| GPP-Florence, LLC | 1/2014 - present |

Have there been **ANY** previous filings and/or Oversight Documents executed for this Site? (Attach additional sheets if more than one industrial establishment is included in this application.)

The subject property has had ongoing environmental investigations and remedial activities since 1/19/1980 and is listed under NJDEP Program of Interest #000047. Upon ceasing operations at the industrial establishment in 2010, Griffin Pipe Products Company was assigned ISRA Case Number E20100044.

Has this Industrial Establishment received a No Further Action Letter or a Final Remediation Document ? ..... ☐ Yes ☒ No
If "Yes," please provide a copy.

**SECTION C. ISRA TRIGGER AND PURCHASER INFORMATION**

Describe **IN DETAIL** a) ISRA subject transaction for which this is requested, b) **status of the operations** (continuing or ceasing) after the transaction and c) identity of the property owner and operator upon completion of the transaction. (Attach additional sheets, if necessary.)

a) On July 28, 2015, GPP-Florence, LLC is selling the property to Florence Griffin Advisors, LP.

b) The operation of the industrial establishment ceased in 2010 and the property is currently vacant.

c) Upon completion of the transaction, Florence Griffin Advisors, LP will be the property owner. The property will remain vacant, pending remediation and redevelopment.

**Name of Purchaser or New Lessee**

Corporate or Individual Name: Florence Griffin Advisors, LP Telephone #: (713) 358-9728

Contact Person: Joseph W. Sutton

Street Address: 919 Milam Street, Suite 2300

Municipality: Houston State: Texas Zip Code: 77002

State of incorporation, if applicable: Delaware

Type of Business Association and General Partner(s), if applicable: Limited Partnership

**SECTION D. COST ESTIMATE, REMEDIATION FUNDING SOURCE AND ONE PERCENT (1%) SURCHARGE**

**See Instructions**: Submit the Remediation Cost Review and RFS/FA form providing either: a detailed estimate of the cost of the remediation **prepared and certified** by a licensed site remediation professional if Preliminary Assessment/Site Investigation has been completed; or

If a Preliminary Assessment/Site Investigation has NOT been completed for the site, the surrogate remediation funding source in the amount of $100,000.00 or $250,000.00. A cost estimate will be required within 30 calendar days of the completion of the PA/SI.

***Attach the original remediation funding source and one percent (1%) surcharge (if applicable) prepared and submitted in accordance with N.J.A.C. 7:26C-5 et seq.***

**SECTION E. AUTHORIZATIONS/CERTIFICATIONS**

**Owner *or* Operator Statutory Liability:**

I hereby certify that I am fully aware of the requirements of the Industrial Site Recovery Act (ISRA), N.J.S.A. 13:1K-6 et seq., as it pertains to the remediation of the industrial establishment subject to this remediation certification. Specifically, I am fully aware of the responsibilities of the owner or operator of the industrial establishment to remediate the site in accordance with N.J.S.A. 13:1K-6 et seq. and N.J.S.A. 58:10C et seq. and all associated implementing regulations.

I hereby certify that I acknowledge that the transaction and industrial establishment that are the subject of this remediation certification is a transfer of ownership or operations of an industrial establishment as defined by ISRA and N.J.A.C. 7:26B and I acknowledge that this remediation certification has been requested to allow the transaction referenced herein to proceed prior to completion of all ISRA compliance requirements. I further acknowledge that *(List owner or operator name certifying)* GPP-Florence, LLC is subject to penalties for violations of ISRA and N.J.A.C. 7:26B. I am fully aware of *(List owner or operator name certifying)* GPP-Florence, LLC responsibilities to allow the Department access to the subject industrial establishment and of the requirements to prepare and submit any documents relevant to the remediation of the subject industrial establishment as required by the Department.

I further acknowledge that the execution of a remediation certification shall not release *(List owner or operator name certifying)* GPP-Florence, LLC from any responsibilities *(List owner or operator name certifying)* GPP-Florence, LLC have pursuant to ISRA and this chapter.

Typed/Printed Name: Edward Brosius Date: 7-23-2015

Title: Secretary

Signature: Edward Brosius

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of N.J.S.A. 13:1K-6 et seq., I am personally liable for the penalties set forth at N.J.S.A. 13:1K-13.

Typed/Printed Name: Edward Brosius Date: 7.23.2015

Title: Secretary

Signature: Edward Brosius

**SECTION F. TRANSFEREE OR NEW LESSEE CERTIFICATION**

I hereby certify that *(Person or Corporate Name)* _____ is the transferee and/or new lessee of the industrial establishment subject to this remediation certification. I have read this application and am aware of the requirements and conditions of ISRA and the remediation certification.

*(Person or Corporate Name)* _____ expressly agrees to allow the Department, seller, previous owner, previous operator, any other person subject to the remediation certification, and any of their respective agents or assignees the right to enter the industrial establishment after the ISRA-subject transaction has taken place and/or the lease has been executed for completion of the remediation of the industrial establishment. Additionally, I acknowledge and understand that if a remedial action is warranted at the subject industrial establishment, institutional controls and engineering controls as defined in ISRA, N.J.S.A. 58:10B-1 et seq., N.J.A.C. 7:26C, N.J.A.C. 7:26E and N.J.A.C. 7:26B may be necessary at the industrial establishment.

Typed/Printed Name: _____ Date: _____

Title: _____

Signature: _____

**SECTION G. PARTY(IES) AGREEING TO CONDUCT REMEDIATION**

Corporate or Individual Name: Florence Griffin Advisors, LP Telephone #: (713) 358-9728

Contact Person: Joseph W. Sutton

Street Address: 919 Milam Street, Suite 2300

Municipality: Houston State: Texas Zip Code: 77002

State of Incorporation or Partnership Information, as applicable: Delaware

I hereby certify that I am fully aware of the requirements of the Industrial Site Recovery Act (ISRA), N.J.S.A. 13:1K-6 et seq., as it pertains to the remediation of the industrial establishment subject to this remediation certification. Specifically, I am fully aware of the responsibilities to remediate the site in accordance with N.J.S.A. 13:1K-6 et seq. and N.J.S.A. 58:10C et seq. and all associated implementing regulations.

I hereby certify that I acknowledge that the transaction and industrial establishment that are the subject of this remediation certification is a transfer of ownership or operations of an industrial establishment as defined by ISRA and N.J.A.C. 7:26B and I acknowledge that this remediation certification has been requested to allow the transaction referenced herein to proceed prior to completion of all ISRA compliance requirements. I further acknowledge that *(List party agreeing to conduct remediation certifying)* Florence Griffin Advisors, LP is subject to penalties for violations of ISRA and N.J.A.C. 7:26B in agreeing to conduct the remediation. I am fully aware of *(List party agreeing to conduct remediation)* Florence Griffin Advisors, LP responsibilities to allow the Department access to the subject industrial establishment and of the requirements to prepare and submit any documents relevant to the remediation of the subject industrial establishment as required by the Department.

I further acknowledge that the execution of a remediation certification shall not release *(List owner or operator name certifying)* GPP-Florence, LLC from any responsibilities *(List owner or operator name certifying)* GPP-Florence, LLC have pursuant to ISRA and this chapter.

Typed/Printed Name: Joseph W. Sutton Date: _____

Title: Manager, on behalf of S&B Deconstruction, LLC, member/manager of Florence Griffin Management, LLC, general partner of Florence Griffin Advisors, LP

Signature: _____

**SECTION H. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND STATEMENT (IF COST ESTIMATE BEING PROVIDED)**

LSRP ID Number: 573686

First Name: David Last Name: Pry

Phone Number: (862) 377-1209 Ext: Fax:

Mailing Address: 35 Charissa Court

City/Town: Hewitt State: NJ Zip Code: 07421

Email Address: dpry35@hotmail.com

This statement shall be signed by the LSRP who is submitting this notification in accordance with SRRA Section 16 d. and Section 30 b.2.

*I certify that I am a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C to conduct business in New Jersey. As the Licensed Site Remediation Professional of record for this remediation, I:*

**[SELECT ONE OR BOTH OF THE FOLLOWING AS APPLICABLE]:**

☐ *directly oversaw and supervised all of the referenced remediation, and\or*

☒ *personally reviewed and accepted all of the referenced remediation presented herein.*

*I believe that the information contained herein, and including all attached documents, is true, accurate and complete.*

*It is my independent professional judgment and opinion that the remediation conducted at this site, as reflected in this submission to the Department, conforms to, and is consistent with, the remediation requirements in N.J.S.A. 58:10C-14.*

*My conduct and decisions in this matter were made upon the exercise of reasonable care and diligence, and by applying the knowledge and skill ordinarily exercised by licensed site remediation professionals practicing in good standing, in accordance with N.J.S.A. 58:10C-16, in the State of New Jersey at the time I performed these professional services.*

*I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowingly or recklessly submitting false statement, representation or certification in any document or information submitted to the board or Department, etc., that there are significant civil, administrative and criminal penalties, including license revocation or suspension, fines and being punished by imprisonment for conviction of a crime of the third degree.*

LSRP Signature: Date: 7/22/15

LSRP Name/Title: David Pry / Principal

Company Name: David Pry, CPG, L.L.C.

Completed forms should be sent to:

Bureau of Case Assignment & Initial Notice
Site Remediation Program
NJ Department of Environmental Protection
401-05H
PO Box 420
Trenton, NJ 08625-0420

**New Jersey Department of Environmental Protection**
Site Remediation Program

# SITE AND CONTACT INFORMATION UPDATE FORM

Date Stamp
(For Department use only)

## SECTION A. EXISTING SITE NAME AND LOCATION

Site Name: Former Griffin Pipe Products Site

Street Address: 1100 West Front Street

Municipality: Florence (Township, Borough or City)

County: Burlington Zip Code: 08518

Program Interest (PI) Number(s): 000047

Case Tracking Number(s): E20100044

## SECTION B. INFORMATION TO BE UPDATED

Check all that apply then complete the corresponding section(s) of the form.

☐ **Changes in Site Address or Block and Lot Information**
- Section C. Changes in Site Address or Block and Lot Information, and
- Section H. Responsible Party Information and Certification

***or***

- Section I. Person Conducting Responsible for Remediation Information and Certification
- For changes in block and lot information **attach map(s)** showing old and new block and lot configurations.

☐ **Changes in Responsible Party *Contact Information***
- Section D. Changes in Responsible Party Contact Information
- Section H. Responsible Party Information and Certification

☒ **Add Yourself as a Responsible Party**
- Section E. Add Yourself as a Responsible Party
- Section H. Responsible Party Information and Certification

☐ **Changes in Person Responsible for Conducting Remediation *Contact Information***
- Section F. Changes in Person Responsible for Conducting Remediation Contact Information
- Section I. Person Responsible for Conducting Remediation Information and Certification

☒ **Changing the Person Responsible for Conducting Remediation**
- Section G. Changing the Person Responsible for Conducting Remediation, and
- Section I. Person Responsible for Conducting Remediation Information and Certification

☒ **Changes in LSRP *Contact Information***

Provide the new contact Information and compete the certification in:
- Section J. Licensed Site Remediation Professional Information And Certification

## SECTION C. CHANGES IN SITE ADDRESS OR BLOCK AND LOT INFORMATION

Street Address: _____

Municipality: _____ (Township, Borough or City)

County: _____ Zip Code: _____

Complete only if you are submitting a change in block and lot numbers:

| List **Old** Municipal Block and Lot Numbers: | List **New** Municipal Block and Lot Numbers: |
|---|---|
| Block # _____ Lot #(s) _____ | Block # _____ Lot #(s) _____ |
| Block # _____ Lot #(s) _____ | Block # _____ Lot #(s) _____ |
| Block # _____ Lot #(s) _____ | Block # _____ Lot #(s) _____ |
| Block # _____ Lot #(s) _____ | Block # _____ Lot #(s) _____ |
| Block # _____ Lot #(s) _____ | Block # _____ Lot #(s) _____ |
| Block # _____ Lot #(s) _____ | Block # _____ Lot #(s) _____ |
| Block # _____ Lot #(s) _____ | Block # _____ Lot #(s) _____ |
| Block # _____ Lot #(s) _____ | Block # _____ Lot #(s) _____ |

## SECTION D. CHANGES IN RESPONSIBLE PARTY CONTACT INFORMATION

**Name of Organization / Affiliation:** _____ *(cannot change)*

**New Contact Information:**

First Name of Contact: _____ Last Name of Contact: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Email Address: _____

Telephone Number: _____ Ext.: _____ FAX: _____

## SECTION E. ADD YOURSELF AS A RESPONSIBLE PARTY

Name of Organization / Affiliation: Florence Griffin Advisors, LP

First Name of Contact: Joseph Last Name of Contact: Sutton

Mailing Address: 919 Milam Street, Suite 2300

City: Houston State: Texas Zip Code: 77002

Email Address: _____

Telephone Number: (713) 358-9728 Ext.: _____ FAX: _____

## SECTION F. CHANGES IN PERSON RESPONSIBLE FOR CONDUCTING REMEDIATION CONTACT INFORMATION

**Name of Organization / Affiliation:** _____

*( cannot change in this section)*

**New Contact Information:**

First Name of Contact: _____ Last Name of Contact: _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Email Address: _____

Telephone Number: _____ Ext.: _____ FAX: _____

**SECTION G. CHANGING THE PERSON RESPONSIBLE FOR CONDUCTING REMEDIATION**

Provide the contact information and certification for the **Outgoing Person Responsible for Conducting Remediation** here and provide the contact information and certification for the **New Person Responsible for Conducting Remediation** in Section I. Person Responsible for Conducting Remediation Information and Certification.

**Outgoing Person Responsible for Conducting Remediation**

Name of Organization / Affiliation: GPP-Florence, LLC

First Name of Contact: Edward Last Name of Contact: Brosius

Mailing Address: Secretary

City: Chicago State: IL Zip Code: 60601

Email Address: ejb@amsted.com

Telephone Number: (312) 819-8482 Ext.: FAX:

*I am no longer the person responsible for conducting the remediation pursuant to N.J.S.A. 58:10C-2.*

Signature: Date: 7-24-2015

Name/Title: Edward Brosius / Secretary

**Note:** If the LSRP assigned to this site will change, a completed LSRP Notification of Retention or Dismissal Form must be filed electronically through NJDEP Online at http://www.nj.gov/dep/online to dismiss the assigned LSRP, and a separate complete LSRP Notification of Retention or Dismissal Form must be filed to retain the new LSRP.

**SECTION H. RESPONSIBLE PARTY INFORMATION AND CERTIFICATION**

Full Legal Name of the Responsible Party: Florence Griffin Advisors, LP

Name of Organization / Affiliation:

Representative First Name: Joseph Representative Last Name: Sutton

Title: General Partner

Phone Number: (713) 368-9728 Ext: Fax:

Mailing Address: 919 Milam Street, Suite 2300

City/Town: Houston State: Texas Zip Code: 77002

Email Address:

*I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.*

Signature: Date:

Name/Title: Joseph W. Sutton, manager, on behalf of S&S Deconstruction, LLC, member/manager of Florence Griffin Management, LLC, general partner of Florence Griffin Advisors, LP

Completed forms should be sent to:

Bureau of Case Assignment & Initial Notice
Site Remediation Program
NJ Department of Environmental Protection
401-05H
PO Box 420
Trenton, NJ 08625-0420

**SECTION I. PERSON RESPONSIBLE FOR CONDUCTING REMEDIATION INFORMATION AND CERTIFICATION**

Full Legal Name of Person Responsible For Conducting Remediation: Florence Griffin Advisors, LP

Representative First Name: Joseph Representative Last Name: Sutton

Title: General Partner

Phone Number: (713) 368-9728 Ext: Fax:

Mailing Address: 919 Milam Street, Suite 2300

City/Town: Houston State: Texas Zip Code: 77002

Email Address:

*I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.*

Signature: Date:

Name/Title: Joseph W. Sutton, manager, on behalf of S&S Deconstruction, L.L.C, member/manager of Florence Griffin Management, L.L.C, general partner of Florence Griffin Advisors, LP

Completed forms should be sent to:

Bureau of Case Assignment & Initial Notice
Site Remediation Program
NJ Department of Environmental Protection
401-05H
PO Box 420
Trenton, NJ 08625-0420

**SECTION J. LICENSED SITE REMEDIATION PROFESSIONAL INFORMATION AND CERTIFICATION**

LSRP ID Number: 573686

First Name: David Last Name: Pry *(cannot change with this form)*

Phone Number: (862) 377-1209 Ext: Fax:

Mailing Address: 35 Charissa Court

City/Town: Hewitt State: NJ Zip Code: 07421

Email Address: dpry35@hotmail.com

This statement shall be signed by the LSRP who is submitting this notification in accordance with SRRA Section 16 d. and Section 30 b.2.

*I certify that I am a Licensed Site Remediation Professional authorized pursuant to N.J.S.A. 58:10C to conduct business in New Jersey.*

*I am aware pursuant to N.J.S.A. 58:10C-17 that for purposely, knowingly or recklessly submitting false statement, representation or certification in any document or information submitted to the board or Department, etc., that there are significant civil, administrative and criminal penalties, including license revocation or suspension, fines and being punished by imprisonment for conviction of a crime of the third degree.*

LSRP Signature: Date: 7/22/15

LSRP Name/Title: David Pry / Principal

Company Name: David Pry, CPG, L.L.C.

Completed forms should be sent to:

Bureau of Case Assignment & Initial Notice
Site Remediation Program
NJ Department of Environmental Protection
401-05H
PO Box 420
Trenton, NJ 08625-0420

Kirstin Hahn, Bureau Chief
Bureau of Case Assignment & Initial Notice

State of New Jersey

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BOB MARTIN
Commissioner

July 27, 2015

David Pry
David Pry CPG, LLC
35 Charissa Court
Hewitt, NJ 07421
Email: dpry35@hotmail.com

Ray Ostrowski
Environmental Manager
Griffon Pipe Products Company, Inc.
1011 Warrenville Road, Suite 550
Lisle, IL 60532
Email: rostrowski@griffinpipe.com

Scott Gray
Florence Griffin Advisors
919 Milam Avenue
Suite 2300
Houston, TX 77002
Email: sgray@camstex.com

Re: GRIFFIN PIPE PRODUCTS CO
1100 W FRONT ST
Florence Twp, Burlington County

| | |
|---|---|
| Case Tracking #: | 118727 |
| SRP-PI: | 000047 |
| Activity Number Reference: | RET150001 |
| Hired To Address: | Entire Site |

Dear Scott Gray:

This letter serves to advise you that an LSRP Notification of Retention Form has been received by the New Jersey Department of Environmental Protection (NJDEP) at\or for the case GRIFFIN PIPE PRODUCTS CO. The NJDEP confirms that David L Pry was retained on July 27, 2015.

On May 7, 2009, the Site Remediation Reform Act (SRRA) was enacted. SRRA establishes criteria for the licensing of site remediation professionals who will assure that contaminated sites are remediated in accordance with the Technical Requirements for Site Remediation, N.J.A.C. 7:26E. SRRA authorizes the NJDEP to establish mandatory timeframes for the completion of

each phase of remediation. These timeframes, as well as other requirements of the Act, have been codified in regulations that became effective on November 4, 2009. The complete rule can be found at www.state.nj.us/dep/srp/regs/arrcs/arrcs_rule.pdf. N.J.A.C. 7:26C-2.4 identifies the requirements with which you must comply.

Per NJDEP's records, the following case types have been identified for this case:

| ***Case#*** | *Case Type* | *Start Date* |
|---|---|---|
| ISRA | 02/19/2010 | |
| RCRA GPRA 2020 | 06/21/2007 | |
| RCRA | 01/19/1980 | |

**Note: For some Retentions, Remedial Action Permits, some Childcare facilities and for some computer tracking system issues there will be no Case Types.

Please note that GRIFFIN PIPE PRODUCTS CO is identified as a case requiring traditional oversight.

Failure to comply with the obligations at a state lead remediation site may result in the NJDEP taking direct oversight of the remediation of the contaminated site. Once a site or a portion of a site is under direct Department oversight, the responsible party forfeits all rights in the decision making process regarding the remedial investigation and remedial action to be performed at the site, including remedy selection. Additionally, the responsible party will be required to post a remediation funding source. (http://www.nj.gov/dep/srp/guidance/srra/direct_oversight.pdf)

If you have any questions regarding this retention or your eligibility to proceed without NJDEP`s pre-approval please contact Stephen E Maybury, Chief, Bureau of Case Management at (609) 633-1455.

Our records have indicated that you have modified the Responsible Party for this retention. You must submit a Name and Address Change Reporting form which can be found at http://www.nj.gov/dep/srp/srra/forms/ to have the Responsible Party verify this modification.

The contact information provided above is based on information previously provided to the NJDEP. If you have questions on any of the above contact information, you can contact the Compliance Assistance Duty Officer at (609) 633-1464.

Sincerely,

Kirstin Hahn

Kirstin Hahn, Bureau Chief
Bureau of Case Assignment & Initial Notice

## Exhibit 3: 95th UCL Analysis

The following documents are included to provide summaries of distribution of site specific contaminants, input and output record of UCL analysis by ProUCL software, and laboratory reports of soil samples that were collected by Impact Environmental in 2015 and 2016 and are included in the 95th UCL analysis.

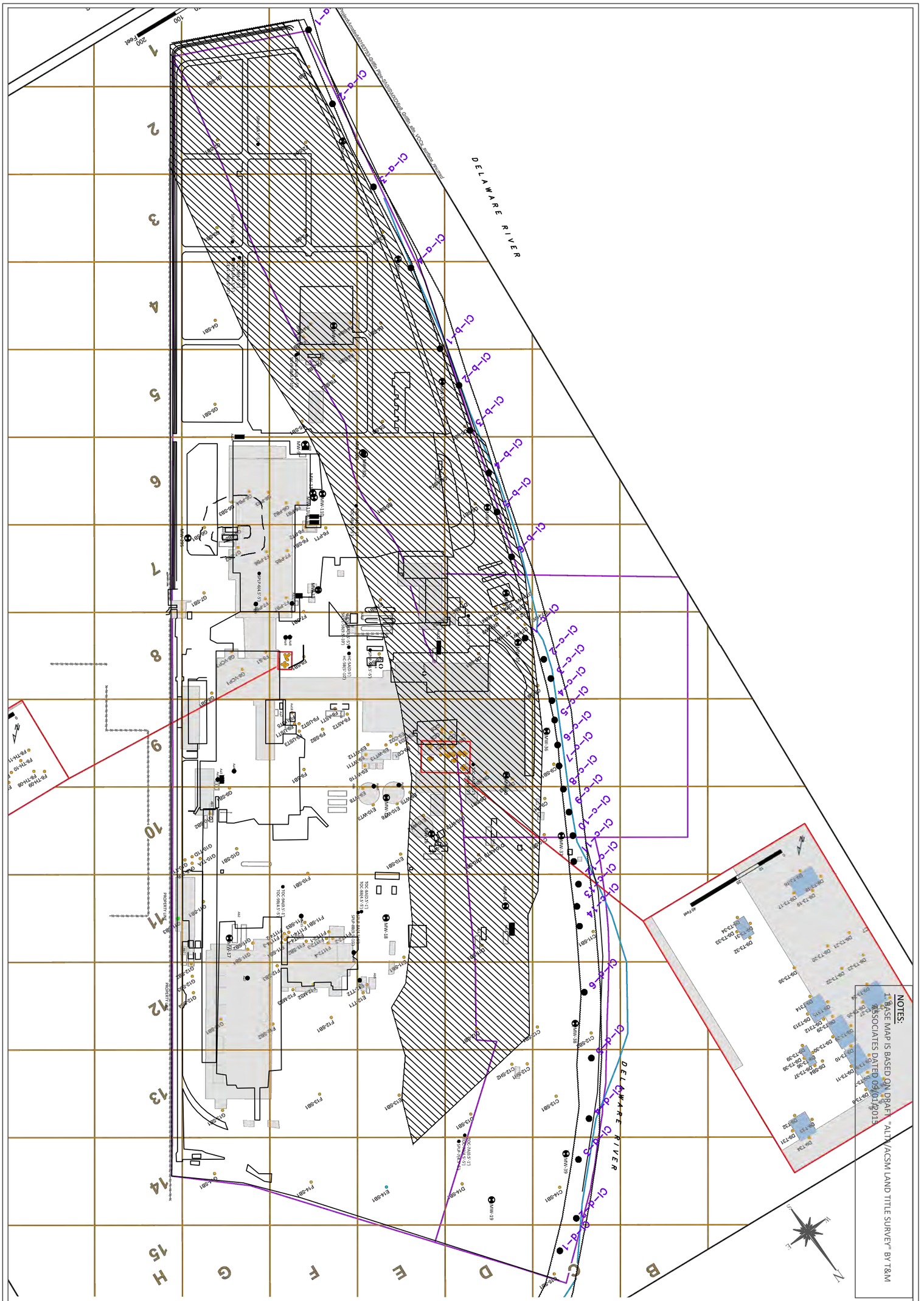
FIGURES

FIGURE 1 Soil Sample Locations for Site-Specific Parameters
FIGURE 2 Distribution of D_Benzo-a-Pyrene & Dibenzo-a,h-Anthracene
FIGURE 3 Distribution of Benzo-a-Anthracene, Benzo-b-Fluoranthene&Indeno(1,2,3-cd)Pyrene
FIGURE 4 Distribution of Lead
FIGURE 5 Distribution of Mercury
FIGURE 6 Distribution of Silver
FIGURE 7 Distribution of Zinc

APPENDIX

Appendix A General Statistics of Sample Results
Appendix B ProUCL Input and Output Documentation
Appendix C Sampling Maps and Laboratory Reports

FIGURES


DELAWARE RIVER
DELAWARE RIVER
Cl-a-1
Cl-a-2
Cl-a-3
Cl-a-4
Cl-b-1
Cl-b-2
Cl-b-3
Cl-b-4
Cl-b-5
Cl-b-6
Cl-c-1
Cl-c-2
Cl-c-3
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Cl-c-5
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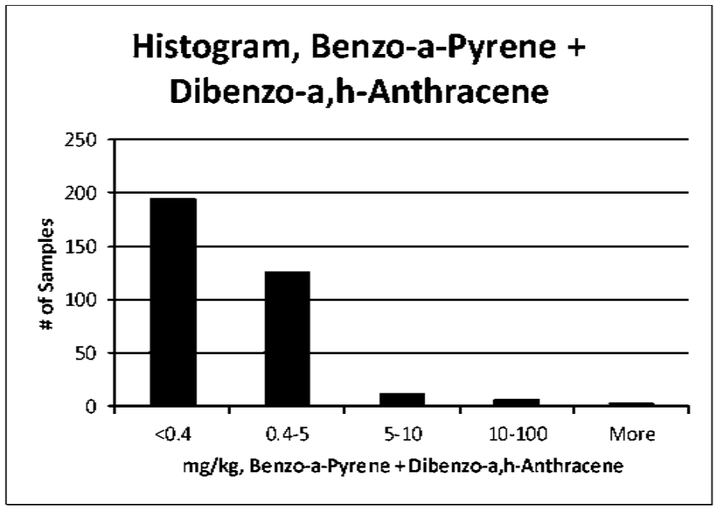
Cl-d-40




| Samples Excluded from UCL Analysis | Benzo-a-Pyrene + Dibenzo-a,h-Anthracene (mg/kg) |
|---|---|
| ISB-AA6B | 300 |
| ISB-AA1 | 292 |
| E12-TT2-0.0 | 84.7 |

## Legend of Color Code

- >100 ppm (3 Samples)
- 10-100 ppm (7 Samples)
- 5-10 ppm (13 Samples)
- 0.4-5 ppm (126 Samples)

For combined concentrations of Benzo-a-Pyrene & Dibenzo-a,h-Anthracene. Each color dot may represent more than one sample.

NOTES:
1. BASE MAP IS BASED ON DRAFT "ALTA/ACSM LAND TITLE SURVEY" BY T&M ASSOCIATES DATED 09/01/2015.




DRAWING NO. 2

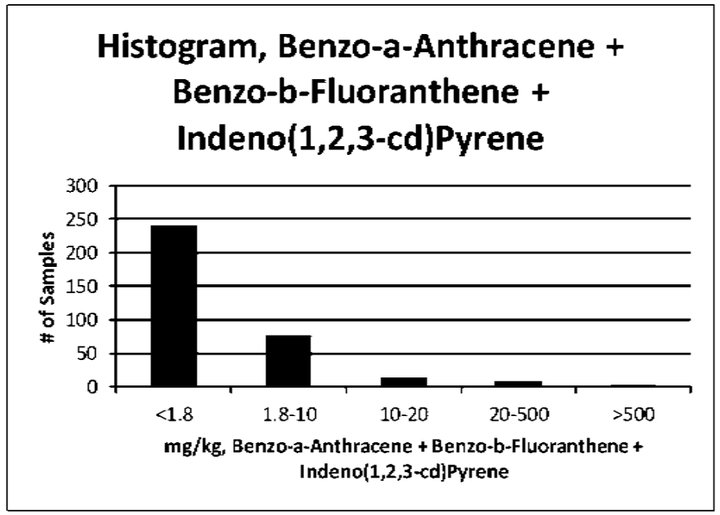
# DISTRIBUTION OF BENZO-A-PYRENE & DIBENZO-A,H-ANTHRACENE

GRIFFIN PIPE - WEST SIDE
1100 West Front Street
Florence, New Jersey 08518
Block: 179 Lots: 1.02, 1.03, 1.04, 1.05

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | RP |
| DATE: | 02/09/2016 |
| SCALE: | GRAPHIC |

LEGEND
- SPLP SAMPLE LOCATION
- TOTAL ORGANIC CARBON (TOC) SAMPLE LOCATION
- SIEVE/HYDROMETER SAMPLE LOCATION
- HYDRAULIC CONDUCTIVITY SAMPLE LOCATION
- NJDEP MAPPED HISTORIC FILL

IMPACT ENVIRONMENTAL
1000 Page Avenue
Lyndhurst, New Jersey 07071
TEL (201) 288-5686 FAX (201) 804-7081




| Samples Excluded from UCL Analysis | Benzo-a-Anthracene + Benzo-b-Fluoranthene + Indeno(1,2,3-cd)Pyrene (mg/kg) |
|---|---|
| ISB-AA6B | 750 |
| ISB-AA1 | 780 |
| E12-TT2-0.0 | 162.6 |

## Legend of Color Code

- >500 ppm (3 Samples)
- 20-500 ppm (9 Samples)
- 10-20 ppm (15 Samples)
- 1.8-10 ppm (77 Samples)

For combined concentrations of Benzo-a-Anthracene, Benzo-b-Fluoranthene and Indeno(1,2,3-cd)Pyrene. Each color dot may represent more than one sample.

NOTES:
1. BASE MAP IS BASED ON DRAFT "ALTA/ACSM LAND TITLE SURVEY" BY T&M ASSOCIATES DATED 09/01/2015.




DRAWING NO. 3

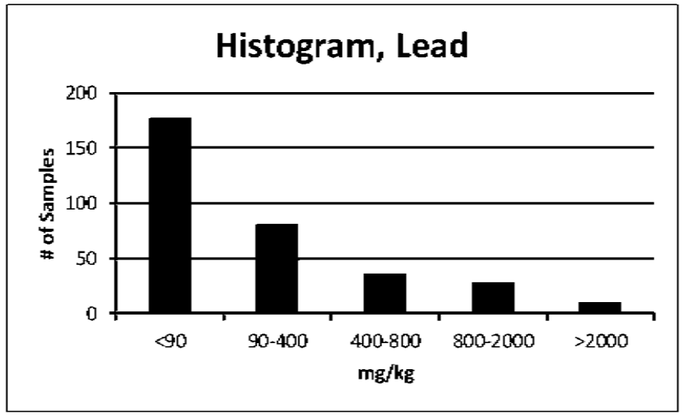
DISTRIBUTION OF BENZO-A-ANTHRACENE, BENZO-B-FLUORANTHENE & INDENO(1,2,3-CD)PYRENE

GRIFFIN PIPE - WEST SIDE
1100 West Front Street
Florence, New Jersey 08518
Block: 179 Lots: 1.02, 1.03, 1.04, 1.05

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | RP |
| DATE: | 02/09/2016 |
| SCALE: | GRAPHIC |

LEGEND
- SPLP SAMPLE LOCATION
- TOTAL ORGANIC CARBON (TOC) SAMPLE LOCATION
- SIEVE/HYDROMETER SAMPLE LOCATION
- HYDRAULIC CONDUCTIVITY SAMPLE LOCATION
- NJDEP MAPPED HISTORIC FILL

IMPACT ENVIRONMENTAL
1000 Page Avenue
Lyndhurst, New Jersey 07071
TEL (201) 268-5686 FAX (201) 604-7081




## Legend of Color Code

- >2000 ppm (10 Samples)
- 800-2000 ppm (29 Samples)
- 400-800 ppm (36 Samples)
- 90-400 ppm (81 Samples)

Each color dot may represent more than one sample.

NOTES:
1. BASE MAP IS BASED ON DRAFT "ALTA/ACSM LAND TITLE SURVEY" BY T&M ASSOCIATES DATED 09/01/2015.

DELAWARE RIVER

DRAWING NO. 4

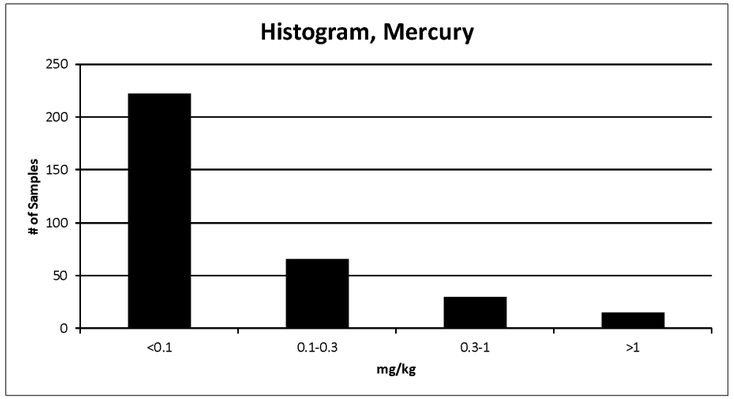
DISTRIBUTION OF LEAD

GRIFFIN PIPE - WEST SIDE
1100 West Front Street
Florence, New Jersey 08518
Block: 179 Lots: 1.02, 1.03, 1.04, 1.05

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | RP |
| DATE: | 02/09/2016 |
| SCALE: | GRAPHIC |

LEGEND
- SPLP SAMPLE LOCATION
- TOTAL ORGANIC CARBON (TOC) SAMPLE LOCATION
- SIEVE/HYDROMETER SAMPLE LOCATION
- HYDRAULIC CONDUCTIVITY SAMPLE LOCATION
- NJDEP MAPPED HISTORIC FILL

IMPACT ENVIRONMENTAL
1000 Page Avenue
Lyndhurst, New Jersey 07071
TEL (201) 268-5686 FAX (201) 604-7081




## Legend of Color Code

- >1 ppm (15 Samples)
- 0.1-1 ppm (30 Samples)
- 0.1-0.3 ppm (66 Samples)

Each color dot may represent more than one sample.

NOTES:
1. BASE MAP IS BASED ON DRAFT "ALTA/ACSM LAND TITLE SURVEY" BY T&M ASSOCIATES DATED 09/01/2015.




DRAWING NO. 5

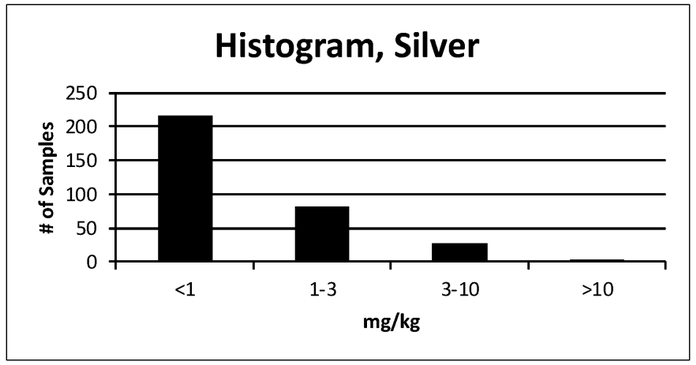
# DISTRIBUTION OF MERCURY

GRIFFIN PIPE - WEST SIDE
1100 West Front Street
Florence, New Jersey 08518
Block: 179 Lots: 1.02, 1.03, 1.04, 1.05

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | RP |
| DATE: | 02/09/2016 |
| SCALE: | GRAPHIC |

LEGEND
- SPLP SAMPLE LOCATION
- TOTAL ORGANIC CARBON (TOC) SAMPLE LOCATION
- SIEVE/HYDROMETER SAMPLE LOCATION
- HYDRAULIC CONDUCTIVITY SAMPLE LOCATION
- NJDEP MAPPED HISTORIC FILL

IMPACT ENVIRONMENTAL
1000 Page Avenue
Lyndhurst, New Jersey 07071
TEL (201) 268-5686 FAX (201) 604-7081




## Legend of Color Code

- >10 ppm (4 Samples)
- 3-10 ppm (28 Samples)
- 1-3 ppm (82 Samples)

Each color dot may represent more than one sample.

NOTES:
1. BASE MAP IS BASED ON DRAFT "ALTA/ACSM LAND TITLE SURVEY" BY T&M ASSOCIATES DATED 09/01/2015.




DRAWING NO. 6

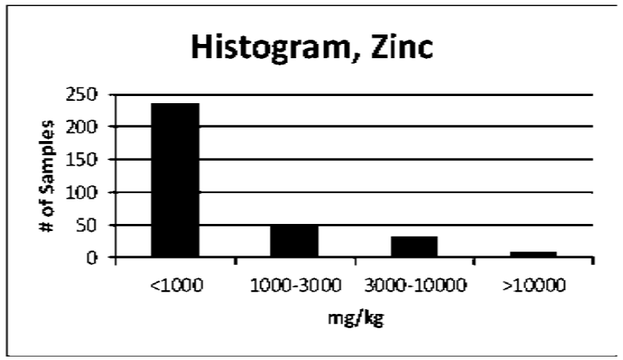
# DISTRIBUTION OF SILVER

GRIFFIN PIPE - WEST SIDE
1100 West Front Street
Florence, New Jersey 08518
Block: 179 Lots: 1.02, 1.03, 1.04, 1.05

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | RP |
| DATE: | 02/09/2016 |
| SCALE: | GRAPHIC |

LEGEND
- SPLP SAMPLE LOCATION
- TOTAL ORGANIC CARBON (TOC) SAMPLE LOCATION
- SIEVE/HYDROMETER SAMPLE LOCATION
- HYDRAULIC CONDUCTIVITY SAMPLE LOCATION
- NJDEP MAPPED HISTORIC FILL

IMPACT ENVIRONMENTAL
1000 Page Avenue
Lyndhurst, New Jersey 07071
TEL (201) 268-5686 FAX (201) 604-7081




## Legend of Color Code

- >10000 ppm (9 Samples)
- 3000-10000 ppm (33 Samples)
- 1000-3000 ppm (48 Samples)

Each color dot may represent more than one sample.

NOTES:
1. BASE MAP IS BASED ON DRAFT "ALTA/ACSM LAND TITLE SURVEY" BY T&M ASSOCIATES DATED 09/01/2015.

DRAWING NO. 7

# DISTRIBUTION OF ZINC

GRIFFIN PIPE - WEST SIDE
1100 West Front Street
Florence, New Jersey 08518
Block: 179 Lots: 1.02, 1.03, 1.04, 1.05

| | |
|---|---|
| DRAWN BY: | XY |
| CHECKED BY: | RP |
| DATE: | 02/09/2016 |
| SCALE: | GRAPHIC |

LEGEND
- SPLP SAMPLE LOCATION
- TOTAL ORGANIC CARBON (TOC) SAMPLE LOCATION
- SIEVE/HYDROMETER SAMPLE LOCATION
- HYDRAULIC CONDUCTIVITY SAMPLE LOCATION
- NJDEP MAPPED HISTORIC FILL

IMPACT ENVIRONMENTAL
1000 Page Avenue
Lyndhurst, New Jersey 07071
TEL (201) 268-5686 FAX (201) 604-7081

Appendix A General Statistics of Sample Results

General Statistics for Censored Data Set (with NDs) using Kaplan Meier Method (Data not winsorized)

| Variable | NumObs | # Missing | Num Ds | NumNDs | % NDs | Min ND | Max ND | KM Mean | KM Var | KM SD | KM CV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzo-a-Pyrene + Dibenzo-a,h-Anthracene | 344 | 0 | 247 | 97 | 28.20% | 0.0124 | 4.1 | 3.876 | 691.3 | 26.29 | 6.784 |
| Benzo-a-Anthracene + Benzo-b-Fluoranthene + Indeno(1,2,3-cd)Pyrene | 344 | 0 | 270 | 74 | 21.51% | 0.0197 | 3.85 | 9.607 | 4592 | 67.76 | 7.054 |
| Lead, Pb | 333 | 0 | 303 | 30 | 9.01% | 3.4 | 51 | 326.3 | 449221 | 670.2 | 2.054 |
| Mercury, Hg | 333 | 0 | 195 | 138 | 41.44% | 0.033 | 0.09 | 0.19 | 0.175 | 0.419 | 2.2 |
| Silver, Ag | 333 | 0 | 136 | 197 | 59.16% | 0.51 | 5.4 | 1.699 | 71.09 | 8.432 | 4.962 |
| Zinc, Zn | 330 | 3 | 330 | 0 | 0.00% | N/A | N/A | 1559 | 25109295 | 5011 | 3.215 |

General Statistics for Raw Data Sets using Detected Data Only

| Variable | NumObs | # Missing | Minimum | Maximum | Mean | Median | Var | SD | MAD/0.675 | Skewness | CV |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzo-a-Pyrene + Dibenzo-a,h-Anthracene | 247 | 0 | 0.0247 | 300 | 5.371 | 0.526 | 958.8 | 30.96 | 0.608 | 8.558 | 5.765 |
| Benzo-a-Anthracene + Benzo-b-Fluoranthene + Indeno(1,2,3-cd)Pyrene | 270 | 0 | 0.0341 | 780 | 12.21 | 0.921 | 5840 | 76.42 | 1.131 | 9.087 | 6.257 |
| Lead, Pb | 303 | 0 | 0.26 | 6020 | 358.2 | 100 | 483969 | 695.7 | 137 | 4.294 | 1.942 |
| Mercury, Hg | 195 | 0 | 0.01 | 3.3 | 0.306 | 0.12 | 0.269 | 0.519 | 0.119 | 3.462 | 1.696 |
| Silver, Ag | 136 | 0 | 0.18 | 148 | 3.64 | 1.55 | 168.9 | 13 | 1.357 | 10.39 | 3.57 |
| Zinc, Zn | 330 | 3 | 7.1 | 56100 | 1559 | 174 | 25109295 | 5011 | 225.4 | 8.225 | 3.215 |

Percentiles using all Detects (Ds) and Non-Detects (NDs)

| Variable | NumObs | # Missing | 10%ile | 20%ile | 25%ile(Q1) | 50%ile(Q2) | 75%ile(Q3) | 80%ile | 90%ile | 95%ile | 99%ile |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzo-a-Pyrene + Dibenzo-a,h-Anthracene | 344 | 0 | 0.0207 | 0.0683 | 0.119 | 0.28 | 1.075 | 1.395 | 4.07 | 6.088 | 67.77 |
| Benzo-a-Anthracene + Benzo-b-Fluoranthene + Indeno(1,2,3-cd)Pyrene | 344 | 0 | 0.0344 | 0.137 | 0.182 | 0.648 | 2.488 | 3.134 | 8.3 | 13.41 | 145.5 |
| Lead, Pb | 333 | 0 | 4.6 | 7.98 | 13 | 73.3 | 335 | 439.2 | 880.4 | 1414 | 3202 |
| Mercury, Hg | 333 | 0 | 0.034 | 0.035 | 0.036 | 0.07 | 0.15 | 0.206 | 0.404 | 0.924 | 2.34 |
| Silver, Ag | 333 | 0 | 0.53 | 0.55 | 0.55 | 0.83 | 1.3 | 1.66 | 2.88 | 5.4 | 11.61 |
| Zinc, Zn | 330 | 3 | 22.54 | 31.3 | 38.33 | 174 | 1278 | 2032 | 3542 | 4841 | 17663 |

Appendix B ProUCL Input and Output Documentation

| Sample ID (all units in mg/kg) | Benzo-a-Pyrene | D_Benzo-a-Pyrene | Dibenzo-a,h-Anthracene | D_Dibenzo-a,h-Anthracene | **Benzo-a-Pyrene + Dibenzo-a,h-Anthracene** | **D_Benzo-a-Pyrene + Dibenzo-a,h-Anthracene** | **Winsorized Benzo-a-Pyrene + Dibenzo-a,h-Anthracene*** |
|---|---|---|---|---|---|---|---|
| ISB-AA6B | 260 | 1 | 40 | 1 | 300 | 1 | 19.8 |
| ISB-AA1 | 250 | 1 | 42 | 1 | 292 | 1 | 19.8 |
| F5-SB1-7.5 | 202 | 1 | 34.3 | 1 | 236.3 | 1 | 19.8 |
| E12-TT2-0.0 | 69.8 | 1 | 14.9 | 1 | 84.7 | 1 | 19.8 |
| E4-SB1-6.0 | 38.6 | 1 | 6.72 | 1 | 45.32 | 1 | 19.8 |
| G4-SB1-6.5 | 23.6 | 1 | 4.09 | 1 | 27.69 | 1 | 19.8 |
| CL-D-2A | 17 | 1 | 2.8 | 1 | 19.8 | 1 | 19.8 |
| G4-SB1-6.5P | 12.1 | 1 | 1.98 | 1 | 14.08 | 1 | 14.08 |
| E13-SB1-0.0 | 8.77 | 1 | 2.07 | 1 | 10.84 | 1 | 10.84 |
| D9-SB2-0.0 | 8.35 | 1 | 2.06 | 1 | 10.41 | 1 | 10.41 |
| F7-SB1-0.0 | 7.36 | 1 | 1.7 | 1 | 9.06 | 1 | 9.06 |
| E12-TT1-0.0 | 7.04 | 1 | 1.42 | 1 | 8.46 | 1 | 8.46 |
| E12-TT1-0.0P | 6.8 | 1 | 1.57 | 1 | 8.37 | 1 | 8.37 |
| F6-PB1-0.0 | 8.03 | 1 | 0.125 | 1 | 8.155 | 1 | 8.155 |
| E7-SB1-3.0 | 5.86 | 1 | 1.8 | 1 | 7.66 | 1 | 7.66 |
| CL-C-2A | 5.3 | 1 | 1.2 | 1 | 6.5 | 1 | 6.5 |
| E3-SB1-0.0 | 5.22 | 1 | 1.03 | 1 | 6.25 | 1 | 6.25 |
| ISB-AA13.1 | 5.2 | 1 | 0.91 | 1 | 6.11 | 1 | 6.11 |
| C10-SB1-0.0 | 4.72 | 1 | 1.24 | 1 | 5.96 | 1 | 5.96 |
| F9-SB1-9.5 | 4.58 | 1 | 1.07 | 1 | 5.65 | 1 | 5.65 |
| CL-C-4A | 4.4 | 1 | 0.94 | 1 | 5.34 | 1 | 5.34 |
| F6-SB1-0.0 | 4.28 | 1 | 1.02 | 1 | 5.3 | 1 | 5.3 |
| CL-B-6A | 4 | 1 | 1.1 | 1 | 5.1 | 1 | 5.1 |
| E11-SB1-0.0 | 3.97 | 1 | 0.944 | 1 | 4.914 | 1 | 4.914 |
| F7-SB1-6.5 | 3.73 | 1 | 1.06 | 1 | 4.79 | 1 | 4.79 |
| F4-TR1-1.5 | 3.26 | 1 | 1.34 | 1 | 4.6 | 1 | 4.6 |
| F5-SB1-0.0 | 3.61 | 1 | 0.857 | 1 | 4.467 | 1 | 4.467 |
| F6-PT2-6.0 | 3.52 | 1 | 0.947 | 1 | 4.467 | 1 | 4.467 |
| G6-PB2-3.5 | 3.53 | 1 | 0.867 | 1 | 4.397 | 1 | 4.397 |
| C13-SB1-3.0 | 3.37 | 1 | 0.984 | 1 | 4.354 | 1 | 4.354 |
| G10-SB1-0.0 | 3.4 | 1 | 0.861 | 1 | 4.261 | 1 | 4.261 |
| C15-SB1-0.0 | 3.29 | 1 | 0.93 | 1 | 4.22 | 1 | 4.22 |
| C9-SB1-0.0 | 3.05 | 1 | 1.12 | 1 | 4.17 | 1 | 4.17 |
| ISB-463NE-A | 2.8 | 0 | 1.3 | 0 | 4.1 | 0 | 4.1 |
| SPLP-5 | 3.5 | 1 | 0.6 | 1 | 4.1 | 1 | 4.1 |
| ISB-463NE.3B | 2.7 | 0 | 1.3 | 0 | 4 | 0 | 4 |
| G6-PB4-5.5 | 3.06 | 1 | 0.861 | 1 | 3.921 | 1 | 3.921 |
| ISB-46NE B | 2.6 | 0 | 1.2 | 0 | 3.8 | 0 | 3.8 |
| F6-PT1-6.0 | 2.81 | 1 | 0.755 | 1 | 3.565 | 1 | 3.565 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| F6-PT2-6.0 | 2.59 | 1 | 0.7 | 1 | 3.29 | 1 | 3.29 |
| CL-D-3A | 2.4 | 1 | 0.74 | 1 | 3.14 | 1 | 3.14 |
| F12-MS2-0.0 | 2.42 | 1 | 0.675 | 1 | 3.095 | 1 | 3.095 |
| F6-PT1-0.0 | 2.44 | 1 | 0.632 | 1 | 3.072 | 1 | 3.072 |
| TH-5-3 | 2.55 | 1 | 0.414 | 1 | 2.964 | 1 | 2.964 |
| CL-C-8A | 2.4 | 1 | 0.46 | 1 | 2.86 | 1 | 2.86 |
| E11-SB1-12.0 | 2.34 | 1 | 0.494 | 1 | 2.834 | 1 | 2.834 |
| F7-PB6-3.0 | 2.42 | 1 | 0.356 | 1 | 2.776 | 1 | 2.776 |
| G12-SB2-11.5 | 2.22 | 1 | 0.528 | 1 | 2.748 | 1 | 2.748 |
| C9-PH1-6.5 | 2.04 | 1 | 0.567 | 1 | 2.607 | 1 | 2.607 |
| C8-SB1-11.0 | 1.94 | 1 | 0.492 | 1 | 2.432 | 1 | 2.432 |
| F11-SB2-6.5 | 1.97 | 1 | 0.462 | 1 | 2.432 | 1 | 2.432 |
| D6-AST4-0.0 | 1.86 | 1 | 0.523 | 1 | 2.383 | 1 | 2.383 |
| C9-PH1-0.0P | 1.86 | 1 | 0.465 | 1 | 2.325 | 1 | 2.325 |
| CL-B-6C | 1.9 | 1 | 0.36 | 1 | 2.26 | 1 | 2.26 |
| CL-A-1C | 1.9 | 1 | 0.34 | 1 | 2.24 | 1 | 2.24 |
| ISB-E10WT3 | 1.5 | 0 | 0.72 | 0 | 2.22 | 0 | 2.22 |
| SB-MW35 | 1.5 | 0 | 0.71 | 0 | 2.21 | 0 | 2.21 |
| ISB-AB4.2 | 1.4 | 0 | 0.65 | 0 | 2.05 | 0 | 2.05 |
| C11-SB1-6.0 | 1.68 | 1 | 0.345 | 1 | 2.025 | 1 | 2.025 |
| ISB-E11SB1A | 1.3 | 0 | 0.61 | 0 | 1.91 | 0 | 1.91 |
| F8-TH1-0.0 | 1.47 | 1 | 0.365 | 1 | 1.835 | 1 | 1.835 |
| E7-SB1-0.0 | 1.36 | 1 | 0.36 | 1 | 1.72 | 1 | 1.72 |
| C12-SH1-0.0 | 1.24 | 1 | 0.358 | 1 | 1.598 | 1 | 1.598 |
| F12-SB1-0.0 | 1.2 | 1 | 0.332 | 1 | 1.532 | 1 | 1.532 |
| CL-B-4A | 1.2 | 1 | 0.33 | 1 | 1.53 | 1 | 1.53 |
| F7-PB5-0.0 | 1.29 | 1 | 0.231 | 1 | 1.521 | 1 | 1.521 |
| CL-D-5A | 1.1 | 1 | 0.37 | 1 | 1.47 | 1 | 1.47 |
| C10-SB1-9.5 | 1.12 | 1 | 0.333 | 1 | 1.453 | 1 | 1.453 |
| G6-PB3-8.0 | 1.16 | 1 | 0.243 | 1 | 1.403 | 1 | 1.403 |
| CL-A-4A | 1.1 | 1 | 0.29 | 1 | 1.39 | 1 | 1.39 |
| F9-SB2-14.5 | 1.03 | 1 | 0.352 | 1 | 1.382 | 1 | 1.382 |
| TH-11-0 | 1.25 | 1 | 0.104 | 1 | 1.354 | 1 | 1.354 |
| CL-C-6C | 1.1 | 1 | 0.25 | 1 | 1.35 | 1 | 1.35 |
| E9-WT5-0.0 | 0.996 | 1 | 0.235 | 1 | 1.231 | 1 | 1.231 |
| SB-MW38 | 1 | 1 | 0.22 | 1 | 1.22 | 1 | 1.22 |
| G8-SB1-0.0 | 0.93 | 1 | 0.272 | 1 | 1.202 | 1 | 1.202 |
| C9-SB1-7.0 | 0.905 | 1 | 0.28 | 1 | 1.185 | 1 | 1.185 |
| SPLP-3 | 1 | 1 | 0.18 | 1 | 1.18 | 1 | 1.18 |
| G5-SB1-0.0 | 0.925 | 1 | 0.254 | 1 | 1.179 | 1 | 1.179 |
| G11-SB1-0.0 | 0.94 | 1 | 0.233 | 1 | 1.173 | 1 | 1.173 |
| F13-SB1-4.5 | 0.966 | 1 | 0.203 | 1 | 1.169 | 1 | 1.169 |
| CL-D-6A | 0.96 | 1 | 0.2 | 1 | 1.16 | 1 | 1.16 |
| F11-SB1-0.0 | 0.909 | 1 | 0.244 | 1 | 1.153 | 1 | 1.153 |
| TH-6-0 | 0.965 | 1 | 0.151 | 1 | 1.116 | 1 | 1.116 |
| G8-VCP3-8.0 | 0.859 | 1 | 0.233 | 1 | 1.092 | 1 | 1.092 |
| D6-AST4-6.5 | 0.861 | 1 | 0.227 | 1 | 1.088 | 1 | 1.088 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| CL-B-3A | 0.88 | 1 | 0.19 | 1 | 1.07 | 1 | 1.07 |
| D5-SB1-0.0 | 0.822 | 1 | 0.237 | 1 | 1.059 | 1 | 1.059 |
| ISB-P5A | 0.88 | 1 | 0.15 | 1 | 1.03 | 1 | 1.03 |
| C14-SB1-5.5 | 0.807 | 1 | 0.218 | 1 | 1.025 | 1 | 1.025 |
| E6-SB1-0.0 | 0.848 | 1 | 0.177 | 1 | 1.025 | 1 | 1.025 |
| CL-D-5C | 0.75 | 1 | 0.27 | 1 | 1.02 | 1 | 1.02 |
| SPLP-6 | 0.69 | 0 | 0.33 | 0 | 1.02 | 0 | 1.02 |
| E14-SB1-0.5 | 0.808 | 1 | 0.208 | 1 | 1.016 | 1 | 1.016 |
| G8-VCP3-0.0 | 0.822 | 1 | 0.188 | 1 | 1.01 | 1 | 1.01 |
| TH-4-5 | 0.865 | 1 | 0.129 | 1 | 0.994 | 1 | 0.994 |
| CL-A-2A | 0.77 | 1 | 0.18 | 1 | 0.95 | 1 | 0.95 |
| E9-CD1-0.0 | 0.699 | 1 | 0.25 | 1 | 0.949 | 1 | 0.949 |
| CL-B-1A | 0.73 | 1 | 0.2 | 1 | 0.93 | 1 | 0.93 |
| CL-C-6A | 0.75 | 1 | 0.15 | 1 | 0.9 | 1 | 0.9 |
| F8-S1-0.0 | 0.724 | 1 | 0.147 | 1 | 0.871 | 1 | 0.871 |
| SPLP-8A | 0.72 | 1 | 0.12 | 1 | 0.84 | 1 | 0.84 |
| F12-MS3-0.0 | 0.791 | 1 | 0.021 | 0 | 0.812 | 1 | 0.812 |
| E10-WT4-0.0 | 0.631 | 1 | 0.169 | 1 | 0.8 | 1 | 0.8 |
| G4-SB1-0.0 | 0.626 | 1 | 0.171 | 1 | 0.797 | 1 | 0.797 |
| TH-10-3 | 0.734 | 1 | 0.0531 | 1 | 0.7871 | 1 | 0.7871 |
| E4-SB1-0.0 | 0.601 | 1 | 0.181 | 1 | 0.782 | 1 | 0.782 |
| ISB-P12A | 0.53 | 0 | 0.25 | 0 | 0.78 | 0 | 0.78 |
| ISB-P12A | 0.53 | 0 | 0.25 | 0 | 0.78 | 0 | 0.78 |
| G11-SB1-11.5P | 0.604 | 1 | 0.172 | 1 | 0.776 | 1 | 0.776 |
| C13-SB1-0.0 | 0.608 | 1 | 0.159 | 1 | 0.767 | 1 | 0.767 |
| ISB-F7PB6B | 0.62 | 1 | 0.14 | 1 | 0.76 | 1 | 0.76 |
| F6-PB1-5.0 | 0.728 | 1 | 0.0135 | 1 | 0.7415 | 1 | 0.7415 |
| CL-C-5A | 0.58 | 1 | 0.12 | 1 | 0.7 | 1 | 0.7 |
| D7-HW1-0.0 | 0.476 | 1 | 0.203 | 1 | 0.679 | 1 | 0.679 |
| D9-SB3-0.0 | 0.539 | 1 | 0.139 | 1 | 0.678 | 1 | 0.678 |
| G11-SB1-11.5 | 0.491 | 1 | 0.179 | 1 | 0.67 | 1 | 0.67 |
| ISB-AA9 | 0.54 | 1 | 0.11 | 1 | 0.65 | 1 | 0.65 |
| CL-C-3A | 0.55 | 1 | 0.099 | 1 | 0.649 | 1 | 0.649 |
| CL-C-13A | 0.56 | 1 | 0.087 | 1 | 0.647 | 1 | 0.647 |
| F12-SB31-0.0 | 0.454 | 1 | 0.176 | 1 | 0.63 | 1 | 0.63 |
| CL-C-7A | 0.52 | 1 | 0.094 | 1 | 0.614 | 1 | 0.614 |
| CL-C-1A | 0.52 | 1 | 0.08 | 1 | 0.6 | 1 | 0.6 |
| G6-PB2-0.0 | 0.475 | 1 | 0.119 | 1 | 0.594 | 1 | 0.594 |
| G13-SB1-0.0 | 0.478 | 1 | 0.112 | 1 | 0.59 | 1 | 0.59 |
| G8-VCP1-0.0 | 0.463 | 1 | 0.11 | 1 | 0.573 | 1 | 0.573 |
| C11-SB1-0.0 | 0.424 | 1 | 0.142 | 1 | 0.566 | 1 | 0.566 |
| SCB1-0.0 | 0.44 | 1 | 0.121 | 1 | 0.561 | 1 | 0.561 |
| ISB-E14SB1 | 0.46 | 1 | 0.092 | 1 | 0.552 | 1 | 0.552 |
| CL-A-1A | 0.43 | 1 | 0.11 | 1 | 0.54 | 1 | 0.54 |
| D7-HW3-0.0 | 0.335 | 1 | 0.204 | 1 | 0.539 | 1 | 0.539 |
| TH-8-3 | 0.393 | 1 | 0.139 | 1 | 0.532 | 1 | 0.532 |
| D7-HW6-0.0 | 0.358 | 1 | 0.171 | 1 | 0.529 | 1 | 0.529 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| CL-B-4C | 0.44 | 1 | 0.086 | 1 | 0.526 | 1 | 0.526 |
| CL-C-9A | 0.44 | 1 | 0.084 | 1 | 0.524 | 1 | 0.524 |
| G9-SB1-0.0 | 0.411 | 1 | 0.111 | 1 | 0.522 | 1 | 0.522 |
| E3-SB1-9.0 | 0.407 | 1 | 0.0929 | 1 | 0.4999 | 1 | 0.4999 |
| F12-SB3-0.0 | 0.348 | 1 | 0.151 | 1 | 0.499 | 1 | 0.499 |
| C12-SB1-0.0 | 0.368 | 1 | 0.129 | 1 | 0.497 | 1 | 0.497 |
| G3-SB1-5.0 | 0.372 | 1 | 0.121 | 1 | 0.493 | 1 | 0.493 |
| G3-SB1-0.0 | 0.343 | 1 | 0.14 | 1 | 0.483 | 1 | 0.483 |
| F1-SB1-0.0 | 0.351 | 1 | 0.109 | 1 | 0.46 | 1 | 0.46 |
| D7-HW7-0.0 | 0.288 | 1 | 0.163 | 1 | 0.451 | 1 | 0.451 |
| D7-HW5-0.0 | 0.29 | 1 | 0.152 | 1 | 0.442 | 1 | 0.442 |
| F10-SB1-0.0 | 0.351 | 1 | 0.0887 | 1 | 0.4397 | 1 | 0.4397 |
| E10-SB1-0.0 | 0.303 | 1 | 0.126 | 1 | 0.429 | 1 | 0.429 |
| E10-WT6-0.0 | 0.332 | 1 | 0.0855 | 1 | 0.4175 | 1 | 0.4175 |
| G12-SB3-0.0 | 0.318 | 1 | 0.0921 | 1 | 0.4101 | 1 | 0.4101 |
| F4-SB3-0.0 | 0.317 | 1 | 0.0883 | 1 | 0.4053 | 1 | 0.4053 |
| SCB2-0.0 | 0.326 | 1 | 0.072 | 1 | 0.398 | 1 | 0.398 |
| G11-SB3-0.5 | 0.314 | 1 | 0.0769 | 1 | 0.3909 | 1 | 0.3909 |
| D7-SB1-0.0 | 0.295 | 1 | 0.0909 | 1 | 0.3859 | 1 | 0.3859 |
| F4-SB2-0.0 | 0.312 | 1 | 0.0687 | 1 | 0.3807 | 1 | 0.3807 |
| D7-HW8-0.0 | 0.234 | 1 | 0.145 | 1 | 0.379 | 1 | 0.379 |
| F8-TH2-2.0 | 0.293 | 1 | 0.0789 | 1 | 0.3719 | 1 | 0.3719 |
| F7-PB6-3.0P | 0.0092 | 0 | 0.36 | 1 | 0.3692 | 1 | 0.3692 |
| CL-C-12A | 0.31 | 1 | 0.053 | 1 | 0.363 | 1 | 0.363 |
| D7-HW4-0.0 | 0.221 | 1 | 0.14 | 1 | 0.361 | 1 | 0.361 |
| C12-SH2-0.0 | 0.279 | 1 | 0.0807 | 1 | 0.3597 | 1 | 0.3597 |
| G1-SB1-0.0 | 0.279 | 1 | 0.0785 | 1 | 0.3575 | 1 | 0.3575 |
| G6-SB3-0.0 | 0.29 | 1 | 0.0663 | 1 | 0.3563 | 1 | 0.3563 |
| G6-SB2-0.0 | 0.261 | 1 | 0.0838 | 1 | 0.3448 | 1 | 0.3448 |
| C12-SB2-0.0 | 0.276 | 1 | 0.0673 | 1 | 0.3433 | 1 | 0.3433 |
| G14-SB1-0.0 | 0.254 | 1 | 0.085 | 1 | 0.339 | 1 | 0.339 |
| D10-WT7-0.0 | 0.262 | 1 | 0.0701 | 1 | 0.3321 | 1 | 0.3321 |
| CL-D-2C | 0.26 | 1 | 0.046 | 1 | 0.306 | 1 | 0.306 |
| ISB-AA18.1 | 0.26 | 1 | 0.046 | 1 | 0.306 | 1 | 0.306 |
| E14-SB1-0.0 | 0.236 | 1 | 0.0548 | 1 | 0.2908 | 1 | 0.2908 |
| CL-C-14A | 0.24 | 1 | 0.049 | 1 | 0.289 | 1 | 0.289 |
| CL-B-5A | 0.22 | 1 | 0.066 | 1 | 0.286 | 1 | 0.286 |
| C9-PH1-0.0 | 0.221 | 1 | 0.0626 | 1 | 0.2836 | 1 | 0.2836 |
| G11-SB4-15.5 | 0.173 | 1 | 0.11 | 1 | 0.283 | 1 | 0.283 |
| ISB-P14A | 0.23 | 1 | 0.047 | 1 | 0.277 | 1 | 0.277 |
| ISB-P14A | 0.23 | 1 | 0.047 | 1 | 0.277 | 1 | 0.277 |
| CL-D-4A | 0.22 | 1 | 0.054 | 1 | 0.274 | 1 | 0.274 |
| SPLP-4 | 0.23 | 1 | 0.041 | 1 | 0.271 | 1 | 0.271 |
| D7-SB2-6.0 | 0.21 | 1 | 0.0591 | 1 | 0.2691 | 1 | 0.2691 |
| G8-SB1-7.5 | 0.218 | 1 | 0.0507 | 1 | 0.2687 | 1 | 0.2687 |
| F14-SB1-0.0 | 0.2 | 1 | 0.0665 | 1 | 0.2665 | 1 | 0.2665 |
| E6-SB1-5.0 | 0.21 | 1 | 0.0423 | 1 | 0.2523 | 1 | 0.2523 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| F4-SB4-0.0 | 0.191 | 1 | 0.0537 | 1 | 0.2447 | 1 | 0.2447 |
| E13-SB1-9.0 | 0.17 | 1 | 0.0684 | 1 | 0.2384 | 1 | 0.2384 |
| ISB-P1 | 0.16 | 0 | 0.078 | 0 | 0.238 | 0 | 0.238 |
| SB-MW37 | 0.16 | 0 | 0.077 | 0 | 0.237 | 0 | 0.237 |
| TH-9-0 | 0.157 | 1 | 0.0795 | 1 | 0.2365 | 1 | 0.2365 |
| F13-SB1-0.0 | 0.185 | 1 | 0.0466 | 1 | 0.2316 | 1 | 0.2316 |
| C14-SB1-0.0 | 0.189 | 1 | 0.038 | 1 | 0.227 | 1 | 0.227 |
| CL-C-10A | 0.19 | 1 | 0.037 | 1 | 0.227 | 1 | 0.227 |
| ISB-P14B | 0.15 | 0 | 0.073 | 0 | 0.223 | 0 | 0.223 |
| ISB-P14B | 0.15 | 0 | 0.073 | 0 | 0.223 | 0 | 0.223 |
| ISB-P3 | 0.15 | 0 | 0.073 | 0 | 0.223 | 0 | 0.223 |
| F7-PB7-3.0 | 0.178 | 1 | 0.0425 | 1 | 0.2205 | 1 | 0.2205 |
| D7-L1-6.0 | 0.186 | 1 | 0.034 | 1 | 0.22 | 1 | 0.22 |
| ISB-1124A | 0.15 | 0 | 0.07 | 0 | 0.22 | 0 | 0.22 |
| ISB-AA13.2 | 0.19 | 1 | 0.029 | 1 | 0.219 | 1 | 0.219 |
| D13-SB1-0.0 | 0.174 | 1 | 0.0414 | 1 | 0.2154 | 1 | 0.2154 |
| F2-SB1-0.0 | 0.177 | 1 | 0.0378 | 1 | 0.2148 | 1 | 0.2148 |
| F7-PB5-7.0 | 0.183 | 1 | 0.0293 | 1 | 0.2123 | 1 | 0.2123 |
| ISB-P2 | 0.14 | 0 | 0.069 | 0 | 0.209 | 0 | 0.209 |
| SPLP-1 | 0.14 | 0 | 0.069 | 0 | 0.209 | 0 | 0.209 |
| SPLP-2 | 0.14 | 0 | 0.069 | 0 | 0.209 | 0 | 0.209 |
| SB-MW31 | 0.14 | 0 | 0.068 | 0 | 0.208 | 0 | 0.208 |
| ISB-AB3.2B | 0.14 | 0 | 0.068 | 0 | 0.208 | 0 | 0.208 |
| ISB-P4B | 0.14 | 0 | 0.068 | 0 | 0.208 | 0 | 0.208 |
| F3-SB1-0.0 | 0.162 | 1 | 0.0448 | 1 | 0.2068 | 1 | 0.2068 |
| PT-11 | 0.14 | 0 | 0.066 | 0 | 0.206 | 0 | 0.206 |
| ISB-4NE.2B | 0.14 | 0 | 0.066 | 0 | 0.206 | 0 | 0.206 |
| ISB-P10 | 0.14 | 0 | 0.066 | 0 | 0.206 | 0 | 0.206 |
| ISB-P5B | 0.14 | 0 | 0.066 | 0 | 0.206 | 0 | 0.206 |
| ISB-P4A | 0.14 | 0 | 0.066 | 0 | 0.206 | 0 | 0.206 |
| ISB-P15 | 0.18 | 1 | 0.026 | 1 | 0.206 | 1 | 0.206 |
| SB-MW34 | 0.14 | 0 | 0.065 | 0 | 0.205 | 0 | 0.205 |
| ISB-P9 | 0.14 | 0 | 0.065 | 0 | 0.205 | 0 | 0.205 |
| D8-SB1-0.0 | 0.16 | 1 | 0.0391 | 1 | 0.1991 | 1 | 0.1991 |
| CL-A-3A | 0.14 | 1 | 0.056 | 1 | 0.196 | 1 | 0.196 |
| F9-SB1-0.0 | 0.16 | 1 | 0.0358 | 1 | 0.1958 | 1 | 0.1958 |
| SB-MW32 | 0.13 | 0 | 0.064 | 0 | 0.194 | 0 | 0.194 |
| ISB-P13 | 0.13 | 0 | 0.064 | 0 | 0.194 | 0 | 0.194 |
| ISB-P11 | 0.13 | 0 | 0.064 | 0 | 0.194 | 0 | 0.194 |
| ISB-P13 | 0.13 | 0 | 0.064 | 0 | 0.194 | 0 | 0.194 |
| ISB-P11 | 0.13 | 0 | 0.064 | 0 | 0.194 | 0 | 0.194 |
| ISB-P6 | 0.13 | 0 | 0.064 | 0 | 0.194 | 0 | 0.194 |
| ISB-463NE.2A | 0.13 | 0 | 0.063 | 0 | 0.193 | 0 | 0.193 |
| ISB-P7 | 0.13 | 0 | 0.063 | 0 | 0.193 | 0 | 0.193 |
| ISB-P12B | 0.13 | 0 | 0.062 | 0 | 0.192 | 0 | 0.192 |
| SB-MW36 | 0.13 | 0 | 0.062 | 0 | 0.192 | 0 | 0.192 |
| SB-MW39 | 0.13 | 0 | 0.062 | 0 | 0.192 | 0 | 0.192 |

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|---|---|---|---|---|---|---|---|
| ISB-P12B | 0.13 | 0 | 0.062 | 0 | 0.192 | 0 | 0.192 |
| SPLP-7 | 0.16 | 1 | 0.032 | 1 | 0.192 | 1 | 0.192 |
| F11-SB2-0.0 | 0.137 | 1 | 0.0536 | 1 | 0.1906 | 1 | 0.1906 |
| ISB-1124E | 0.13 | 0 | 0.06 | 0 | 0.19 | 0 | 0.19 |
| ISB-D7L2 | 0.13 | 0 | 0.06 | 0 | 0.19 | 0 | 0.19 |
| E9-WT10 | 0.089 | 0 | 0.099 | 0 | 0.188 | 0 | 0.188 |
| D7-SB1-11.5 | 0.148 | 1 | 0.0324 | 1 | 0.1804 | 1 | 0.1804 |
| ISB-11E.7 | 0.12 | 0 | 0.059 | 0 | 0.179 | 0 | 0.179 |
| ISB-AB4.1 | 0.11 | 1 | 0.065 | 0 | 0.175 | 1 | 0.175 |
| G6-SB1-0.0 | 0.142 | 1 | 0.0319 | 1 | 0.1739 | 1 | 0.1739 |
| E8-SB1-11.5 | 0.133 | 1 | 0.0339 | 1 | 0.1669 | 1 | 0.1669 |
| D6-SB1-11.0 | 0.131 | 1 | 0.0357 | 1 | 0.1667 | 1 | 0.1667 |
| SPLP-8B | 0.14 | 1 | 0.026 | 1 | 0.166 | 1 | 0.166 |
| D7-HW2-0.0 | 0.152 | 1 | 0.013 | 0 | 0.165 | 1 | 0.165 |
| CL-D-1A | 0.13 | 1 | 0.034 | 1 | 0.164 | 1 | 0.164 |
| F12-SB2-0.0 | 0.147 | 1 | 0.011 | 0 | 0.158 | 1 | 0.158 |
| D11-SB1-0.0 | 0.102 | 1 | 0.0551 | 1 | 0.1571 | 1 | 0.1571 |
| D10-SB1-0.0 | 0.126 | 1 | 0.0304 | 1 | 0.1564 | 1 | 0.1564 |
| F4-TR1-0.0 | 0.0979 | 1 | 0.0564 | 1 | 0.1543 | 1 | 0.1543 |
| ISB-P8 | 0.093 | 1 | 0.061 | 0 | 0.154 | 1 | 0.154 |
| D7-L2-6.5 | 0.128 | 1 | 0.024 | 0 | 0.152 | 1 | 0.152 |
| G14-SB1-2.5 | 0.122 | 1 | 0.0298 | 1 | 0.1518 | 1 | 0.1518 |
| F8-SB1-0.0 | 0.115 | 1 | 0.0324 | 1 | 0.1474 | 1 | 0.1474 |
| F4-SB3-8.0 | 0.119 | 1 | 0.025 | 1 | 0.144 | 1 | 0.144 |
| CL-C-11A | 0.12 | 1 | 0.024 | 1 | 0.144 | 1 | 0.144 |
| D12-SB1-0.0 | 0.106 | 1 | 0.0362 | 1 | 0.1422 | 1 | 0.1422 |
| SPLP-7 | 0.11 | 1 | 0.029 | 1 | 0.139 | 1 | 0.139 |
| E9-WT13-0.0 | 0.105 | 1 | 0.0298 | 1 | 0.1348 | 1 | 0.1348 |
| E9-WT12-7.5 | 0.107 | 1 | 0.0245 | 1 | 0.1315 | 1 | 0.1315 |
| F7-PB7-0.0 | 0.101 | 1 | 0.0228 | 1 | 0.1238 | 1 | 0.1238 |
| G10-SB2-8.0 | 0.0738 | 1 | 0.0465 | 1 | 0.1203 | 1 | 0.1203 |
| SB-MW33 | 0.048 | 1 | 0.068 | 0 | 0.116 | 1 | 0.116 |
| G10-SB2-0.0 | 0.0677 | 1 | 0.0483 | 1 | 0.116 | 1 | 0.116 |
| D9-SB1-5.5 | 0.0915 | 1 | 0.0211 | 1 | 0.1126 | 1 | 0.1126 |
| D9-SB1-0.0 | 0.05 | 0 | 0.056 | 0 | 0.106 | 0 | 0.106 |
| CL-B-2A | 0.08 | 1 | 0.025 | 1 | 0.105 | 1 | 0.105 |
| D14-SB1-0.0 | 0.0821 | 1 | 0.0209 | 1 | 0.103 | 1 | 0.103 |
| TH-7-4 | 0.048 | 0 | 0.054 | 0 | 0.102 | 0 | 0.102 |
| F14-SB1-4.5 | 0.0804 | 1 | 0.0199 | 1 | 0.1003 | 1 | 0.1003 |
| D9-SB1-0.0P | 0.046 | 0 | 0.052 | 0 | 0.098 | 0 | 0.098 |
| F1-SB1-9.0 | 0.075 | 1 | 0.0221 | 1 | 0.0971 | 1 | 0.0971 |
| HM1-0.0 | 0.09 | 1 | 0.0035 | 0 | 0.0935 | 1 | 0.0935 |
| E10-WT3-0.0 | 0.0712 | 1 | 0.0168 | 1 | 0.088 | 1 | 0.088 |
| F7-PB8-10.0 | 0.0724 | 1 | 0.0152 | 1 | 0.0876 | 1 | 0.0876 |
| HM22-0.0 | 0.0784 | 1 | 0.0072 | 0 | 0.0856 | 1 | 0.0856 |
| D11-SB1-8.0 | 0.0669 | 1 | 0.012 | 0 | 0.0789 | 1 | 0.0789 |
| E5-SB1-0.0 | 0.0606 | 1 | 0.0177 | 1 | 0.0783 | 1 | 0.0783 |

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|---|---|---|---|---|---|---|---|
| E9-WT12-0.0 | 0.0615 | 1 | 0.011 | 0 | 0.0725 | 1 | 0.0725 |
| D9-T32-0.0 | 0.0491 | 1 | 0.013 | 0 | 0.0621 | 1 | 0.0621 |
| E9-WT8-0.0 | 0.0505 | 1 | 0.01 | 0 | 0.0605 | 1 | 0.0605 |
| C8-SB1-0.0 | 0.049 | 1 | 0.011 | 0 | 0.06 | 1 | 0.06 |
| D6-SB1-0.0 | 0.0486 | 1 | 0.01 | 0 | 0.0586 | 1 | 0.0586 |
| G13-SB1-11.0 | 0.045 | 1 | 0.011 | 0 | 0.056 | 1 | 0.056 |
| G7-SB2-0.0 | 0.0426 | 1 | 0.011 | 0 | 0.0536 | 1 | 0.0536 |
| F6-SB1-7.5 | 0.0367 | 1 | 0.011 | 0 | 0.0477 | 1 | 0.0477 |
| C12-SB2-7.5 | 0.0336 | 1 | 0.011 | 0 | 0.0446 | 1 | 0.0446 |
| C15-SB1-8.5 | 0.0305 | 1 | 0.012 | 0 | 0.0425 | 1 | 0.0425 |
| G2-SB1-0.0 | 0.0314 | 1 | 0.011 | 0 | 0.0424 | 1 | 0.0424 |
| F8-TH2-0.0 | 0.019 | 0 | 0.021 | 0 | 0.04 | 0 | 0.04 |
| E9-CD2-0.0 | 0.0286 | 1 | 0.01 | 0 | 0.0386 | 1 | 0.0386 |
| G12-SB4-0.0 | 0.0252 | 1 | 0.011 | 0 | 0.0362 | 1 | 0.0362 |
| G1-SB1-8.5 | 0.0225 | 1 | 0.01 | 0 | 0.0325 | 1 | 0.0325 |
| C12-SB1-10.5 | 0.0193 | 1 | 0.012 | 0 | 0.0313 | 1 | 0.0313 |
| G9-SB1-11.5 | 0.0195 | 1 | 0.011 | 0 | 0.0305 | 1 | 0.0305 |
| F3-SB1-4.5 | 0.0197 | 1 | 0.01 | 0 | 0.0297 | 1 | 0.0297 |
| F8-TH1-6.0 | 0.0183 | 1 | 0.011 | 0 | 0.0293 | 1 | 0.0293 |
| F4-SB2-8.0 | 0.0168 | 1 | 0.011 | 0 | 0.0278 | 1 | 0.0278 |
| D8-SB1-8.5 | 0.012 | 0 | 0.014 | 0 | 0.026 | 0 | 0.026 |
| G12-SB2-0.0 | 0.015 | 1 | 0.011 | 0 | 0.026 | 1 | 0.026 |
| D5-SB1-7.5 | 0.012 | 0 | 0.013 | 0 | 0.025 | 0 | 0.025 |
| F2-SB1-9.0 | 0.0147 | 1 | 0.01 | 0 | 0.0247 | 1 | 0.0247 |
| E5-SB1-8.5 | 0.011 | 0 | 0.012 | 0 | 0.023 | 0 | 0.023 |
| E9-WT8-11.5 | 0.011 | 0 | 0.012 | 0 | 0.023 | 0 | 0.023 |
| E10-SB1-11.0 | 0.01 | 0 | 0.011 | 0 | 0.021 | 0 | 0.021 |
| F12-SB2-10.5 | 0.01 | 0 | 0.011 | 0 | 0.021 | 0 | 0.021 |
| F5-SB2-11.0 | 0.011 | 0 | 0.0099 | 0 | 0.0209 | 0 | 0.0209 |
| G12-SB3-11.0 | 0.0099 | 0 | 0.011 | 0 | 0.0209 | 0 | 0.0209 |
| D9-SB4-0.0 | 0.0098 | 0 | 0.011 | 0 | 0.0208 | 0 | 0.0208 |
| E10-WT4-11.5 | 0.0098 | 0 | 0.011 | 0 | 0.0208 | 0 | 0.0208 |
| G12-SB1-0.0 | 0.0098 | 0 | 0.011 | 0 | 0.0208 | 0 | 0.0208 |
| G6-SB2-9.0 | 0.0098 | 0 | 0.011 | 0 | 0.0208 | 0 | 0.0208 |
| E10-WT3-11.5P | 0.0097 | 0 | 0.011 | 0 | 0.0207 | 0 | 0.0207 |
| F8-SB1-10.5 | 0.0097 | 0 | 0.011 | 0 | 0.0207 | 0 | 0.0207 |
| G12-SB1-11.5 | 0.0097 | 0 | 0.011 | 0 | 0.0207 | 0 | 0.0207 |
| G6-SB3-9.5 | 0.0097 | 0 | 0.011 | 0 | 0.0207 | 0 | 0.0207 |
| D9-SB4-11.0 | 0.0096 | 0 | 0.011 | 0 | 0.0206 | 0 | 0.0206 |
| E10-WT3-11.5 | 0.0096 | 0 | 0.011 | 0 | 0.0206 | 0 | 0.0206 |
| F11-SB1-9.5 | 0.0096 | 0 | 0.011 | 0 | 0.0206 | 0 | 0.0206 |
| F11-SB3-15.5 | 0.0096 | 0 | 0.011 | 0 | 0.0206 | 0 | 0.0206 |
| F7-PB8-0.0 | 0.0096 | 0 | 0.011 | 0 | 0.0206 | 0 | 0.0206 |
| G6-SB1-9.5 | 0.0096 | 0 | 0.011 | 0 | 0.0206 | 0 | 0.0206 |
| D7-SB2-0.0 | 0.0095 | 0 | 0.011 | 0 | 0.0205 | 0 | 0.0205 |
| E9-CD1-15.0 | 0.0095 | 0 | 0.011 | 0 | 0.0205 | 0 | 0.0205 |
| E9-WT5-11.0 | 0.0095 | 0 | 0.011 | 0 | 0.0205 | 0 | 0.0205 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| F12-SB1-11.5 | 0.0095 | 0 | 0.011 | 0 | 0.0205 | 0 | 0.0205 |
| G12-SB4-11.5 | 0.0095 | 0 | 0.011 | 0 | 0.0205 | 0 | 0.0205 |
| F10-SB1-11.5 | 0.0094 | 0 | 0.011 | 0 | 0.0204 | 0 | 0.0204 |
| G10-SB1-11.5 | 0.0094 | 0 | 0.011 | 0 | 0.0204 | 0 | 0.0204 |
| G5-SB1-8.5 | 0.0094 | 0 | 0.011 | 0 | 0.0204 | 0 | 0.0204 |
| G7-SB1-0.0 | 0.0094 | 0 | 0.011 | 0 | 0.0204 | 0 | 0.0204 |
| G7-SB1-8.0 | 0.0094 | 0 | 0.011 | 0 | 0.0204 | 0 | 0.0204 |
| E10-WT6-11.5 | 0.0094 | 0 | 0.01 | 0 | 0.0194 | 0 | 0.0194 |
| F12-MS2-11.5 | 0.0094 | 0 | 0.01 | 0 | 0.0194 | 0 | 0.0194 |
| F7-PB6-0.0 | 0.0094 | 0 | 0.01 | 0 | 0.0194 | 0 | 0.0194 |
| G6-PB4-0.0 | 0.0094 | 0 | 0.01 | 0 | 0.0194 | 0 | 0.0194 |
| F8-S1-6.5 | 0.0093 | 0 | 0.01 | 0 | 0.0193 | 0 | 0.0193 |
| G11-SB2-11.5 | 0.0093 | 0 | 0.01 | 0 | 0.0193 | 0 | 0.0193 |
| G6-PB3-0.0 | 0.0093 | 0 | 0.01 | 0 | 0.0193 | 0 | 0.0193 |
| G8-VCP1-11.5 | 0.0093 | 0 | 0.01 | 0 | 0.0193 | 0 | 0.0193 |
| TH-1-0 | 0.0093 | 0 | 0.01 | 0 | 0.0193 | 0 | 0.0193 |
| E8-SB1-0.0 | 0.0092 | 0 | 0.01 | 0 | 0.0192 | 0 | 0.0192 |
| F4-SB1-9.0 | 0.0092 | 0 | 0.01 | 0 | 0.0192 | 0 | 0.0192 |
| G11-SB2-0.0 | 0.0092 | 0 | 0.01 | 0 | 0.0192 | 0 | 0.0192 |
| G2-SB1-6.5 | 0.0092 | 0 | 0.01 | 0 | 0.0192 | 0 | 0.0192 |
| G7-SB2-10.5 | 0.0092 | 0 | 0.01 | 0 | 0.0192 | 0 | 0.0192 |
| F4-SB4-9.5 | 0.0091 | 0 | 0.01 | 0 | 0.0191 | 0 | 0.0191 |
| HM2-0.0 | 0.0052 | 0 | 0.0072 | 0 | 0.0124 | 0 | 0.0124 |
| *: Results are winsorized as shown for 95th UCL analysis. | | | | | | | |

| Benzo-a-Anthracene | D_Benzo-a-Anthracene | Benzo-b-Fluoranthene | D_Benzo-b-Fluoranthene | Indeno(1,2,3-cd)Pyrene | D_Indeno(1,2,3-cd)Pyrene | **Benzo-a-Anthracene + Benzo-b-Fluoranthene + Indeno(1,2,3-cd)Pyrene** | **D_Benzo-a-Anthracene + Benzo-b-Fluoranthene + Indeno(1,2,3-cd)Pyrene** | **Winsorized Benzo-a-Anthracene + Benzo-b-Fluoranthene + Indeno(1,2,3-cd)Pyrene*** |
|---|---|---|---|---|---|---|---|---|
| 310 | 1 | 320 | 1 | 120 | 1 | 750 | 1 | 51.7 |
| 310 | 1 | 330 | 1 | 140 | 1 | 780 | 1 | 51.7 |
| 284 | 1 | 250 | 1 | 85.6 | 1 | 619.6 | 1 | 51.7 |
| 79.7 | 1 | 46.1 | 1 | 36.8 | 1 | 162.6 | 1 | 51.7 |
| 60.1 | 1 | 45.5 | 1 | 17.2 | 1 | 122.8 | 1 | 51.7 |
| 31 | 1 | 24.6 | 1 | 10.8 | 1 | 66.4 | 1 | 51.7 |
| 22 | 1 | 21 | 1 | 8.7 | 1 | 51.7 | 1 | 51.7 |
| 14.1 | 1 | 12.5 | 1 | 5.8 | 1 | 32.4 | 1 | 32.4 |
| 3.12 | 1 | 13.4 | 1 | 5.05 | 1 | 21.57 | 1 | 21.57 |
| 11.3 | 1 | 9.5 | 1 | 4.21 | 1 | 25.01 | 1 | 25.01 |
| 7.07 | 1 | 6.84 | 1 | 4.64 | 1 | 18.55 | 1 | 18.55 |
| 9.33 | 1 | 10 | 1 | 4.03 | 1 | 23.36 | 1 | 23.36 |
| 8.59 | 1 | 9.71 | 1 | 3.71 | 1 | 22.01 | 1 | 22.01 |
| 7.68 | 1 | 4.89 | 1 | 0.0084 | 0 | 12.5784 | 1 | 12.5784 |
| 5.04 | 1 | 6.83 | 1 | 3.62 | 1 | 15.49 | 1 | 15.49 |
| 3.1 | 1 | 6.7 | 1 | 3.5 | 1 | 13.3 | 1 | 13.3 |
| 8.63 | 1 | 6.88 | 1 | 2.27 | 1 | 17.78 | 1 | 17.78 |
| 5.8 | 1 | 7.7 | 1 | 3.5 | 1 | 17 | 1 | 17 |
| 3.27 | 1 | 5.41 | 1 | 3.28 | 1 | 11.96 | 1 | 11.96 |
| 5.91 | 1 | 4.93 | 1 | 2.59 | 1 | 13.43 | 1 | 13.43 |
| 5.8 | 1 | 6.6 | 1 | 2.7 | 1 | 15.1 | 1 | 15.1 |
| 5.04 | 1 | 4.93 | 1 | 2.67 | 1 | 12.64 | 1 | 12.64 |
| 3.5 | 1 | 5.4 | 1 | 2.9 | 1 | 11.8 | 1 | 11.8 |
| 4.95 | 1 | 4.05 | 1 | 2.31 | 1 | 11.31 | 1 | 11.31 |
| 3.81 | 1 | 3.05 | 1 | 2.58 | 1 | 9.44 | 1 | 9.44 |
| 3.07 | 1 | 3.63 | 1 | 2.45 | 1 | 9.15 | 1 | 9.15 |
| 4.2 | 1 | 5.44 | 1 | 1.91 | 1 | 11.55 | 1 | 11.55 |
| 3.79 | 1 | 2.93 | 1 | 2.31 | 1 | 9.03 | 1 | 9.03 |
| 3.41 | 1 | 3.74 | 1 | 2.48 | 1 | 9.63 | 1 | 9.63 |
| 3.34 | 1 | 3.08 | 1 | 2.19 | 1 | 8.61 | 1 | 8.61 |
| 3 | 1 | 3.73 | 1 | 1.98 | 1 | 8.71 | 1 | 8.71 |
| 2.43 | 1 | 5.28 | 1 | 2.2 | 1 | 9.91 | 1 | 9.91 |
| 4.1 | 1 | 4.93 | 1 | 1.95 | 1 | 10.98 | 1 | 10.98 |
| 1.3 | 0 | 0.95 | 0 | 1.6 | 0 | 3.85 | 0 | 3.85 |
| 3.8 | 1 | 4.6 | 1 | 2.6 | 1 | 11 | 1 | 11 |
| 1.2 | 0 | 0.93 | 0 | 1.6 | 0 | 3.73 | 0 | 3.73 |
| 1.92 | 1 | 2.95 | 1 | 2.09 | 1 | 6.96 | 1 | 6.96 |
| 1.2 | 0 | 0.9 | 0 | 1.5 | 0 | 3.6 | 0 | 3.6 |
| 2.48 | 1 | 2.37 | 1 | 1.61 | 1 | 6.46 | 1 | 6.46 |

| 2.41 | 1 | 2.33 | 1 | 1.49 | 1 | 6.23 | 1 | 6.23 |
|---|---|---|---|---|---|---|---|---|
| 1.8 | 1 | 4.5 | 1 | 2 | 1 | 8.3 | 1 | 8.3 |
| 3.55 | 1 | 2.68 | 1 | 1.75 | 1 | 7.98 | 1 | 7.98 |
| 2.68 | 1 | 2.1 | 1 | 1.57 | 1 | 6.35 | 1 | 6.35 |
| 0.358 | 1 | 1.44 | 1 | 0.796 | 1 | 2.594 | 1 | 2.594 |
| 2.9 | 1 | 3.9 | 1 | 1.5 | 1 | 8.3 | 1 | 8.3 |
| 2.01 | 1 | 2.41 | 1 | 1.42 | 1 | 5.84 | 1 | 5.84 |
| 2.46 | 1 | 2.08 | 1 | 0.969 | 1 | 5.509 | 1 | 5.509 |
| 2.21 | 1 | 2.83 | 1 | 1.48 | 1 | 6.52 | 1 | 6.52 |
| 2.41 | 1 | 2.11 | 1 | 1.17 | 1 | 5.69 | 1 | 5.69 |
| 2.17 | 1 | 1.84 | 1 | 1.23 | 1 | 5.24 | 1 | 5.24 |
| 2.17 | 1 | 2.41 | 1 | 1.12 | 1 | 5.7 | 1 | 5.7 |
| 1.64 | 1 | 2.27 | 1 | 1.33 | 1 | 5.24 | 1 | 5.24 |
| 2.32 | 1 | 2.63 | 1 | 1.09 | 1 | 6.04 | 1 | 6.04 |
| 2.6 | 1 | 2.8 | 1 | 1.1 | 1 | 6.5 | 1 | 6.5 |
| 2.7 | 1 | 2.8 | 1 | 1.1 | 1 | 6.6 | 1 | 6.6 |
| 0.69 | 0 | 0.52 | 0 | 0.87 | 0 | 2.08 | 0 | 2.08 |
| 0.68 | 0 | 0.51 | 0 | 0.86 | 0 | 2.05 | 0 | 2.05 |
| 0.62 | 0 | 0.47 | 0 | 0.78 | 0 | 1.87 | 0 | 1.87 |
| 1.82 | 1 | 1.5 | 1 | 0.864 | 1 | 4.184 | 1 | 4.184 |
| 0.59 | 0 | 0.44 | 0 | 0.74 | 0 | 1.77 | 0 | 1.77 |
| 1.32 | 1 | 1.47 | 1 | 0.931 | 1 | 3.721 | 1 | 3.721 |
| 1.3 | 1 | 1.53 | 1 | 0.924 | 1 | 3.754 | 1 | 3.754 |
| 1.66 | 1 | 1.64 | 1 | 0.759 | 1 | 4.059 | 1 | 4.059 |
| 0.655 | 1 | 1.29 | 1 | 0.839 | 1 | 2.784 | 1 | 2.784 |
| 0.62 | 1 | 2.8 | 1 | 0.8 | 1 | 4.22 | 1 | 4.22 |
| 1.23 | 1 | 1.24 | 1 | 0.741 | 1 | 3.211 | 1 | 3.211 |
| 0.96 | 1 | 2.3 | 1 | 1.1 | 1 | 4.36 | 1 | 4.36 |
| 0.826 | 1 | 1.42 | 1 | 0.836 | 1 | 3.082 | 1 | 3.082 |
| 1.29 | 1 | 1.43 | 1 | 0.673 | 1 | 3.393 | 1 | 3.393 |
| 1 | 1 | 1.8 | 1 | 0.75 | 1 | 3.55 | 1 | 3.55 |
| 0.697 | 1 | 1.31 | 1 | 0.796 | 1 | 2.803 | 1 | 2.803 |
| 0.201 | 1 | 0.521 | 1 | 0.33 | 1 | 1.052 | 1 | 1.052 |
| 1.2 | 1 | 1.9 | 1 | 0.87 | 1 | 3.97 | 1 | 3.97 |
| 0.98 | 1 | 0.881 | 1 | 0.546 | 1 | 2.407 | 1 | 2.407 |
| 0.95 | 1 | 1.5 | 1 | 0.8 | 1 | 3.25 | 1 | 3.25 |
| 0.99 | 1 | 1.16 | 1 | 0.646 | 1 | 2.796 | 1 | 2.796 |
| 1.24 | 1 | 1.37 | 1 | 0.513 | 1 | 3.123 | 1 | 3.123 |
| 1.6 | 1 | 1.6 | 1 | 0.58 | 1 | 3.78 | 1 | 3.78 |
| 0.913 | 1 | 1.29 | 1 | 0.561 | 1 | 2.764 | 1 | 2.764 |
| 0.75 | 1 | 1.38 | 1 | 0.644 | 1 | 2.774 | 1 | 2.774 |
| 1.04 | 1 | 1.05 | 1 | 0.562 | 1 | 2.652 | 1 | 2.652 |
| 0.91 | 1 | 1.5 | 1 | 0.74 | 1 | 3.15 | 1 | 3.15 |
| 0.741 | 1 | 1.19 | 1 | 0.626 | 1 | 2.557 | 1 | 2.557 |
| 0.193 | 1 | 0.409 | 1 | 0.319 | 1 | 0.921 | 1 | 0.921 |
| 1.01 | 1 | 1.02 | 1 | 0.552 | 1 | 2.582 | 1 | 2.582 |
| 0.865 | 1 | 0.983 | 1 | 0.516 | 1 | 2.364 | 1 | 2.364 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 0.82 | 1 | 1.3 | 1 | 0.53 | 1 | 2.65 | 1 | 2.65 |
| 0.632 | 1 | 1.23 | 1 | 0.631 | 1 | 2.493 | 1 | 2.493 |
| 0.96 | 1 | 1.2 | 1 | 0.65 | 1 | 2.81 | 1 | 2.81 |
| 0.926 | 1 | 1.06 | 1 | 0.492 | 1 | 2.478 | 1 | 2.478 |
| 0.937 | 1 | 1.07 | 1 | 0.479 | 1 | 2.486 | 1 | 2.486 |
| 0.7 | 1 | 1.6 | 1 | 0.85 | 1 | 3.15 | 1 | 3.15 |
| 0.32 | 0 | 0.24 | 0 | 0.39 | 0 | 0.95 | 0 | 0.95 |
| 0.865 | 1 | 0.815 | 1 | 0.526 | 1 | 2.206 | 1 | 2.206 |
| 1.03 | 1 | 1.09 | 1 | 0.544 | 1 | 2.664 | 1 | 2.664 |
| 0.293 | 1 | 0.313 | 1 | 0.361 | 1 | 0.967 | 1 | 0.967 |
| 0.81 | 1 | 1.2 | 1 | 0.58 | 1 | 2.59 | 1 | 2.59 |
| 0.666 | 1 | 0.97 | 1 | 0.445 | 1 | 2.081 | 1 | 2.081 |
| 0.53 | 1 | 1 | 1 | 0.65 | 1 | 2.18 | 1 | 2.18 |
| 0.71 | 1 | 1.3 | 1 | 0.57 | 1 | 2.58 | 1 | 2.58 |
| 0.897 | 1 | 0.836 | 1 | 0.38 | 1 | 2.113 | 1 | 2.113 |
| 1 | 1 | 0.98 | 1 | 0.46 | 1 | 2.44 | 1 | 2.44 |
| 0.113 | 1 | 0.741 | 1 | 0.022 | 0 | 0.876 | 1 | 0.876 |
| 0.597 | 1 | 0.583 | 1 | 0.398 | 1 | 1.578 | 1 | 1.578 |
| 0.608 | 1 | 0.949 | 1 | 0.397 | 1 | 1.954 | 1 | 1.954 |
| 0.0735 | 1 | 0.284 | 1 | 0.297 | 1 | 0.6545 | 1 | 0.6545 |
| 0.64 | 1 | 0.875 | 1 | 0.369 | 1 | 1.884 | 1 | 1.884 |
| 0.24 | 0 | 0.082 | 1 | 0.3 | 0 | 0.622 | 1 | 0.622 |
| 0.24 | 0 | 0.082 | 1 | 0.3 | 0 | 0.622 | 1 | 0.622 |
| 0.477 | 1 | 0.778 | 1 | 0.437 | 1 | 1.692 | 1 | 1.692 |
| 0.7 | 1 | 0.854 | 1 | 0.435 | 1 | 1.989 | 1 | 1.989 |
| 0.64 | 1 | 0.8 | 1 | 0.53 | 1 | 1.97 | 1 | 1.97 |
| 0.65 | 1 | 0.447 | 1 | 0.0083 | 0 | 1.1053 | 1 | 1.1053 |
| 0.62 | 1 | 0.89 | 1 | 0.4 | 1 | 1.91 | 1 | 1.91 |
| 0.444 | 1 | 0.616 | 1 | 0.369 | 1 | 1.429 | 1 | 1.429 |
| 0.714 | 1 | 0.627 | 1 | 0.304 | 1 | 1.645 | 1 | 1.645 |
| 0.345 | 1 | 0.821 | 1 | 0.449 | 1 | 1.615 | 1 | 1.615 |
| 0.51 | 1 | 0.79 | 1 | 0.45 | 1 | 1.75 | 1 | 1.75 |
| 0.48 | 1 | 0.88 | 1 | 0.34 | 1 | 1.7 | 1 | 1.7 |
| 0.38 | 1 | 1 | 1 | 0.29 | 1 | 1.67 | 1 | 1.67 |
| 0.448 | 1 | 0.847 | 1 | 0.32 | 1 | 1.615 | 1 | 1.615 |
| 0.5 | 1 | 0.83 | 1 | 0.3 | 1 | 1.63 | 1 | 1.63 |
| 0.47 | 1 | 1.3 | 1 | 0.31 | 1 | 2.08 | 1 | 2.08 |
| 0.468 | 1 | 0.511 | 1 | 0.284 | 1 | 1.263 | 1 | 1.263 |
| 0.542 | 1 | 0.576 | 1 | 0.287 | 1 | 1.405 | 1 | 1.405 |
| 0.522 | 1 | 0.509 | 1 | 0.33 | 1 | 1.361 | 1 | 1.361 |
| 0.371 | 1 | 0.654 | 1 | 0.427 | 1 | 1.452 | 1 | 1.452 |
| 0.693 | 1 | 0.6 | 1 | 0.3 | 1 | 1.593 | 1 | 1.593 |
| 0.48 | 1 | 0.82 | 1 | 0.27 | 1 | 1.57 | 1 | 1.57 |
| 0.44 | 1 | 0.71 | 1 | 0.29 | 1 | 1.44 | 1 | 1.44 |
| 0.396 | 1 | 0.481 | 1 | 0.304 | 1 | 1.181 | 1 | 1.181 |
| 0.409 | 1 | 0.388 | 1 | 0.29 | 1 | 1.087 | 1 | 1.087 |
| 0.33 | 1 | 0.423 | 1 | 0.291 | 1 | 1.044 | 1 | 1.044 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 0.46 | 1 | 0.74 | 1 | 0.35 | 1 | 1.55 | 1 | 1.55 |
| 0.41 | 1 | 0.63 | 1 | 0.29 | 1 | 1.33 | 1 | 1.33 |
| 0.392 | 1 | 0.497 | 1 | 0.317 | 1 | 1.206 | 1 | 1.206 |
| 0.723 | 1 | 0.538 | 1 | 0.215 | 1 | 1.476 | 1 | 1.476 |
| 0.285 | 1 | 0.613 | 1 | 0.3 | 1 | 1.198 | 1 | 1.198 |
| 0.291 | 1 | 0.585 | 1 | 0.393 | 1 | 1.269 | 1 | 1.269 |
| 0.207 | 1 | 0.283 | 1 | 0.257 | 1 | 0.747 | 1 | 0.747 |
| 0.35 | 1 | 0.654 | 1 | 0.3 | 1 | 1.304 | 1 | 1.304 |
| 0.355 | 1 | 0.466 | 1 | 0.256 | 1 | 1.077 | 1 | 1.077 |
| 0.195 | 1 | 0.378 | 1 | 0.277 | 1 | 0.85 | 1 | 0.85 |
| 0.268 | 1 | 0.335 | 1 | 0.226 | 1 | 0.829 | 1 | 0.829 |
| 0.339 | 1 | 0.424 | 1 | 0.233 | 1 | 0.996 | 1 | 0.996 |
| 0.274 | 1 | 0.806 | 1 | 0.34 | 1 | 1.42 | 1 | 1.42 |
| 0.344 | 1 | 0.466 | 1 | 0.233 | 1 | 1.043 | 1 | 1.043 |
| 0.248 | 1 | 0.442 | 1 | 0.223 | 1 | 0.913 | 1 | 0.913 |
| 0.295 | 1 | 0.353 | 1 | 0.199 | 1 | 0.847 | 1 | 0.847 |
| 0.379 | 1 | 0.312 | 1 | 0.198 | 1 | 0.889 | 1 | 0.889 |
| 0.256 | 1 | 0.342 | 1 | 0.205 | 1 | 0.803 | 1 | 0.803 |
| 0.281 | 1 | 0.449 | 1 | 0.228 | 1 | 0.958 | 1 | 0.958 |
| 0.313 | 1 | 0.364 | 1 | 0.202 | 1 | 0.879 | 1 | 0.879 |
| 0.146 | 1 | 0.266 | 1 | 0.213 | 1 | 0.625 | 1 | 0.625 |
| 0.224 | 1 | 0.279 | 1 | 0.2 | 1 | 0.703 | 1 | 0.703 |
| 3.35 | 1 | 2.77 | 1 | 1.07 | 1 | 7.19 | 1 | 7.19 |
| 0.29 | 1 | 0.48 | 1 | 0.19 | 1 | 0.96 | 1 | 0.96 |
| 0.184 | 1 | 0.266 | 1 | 0.196 | 1 | 0.646 | 1 | 0.646 |
| 0.275 | 1 | 0.377 | 1 | 0.211 | 1 | 0.863 | 1 | 0.863 |
| 0.28 | 1 | 0.283 | 1 | 0.166 | 1 | 0.729 | 1 | 0.729 |
| 0.294 | 1 | 0.371 | 1 | 0.185 | 1 | 0.85 | 1 | 0.85 |
| 0.243 | 1 | 0.209 | 1 | 0.165 | 1 | 0.617 | 1 | 0.617 |
| 0.251 | 1 | 0.429 | 1 | 0.229 | 1 | 0.909 | 1 | 0.909 |
| 0.258 | 1 | 0.334 | 1 | 0.233 | 1 | 0.825 | 1 | 0.825 |
| 0.213 | 1 | 0.206 | 1 | 0.172 | 1 | 0.591 | 1 | 0.591 |
| 0.26 | 1 | 0.32 | 1 | 0.22 | 1 | 0.8 | 1 | 0.8 |
| 0.21 | 1 | 0.34 | 1 | 0.18 | 1 | 0.73 | 1 | 0.73 |
| 0.209 | 1 | 0.29 | 1 | 0.15 | 1 | 0.649 | 1 | 0.649 |
| 0.2 | 1 | 0.4 | 1 | 0.19 | 1 | 0.79 | 1 | 0.79 |
| 0.19 | 1 | 0.54 | 1 | 0.19 | 1 | 0.92 | 1 | 0.92 |
| 0.221 | 1 | 0.278 | 1 | 0.155 | 1 | 0.654 | 1 | 0.654 |
| 0.155 | 1 | 0.179 | 1 | 0.14 | 1 | 0.474 | 1 | 0.474 |
| 0.21 | 1 | 0.44 | 1 | 0.2 | 1 | 0.85 | 1 | 0.85 |
| 0.21 | 1 | 0.44 | 1 | 0.2 | 1 | 0.85 | 1 | 0.85 |
| 0.19 | 1 | 0.32 | 1 | 0.16 | 1 | 0.67 | 1 | 0.67 |
| 0.24 | 1 | 0.32 | 1 | 0.17 | 1 | 0.73 | 1 | 0.73 |
| 0.261 | 1 | 0.195 | 1 | 0.157 | 1 | 0.613 | 1 | 0.613 |
| 0.19 | 1 | 0.241 | 1 | 0.133 | 1 | 0.564 | 1 | 0.564 |
| 0.201 | 1 | 0.305 | 1 | 0.186 | 1 | 0.692 | 1 | 0.692 |
| 0.232 | 1 | 0.166 | 1 | 0.111 | 1 | 0.509 | 1 | 0.509 |

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|---|---|---|---|---|---|---|---|---|
| 0.16 | 1 | 0.212 | 1 | 0.151 | 1 | 0.523 | 1 | 0.523 |
| 0.164 | 1 | 0.259 | 1 | 0.149 | 1 | 0.572 | 1 | 0.572 |
| 0.076 | 0 | 0.057 | 0 | 0.094 | 0 | 0.227 | 0 | 0.227 |
| 0.027 | 1 | 0.027 | 1 | 0.093 | 0 | 0.147 | 1 | 0.147 |
| 0.128 | 1 | 0.192 | 1 | 0.158 | 1 | 0.478 | 1 | 0.478 |
| 0.156 | 1 | 0.234 | 1 | 0.138 | 1 | 0.528 | 1 | 0.528 |
| 0.311 | 1 | 0.295 | 1 | 0.101 | 1 | 0.707 | 1 | 0.707 |
| 0.15 | 1 | 0.26 | 1 | 0.14 | 1 | 0.55 | 1 | 0.55 |
| 0.07 | 0 | 0.053 | 0 | 0.088 | 0 | 0.211 | 0 | 0.211 |
| 0.07 | 0 | 0.053 | 0 | 0.088 | 0 | 0.211 | 0 | 0.211 |
| 0.07 | 0 | 0.021 | 1 | 0.088 | 0 | 0.179 | 1 | 0.179 |
| 0.16 | 1 | 0.23 | 1 | 0.1 | 1 | 0.49 | 1 | 0.49 |
| 0.253 | 1 | 0.191 | 1 | 0.0955 | 1 | 0.5395 | 1 | 0.5395 |
| 0.067 | 0 | 0.05 | 0 | 0.084 | 0 | 0.201 | 0 | 0.201 |
| 0.19 | 1 | 0.24 | 1 | 0.13 | 1 | 0.56 | 1 | 0.56 |
| 0.109 | 1 | 0.207 | 1 | 0.125 | 1 | 0.441 | 1 | 0.441 |
| 0.176 | 1 | 0.235 | 1 | 0.127 | 1 | 0.538 | 1 | 0.538 |
| 0.218 | 1 | 0.182 | 1 | 0.0916 | 1 | 0.4916 | 1 | 0.4916 |
| 0.028 | 1 | 0.027 | 1 | 0.083 | 0 | 0.138 | 1 | 0.138 |
| 0.066 | 0 | 0.05 | 0 | 0.083 | 0 | 0.199 | 0 | 0.199 |
| 0.067 | 0 | 0.05 | 0 | 0.084 | 0 | 0.201 | 0 | 0.201 |
| 0.066 | 0 | 0.049 | 0 | 0.082 | 0 | 0.197 | 0 | 0.197 |
| 0.06 | 1 | 0.045 | 1 | 0.083 | 0 | 0.188 | 1 | 0.188 |
| 0.066 | 0 | 0.049 | 0 | 0.082 | 0 | 0.197 | 0 | 0.197 |
| 0.15 | 1 | 0.251 | 1 | 0.128 | 1 | 0.529 | 1 | 0.529 |
| 0.064 | 0 | 0.048 | 0 | 0.08 | 0 | 0.192 | 0 | 0.192 |
| 0.064 | 0 | 0.048 | 0 | 0.08 | 0 | 0.192 | 0 | 0.192 |
| 0.064 | 0 | 0.048 | 0 | 0.08 | 0 | 0.192 | 0 | 0.192 |
| 0.063 | 0 | 0.048 | 0 | 0.079 | 0 | 0.19 | 0 | 0.19 |
| 0.064 | 0 | 0.048 | 0 | 0.08 | 0 | 0.192 | 0 | 0.192 |
| 0.22 | 1 | 0.22 | 1 | 0.11 | 1 | 0.55 | 1 | 0.55 |
| 0.023 | 1 | 0.024 | 1 | 0.078 | 0 | 0.125 | 1 | 0.125 |
| 0.062 | 0 | 0.047 | 0 | 0.078 | 0 | 0.187 | 0 | 0.187 |
| 0.115 | 1 | 0.227 | 1 | 0.119 | 1 | 0.461 | 1 | 0.461 |
| 0.12 | 1 | 0.31 | 1 | 0.15 | 1 | 0.58 | 1 | 0.58 |
| 0.198 | 1 | 0.198 | 1 | 0.0969 | 1 | 0.4929 | 1 | 0.4929 |
| 0.061 | 0 | 0.046 | 0 | 0.077 | 0 | 0.184 | 0 | 0.184 |
| 0.035 | 1 | 0.048 | 1 | 0.077 | 0 | 0.16 | 1 | 0.16 |
| 0.061 | 0 | 0.046 | 0 | 0.077 | 0 | 0.184 | 0 | 0.184 |
| 0.035 | 1 | 0.048 | 1 | 0.077 | 0 | 0.16 | 1 | 0.16 |
| 0.061 | 0 | 0.046 | 0 | 0.077 | 0 | 0.184 | 0 | 0.184 |
| 0.061 | 0 | 0.046 | 0 | 0.077 | 0 | 0.184 | 0 | 0.184 |
| 0.056 | 1 | 0.053 | 1 | 0.076 | 0 | 0.185 | 1 | 0.185 |
| 0.061 | 0 | 0.045 | 0 | 0.076 | 0 | 0.182 | 0 | 0.182 |
| 0.06 | 0 | 0.045 | 0 | 0.075 | 0 | 0.18 | 0 | 0.18 |
| 0.026 | 1 | 0.027 | 1 | 0.076 | 0 | 0.129 | 1 | 0.129 |
| 0.059 | 0 | 0.045 | 0 | 0.074 | 0 | 0.178 | 0 | 0.178 |

| 0.06 | 0 | 0.045 | 0 | 0.075 | 0 | 0.18 | 0 | 0.18 |
|---|---|---|---|---|---|---|---|---|
| 0.22 | 1 | 0.27 | 1 | 0.15 | 1 | 0.64 | 1 | 0.64 |
| 0.122 | 1 | 0.181 | 1 | 0.121 | 1 | 0.424 | 1 | 0.424 |
| 0.058 | 0 | 0.044 | 0 | 0.073 | 0 | 0.175 | 0 | 0.175 |
| 0.058 | 0 | 0.044 | 0 | 0.073 | 0 | 0.175 | 0 | 0.175 |
| 0.095 | 0 | 0.097 | 0 | 0.1 | 0 | 0.292 | 0 | 0.292 |
| 0.179 | 1 | 0.173 | 1 | 0.0853 | 1 | 0.4373 | 1 | 0.4373 |
| 0.057 | 0 | 0.043 | 0 | 0.072 | 0 | 0.172 | 0 | 0.172 |
| 0.11 | 1 | 0.16 | 1 | 0.076 | 1 | 0.346 | 1 | 0.346 |
| 0.135 | 1 | 0.239 | 1 | 0.0881 | 1 | 0.4621 | 1 | 0.4621 |
| 0.107 | 1 | 0.17 | 1 | 0.0968 | 1 | 0.3738 | 1 | 0.3738 |
| 0.149 | 1 | 0.172 | 1 | 0.0862 | 1 | 0.4072 | 1 | 0.4072 |
| 0.15 | 1 | 0.18 | 1 | 0.099 | 1 | 0.429 | 1 | 0.429 |
| 0.0504 | 1 | 0.175 | 1 | 0.148 | 1 | 0.3734 | 1 | 0.3734 |
| 0.14 | 1 | 0.2 | 1 | 0.093 | 1 | 0.433 | 1 | 0.433 |
| 0.134 | 1 | 0.211 | 1 | 0.126 | 1 | 0.471 | 1 | 0.471 |
| 0.252 | 1 | 0.336 | 1 | 0.133 | 1 | 0.721 | 1 | 0.721 |
| 0.136 | 1 | 0.129 | 1 | 0.08 | 1 | 0.345 | 1 | 0.345 |
| 0.116 | 1 | 0.258 | 1 | 0.126 | 1 | 0.5 | 1 | 0.5 |
| 0.097 | 1 | 0.12 | 1 | 0.065 | 1 | 0.282 | 1 | 0.282 |
| 0.132 | 1 | 0.201 | 1 | 0.0594 | 1 | 0.3924 | 1 | 0.3924 |
| 0.14 | 1 | 0.154 | 1 | 0.0714 | 1 | 0.3654 | 1 | 0.3654 |
| 0.177 | 1 | 0.257 | 1 | 0.083 | 1 | 0.517 | 1 | 0.517 |
| 0.125 | 1 | 0.168 | 1 | 0.0676 | 1 | 0.3606 | 1 | 0.3606 |
| 0.068 | 1 | 0.15 | 1 | 0.093 | 1 | 0.311 | 1 | 0.311 |
| 0.101 | 1 | 0.145 | 1 | 0.0969 | 1 | 0.3429 | 1 | 0.3429 |
| 0.12 | 1 | 0.19 | 1 | 0.099 | 1 | 0.409 | 1 | 0.409 |
| 0.0859 | 1 | 0.104 | 1 | 0.0788 | 1 | 0.2687 | 1 | 0.2687 |
| 0.116 | 1 | 0.127 | 1 | 0.0617 | 1 | 0.3047 | 1 | 0.3047 |
| 0.0985 | 1 | 0.103 | 1 | 0.0502 | 1 | 0.2517 | 1 | 0.2517 |
| 0.111 | 1 | 0.318 | 1 | 0.11 | 1 | 0.539 | 1 | 0.539 |
| 0.054 | 1 | 0.067 | 1 | 0.039 | 1 | 0.16 | 1 | 0.16 |
| 0.0851 | 1 | 0.394 | 1 | 0.113 | 1 | 0.5921 | 1 | 0.5921 |
| 0.065 | 1 | 0.101 | 1 | 0.0602 | 1 | 0.2262 | 1 | 0.2262 |
| 0.108 | 1 | 0.055 | 0 | 0.057 | 0 | 0.22 | 1 | 0.22 |
| 0.066 | 1 | 0.12 | 1 | 0.065 | 1 | 0.251 | 1 | 0.251 |
| 0.0595 | 1 | 0.103 | 1 | 0.0749 | 1 | 0.2374 | 1 | 0.2374 |
| 0.052 | 0 | 0.053 | 0 | 0.055 | 0 | 0.16 | 0 | 0.16 |
| 0.0928 | 1 | 0.0857 | 1 | 0.0435 | 1 | 0.222 | 1 | 0.222 |
| 0.05 | 0 | 0.051 | 0 | 0.053 | 0 | 0.154 | 0 | 0.154 |
| 0.0639 | 1 | 0.126 | 1 | 0.0616 | 1 | 0.2515 | 1 | 0.2515 |
| 0.126 | 1 | 0.0614 | 1 | 0.0174 | 1 | 0.2048 | 1 | 0.2048 |
| 0.0814 | 1 | 0.0714 | 1 | 0.0533 | 1 | 0.2061 | 1 | 0.2061 |
| 0.0591 | 1 | 0.0739 | 1 | 0.0496 | 1 | 0.1826 | 1 | 0.1826 |
| 0.0647 | 1 | 0.0624 | 1 | 0.005 | 0 | 0.1321 | 1 | 0.1321 |
| 0.0897 | 1 | 0.101 | 1 | 0.0356 | 1 | 0.2263 | 1 | 0.2263 |
| 0.0709 | 1 | 0.133 | 1 | 0.0416 | 1 | 0.2455 | 1 | 0.2455 |

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|---|---|---|---|---|---|---|---|---|
| 0.0482 | 1 | 0.0765 | 1 | 0.0448 | 1 | 0.1695 | 1 | 0.1695 |
| 0.0237 | 1 | 0.0534 | 1 | 0.0232 | 1 | 0.1003 | 1 | 0.1003 |
| 0.0514 | 1 | 0.0767 | 1 | 0.0505 | 1 | 0.1786 | 1 | 0.1786 |
| 0.066 | 1 | 0.0919 | 1 | 0.0393 | 1 | 0.1972 | 1 | 0.1972 |
| 0.0474 | 1 | 0.0732 | 1 | 0.0347 | 1 | 0.1553 | 1 | 0.1553 |
| 0.0513 | 1 | 0.0505 | 1 | 0.0248 | 1 | 0.1266 | 1 | 0.1266 |
| 0.0444 | 1 | 0.0487 | 1 | 0.0305 | 1 | 0.1236 | 1 | 0.1236 |
| 0.0426 | 1 | 0.0274 | 1 | 0.011 | 0 | 0.081 | 1 | 0.081 |
| 0.053 | 1 | 0.0457 | 1 | 0.0158 | 1 | 0.1145 | 1 | 0.1145 |
| 0.0446 | 1 | 0.0309 | 1 | 0.0203 | 1 | 0.0958 | 1 | 0.0958 |
| 0.0532 | 1 | 0.0499 | 1 | 0.033 | 1 | 0.1361 | 1 | 0.1361 |
| 0.02 | 0 | 0.021 | 0 | 0.022 | 0 | 0.063 | 0 | 0.063 |
| 0.031 | 1 | 0.0397 | 1 | 0.0212 | 1 | 0.0919 | 1 | 0.0919 |
| 0.034 | 1 | 0.0251 | 1 | 0.0162 | 1 | 0.0753 | 1 | 0.0753 |
| 0.0243 | 1 | 0.0201 | 1 | 0.011 | 0 | 0.0554 | 1 | 0.0554 |
| 0.0247 | 1 | 0.042 | 1 | 0.0199 | 1 | 0.0866 | 1 | 0.0866 |
| 0.0232 | 1 | 0.021 | 1 | 0.011 | 0 | 0.0552 | 1 | 0.0552 |
| 0.0208 | 1 | 0.037 | 1 | 0.0132 | 1 | 0.071 | 1 | 0.071 |
| 0.0185 | 1 | 0.0229 | 1 | 0.016 | 1 | 0.0574 | 1 | 0.0574 |
| 0.0237 | 1 | 0.0187 | 1 | 0.011 | 0 | 0.0534 | 1 | 0.0534 |
| 0.0217 | 1 | 0.014 | 0 | 0.014 | 0 | 0.0497 | 1 | 0.0497 |
| 0.0166 | 1 | 0.0176 | 1 | 0.011 | 0 | 0.0452 | 1 | 0.0452 |
| 0.013 | 0 | 0.013 | 0 | 0.013 | 0 | 0.039 | 0 | 0.039 |
| 0.0192 | 1 | 0.0283 | 1 | 0.0139 | 1 | 0.0614 | 1 | 0.0614 |
| 0.012 | 0 | 0.012 | 0 | 0.012 | 0 | 0.036 | 0 | 0.036 |
| 0.011 | 0 | 0.012 | 0 | 0.012 | 0 | 0.035 | 0 | 0.035 |
| 0.011 | 0 | 0.011 | 0 | 0.011 | 0 | 0.033 | 0 | 0.033 |
| 0.0132 | 1 | 0.011 | 0 | 0.011 | 0 | 0.0352 | 1 | 0.0352 |
| 0.01 | 0 | 0.012 | 0 | 0.009 | 0 | 0.031 | 0 | 0.031 |
| 0.0133 | 1 | 0.011 | 0 | 0.011 | 0 | 0.0353 | 1 | 0.0353 |
| 0.01 | 0 | 0.011 | 0 | 0.011 | 0 | 0.032 | 0 | 0.032 |
| 0.0199 | 1 | 0.011 | 0 | 0.011 | 0 | 0.0419 | 1 | 0.0419 |
| 0.0189 | 1 | 0.011 | 0 | 0.011 | 0 | 0.0409 | 1 | 0.0409 |
| 0.01 | 0 | 0.011 | 0 | 0.011 | 0 | 0.032 | 0 | 0.032 |
| 0.0582 | 1 | 0.011 | 0 | 0.011 | 0 | 0.0802 | 1 | 0.0802 |
| 0.01 | 0 | 0.011 | 0 | 0.011 | 0 | 0.032 | 0 | 0.032 |
| 0.01 | 0 | 0.011 | 0 | 0.011 | 0 | 0.032 | 0 | 0.032 |
| 0.01 | 0 | 0.011 | 0 | 0.011 | 0 | 0.032 | 0 | 0.032 |
| 0.01 | 0 | 0.01 | 0 | 0.011 | 0 | 0.031 | 0 | 0.031 |
| 0.0735 | 1 | 0.011 | 0 | 0.011 | 0 | 0.0955 | 1 | 0.0955 |
| 0.01 | 0 | 0.01 | 0 | 0.011 | 0 | 0.031 | 0 | 0.031 |
| 0.01 | 0 | 0.011 | 0 | 0.011 | 0 | 0.032 | 0 | 0.032 |
| 0.01 | 0 | 0.011 | 0 | 0.011 | 0 | 0.032 | 0 | 0.032 |
| 0.01 | 0 | 0.01 | 0 | 0.011 | 0 | 0.031 | 0 | 0.031 |
| 0.01 | 0 | 0.01 | 0 | 0.011 | 0 | 0.031 | 0 | 0.031 |
| 0.01 | 0 | 0.01 | 0 | 0.011 | 0 | 0.031 | 0 | 0.031 |
| 0.0879 | 1 | 0.01 | 0 | 0.011 | 0 | 0.1089 | 1 | 0.1089 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 0.01 | 0 | 0.01 | 0 | 0.011 | 0 | 0.031 | 0 | 0.031 |
| 0.01 | 0 | 0.01 | 0 | 0.011 | 0 | 0.031 | 0 | 0.031 |
| 0.01 | 0 | 0.01 | 0 | 0.011 | 0 | 0.031 | 0 | 0.031 |
| 0.01 | 0 | 0.01 | 0 | 0.011 | 0 | 0.031 | 0 | 0.031 |
| 0.0178 | 1 | 0.01 | 0 | 0.011 | 0 | 0.0388 | 1 | 0.0388 |
| 0.01 | 0 | 0.01 | 0 | 0.011 | 0 | 0.031 | 0 | 0.031 |
| 0.01 | 0 | 0.01 | 0 | 0.011 | 0 | 0.031 | 0 | 0.031 |
| 0.01 | 0 | 0.01 | 0 | 0.011 | 0 | 0.031 | 0 | 0.031 |
| 0.01 | 0 | 0.01 | 0 | 0.011 | 0 | 0.031 | 0 | 0.031 |
| 0.01 | 0 | 0.01 | 0 | 0.011 | 0 | 0.031 | 0 | 0.031 |
| 0.01 | 0 | 0.01 | 0 | 0.011 | 0 | 0.031 | 0 | 0.031 |
| 0.01 | 0 | 0.01 | 0 | 0.011 | 0 | 0.031 | 0 | 0.031 |
| 0.0099 | 0 | 0.01 | 0 | 0.011 | 0 | 0.0309 | 0 | 0.0309 |
| 0.0131 | 1 | 0.01 | 0 | 0.011 | 0 | 0.0341 | 1 | 0.0341 |
| 0.0099 | 0 | 0.01 | 0 | 0.011 | 0 | 0.0309 | 0 | 0.0309 |
| 0.0132 | 1 | 0.0174 | 1 | 0.01 | 0 | 0.0406 | 1 | 0.0406 |
| 0.0098 | 0 | 0.01 | 0 | 0.01 | 0 | 0.0298 | 0 | 0.0298 |
| 0.0098 | 0 | 0.01 | 0 | 0.01 | 0 | 0.0298 | 0 | 0.0298 |
| 0.0099 | 0 | 0.01 | 0 | 0.01 | 0 | 0.0299 | 0 | 0.0299 |
| 0.0098 | 0 | 0.01 | 0 | 0.01 | 0 | 0.0298 | 0 | 0.0298 |
| 0.0098 | 0 | 0.01 | 0 | 0.01 | 0 | 0.0298 | 0 | 0.0298 |
| 0.01 | 0 | 0.0047 | 0 | 0.005 | 0 | 0.0197 | 0 | 0.0197 |
| *: Results are winsorized as shown for 95th UCL analysis. | | | | | | | | |

Note: all samples listed below are included in UCL analysis of metals.

| Sample ID | Lead, Pb | D_Lead, Pb | Mercury, Hg | D_Mercury, Hg | Silver, Ag | D_Silver, Ag | Zinc, Zn | D_Zinc, Zn |
|---|---|---|---|---|---|---|---|---|
| C10-SB1-0.0 | 1010 | 1 | 1.6 | 1 | 5.5 | 1 | 7560 | 1 |
| C10-SB1-9.5 | 10.9 | 1 | 0.057 | 1 | 0.57 | 0 | 39.1 | 1 |
| C11-SB1-0.0 | 2410 | 1 | 0.9 | 1 | 12.7 | 1 | 19200 | 1 |
| C11-SB1-6.0 | 221 | 1 | 0.16 | 1 | 0.55 | 0 | 65.9 | 1 |
| C12-SB1-0.0 | 2540 | 1 | 1.5 | 1 | 2.8 | 1 | 2890 | 1 |
| C12-SB1-10.5 | 17.3 | 1 | 0.039 | 0 | 0.63 | 0 | 31.8 | 1 |
| C12-SB2-0.0 | 414 | 1 | 0.31 | 1 | 1.7 | 1 | 2800 | 1 |
| C12-SB2-7.5 | 74.5 | 1 | 0.038 | 0 | 1.5 | 1 | 70.4 | 1 |
| C12-SH1-0.0 | 1010 | 1 | 1.7 | 1 | 0.98 | 1 | 4400 | 1 |
| C12-SH2-0.0 | 789 | 1 | 0.78 | 1 | 2.9 | 1 | 4490 | 1 |
| C13-SB1-0.0 | 1080 | 1 | 2 | 1 | 1.3 | 1 | 1960 | 1 |
| C13-SB1-3.0 | 23.2 | 1 | 0.035 | 0 | 1.2 | 0 | 40.5 | 1 |
| C14-SB1-0.0 | 200 | 1 | 0.12 | 1 | 1.2 | 1 | 1860 | 1 |
| C14-SB1-5.5 | 29.3 | 1 | 0.036 | 0 | 1.2 | 0 | 172 | 1 |
| C15-SB1-0.0 | 3400 | 1 | 3.3 | 1 | 4.7 | 1 | 4570 | 1 |
| C15-SB1-8.5 | 16.7 | 1 | 0.038 | 0 | 1.1 | 0 | 25.3 | 1 |
| C8-SB1-0.0 | 383 | 1 | 0.21 | 1 | 3 | 1 | 3080 | 1 |
| C8-SB1-11.0 | 40.2 | 1 | 0.039 | 0 | 0.59 | 0 | 52.5 | 1 |
| C9-PH1-0.0 | 569 | 1 | 0.28 | 1 | 2.4 | 1 | 4830 | 1 |
| C9-PH1-0.0P | 564 | 1 | 0.23 | 1 | 2.2 | 1 | 4850 | 1 |
| C9-PH1-6.5 | 322 | 1 | 0.41 | 1 | 1.2 | 0 | 912 | 1 |
| C9-SB1-0.0 | 457 | 1 | 0.2 | 1 | 1.5 | 1 | 2410 | 1 |
| C9-SB1-7.0 | 55.3 | 1 | 0.039 | 0 | 0.58 | 0 | 954 | 1 |
| D10-SB1-0.0 | 2780 | 1 | 0.16 | 1 | 28.2 | 1 | 54000 | 1 |
| D10-WT7-0.0 | 2090 | 1 | 0.16 | 1 | 24.3 | 1 | 27600 | 1 |
| D11-SB1-0.0 | 180 | 1 | 0.1 | 1 | 1.1 | 1 | 2080 | 1 |
| D11-SB1-8.0 | 35.7 | 1 | 0.04 | 0 | 0.63 | 0 | 57.8 | 1 |
| D12-SB1-0.0 | 289 | 1 | 0.2 | 1 | 1.6 | 1 | 2020 | 1 |
| D13-SB1-0.0 | 286 | 1 | 0.22 | 1 | 2.2 | 1 | 2260 | 1 |
| D14-SB1-0.0 | 168 | 1 | 0.13 | 1 | 2.8 | 0 | 1350 | 1 |
| D5-SB1-0.0 | 245 | 1 | 0.24 | 1 | 0.58 | 0 | 763 | 1 |
| D5-SB1-7.5 | 18.7 | 1 | 0.056 | 1 | 1.2 | 1 | 17.3 | 1 |
| D6-AST4-0.0 | 171 | 1 | 0.085 | 1 | 0.56 | 0 | 1020 | 1 |
| D6-AST4-6.5 | 79.6 | 1 | 0.16 | 1 | 1.1 | 1 | 139 | 1 |
| D6-SB1-0.0 | 119 | 1 | 0.061 | 1 | 0.53 | 0 | 642 | 1 |
| D6-SB1-11.0 | 125 | 1 | 1.3 | 1 | 0.53 | 0 | 226 | 1 |
| D7-HW1-0.0 | 663 | 1 | 0.3 | 1 | 2.4 | 1 | 2240 | 1 |
| D7-HW2-0.0 | 499 | 1 | 0.28 | 1 | 4.2 | 1 | 3560 | 1 |
| D7-HW3-0.0 | 334 | 1 | 0.15 | 1 | 1.8 | 1 | 3130 | 1 |
| D7-HW4-0.0 | 366 | 1 | 0.26 | 1 | 2.8 | 1 | 2100 | 1 |
| D7-HW5-0.0 | 327 | 1 | 0.19 | 1 | 2.6 | 1 | 2680 | 1 |
| D7-HW6-0.0 | 311 | 1 | 0.49 | 1 | 0.99 | 1 | 725 | 1 |
| D7-HW7-0.0 | 1550 | 1 | 0.96 | 1 | 4.9 | 1 | 3540 | 1 |
| D7-HW8-0.0 | 1520 | 1 | 0.96 | 1 | 4.9 | 1 | 3840 | 1 |
| D7-L1-6.0 | 26.7 | 1 | 0.037 | 0 | 4.6 | 1 | 188 | 1 |
| D7-L2-6.5 | 382 | 1 | 0.09 | 1 | 2.6 | 0 | 335 | 1 |
| D7-SB1-0.0 | 664 | 1 | 0.51 | 1 | 2.1 | 1 | 2750 | 1 |
| D7-SB1-11.5 | 29.3 | 1 | 0.034 | 0 | 0.54 | 0 | 104 | 1 |

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|---|---|---|---|---|---|---|---|---|
| D7-SB2-0.0 | 11.8 | 1 | 0.034 | 0 | 0.54 | 0 | 45.8 | 1 |
| D7-SB2-6.0 | 73.3 | 1 | 0.051 | 1 | 0.54 | 0 | 60.9 | 1 |
| D8-SB1-0.0 | 492 | 1 | 1.1 | 1 | 1.6 | 1 | 2210 | 1 |
| D8-SB1-8.5 | 4.6 | 1 | 0.047 | 0 | 0.51 | 0 | 7.1 | 1 |
| D9-SB1-0.0 | 325 | 1 | 0.23 | 1 | 2.6 | 1 | 3080 | 1 |
| D9-SB1-0.0P | 766 | 1 | 0.45 | 1 | 6.5 | 1 | 6200 | 1 |
| D9-SB1-5.5 | 2650 | 1 | 0.35 | 1 | 5.4 | 1 | 8950 | 1 |
| D9-SB2-0.0 | 1610 | 1 | 2.5 | 1 | 3.6 | 1 | 12100 | 1 |
| D9-SB3-0.0 | 271 | 1 | 0.28 | 1 | 1.3 | 1 | 1680 | 1 |
| D9-SB4-0.0 | 48.3 | 1 | 0.05 | 1 | 0.61 | 1 | 148 | 1 |
| D9-SB4-11.0 | 7.9 | 1 | 0.035 | 0 | 0.57 | 0 | 16.6 | 1 |
| D9-T32-0.0 | - | 1 | - | 1 | - | 1 | - | 1 |
| E10-SB1-0.0 | 1550 | 1 | 0.21 | 1 | 5.8 | 1 | 7560 | 1 |
| E10-SB1-11.0 | 4.6 | 1 | 0.036 | 0 | 0.57 | 0 | 18 | 1 |
| E10-WT3-0.0 | 1110 | 1 | 0.11 | 1 | 9.3 | 1 | 13900 | 1 |
| E10-WT3-11.5 | 3.5 | 1 | 0.037 | 0 | 0.56 | 0 | 20.4 | 1 |
| E10-WT3-11.5P | 3.2 | 1 | 0.035 | 0 | 0.56 | 0 | 19.4 | 1 |
| E10-WT4-0.0 | 438 | 1 | 0.18 | 1 | 0.71 | 1 | 2870 | 1 |
| E10-WT4-11.5 | 5.4 | 1 | 0.034 | 0 | 0.55 | 0 | 23.6 | 1 |
| E10-WT6-0.0 | 1280 | 1 | 0.24 | 1 | 8 | 1 | 13800 | 1 |
| E10-WT6-11.5 | 3 | 1 | 0.034 | 0 | 0.53 | 0 | 20.9 | 1 |
| E11-SB1-0.0 | 528 | 1 | 0.14 | 1 | 1.4 | 1 | 1120 | 1 |
| E11-SB1-12.0 | 862 | 1 | 1.5 | 1 | 1.1 | 0 | 1210 | 1 |
| E12-TT1-0.0 | 2180 | 1 | 0.27 | 1 | 7.7 | 1 | 4750 | 1 |
| E12-TT1-0.0P | 1390 | 1 | 0.37 | 1 | 5 | 1 | 3210 | 1 |
| E12-TT2-0.0 | 955 | 1 | 0.38 | 1 | 1.7 | 1 | 2360 | 1 |
| E13-SB1-0.0 | 1710 | 1 | 1.5 | 1 | 0.63 | 1 | 4020 | 1 |
| E13-SB1-9.0 | 28.8 | 1 | 0.036 | 0 | 0.54 | 0 | 59.1 | 1 |
| E14-SB1-0.0 | 214 | 1 | 0.2 | 1 | 1.2 | 0 | 1810 | 1 |
| E14-SB1-0.5 | 1290 | 1 | 0.82 | 1 | 2.8 | 1 | 2250 | 1 |
| E3-SB1-0.0 | 114 | 1 | 0.056 | 1 | 0.53 | 0 | 275 | 1 |
| E3-SB1-9.0 | 11.8 | 1 | 0.036 | 0 | 0.61 | 0 | 106 | 1 |
| E4-SB1-0.0 | 106 | 1 | 0.041 | 1 | 0.54 | 0 | 251 | 1 |
| E4-SB1-6.0 | 28.6 | 1 | 0.046 | 0 | 0.52 | 0 | 24.5 | 1 |
| E5-SB1-0.0 | 49.4 | 1 | 0.033 | 0 | 5.1 | 0 | 129 | 1 |
| E5-SB1-8.5 | 14.3 | 1 | 0.038 | 0 | 0.51 | 0 | 39 | 1 |
| E6-SB1-0.0 | 39.8 | 1 | 0.044 | 1 | 0.57 | 1 | 98.8 | 1 |
| E6-SB1-5.0 | 22.9 | 1 | 0.044 | 1 | 0.9 | 1 | 46.7 | 1 |
| E7-SB1-0.0 | 156 | 1 | 0.15 | 1 | 0.59 | 0 | 453 | 1 |
| E7-SB1-3.0 | 29.3 | 1 | 0.036 | 0 | 0.61 | 0 | 39.1 | 1 |
| E8-SB1-0.0 | 29.9 | 1 | 0.034 | 0 | 0.53 | 0 | 194 | 1 |
| E8-SB1-11.5 | 76.7 | 1 | 0.036 | 0 | 0.67 | 1 | 205 | 1 |
| E9-CD1-0.0 | 479 | 1 | 0.32 | 1 | 1.6 | 1 | 2240 | 1 |
| E9-CD1-15.0 | 4.9 | 1 | 0.035 | 0 | 0.58 | 0 | 30.8 | 1 |
| E9-CD2-0.0 | 128 | 1 | 0.035 | 0 | 0.55 | 0 | 382 | 1 |
| E9-WT10 | 6020 | 1 | 0.36 | 1 | 148 | 1 | 56100 | 1 |
| E9-WT12-0.0 | 720 | 1 | 0.16 | 1 | 0.56 | 0 | 2370 | 1 |
| E9-WT12-7.5 | 26.3 | 1 | 0.036 | 0 | 1.1 | 0 | 67.4 | 1 |
| E9-WT13-0.0 | 692 | 1 | 0.11 | 1 | 1.6 | 1 | 2450 | 1 |
| E9-WT5-0.0 | 453 | 1 | 0.15 | 1 | 2.2 | 1 | 2760 | 1 |

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|---|---|---|---|---|---|---|---|---|
| E9-WT5-11.0 | 4.6 | 1 | 0.036 | 0 | 0.56 | 0 | 18.9 | 1 |
| E9-WT8-0.0 | 626 | 1 | 0.093 | 1 | 7.5 | 1 | 4230 | 1 |
| E9-WT8-11.5 | 6.9 | 1 | 0.038 | 0 | 0.62 | 0 | 27.1 | 1 |
| F10-SB1-0.0 | 207 | 1 | 0.1 | 1 | 0.56 | 0 | 519 | 1 |
| F10-SB1-11.5 | 4.9 | 1 | 0.034 | 0 | 0.61 | 1 | 28 | 1 |
| F11-SB1-0.0 | 870 | 1 | 0.29 | 1 | 0.55 | 0 | 2090 | 1 |
| F11-SB1-9.5 | 4.7 | 1 | 0.036 | 0 | 0.54 | 0 | 23.4 | 1 |
| F11-SB2-0.0 | 643 | 1 | 0.091 | 1 | 0.95 | 1 | 2190 | 1 |
| F11-SB2-6.5 | 239 | 1 | 0.033 | 0 | 0.57 | 0 | 134 | 1 |
| F11-SB3-15.5 | 5.2 | 1 | 0.037 | 0 | 0.57 | 0 | 25.5 | 1 |
| F12-MS2-0.0 | 26.4 | 1 | 0.035 | 1 | 0.51 | 0 | 48.1 | 1 |
| F12-MS2-11.5 | 8.5 | 1 | 0.035 | 1 | 0.53 | 0 | 25.7 | 1 |
| F12-MS3-0.0 | 849 | 1 | 0.6 | 1 | 1.8 | 1 | 2670 | 1 |
| F12-SB1-0.0 | 4010 | 1 | 0.51 | 1 | 8.1 | 1 | 12800 | 1 |
| F12-SB1-11.5 | 22.4 | 1 | 0.035 | 0 | 0.53 | 0 | 33.7 | 1 |
| F12-SB2-0.0 | 123 | 1 | 0.089 | 1 | 0.55 | 0 | 174 | 1 |
| F12-SB2-10.5 | 7.6 | 1 | 0.037 | 0 | 0.59 | 0 | 22.7 | 1 |
| F12-SB3-0.0 | 831 | 1 | 0.18 | 1 | 7.9 | 1 | 4790 | 1 |
| F12-SB31-0.0 | 883 | 1 | 0.22 | 1 | 5.2 | 1 | 6860 | 1 |
| F13-SB1-0.0 | 240 | 1 | 0.14 | 1 | 1.3 | 1 | 1120 | 1 |
| F13-SB1-4.5 | 516 | 1 | 0.23 | 1 | 1.6 | 1 | 1500 | 1 |
| F14-SB1-0.0 | 370 | 1 | 0.38 | 1 | 1.5 | 1 | 1690 | 1 |
| F14-SB1-4.5 | 48 | 1 | 0.036 | 0 | 0.54 | 0 | 28.9 | 1 |
| F1-SB1-0.0 | 132 | 1 | 0.15 | 1 | 0.6 | 0 | 466 | 1 |
| F1-SB1-9.0 | 28.8 | 1 | 0.034 | 0 | 0.53 | 0 | 111 | 1 |
| F2-SB1-0.0 | 61.6 | 1 | 0.035 | 0 | 0.52 | 0 | 196 | 1 |
| F2-SB1-9.0 | 13.3 | 1 | 0.035 | 0 | 0.52 | 0 | 64.1 | 1 |
| F3-SB1-0.0 | 153 | 1 | 0.035 | 0 | 1.1 | 0 | 305 | 1 |
| F3-SB1-4.5 | 23.4 | 1 | 0.034 | 0 | 0.52 | 0 | 90.1 | 1 |
| F4-SB1-9.0 | 8.1 | 1 | 0.034 | 0 | 0.52 | 0 | 29.6 | 1 |
| F4-SB2-0.0 | 17.2 | 1 | 0.036 | 0 | 0.56 | 0 | 30.4 | 1 |
| F4-SB2-8.0 | 7.7 | 1 | 0.036 | 0 | 0.54 | 0 | 30.9 | 1 |
| F4-SB3-0.0 | 58.2 | 1 | 0.035 | 0 | 0.54 | 0 | 162 | 1 |
| F4-SB3-8.0 | 11.3 | 1 | 0.037 | 0 | 0.55 | 0 | 79.1 | 1 |
| F4-SB4-0.0 | 101 | 1 | 0.034 | 0 | 0.57 | 0 | 129 | 1 |
| F4-SB4-9.5 | 3.8 | 1 | 0.034 | 0 | 0.53 | 0 | 30.1 | 1 |
| F4-TR1-0.0 | 334 | 1 | 0.06 | 1 | 3 | 0 | 745 | 1 |
| F4-TR1-1.5 | 60.3 | 1 | 0.034 | 0 | 5.4 | 0 | 97.6 | 1 |
| F5-SB1-0.0 | 181 | 1 | 0.033 | 0 | 0.53 | 0 | 629 | 1 |
| F5-SB1-7.5 | 130 | 1 | 0.038 | 0 | 0.61 | 0 | 141 | 1 |
| F5-SB2-11.0 | 7.9 | 1 | 0.038 | 0 | 0.59 | 0 | 22.6 | 1 |
| F6-PB1-0.0 | 1310 | 1 | 0.068 | 1 | 0.53 | 0 | 301 | 1 |
| F6-PB1-5.0 | 18.7 | 1 | 0.038 | 1 | 0.53 | 0 | 21.1 | 1 |
| F6-PT1-0.0 | 88.7 | 1 | 0.042 | 1 | 0.64 | 1 | 208 | 1 |
| F6-PT1-6.0 | 1270 | 1 | 0.034 | 0 | 0.63 | 1 | 312 | 1 |
| F6-PT2-6.0 | 159 | 1 | 0.033 | 0 | 0.56 | 0 | 253 | 1 |
| F6-PT2-6.0 | 12.2 | 1 | 0.054 | 1 | 0.58 | 0 | 26.1 | 1 |
| F6-SB1-0.0 | 101 | 1 | 0.035 | 0 | 0.59 | 1 | 153 | 1 |
| F6-SB1-7.5 | 12.2 | 1 | 0.036 | 0 | 0.59 | 0 | 29.8 | 1 |
| F7-PB5-0.0 | 40.1 | 1 | 0.1 | 1 | 0.52 | 0 | 115 | 1 |

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|---|---|---|---|---|---|---|---|---|
| F7-PB5-7.0 | 15.6 | 1 | 0.036 | 0 | 0.52 | 0 | 35.3 | 1 |
| F7-PB6-0.0 | 11.6 | 1 | 0.034 | 0 | 0.55 | 0 | 38.4 | 1 |
| F7-PB6-3.0 | 14.9 | 1 | 0.034 | 1 | 0.53 | 0 | 42.9 | 1 |
| F7-PB6-3.0P | 15.2 | 1 | 0.033 | 0 | 0.55 | 0 | 55.5 | 1 |
| F7-PB7-0.0 | 15.1 | 1 | 0.06 | 1 | 0.55 | 1 | 55 | 1 |
| F7-PB7-3.0 | 36 | 1 | 0.034 | 0 | 1.1 | 0 | 36 | 1 |
| F7-PB8-0.0 | 5.1 | 1 | 0.036 | 0 | 0.66 | 1 | 31.4 | 1 |
| F7-PB8-10.0 | 16.7 | 1 | 0.034 | 0 | 0.54 | 0 | 44.1 | 1 |
| F7-SB1-0.0 | 171 | 1 | 0.056 | 1 | 0.82 | 1 | 292 | 1 |
| F7-SB1-6.5 | 67.3 | 1 | 0.037 | 0 | 0.86 | 1 | 146 | 1 |
| F8-S1-0.0 | 49.1 | 1 | 0.057 | 1 | 1 | 0 | 179 | 1 |
| F8-S1-6.5 | 5.4 | 1 | 0.035 | 0 | 0.57 | 1 | 32 | 1 |
| F8-SB1-0.0 | 47.7 | 1 | 0.037 | 0 | 0.56 | 0 | 380 | 1 |
| F8-SB1-10.5 | 38.8 | 1 | 0.13 | 1 | 0.56 | 0 | 22.6 | 1 |
| F8-TH1-0.0 | 130 | 1 | 0.041 | 0 | 1 | 1 | 347 | 1 |
| F8-TH1-6.0 | 5.2 | 1 | 0.035 | 0 | 0.59 | 1 | 25.1 | 1 |
| F8-TH2-0.0 | 1990 | 1 | 0.035 | 0 | 1.9 | 1 | 727 | 1 |
| F8-TH2-2.0 | 101 | 1 | 0.037 | 0 | 0.97 | 1 | 247 | 1 |
| F9-SB1-0.0 | 1290 | 1 | 0.21 | 1 | 2.1 | 1 | 2660 | 1 |
| F9-SB1-9.5 | 32 | 1 | 0.036 | 0 | 0.6 | 1 | 42.8 | 1 |
| F9-SB2-14.5 | 27.2 | 1 | 0.038 | 1 | 0.56 | 0 | 35.9 | 1 |
| G10-SB1-0.0 | 695 | 1 | 0.033 | 0 | 0.78 | 1 | 1630 | 1 |
| G10-SB1-11.5 | 13.1 | 1 | 0.034 | 0 | 0.55 | 0 | 50 | 1 |
| G10-SB2-0.0 | 422 | 1 | 0.057 | 1 | 0.53 | 0 | 174 | 1 |
| G10-SB2-8.0 | 620 | 1 | 0.083 | 1 | 0.54 | 0 | 239 | 1 |
| G11-SB1-0.0 | 330 | 1 | 0.12 | 1 | 0.56 | 0 | 987 | 1 |
| G11-SB1-11.5 | 301 | 1 | 0.081 | 1 | 0.57 | 0 | 610 | 1 |
| G11-SB1-11.5P | 223 | 1 | 0.048 | 1 | 0.57 | 0 | 426 | 1 |
| G11-SB2-0.0 | 80.1 | 1 | 0.034 | 0 | 0.53 | 0 | 416 | 1 |
| G11-SB2-11.5 | 10 | 1 | 0.034 | 0 | 0.54 | 0 | 20.5 | 1 |
| G11-SB3-0.5 | 221 | 1 | 0.11 | 1 | 0.58 | 0 | 970 | 1 |
| G11-SB4-15.5 | 7.8 | 1 | 0.035 | 0 | 0.55 | 0 | 40.3 | 1 |
| G12-SB1-0.0 | 6.8 | 1 | 0.036 | 0 | 0.57 | 0 | 20 | 1 |
| G12-SB1-11.5 | 4 | 1 | 0.035 | 0 | 0.56 | 0 | 22.9 | 1 |
| G12-SB2-0.0 | 25.2 | 1 | 0.055 | 1 | 0.52 | 0 | 63.9 | 1 |
| G12-SB2-11.5 | 433 | 1 | 0.19 | 1 | 0.58 | 0 | 272 | 1 |
| G12-SB3-0.0 | 121 | 1 | 0.51 | 1 | 0.56 | 0 | 278 | 1 |
| G12-SB3-11.0 | 11.7 | 1 | 0.038 | 0 | 0.57 | 0 | 15.5 | 1 |
| G12-SB4-0.0 | 27.4 | 1 | 0.077 | 1 | 0.57 | 0 | 75.7 | 1 |
| G12-SB4-11.5 | 21.1 | 1 | 0.036 | 0 | 0.56 | 0 | 36.3 | 1 |
| G13-SB1-0.0 | 335 | 1 | 0.21 | 1 | 0.53 | 0 | 431 | 1 |
| G13-SB1-11.0 | 55.8 | 1 | 0.056 | 1 | 0.58 | 0 | 95.5 | 1 |
| G14-SB1-0.0 | 300 | 1 | 0.11 | 1 | 0.54 | 0 | 633 | 1 |
| G14-SB1-2.5 | 40 | 1 | 0.036 | 1 | 0.55 | 0 | 28.4 | 1 |
| G1-SB1-0.0 | 177 | 1 | 0.052 | 1 | 1.2 | 0 | 704 | 1 |
| G1-SB1-8.5 | 13.7 | 1 | 0.034 | 0 | 0.56 | 0 | 47.9 | 1 |
| G2-SB1-0.0 | 37.8 | 1 | 0.036 | 0 | 0.57 | 0 | 142 | 1 |
| G2-SB1-6.5 | 7.7 | 1 | 0.033 | 0 | 0.53 | 0 | 38.7 | 1 |
| G3-SB1-0.0 | 386 | 1 | 0.13 | 1 | 1 | 1 | 1020 | 1 |
| G3-SB1-5.0 | 16.5 | 1 | 0.038 | 0 | 0.64 | 0 | 18.4 | 1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| G4-SB1-0.0 | 214 | 1 | 0.074 | 1 | 0.54 | 0 | 410 | 1 |
| G4-SB1-6.5 | 32.4 | 1 | 0.036 | 0 | 0.55 | 0 | 55.1 | 1 |
| G4-SB1-6.5P | 41.3 | 1 | 0.034 | 0 | 0.52 | 0 | 79.5 | 1 |
| G5-SB1-0.0 | 44.2 | 1 | 0.035 | 0 | 0.54 | 0 | 65.3 | 1 |
| G5-SB1-8.5 | 6.3 | 1 | 0.036 | 0 | 0.55 | 0 | 28.3 | 1 |
| G6-PB2-0.0 | 25.4 | 1 | 0.063 | 1 | 0.53 | 0 | 73.3 | 1 |
| G6-PB2-3.5 | 110 | 1 | 0.11 | 1 | 0.55 | 0 | 179 | 1 |
| G6-PB3-0.0 | 9.3 | 1 | 0.034 | 0 | 0.58 | 1 | 38.3 | 1 |
| G6-PB3-8.0 | 27.1 | 1 | 0.035 | 0 | 1.3 | 1 | 41.1 | 1 |
| G6-PB4-0.0 | 10.4 | 1 | 0.035 | 0 | 0.6 | 1 | 43.8 | 1 |
| G6-PB4-5.5 | 19.1 | 1 | 0.048 | 1 | 0.57 | 0 | 35.6 | 1 |
| G6-SB1-0.0 | 681 | 1 | 0.086 | 1 | 5.4 | 0 | 3270 | 1 |
| G6-SB1-9.5 | 6.5 | 1 | 0.035 | 0 | 0.54 | 0 | 22 | 1 |
| G6-SB2-0.0 | 98.6 | 1 | 0.056 | 1 | 0.58 | 0 | 278 | 1 |
| G6-SB2-9.0 | 4.2 | 1 | 0.035 | 0 | 0.57 | 0 | 28.8 | 1 |
| G6-SB3-0.0 | 117 | 1 | 0.042 | 1 | 0.57 | 0 | 294 | 1 |
| G6-SB3-9.5 | 4 | 1 | 0.037 | 0 | 0.55 | 0 | 20.5 | 1 |
| G7-SB1-0.0 | 58.2 | 1 | 0.035 | 0 | 0.54 | 0 | 149 | 1 |
| G7-SB1-8.0 | 5.9 | 1 | 0.034 | 0 | 0.54 | 0 | 27.5 | 1 |
| G7-SB2-0.0 | 20.5 | 1 | 0.034 | 0 | 0.55 | 0 | 71.9 | 1 |
| G7-SB2-10.5 | 3.7 | 1 | 0.033 | 0 | 0.51 | 0 | 21.5 | 1 |
| G8-SB1-0.0 | 35.3 | 1 | 0.035 | 0 | 0.54 | 0 | 95.9 | 1 |
| G8-SB1-7.5 | 62.3 | 1 | 0.037 | 0 | 1 | 1 | 64.8 | 1 |
| G8-VCP1-0.0 | 85.5 | 1 | 0.034 | 0 | 0.54 | 0 | 54.2 | 1 |
| G8-VCP1-11.5 | 17 | 1 | 0.041 | 1 | 0.53 | 0 | 26.1 | 1 |
| G8-VCP3-0.0 | 14.6 | 1 | 0.037 | 0 | 0.58 | 0 | 19.8 | 1 |
| G8-VCP3-8.0 | 21.2 | 1 | 0.034 | 0 | 0.55 | 0 | 30.6 | 1 |
| G9-SB1-0.0 | 1110 | 1 | 3.2 | 1 | 2 | 1 | 2940 | 1 |
| G9-SB1-11.5 | 25.6 | 1 | 0.036 | 0 | 0.65 | 1 | 47.2 | 1 |
| HM1-0.0 | 103 | 1 | 0.077 | 1 | 3.6 | 1 | 850 | 1 |
| HM2-0.0 | 94.1 | 1 | 0.089 | 1 | 2 | 1 | 708 | 1 |
| HM22-0.0 | 91.5 | 1 | 1.5 | 1 | 2 | 1 | 631 | 1 |
| SCB1-0.0 | 1450 | 1 | 2.6 | 1 | 7.9 | 1 | 4050 | 1 |
| SCB2-0.0 | 329 | 1 | 0.73 | 1 | 1.6 | 1 | 3230 | 1 |
| TH-1-0 | - | 1 | - | 1 | - | 1 | - | 1 |
| TH-4-5 | - | 1 | - | 1 | - | 1 | - | 1 |
| TH-5-3 | - | 1 | - | 1 | - | 1 | - | 1 |
| TH-6-0 | - | 1 | - | 1 | - | 1 | - | 1 |
| TH-7-4 | - | 1 | - | 1 | - | 1 | - | 1 |
| TH-8-3 | - | 1 | - | 1 | - | 1 | - | 1 |
| TH-9-0 | - | 1 | - | 1 | - | 1 | - | 1 |
| TH-10-3 | - | 1 | - | 1 | - | 1 | - | 1 |
| TH-11-0 | - | 1 | - | 1 | - | 1 | - | 1 |
| PT-11 | 4.6 | 0 | 0.06 | 1 | 0.91 | 0 | 20 | 1 |
| SB-MW31 | 4.7 | 0 | 0.08 | 0 | 0.94 | 0 | 24 | 1 |
| SB-MW32 | 2.6 | 1 | 0.07 | 0 | 0.86 | 0 | 50 | 1 |
| SB-MW33 | 16 | 1 | 0.06 | 1 | 0.96 | 0 | 25 | 1 |
| ISB-11E.7 | 4.1 | 0 | 0.01 | 1 | 0.82 | 0 | 20 | 1 |
| ISB-1124A | 4.7 | 0 | 0.08 | 0 | 0.93 | 0 | 18 | 1 |
| CL-A-1C | 800 | 1 | 0.58 | 1 | 3.4 | 1 | 3500 | 1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CL-B-4C | 200 | 1 | 0.09 | 1 | 1 | 1 | 980 | 1 |
| CL-B-6C | 110 | 1 | 0.07 | 1 | 0.26 | 1 | 340 | 1 |
| CL-C-6C | 510 | 1 | 0.35 | 1 | 2.5 | 1 | - | 1 |
| CL-D-2C | 180 | 1 | 0.22 | 1 | 0.46 | 1 | 530 | 1 |
| CL-D-5C | 62 | 1 | 0.16 | 1 | 0.2 | 1 | 120 | 1 |
| CL-A-1A | 540 | 1 | 0.38 | 1 | 2.3 | 1 | 1500 | 1 |
| CL-A-2A | 48 | 1 | 0.03 | 1 | 0.19 | 1 | 400 | 1 |
| CL-A-3A | 110 | 1 | 0.03 | 1 | 0.72 | 1 | 1000 | 1 |
| CL-A-4A | 300 | 1 | 0.54 | 1 | 1.2 | 1 | 1300 | 1 |
| CL-B-1A | 47 | 1 | 0.05 | 1 | 0.81 | 0 | 260 | 1 |
| CL-B-2A | 87 | 1 | 0.05 | 1 | 0.82 | 0 | 300 | 1 |
| CL-B-3A | 130 | 1 | 0.04 | 1 | 0.39 | 1 | 750 | 1 |
| CL-B-4A | 220 | 1 | 0.1 | 1 | 0.83 | 1 | 940 | 1 |
| CL-B-5A | 110 | 1 | 0.09 | 1 | 0.58 | 1 | 710 | 1 |
| CL-B-6A | 130 | 1 | 0.21 | 1 | 0.49 | 1 | 570 | 1 |
| CL-D-1A | 120 | 1 | 0.05 | 1 | 1.1 | 1 | - | 1 |
| CL-D-2A | 230 | 1 | 0.1 | 1 | 1.3 | 1 | 1700 | 1 |
| CL-D-3A | 1100 | 1 | 0.84 | 1 | 2.3 | 1 | - | 1 |
| CL-D-4A | 270 | 1 | 0.24 | 1 | 0.39 | 1 | 590 | 1 |
| CL-C-4A | 360 | 1 | 0.15 | 1 | 1.7 | 1 | 2800 | 1 |
| CL-C-5A | 460 | 1 | 0.08 | 1 | 1.1 | 1 | 1500 | 1 |
| CL-C-6A | 430 | 1 | 0.14 | 1 | 2 | 1 | 3100 | 1 |
| CL-C-13A | 140 | 1 | 0.03 | 1 | 0.63 | 1 | 580 | 1 |
| CL-C-14A | 91 | 1 | 0.15 | 1 | 1.3 | 1 | 440 | 1 |
| CL-C-9A | 580 | 1 | 0.29 | 1 | 2.7 | 1 | 4200 | 1 |
| CL-D-5A | 330 | 1 | 0.48 | 1 | 0.95 | 1 | 680 | 1 |
| CL-D-6A | 680 | 1 | 0.42 | 1 | 2.5 | 1 | 5200 | 1 |
| CL-C-1A | 400 | 1 | 0.14 | 1 | 1.7 | 1 | 1600 | 1 |
| CL-C-2A | 450 | 1 | 0.18 | 1 | 1.2 | 1 | 1200 | 1 |
| CL-C-3A | 1200 | 1 | 0.24 | 1 | 1.1 | 1 | 1400 | 1 |
| CL-C-7A | 440 | 1 | 0.075 | 1 | 2.5 | 1 | 4400 | 1 |
| CL-C-8A | 470 | 1 | 0.078 | 1 | 2.9 | 1 | 4700 | 1 |
| CL-C-10A | 300 | 1 | 0.1 | 1 | 2.3 | 1 | 4200 | 1 |
| CL-C-11A | 89 | 1 | 0.03 | 1 | 0.78 | 0 | 280 | 1 |
| CL-C-12A | 420 | 1 | 0.1 | 1 | 2.4 | 1 | 3800 | 1 |
| ISB-P14A | 82 | 1 | 0.07 | 1 | 0.9 | 0 | 560 | 1 |
| ISB-P14A | - | 1 | - | 1 | - | 1 | - | 1 |
| ISB-P14B | 5 | 0 | 0.08 | 0 | 1 | 0 | 20 | 1 |
| ISB-P13 | 5.3 | 1 | 0.07 | 0 | 0.88 | 0 | 38 | 1 |
| ISB-P12A | 280 | 1 | 0.04 | 1 | 0.32 | 1 | 620 | 1 |
| ISB-P12B | 4.4 | 0 | 0.07 | 0 | 0.87 | 0 | 180 | 1 |
| ISB-P11 | 4.4 | 0 | 0.07 | 0 | 0.87 | 0 | 100 | 1 |
| SB-MW34 | 2.4 | 1 | 0.02 | 1 | 0.9 | 0 | 68 | 1 |
| SB-MW35 | 10 | 1 | 0.02 | 1 | 0.97 | 0 | 22 | 1 |
| SB-MW36 | 4.2 | 0 | 0.07 | 0 | 0.85 | 0 | 30 | 1 |
| SB-MW37 | 34 | 1 | 0.09 | 1 | 1.1 | 0 | 150 | 1 |
| SB-MW38 | 5.2 | 0 | 0.09 | 0 | 1 | 0 | 14 | 1 |
| SB-MW39 | 21 | 0 | 0.02 | 1 | 0.47 | 1 | 54 | 1 |
| ISB-P15 | 5 | 0 | 0.03 | 1 | 0.99 | 0 | 45 | 1 |
| ISB-463NE-A | 0.26 | 1 | 0.08 | 0 | 0.9 | 0 | 14 | 1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| ISB-4NE.2B | 0.69 | 1 | 0.08 | 0 | 0.9 | 0 | 33 | 1 |
| ISB-463NE.2A | 42 | 1 | 0.03 | 1 | 0.18 | 1 | 400 | 1 |
| ISB-463NE.3B | 4.4 | 0 | 0.07 | 0 | 0.89 | 0 | 15 | 1 |
| ISB-46NE B | 4.4 | 0 | 0.07 | 0 | 0.87 | 0 | 15 | 1 |
| ISB-1124E | 1 | 1 | 0.07 | 0 | 0.84 | 0 | 35 | 1 |
| ISB-D7L2 | 11 | 1 | 0.12 | 1 | 0.83 | 0 | 33 | 1 |
| ISB-AA18.1 | 1.9 | 1 | 0.03 | 1 | 0.28 | 1 | 62 | 1 |
| ISB-AA9 | 110 | 1 | 0.07 | 0 | 0.22 | 1 | 560 | 1 |
| ISB-F7PB6B | 13 | 1 | 0.3 | 1 | 0.86 | 0 | 37 | 1 |
| ISB-AA13.1 | 42 | 1 | 0.06 | 1 | 0.88 | 0 | 100 | 1 |
| ISB-AA13.2 | 3.2 | 1 | 0.03 | 1 | 0.83 | 0 | 44 | 1 |
| ISB-E14SB1 | 350 | 1 | 0.84 | 1 | 1.6 | 1 | 2100 | 1 |
| ISB-AA1 | 48 | 1 | 0.08 | 1 | 0.86 | 0 | 59 | 1 |
| ISB-AA6B | 5000 | 1 | 1.1 | 1 | 7.8 | 1 | 9100 | 1 |
| ISB-E11SB1A | 4.2 | 0 | 0.07 | 0 | 0.84 | 0 | 25 | 1 |
| ISB-E10WT3 | 3.4 | 0 | 0.08 | 0 | 0.69 | 0 | 22 | 1 |
| ISB-AB3.2B | 4.6 | 0 | 0.02 | 1 | 0.92 | 0 | 23 | 1 |
| ISB-AB4.1 | 930 | 1 | 0.09 | 1 | 6.8 | 1 | 12000 | 1 |
| ISB-AB4.2 | 4.5 | 0 | 0.12 | 1 | 0.91 | 0 | 16 | 1 |
| ISB-P14A | 82 | 1 | 0.07 | 1 | 0.9 | 0 | 560 | 1 |
| ISB-P14B | 5 | 0 | 0.08 | 0 | 1 | 0 | 20 | 1 |
| ISB-P13 | 5.3 | 1 | 0.07 | 0 | 0.88 | 0 | 38 | 1 |
| ISB-P12A | 280 | 1 | 0.04 | 1 | 0.32 | 1 | 620 | 1 |
| ISB-P12B | 4.4 | 0 | 0.07 | 0 | 0.87 | 0 | 180 | 1 |
| ISB-P11 | 4.4 | 0 | 0.07 | 0 | 0.87 | 0 | 100 | 1 |
| ISB-P10 | 17 | 1 | 0.07 | 0 | 0.9 | 0 | 94 | 1 |
| ISB-P9 | 4.5 | 0 | 0.08 | 0 | 0.9 | 0 | 32 | 1 |
| ISB-P8 | 41 | 1 | 0.02 | 1 | 0.83 | 0 | 130 | 1 |
| ISB-P7 | 4.3 | 0 | 0.07 | 0 | 0.86 | 0 | 22 | 1 |
| ISB-P6 | 13 | 1 | 0.07 | 0 | 0.87 | 0 | 53 | 1 |
| ISB-P5A | 370 | 1 | 0.07 | 0 | 0.88 | 0 | 190 | 1 |
| ISB-P5B | 4.5 | 0 | 0.07 | 0 | 0.9 | 0 | 20 | 1 |
| ISB-P4A | 45 | 0 | 0.04 | 1 | 0.9 | 0 | 150 | 1 |
| ISB-P4B | 4.7 | 0 | 0.08 | 0 | 0.94 | 0 | 22 | 1 |
| ISB-P3 | 51 | 0 | 0.08 | 0 | 1 | 0 | 110 | 1 |
| ISB-P2 | 1.8 | 1 | 0.08 | 0 | 0.92 | 0 | 46 | 1 |
| ISB-P1 | 5.5 | 0 | 0.09 | 0 | 1.1 | 0 | 48 | 1 |
| SPLP-1 | 4.7 | 0 | 0.08 | 0 | 0.93 | 0 | 64 | 1 |
| SPLP-2 | 21 | 1 | 0.03 | 1 | 0.96 | 0 | 57 | 1 |
| SPLP-3 | 32 | 1 | 0.04 | 1 | 0.93 | 0 | 57 | 1 |
| SPLP-4 | 400 | 1 | 0.14 | 1 | 0.6 | 1 | 1900 | 1 |
| SPLP-5 | 100 | 1 | 0.04 | 1 | 0.91 | 0 | 250 | 1 |
| SPLP-6 | 1000 | 1 | 0.03 | 1 | 0.9 | 0 | 180 | 1 |
| SPLP-7 | 240 | 1 | 1.1 | 1 | 0.37 | 1 | 1800 | 1 |
| SPLP-7 | - | 1 | - | 1 | - | 1 | - | 1 |
| SPLP-8A | 4.4 | 0 | 0.07 | 0 | 0.87 | 0 | 28 | 1 |
| SPLP-8B | 4.6 | 0 | 0.02 | 1 | 0.93 | 0 | 20 | 1 |

UCL Statistics for Data Sets with Non-Detects

User Selected Options

| | |
|---|---|
| Date/Time of Computation | 3/3/2016 10:01 |
| From File | UCL.xls |
| Full Precision | OFF |
| Confidence Coefficient | 95% |
| Number of Bootstrap Operations | 2000 |

Benzo-a-Pyrene + Dibenzo-a,h-Anthracene

General Statistics

| | | | |
|---|---|---|---|
| Total Number of Observations | 344 | Number of Distinct Observations | 273 |
| Number of Detects | 247 | Number of Non-Detects | 97 |
| Number of Distinct Detects | 235 | Number of Distinct Non-Detects | 42 |
| Minimum Detect | 0.0247 | Minimum Non-Detect | 0.0124 |
| Maximum Detect | 19.8 | Maximum Non-Detect | 4.1 |
| Variance Detects | 13.75 | Percent Non-Detects | 28.20% |
| Mean Detects | 1.86 | SD Detects | 3.708 |
| Median Detects | 0.526 | CV Detects | 1.993 |
| Skewness Detects | 3.622 | Kurtosis Detects | 13.97 |
| Mean of Logged Detects | -0.552 | SD of Logged Detects | 1.527 |

Normal GOF Test on Detects Only

| | | | |
|---|---|---|---|
| Shapiro Wilk Test Statistic | 0.499 | Normal GOF Test on Detected Observations Only | |
| 5% Shapiro Wilk P Value | 0 | Detected Data Not Normal at 5% Significance Level | |
| Lilliefors Test Statistic | 0.31 | Lilliefors GOF Test | |
| 5% Lilliefors Critical Value | 0.0564 | Detected Data Not Normal at 5% Significance Level | |

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

| | | | |
|---|---|---|---|
| Mean | 1.355 | Standard Error of Mean | 0.175 |
| SD | 3.24 | 95% KM (BCA) UCL | 1.656 |
| 95% KM (t) UCL | 1.643 | 95% KM (Percentile Bootstrap) UCL | 1.651 |
| 95% KM (z) UCL | 1.643 | 95% KM Bootstrap t UCL | 1.688 |
| 90% KM Chebyshev UCL | 1.88 | 95% KM Chebyshev UCL | 2.118 |
| 97.5% KM Chebyshev UCL | 2.448 | 99% KM Chebyshev UCL | 3.097 |

Gamma GOF Tests on Detected Observations Only

| | | | |
|---|---|---|---|
| A-D Test Statistic | 9.361 | Anderson-Darling GOF Test | |
| 5% A-D Critical Value | 0.818 | Detected Data Not Gamma Distributed at 5% Significance Level | |
| K-S Test Statistic | 0.159 | Kolmogrov-Smirnoff GOF | |
| 5% K-S Critical Value | 0.0614 | Detected Data Not Gamma Distributed at 5% Significance Level | |

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

| | | | |
|---|---|---|---|
| k hat (MLE) | 0.536 | k star (bias corrected MLE) | 0.532 |
| Theta hat (MLE) | 3.473 | Theta star (bias corrected MLE) | 3.498 |
| nu hat (MLE) | 264.6 | nu star (bias corrected) | 262.7 |
| MLE Mean (bias corrected) | 1.86 | MLE Sd (bias corrected) | 2.551 |

Gamma Kaplan-Meier (KM) Statistics

| | | | |
|---|---|---|---|
| k hat (KM) | 0.175 | nu hat (KM) | 120.3 |
| Approximate Chi Square Value (120.30, α) | 95.97 | Adjusted Chi Square Value (120.30, β) | 95.88 |
| 95% Gamma Approximate KM-UCL (use when n>=50) | 1.698 | 95% Gamma Adjusted KM-UCL (use when n<50) | 1.7 |

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs
For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

| | | | |
|---|---|---|---|
| Minimum | 0.01 | Mean | 1.339 |
| Maximum | 19.8 | Median | 0.237 |
| SD | 3.249 | CV | 2.427 |
| k hat (MLE) | 0.34 | k star (bias corrected MLE) | 0.339 |
| Theta hat (MLE) | 3.937 | Theta star (bias corrected MLE) | 3.949 |
| nu hat (MLE) | 233.9 | nu star (bias corrected) | 233.2 |
| MLE Mean (bias corrected) | 1.339 | MLE Sd (bias corrected) | 2.299 |
| | | Adjusted Level of Significance (β) | 0.0493 |
| Approximate Chi Square Value (233.24, α) | 198.9 | Adjusted Chi Square Value (233.24, β) | 198.8 |
| 95% Gamma Approximate UCL (use when n>=50) | 1.57 | 95% Gamma Adjusted UCL (use when n<50) | 1.571 |

Lognormal GOF Test on Detected Observations Only

| | | | |
|---|---|---|---|
| Lilliefors Test Statistic | 0.0421 | Lilliefors GOF Test | |
| 5% Lilliefors Critical Value | 0.0564 | Detected Data appear Lognormal at 5% Significance Level | |

Detected Data appear Approximate Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

| | | | |
|---|---|---|---|
| Mean in Original Scale | 1.35 | Mean in Log Scale | -1.371 |
| SD in Original Scale | 3.245 | SD in Log Scale | 1.904 |
| 95% t UCL (assumes normality of ROS data) | 1.638 | 95% Percentile Bootstrap UCL | 1.648 |
| 95% BCA Bootstrap UCL | 1.673 | 95% Bootstrap t UCL | 1.71 |
| 95% H-UCL (Log ROS) | 2.118 | | |

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

| | | | |
|---|---|---|---|
| KM Mean (logged) | -1.45 | 95% H-UCL (KM -Log) | 2.541 |
| KM SD (logged) | 2.021 | 95% Critical H Value (KM-Log) | 3.125 |
| KM Standard Error of Mean (logged) | 0.113 | | |

DL/2 Statistics

| | | | |
|---|---|---|---|
| DL/2 Normal | | DL/2 Log-Transformed | |
| Mean in Original Scale | 1.381 | Mean in Log Scale | -1.308 |
| SD in Original Scale | 3.239 | SD in Log Scale | 1.948 |
| 95% t UCL (Assumes normality) | 1.669 | 95% H-Stat UCL | 2.482 |

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics
Detected Data appear Approximate Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

| | |
|---|---|
| 97.5% KM (Chebyshev) UCL | 2.448 |

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Benzo-a-Anthracene + Benzo-b-Fluoranthene + Indeno(1,2,3-cd)Pyrene

General Statistics

| | | | |
|---|---|---|---|
| Total Number of Observations | 344 | Number of Distinct Observations | 288 |
| Number of Detects | 270 | Number of Non-Detects | 74 |
| Number of Distinct Detects | 254 | Number of Distinct Non-Detects | 36 |
| Minimum Detect | 0.0341 | Minimum Non-Detect | 0.0197 |
| Maximum Detect | 51.7 | Maximum Non-Detect | 3.85 |
| Variance Detects | 82.09 | Percent Non-Detects | 21.51% |
| Mean Detects | 4.099 | SD Detects | 9.06 |
| Median Detects | 0.921 | CV Detects | 2.211 |
| Skewness Detects | 4.1 | Kurtosis Detects | 18.02 |
| Mean of Logged Detects | 0.0796 | SD of Logged Detects | 1.652 |

Normal GOF Test on Detects Only

| | | | |
|---|---|---|---|
| Shapiro Wilk Test Statistic | 0.454 | Normal GOF Test on Detected Observations Only | |
| 5% Shapiro Wilk P Value | 0 | Detected Data Not Normal at 5% Significance Level | |
| Lilliefors Test Statistic | 0.327 | Lilliefors GOF Test | |
| 5% Lilliefors Critical Value | 0.0539 | Detected Data Not Normal at 5% Significance Level | |

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

| | | | |
|---|---|---|---|
| Mean | 3.237 | Standard Error of Mean | 0.442 |
| SD | 8.18 | 95% KM (BCA) UCL | 4.037 |
| 95% KM (t) UCL | 3.966 | 95% KM (Percentile Bootstrap) UCL | 4.04 |
| 95% KM (z) UCL | 3.964 | 95% KM Bootstrap t UCL | 4.163 |
| 90% KM Chebyshev UCL | 4.563 | 95% KM Chebyshev UCL | 5.163 |
| 97.5% KM Chebyshev UCL | 5.997 | 99% KM Chebyshev UCL | 7.634 |

Gamma GOF Tests on Detected Observations Only

| | | | |
|---|---|---|---|
| A-D Test Statistic | 9.882 | Anderson-Darling GOF Test | |
| 5% A-D Critical Value | 0.826 | Detected Data Not Gamma Distributed at 5% Significance Level | |
| K-S Test Statistic | 0.15 | Kolmogrov-Smirnoff GOF | |
| 5% K-S Critical Value | 0.0589 | Detected Data Not Gamma Distributed at 5% Significance Level | |

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

| | | | |
|---|---|---|---|
| k hat (MLE) | 0.48 | k star (bias corrected MLE) | 0.477 |
| Theta hat (MLE) | 8.535 | Theta star (bias corrected MLE) | 8.586 |
| nu hat (MLE) | 259.3 | nu star (bias corrected) | 257.8 |
| MLE Mean (bias corrected) | 4.099 | MLE Sd (bias corrected) | 5.932 |

Gamma Kaplan-Meier (KM) Statistics

| | | | |
|---|---|---|---|
| k hat (KM) | 0.157 | nu hat (KM) | 107.7 |
| Approximate Chi Square Value (107.72, α) | 84.77 | Adjusted Chi Square Value (107.72, β) | 84.68 |
| 95% Gamma Approximate KM-UCL (use when n>=50) | 4.113 | 95% Gamma Adjusted KM-UCL (use when n<50) | 4.118 |

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

| | | | |
|---|---|---|---|
| Minimum | 0.01 | Mean | 3.219 |
| Maximum | 51.7 | Median | 0.592 |
| SD | 8.198 | CV | 2.547 |
| k hat (MLE) | 0.325 | k star (bias corrected MLE) | 0.324 |
| Theta hat (MLE) | 9.917 | Theta star (bias corrected MLE) | 9.945 |
| nu hat (MLE) | 223.3 | nu star (bias corrected) | 222.7 |

| | | | |
|---|---|---|---|
| MLE Mean (bias corrected) | 3.219 | MLE Sd (bias corrected) | 5.658 |
| | | Adjusted Level of Significance (β) | 0.0493 |
| Approximate Chi Square Value (222.71, α) | 189.2 | Adjusted Chi Square Value (222.71, β) | 189 |
| 95% Gamma Approximate UCL (use when n>=50) | 3.79 | 95% Gamma Adjusted UCL (use when n<50) | 3.792 |

Lognormal GOF Test on Detected Observations Only

| | | | |
|---|---|---|---|
| Lilliefors Test Statistic | 0.0427 | Lilliefors GOF Test | |
| 5% Lilliefors Critical Value | 0.0539 | Detected Data appear Lognormal at 5% Significance Level | |

Detected Data appear Approximate Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

| | | | |
|---|---|---|---|
| Mean in Original Scale | 3.232 | Mean in Log Scale | -0.611 |
| SD in Original Scale | 8.193 | SD in Log Scale | 2.02 |
| 95% t UCL (assumes normality of ROS data) | 3.96 | 95% Percentile Bootstrap UCL | 3.956 |
| 95% BCA Bootstrap UCL | 4.085 | 95% Bootstrap t UCL | 4.165 |
| 95% H-UCL (Log ROS) | 5.877 | | |

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

| | | | |
|---|---|---|---|
| KM Mean (logged) | -0.663 | 95% H-UCL (KM -Log) | 6.6 |
| KM SD (logged) | 2.092 | 95% Critical H Value (KM-Log) | 3.201 |
| KM Standard Error of Mean (logged) | 0.115 | | |

DL/2 Statistics

| DL/2 Normal | | DL/2 Log-Transformed | |
|---|---|---|---|
| Mean in Original Scale | 3.255 | Mean in Log Scale | -0.584 |
| SD in Original Scale | 8.186 | SD in Log Scale | 2.041 |
| 95% t UCL (Assumes normality) | 3.983 | 95% H-Stat UCL | 6.338 |

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

| | |
|---|---|
| 97.5% KM (Chebyshev) UCL | 5.997 |

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Lead, Pb

General Statistics

| | | | |
|---|---|---|---|
| Total Number of Observations | 333 | Number of Distinct Observations | 260 |
| Number of Detects | 303 | Number of Non-Detects | 30 |
| Number of Distinct Detects | 251 | Number of Distinct Non-Detects | 14 |
| Minimum Detect | 0.26 | Minimum Non-Detect | 3.4 |
| Maximum Detect | 6020 | Maximum Non-Detect | 51 |
| Variance Detects | 483969 | Percent Non-Detects | 9.01% |
| Mean Detects | 358.2 | SD Detects | 695.7 |
| Median Detects | 100 | CV Detects | 1.942 |
| Skewness Detects | 4.294 | Kurtosis Detects | 24.48 |
| Mean of Logged Detects | 4.449 | SD of Logged Detects | 1.906 |

Normal GOF Test on Detects Only

| | | | |
|---|---|---|---|
| Shapiro Wilk Test Statistic | 0.546 | Normal GOF Test on Detected Observations Only | |
| 5% Shapiro Wilk P Value | 0 | Detected Data Not Normal at 5% Significance Level | |
| Lilliefors Test Statistic | 0.303 | Lilliefors GOF Test | |
| 5% Lilliefors Critical Value | 0.0509 | Detected Data Not Normal at 5% Significance Level | |

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

| | | | |
|---|---|---|---|
| Mean | 326.3 | Standard Error of Mean | 36.79 |
| SD | 670.2 | 95% KM (BCA) UCL | 390.4 |
| 95% KM (t) UCL | 387 | 95% KM (Percentile Bootstrap) UCL | 389.8 |
| 95% KM (z) UCL | 386.8 | 95% KM Bootstrap t UCL | 396.7 |
| 90% KM Chebyshev UCL | 436.7 | 95% KM Chebyshev UCL | 486.6 |
| 97.5% KM Chebyshev UCL | 556 | 99% KM Chebyshev UCL | 692.3 |

Gamma GOF Tests on Detected Observations Only

| | | | |
|---|---|---|---|
| A-D Test Statistic | 4.983 | Anderson-Darling GOF Test | |
| 5% A-D Critical Value | 0.834 | Detected Data Not Gamma Distributed at 5% Significance Level | |
| K-S Test Statistic | 0.102 | Kolmogrov-Smirnoff GOF | |
| 5% K-S Critical Value | 0.0552 | Detected Data Not Gamma Distributed at 5% Significance Level | |

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

| | | | |
|---|---|---|---|
| k hat (MLE) | 0.451 | k star (bias corrected MLE) | 0.448 |
| Theta hat (MLE) | 794.8 | Theta star (bias corrected MLE) | 798.8 |
| nu hat (MLE) | 273.1 | nu star (bias corrected) | 271.7 |
| MLE Mean (bias corrected) | 358.2 | MLE Sd (bias corrected) | 534.9 |

Gamma Kaplan-Meier (KM) Statistics

| | | | |
|---|---|---|---|
| k hat (KM) | 0.237 | nu hat (KM) | 157.8 |
| Approximate Chi Square Value (157.83, α) | 129.8 | Adjusted Chi Square Value (157.83, β) | 129.7 |
| 95% Gamma Approximate KM-UCL (use when n>=50) | 396.8 | 95% Gamma Adjusted KM-UCL (use when n<50) | 397.1 |

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

| | | | |
|---|---|---|---|
| Minimum | 0.01 | Mean | 326 |
| Maximum | 6020 | Median | 73.3 |
| SD | 671.4 | CV | 2.06 |
| k hat (MLE) | 0.317 | k star (bias corrected MLE) | 0.316 |
| Theta hat (MLE) | 1027 | Theta star (bias corrected MLE) | 1030 |
| nu hat (MLE) | 211.3 | nu star (bias corrected) | 210.7 |

| | | | |
|---|---|---|---|
| MLE Mean (bias corrected) | 326 | MLE Sd (bias corrected) | 579.5 |
| | | Adjusted Level of Significance (β) | 0.0493 |
| Approximate Chi Square Value (210.72, α) | 178.1 | Adjusted Chi Square Value (210.72, β) | 178 |
| 95% Gamma Approximate UCL (use when n>=50) | 385.6 | 95% Gamma Adjusted UCL (use when n<50) | 385.9 |

Lognormal GOF Test on Detected Observations Only

| | | | |
|---|---|---|---|
| Lilliefors Test Statistic | 0.0668 | Lilliefors GOF Test | |
| 5% Lilliefors Critical Value | 0.0509 | Detected Data Not Lognormal at 5% Significance Level | |

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

| | | | |
|---|---|---|---|
| Mean in Original Scale | 326.3 | Mean in Log Scale | 4.139 |
| SD in Original Scale | 671.3 | SD in Log Scale | 2.078 |
| 95% t UCL (assumes normality of ROS data) | 386.9 | 95% Percentile Bootstrap UCL | 390.1 |
| 95% BCA Bootstrap UCL | 394.5 | 95% Bootstrap t UCL | 399.1 |
| 95% H-UCL (Log ROS) | 780.9 | | |

DL/2 Statistics

| | | | |
|---|---|---|---|
| DL/2 Normal | | DL/2 Log-Transformed | |
| Mean in Original Scale | 326.3 | Mean in Log Scale | 4.14 |
| SD in Original Scale | 671.2 | SD in Log Scale | 2.074 |
| 95% t UCL (Assumes normality) | 387 | 95% H-Stat UCL | 775.9 |

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

| | |
|---|---|
| 97.5% KM (Chebyshev) UCL | 556 |

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Mercury, Hg

General Statistics

| | | | |
|---|---|---|---|
| Total Number of Observations | 333 | Number of Distinct Observations | 92 |
| Number of Detects | 195 | Number of Non-Detects | 138 |
| Number of Distinct Detects | 87 | Number of Distinct Non-Detects | 14 |
| Minimum Detect | 0.01 | Minimum Non-Detect | 0.033 |
| Maximum Detect | 3.3 | Maximum Non-Detect | 0.09 |
| Variance Detects | 0.269 | Percent Non-Detects | 41.44% |
| Mean Detects | 0.306 | SD Detects | 0.519 |
| Median Detects | 0.12 | CV Detects | 1.696 |
| Skewness Detects | 3.462 | Kurtosis Detects | 13.71 |
| Mean of Logged Detects | -1.976 | SD of Logged Detects | 1.178 |

Normal GOF Test on Detects Only

| | | | |
|---|---|---|---|
| Shapiro Wilk Test Statistic | 0.553 | Normal GOF Test on Detected Observations Only | |
| 5% Shapiro Wilk P Value | 0 | Detected Data Not Normal at 5% Significance Level | |
| Lilliefors Test Statistic | 0.286 | Lilliefors GOF Test | |
| 5% Lilliefors Critical Value | 0.0634 | Detected Data Not Normal at 5% Significance Level | |

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

| | | | |
|---|---|---|---|
| Mean | 0.19 | Standard Error of Mean | 0.023 |
| SD | 0.419 | 95% KM (BCA) UCL | 0.227 |
| 95% KM (t) UCL | 0.228 | 95% KM (Percentile Bootstrap) UCL | 0.229 |
| 95% KM (z) UCL | 0.228 | 95% KM Bootstrap t UCL | 0.238 |
| 90% KM Chebyshev UCL | 0.259 | 95% KM Chebyshev UCL | 0.291 |
| 97.5% KM Chebyshev UCL | 0.334 | 99% KM Chebyshev UCL | 0.419 |

Gamma GOF Tests on Detected Observations Only

| | | | |
|---|---|---|---|
| A-D Test Statistic | 8.743 | Anderson-Darling GOF Test | |
| 5% A-D Critical Value | 0.796 | Detected Data Not Gamma Distributed at 5% Significance Level | |
| K-S Test Statistic | 0.158 | Kolmogrov-Smirnoff GOF | |
| 5% K-S Critical Value | 0.0675 | Detected Data Not Gamma Distributed at 5% Significance Level | |

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

| | | | |
|---|---|---|---|
| k hat (MLE) | 0.756 | k star (bias corrected MLE) | 0.748 |
| Theta hat (MLE) | 0.405 | Theta star (bias corrected MLE) | 0.409 |
| nu hat (MLE) | 294.8 | nu star (bias corrected) | 291.6 |
| MLE Mean (bias corrected) | 0.306 | MLE Sd (bias corrected) | 0.354 |

Gamma Kaplan-Meier (KM) Statistics

| | | | |
|---|---|---|---|
| k hat (KM) | 0.207 | nu hat (KM) | 137.5 |
| Approximate Chi Square Value (137.54, α) | 111.4 | Adjusted Chi Square Value (137.54, β) | 111.3 |
| 95% Gamma Approximate KM-UCL (use when n>=50) | 0.235 | 95% Gamma Adjusted KM-UCL (use when n<50) | 0.235 |

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

| | | | |
|---|---|---|---|
| Minimum | 0.01 | Mean | 0.183 |
| Maximum | 3.3 | Median | 0.04 |
| SD | 0.422 | CV | 2.305 |
| k hat (MLE) | 0.469 | k star (bias corrected MLE) | 0.467 |
| Theta hat (MLE) | 0.391 | Theta star (bias corrected MLE) | 0.393 |
| nu hat (MLE) | 312.3 | nu star (bias corrected) | 310.8 |

| | | | |
|---|---|---|---|
| MLE Mean (bias corrected) | 0.183 | MLE Sd (bias corrected) | 0.268 |
| | | Adjusted Level of Significance (β) | 0.0493 |
| Approximate Chi Square Value (310.79, α) | 270.9 | Adjusted Chi Square Value (310.79, β) | 270.8 |
| 95% Gamma Approximate UCL (use when n>=50) | 0.21 | 95% Gamma Adjusted UCL (use when n<50) | 0.21 |

Lognormal GOF Test on Detected Observations Only

| | | | |
|---|---|---|---|
| Lilliefors Test Statistic | 0.0759 | Lilliefors GOF Test | |
| 5% Lilliefors Critical Value | 0.0634 | Detected Data Not Lognormal at 5% Significance Level | |

Detected Data Not Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

| | | | |
|---|---|---|---|
| Mean in Original Scale | 0.188 | Mean in Log Scale | -2.842 |
| SD in Original Scale | 0.42 | SD in Log Scale | 1.456 |
| 95% t UCL (assumes normality of ROS data) | 0.226 | 95% Percentile Bootstrap UCL | 0.228 |
| 95% BCA Bootstrap UCL | 0.234 | 95% Bootstrap t UCL | 0.235 |
| 95% H-UCL (Log ROS) | 0.206 | | |

DL/2 Statistics

| DL/2 Normal | | DL/2 Log-Transformed | |
|---|---|---|---|
| Mean in Original Scale | 0.188 | Mean in Log Scale | -2.753 |
| SD in Original Scale | 0.42 | SD in Log Scale | 1.308 |
| 95% t UCL (Assumes normality) | 0.226 | 95% H-Stat UCL | 0.178 |

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Data do not follow a Discernible Distribution at 5% Significance Level

Suggested UCL to Use

| | |
|---|---|
| 95% KM (Chebyshev) UCL | 0.291 |

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Silver, Ag

General Statistics

| | | | |
|---|---|---|---|
| Total Number of Observations | 333 | Number of Distinct Observations | 98 |
| Number of Detects | 136 | Number of Non-Detects | 197 |
| Number of Distinct Detects | 79 | Number of Distinct Non-Detects | 41 |
| Minimum Detect | 0.18 | Minimum Non-Detect | 0.51 |
| Maximum Detect | 148 | Maximum Non-Detect | 5.4 |
| Variance Detects | 168.9 | Percent Non-Detects | 59.16% |
| Mean Detects | 3.64 | SD Detects | 13 |
| Median Detects | 1.55 | CV Detects | 3.57 |
| Skewness Detects | 10.39 | Kurtosis Detects | 115 |
| Mean of Logged Detects | 0.456 | SD of Logged Detects | 1.053 |

Normal GOF Test on Detects Only

| | | | |
|---|---|---|---|
| Shapiro Wilk Test Statistic | 0.221 | Normal GOF Test on Detected Observations Only | |
| 5% Shapiro Wilk P Value | 0 | Detected Data Not Normal at 5% Significance Level | |
| Lilliefors Test Statistic | 0.395 | Lilliefors GOF Test | |
| 5% Lilliefors Critical Value | 0.076 | Detected Data Not Normal at 5% Significance Level | |

Detected Data Not Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

| | | | |
|---|---|---|---|
| Mean | 1.699 | Standard Error of Mean | 0.464 |
| SD | 8.432 | 95% KM (BCA) UCL | 2.612 |
| 95% KM (t) UCL | 2.465 | 95% KM (Percentile Bootstrap) UCL | 2.576 |
| 95% KM (z) UCL | 2.463 | 95% KM Bootstrap t UCL | 4.241 |
| 90% KM Chebyshev UCL | 3.092 | 95% KM Chebyshev UCL | 3.722 |
| 97.5% KM Chebyshev UCL | 4.597 | 99% KM Chebyshev UCL | 6.317 |

Gamma GOF Tests on Detected Observations Only

| | | | |
|---|---|---|---|
| A-D Test Statistic | 8.403 | Anderson-Darling GOF Test | |
| 5% A-D Critical Value | 0.798 | Detected Data Not Gamma Distributed at 5% Significance Level | |
| K-S Test Statistic | 0.208 | Kolmogrov-Smirnoff GOF | |
| 5% K-S Critical Value | 0.0835 | Detected Data Not Gamma Distributed at 5% Significance Level | |

Detected Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

| | | | |
|---|---|---|---|
| k hat (MLE) | 0.72 | k star (bias corrected MLE) | 0.709 |
| Theta hat (MLE) | 5.058 | Theta star (bias corrected MLE) | 5.136 |
| nu hat (MLE) | 195.8 | nu star (bias corrected) | 192.8 |
| MLE Mean (bias corrected) | 3.64 | MLE Sd (bias corrected) | 4.324 |

Gamma Kaplan-Meier (KM) Statistics

| | | | |
|---|---|---|---|
| k hat (KM) | 0.0406 | nu hat (KM) | 27.05 |
| Approximate Chi Square Value (27.05, α) | 16.19 | Adjusted Chi Square Value (27.05, β) | 16.16 |
| 95% Gamma Approximate KM-UCL (use when n>=50) | 2.839 | 95% Gamma Adjusted KM-UCL (use when n<50) | 2.845 |

Gamma (KM) may not be used when k hat (KM) is < 0.1

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detected data is small such as < 0.1

For such situations, GROS method tends to yield inflated values of UCLs and BTVs

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

| | | | |
|---|---|---|---|
| Minimum | 0.01 | Mean | 1.493 |
| Maximum | 148 | Median | 0.01 |
| SD | 8.477 | CV | 5.68 |
| k hat (MLE) | 0.243 | k star (bias corrected MLE) | 0.243 |
| Theta hat (MLE) | 6.147 | Theta star (bias corrected MLE) | 6.151 |

| | | | |
|---|---|---|---|
| nu hat (MLE) | 161.7 | nu star (bias corrected) | 161.6 |
| MLE Mean (bias corrected) | 1.493 | MLE Sd (bias corrected) | 3.03 |
| | | Adjusted Level of Significance (β) | 0.0493 |
| Approximate Chi Square Value (161.60, α) | 133.2 | Adjusted Chi Square Value (161.60, β) | 133.1 |
| 95% Gamma Approximate UCL (use when n>=50) | 1.811 | 95% Gamma Adjusted UCL (use when n<50) | 1.812 |

Lognormal GOF Test on Detected Observations Only

| | | | |
|---|---|---|---|
| Lilliefors Test Statistic | 0.0755 | Lilliefors GOF Test | |
| 5% Lilliefors Critical Value | 0.076 | Detected Data appear Lognormal at 5% Significance Level | |

Detected Data appear Approximate Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

| | | | |
|---|---|---|---|
| Mean in Original Scale | 1.666 | Mean in Log Scale | -0.646 |
| SD in Original Scale | 8.449 | SD in Log Scale | 1.258 |
| 95% t UCL (assumes normality of ROS data) | 2.43 | 95% Percentile Bootstrap UCL | 2.543 |
| 95% BCA Bootstrap UCL | 3.231 | 95% Bootstrap t UCL | 4.186 |
| 95% H-UCL (Log ROS) | 1.359 | | |

UCLs using Lognormal Distribution and KM Estimates when Detected data are Lognormally Distributed

| | | | |
|---|---|---|---|
| KM Mean (logged) | -0.473 | 95% H-UCL (KM -Log) | 1.252 |
| KM SD (logged) | 1.068 | 95% Critical H Value (KM-Log) | 2.177 |
| KM Standard Error of Mean (logged) | 0.0784 | | |

DL/2 Statistics

| DL/2 Normal | | DL/2 Log-Transformed | |
|---|---|---|---|
| Mean in Original Scale | 1.722 | Mean in Log Scale | -0.432 |
| SD in Original Scale | 8.443 | SD in Log Scale | 1.044 |
| 95% t UCL (Assumes normality) | 2.485 | 95% H-Stat UCL | 1.268 |

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Approximate Lognormal Distributed at 5% Significance Level

Suggested UCL to Use

| | |
|---|---|
| 95% KM (BCA) UCL | 2.612 |

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
Recommendations are based upon data size, data distribution, and skewness.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

Zinc, Zn

General Statistics

| | | | |
|---|---|---|---|
| Total Number of Observations | 330 | Number of Distinct Observations | 282 |
| | | Number of Missing Observations | 3 |
| Minimum | 7.1 | Mean | 1559 |
| Maximum | 56100 | Median | 174 |
| SD | 5011 | Std. Error of Mean | 275.8 |
| Coefficient of Variation | 3.215 | Skewness | 8.225 |

Normal GOF Test

| | | | |
|---|---|---|---|
| Shapiro Wilk Test Statistic | 0.319 | Shapiro Wilk GOF Test | |
| 5% Shapiro Wilk P Value | 0 | Data Not Normal at 5% Significance Level | |
| Lilliefors Test Statistic | 0.378 | Lilliefors GOF Test | |
| 5% Lilliefors Critical Value | 0.0488 | Data Not Normal at 5% Significance Level | |
| Data Not Normal at 5% Significance Level | | | |

Assuming Normal Distribution

| | | | |
|---|---|---|---|
| 95% Normal UCL | | 95% UCLs (Adjusted for Skewness) | |
| 95% Student's-t UCL | 2014 | 95% Adjusted-CLT UCL (Chen-1995) | 2146 |
| | | 95% Modified-t UCL (Johnson-1978) | 2034 |

Gamma GOF Test

| | | | |
|---|---|---|---|
| A-D Test Statistic | 17 | Anderson-Darling Gamma GOF Test | |
| 5% A-D Critical Value | 0.858 | Data Not Gamma Distributed at 5% Significance Level | |
| K-S Test Statistic | 0.16 | Kolmogrov-Smirnoff Gamma GOF Test | |
| 5% K-S Critical Value | 0.054 | Data Not Gamma Distributed at 5% Significance Level | |
| Data Not Gamma Distributed at 5% Significance Level | | | |

Gamma Statistics

| | | | |
|---|---|---|---|
| k hat (MLE) | 0.352 | k star (bias corrected MLE) | 0.351 |
| Theta hat (MLE) | 4432 | Theta star (bias corrected MLE) | 4447 |
| nu hat (MLE) | 232.1 | nu star (bias corrected) | 231.3 |
| MLE Mean (bias corrected) | 1559 | MLE Sd (bias corrected) | 2632 |
| | | Approximate Chi Square Value (0.05) | 197.1 |
| Adjusted Level of Significance | 0.0493 | Adjusted Chi Square Value | 197 |

Assuming Gamma Distribution

| | | | |
|---|---|---|---|
| 95% Approximate Gamma UCL (use when n>=50)) | 1829 | 95% Adjusted Gamma UCL (use when n<50) | 1830 |

Lognormal GOF Test

| | | | |
|---|---|---|---|
| Shapiro Wilk Test Statistic | 0.92 | Shapiro Wilk Lognormal GOF Test | |
| 5% Shapiro Wilk P Value | 0 | Data Not Lognormal at 5% Significance Level | |
| Lilliefors Test Statistic | 0.119 | Lilliefors Lognormal GOF Test | |
| 5% Lilliefors Critical Value | 0.0488 | Data Not Lognormal at 5% Significance Level | |
| Data Not Lognormal at 5% Significance Level | | | |

Lognormal Statistics

| | | | |
|---|---|---|---|
| Minimum of Logged Data | 1.96 | Mean of logged Data | 5.441 |
| Maximum of Logged Data | 10.93 | SD of logged Data | 1.981 |

Assuming Lognormal Distribution

| | | | |
|---|---|---|---|
| 95% H-UCL | 2295 | 90% Chebyshev (MVUE) UCL | 2493 |
| 95% Chebyshev (MVUE) UCL | 2891 | 97.5% Chebyshev (MVUE) UCL | 3445 |
| 99% Chebyshev (MVUE) UCL | 4532 | | |

Nonparametric Distribution Free UCL Statistics
Data do not follow a Discernible Distribution (0.05)

Nonparametric Distribution Free UCLs

| | | | |
|---|---|---|---|
| 95% CLT UCL | 2012 | 95% Jackknife UCL | 2014 |
| 95% Standard Bootstrap UCL | 2018 | 95% Bootstrap-t UCL | 2346 |
| 95% Hall's Bootstrap UCL | 3748 | 95% Percentile Bootstrap UCL | 2043 |
| 95% BCA Bootstrap UCL | 2264 | | |
| 90% Chebyshev(Mean, Sd) UCL | 2386 | 95% Chebyshev(Mean, Sd) UCL | 2761 |
| 97.5% Chebyshev(Mean, Sd) UCL | 3281 | 99% Chebyshev(Mean, Sd) UCL | 4303 |

Suggested UCL to Use

| | |
|---|---|
| 95% Chebyshev (Mean, Sd) UCL | 2761 |

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.
For additional insight the user may want to consult a statistician.

Appendix C Sampling Maps and Laboratory Reports (Provided under Separate Cover)

**Exhibit 4: Letter from Township of Florence**

# TOWNSHIP OF FLORENCE

December 11, 2015

Stephen Parnes
Florence Griffin Advisors, LP
4 Crestwood Road
Westport, CT 06880

Re: Fill Importation Permit
Former Griffin Pipe Products property – Western Parcel
1100 Front Street, Block 179, Lots 1.02, 1.03, 1.04 & 1.05

Dear Mr. Parnes:

On December 9, 2015 the Township Council formally approved your request for a Fill Importation Permit for the former Griffin Pipe property located along the Delaware River. The Township Council's approval was authorized in accordance with the December 8, 2015 submittal of your environmental engineer, Impact Environmental and pursuant to the corresponding report issued by the Township Engineer, Jim Biegen of Maser Associates.

This letter shall be considered confirmation of the Township Council's approval of the Fill Importation Permit. With respect to the application fee, please send the fee in the amount of $21,500 to my attention here at the Municipal Building. The check should be made out to Florence Township, and reference Fill Importation Permit.

Once the fill delivery process begins, we will work with you, your team and the NJDEP to revitalize this property so it can be an asset to the community.

Very truly yours,

Richard A. Brook
Administrator

cc: Joy M. Weiler, Township Clerk, RMC/MMC
Jim Biegen, Maser Associates
Mike McMullen, Florence Griffin Advisors, LP
Joel Rogers, Impact Environmental Closures, Inc.
Jack Koczan, Koczan & Associates
Richard Moralle, T & M Associates
John Gillespie, Esq.

FLORENCE TOWNSHIP MUNICIPAL COMPLEX
711 BROAD STREET
FLORENCE, NEW JERSEY 08518-2323
WWW.FLORENCE-NJ.GOV

(609) 499-2525 ADMINISTRATIVE OFFICES
(609) 499-2222 MUNICIPAL COURT
(609) 499-3131 POLICE DEPARTMENT
(609) 499-2130 CONSTRUCTION CODE OFFICIAL

**Exhibit 5: LSRP Approval Letter**

**David Pry**
LSRP License Number: 573686
35 Charissa Court
Hewitt, NJ 07421

Date: February 10, 2016
Revised: March 18, 2016

To: [redacted]

From: David Pry, LSRP
LSRP of Record: Former Griffin Pipe Products Company Site
LSRP License Number: 573686

Re: IMP#5831-01-01-1001
Harold Structures 3A Westbound Bypass-East Bound Approach (Contract No. CH057A)
East Side Access Project
Long Island City, Queens, NY

Dear [redacted],

The Former Griffin Pipe Products Company Site - West Side (the "facility") located at 1100 West Front Street, Florence, Burlington County, New Jersey, is undergoing remediation with the oversight from New Jersey Department of Environmental Protection Site Remediation Program (NJDEP SRP; Program Interest # 000047). To evaluate acceptance of materials into the facility for beneficial use, the New Jersey Licensed Site Remediation Professional (LSRP) of record is granted authority by NJDEP to review site background information and relevant environmental data in accordance with the filed Materials Acceptance Plan (MAP) prepared by Impact Environmental, dated March 18, 2016.

The donor site of the materials proposed for beneficial use at the facility is located at:

Harold Structures 3A Westbound Bypass -East Bound Approach (Contract No. CH057A)
East Side Access Project
Long Island City, Queens, NY

The following documents are provided for review:

- Soil Analysis Report (SAR) - Westbound Bypass In-Situ Soil Waste Characterization, prepared by Impact Environmental, dated January 31, 2015;
- Disclosure of Site Regulatory Status, prepared by MTA LIRR East Side Access, dated December 21, 2007;
- Donor Compliance Package (DCP), prepared by Impact Environmental, dated March 17, 2016;

**David Pry**
LSRP License Number: 573686
35 Charissa Court
Hewitt, NJ 07421

- Allocco Stockpile Sampling Report (12/18/2014), prepared by Harold Structure Joint Venture, Transmittal # 01701;
- Allocco Stockpile Sampling Report (4-1-15), prepared by Harold Structure Joint Venture, Transmittal # 01721;
- Allocco Stockpile Sampled on 5/13/15 (2400 CY), prepared by Harold Structure Joint Venture, Transmittal # 01756;
- Laboratory Reports prepared by Phoenix Environmental Laboratories, dated March 16, 2016

It is understood that the materials are from an area of Sunnyside Yard, which has been designated as a Class II Inactive Hazardous Waste Disposal Site by New York State Department of Environmental Conservation (NYSDEC). The proposed materials consist of sand, gravel, coal, ash and slag.

There are two groups of samples provided in the above mentioned documents. The first group consists of a total of 19 waste characterization (WC) samples that are proposed for consideration, representing approximately 19,000 cubic yards of materials proposed for beneficial use at the facility. These samples were submitted to Phoenix Environmental Laboratories, Inc., a New Jersey-certified laboratory, for analysis of the following parameters in accordance with NJDEP-N.J.A.C. 7:26 E:

- Target compound list (TCL) volatile organic compounds (VOCs);
- TCL semi-volatile organic compounds (SVOCs);
- TCL pesticides/herbicides/PCBs;
- Target analyte list (TAL) metals;
- Hexavalent chromium;
- Cyanide; and
- Toxic characteristic leaching procedure (TCLP) RCRA metals.

Analytical results of the 19 WC samples were evaluated and found to meet the facility's acceptance criteria. The following technical justifications are noted in evaluating the above samples:

- The impact to groundwater (IGW) pathway of Aluminum and Manganese are not required to be addressed because these metals are found as background elements in the area of the donor site, and their corresponding limit of NJ Default IGW Soil Remediation Standard (SRS) are not based on health considerations. Therefore, samples with Aluminum and/or Manganese at levels in exceedance of NJ Default IGW SRS but below NJ Residential Direct Contact Soil Remediation Standard (RDCSRS) are considered as meeting the unrestricted soil remediation standard defined by NJDEP (Frequently Asked Questions for the Impact to Ground Water Pathway in Soil Remediation Standards, NJDEP, January 27, 2011; NJDEP-N.J.A.C. 7:26 D). The Aluminum and Manganese concentrations of all proposed samples are below NJ RDCSRS and therefore meet the unrestricted SRS.

**David Pry**
LSRP License Number: 573686
35 Charissa Court
Hewitt, NJ 07421

- The 95th Upper Confidence Limit (UCL) analysis was performed for the following parameters: Chlordane, total PCBs, Lead and Mercury. 95th UCL results of these parameters are found to meet the facility's acceptance criteria.

The second group of samples consists of five (5) WC samples collected from stockpiles. No exceedance was found in any samples against the facility's acceptance criteria with the exception of Dieldrin of Stockpile 2- Comp-1, Mercury and Nickel of Stockpile 2- Comp-2. The levels of Dieldrin, Mercury and Nickel are below NJ RDCSRS but are above NJ Default IGW SRS. Synthetic Precipitation Leachate Procedure (SPLP) results of the same stockpiled material are provided in the March 16, 2016 laboratory report prepared by Phoenix for evaluation of potential impact to groundwater of these compounds. SPLP Dieldrin and SPLP Mercury were not detected above their method detection limit (MDL), respectively. SPLP Nickel was detected at 0.002 mg/L. According to the NJDEP Guidance Document for Development of Site-specific Impact to Ground Water Soil Remediation Standards Using the Synthetic Precipitation Leachate Procedure (Version 3.0, November 2013), SPLP results may be compared to an appropriate leachate criterion to determine whether the soil represents a potential threat to ground water quality. Appendix B of this document provides the Higher of the Health-based Leachate Criterion or PQL (Rounded), where the limit of Nickel is 2 mg/L. Given the above results, it is determined that the stockpiled material does not represent a potential threat to ground water quality and is acceptable to the facility.

In summary, materials represented by the following samples are approved for beneficial use at the facility:

[redacted]

The volume of the materials represented by this approval is 24,000 cubic yards. All materials subject to this approval will be transported directly from the donor site to the facility. Materials will be accepted and managed in accordance with the MAP.

**David Pry**
LSRP License Number: 573686
35 Charissa Court
Hewitt, NJ 07421

Please feel free to contact me with any questions.

Sincerely,



David Pry, LSRP # 573686

Cc: [redacted]
[redacted]
[redacted]

## Exhibit 6: Impact Environmental Certificate of Insurance

# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 10/8/2015

**THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.**

**IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).**

| | |
|---|---|
| **PRODUCER**<br>The Graham Company<br>The Graham Building<br>1 Penn Square West<br>Philadelphia PA 19102- | **CONTACT NAME:** Joe Holden<br>**PHONE (A/C, No, Ext):** 215-567-6300 **FAX (A/C, No):** 215-933-3988<br>**E-MAIL ADDRESS:** HOLDEN_UNIT@grahamco.com |
| **INSURED** IMPAENV-01<br>Impact Environmental Consulting, Inc.<br>170 Keyland Court<br>Bohemia, NY 11716 | **INSURER(S) AFFORDING COVERAGE** / **NAIC #**<br>**INSURER A :** Ironshore Specialty Ins. Co. / 25445<br>**INSURER B :** Zurich-American Ins Co / 16535<br>**INSURER C :** Zurich-American Insurance Company / 16535<br>**INSURER D :** Atlantic Specialty Insurance Compan / 27154<br>**INSURER E :**<br>**INSURER F :** |

**COVERAGES** **CERTIFICATE NUMBER:** 2083513599 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

| INSR LTR | TYPE OF INSURANCE | ADDL INSD | SUBR WVD | POLICY NUMBER | POLICY EFF (MM/DD/YYYY) | POLICY EXP (MM/DD/YYYY) | LIMITS | |
|---|---|---|---|---|---|---|---|---|
| A | **COMMERCIAL GENERAL LIABILITY**<br>CLAIMS-MADE [X] OCCUR<br>GEN'L AGGREGATE LIMIT APPLIES PER:<br>POLICY [X] PRO-JECT [ ] LOC<br>OTHER: | | | 000291605 | 5/12/2015 | 5/12/2016 | EACH OCCURRENCE<br>DAMAGE TO RENTED PREMISES (Ea occurrence)<br>MED EXP (Any one person)<br>PERSONAL & ADV INJURY<br>GENERAL AGGREGATE<br>PRODUCTS - COMP/OP AGG<br> | $2,000,000<br>$500,000<br>$25,000<br>$1,000,000<br>$4,000,000<br>$4,000,000<br>$ |
| B | **AUTOMOBILE LIABILITY**<br>[X] ANY AUTO<br>[ ] ALL OWNED AUTOS [ ] SCHEDULED AUTOS<br>[ ] HIRED AUTOS [ ] NON-OWNED AUTOS | | | BAP011690700 | 5/12/2015 | 5/12/2016 | COMBINED SINGLE LIMIT (Ea accident)<br>BODILY INJURY (Per person)<br>BODILY INJURY (Per accident)<br>PROPERTY DAMAGE (Per accident)<br> | $1,000,000<br>$<br>$<br>$<br>$ |
| A | **UMBRELLA LIAB** [X] OCCUR<br>[X] **EXCESS LIAB** [ ] CLAIMS-MADE<br>DED [ ] RETENTION $ | | | 000291705 | 5/12/2015 | 5/12/2016 | EACH OCCURRENCE<br>AGGREGATE<br> | $23,000,000<br>$23,000,000<br>$ |
| C | **WORKERS COMPENSATION AND EMPLOYERS' LIABILITY**<br>ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y / N [ ]<br>**(Mandatory in NH)**<br>If yes, describe under DESCRIPTION OF OPERATIONS below | N / A | | WC011690900 | 5/12/2015 | 5/12/2016 | [X] PER STATUTE [ ] OTH-ER<br>E.L. EACH ACCIDENT<br>E.L. DISEASE - EA EMPLOYEE<br>E.L. DISEASE - POLICY LIMIT | <br>$1,000,000<br>$1,000,000<br>$1,000,000 |
| A<br>D | Professional/Pollution Liability<br>Property/Contractors Equipment | | | 000291605<br>7100356740000 | 5/12/2015<br>5/12/2015 | 5/12/2016<br>5/12/2016 | Occur/Aggregate<br>Lease/Rent/Borrow | $2,000,000<br>$250,000 |

**DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)**

The above Property Policy provides coverage for Special Cause of Loss.

**CERTIFICATE HOLDER**

EVIDENCE OF COVERAGE

**CANCELLATION**

**SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.**

**AUTHORIZED REPRESENTATIVE**

Kenneth L. Ewell

**© 1988-2014 ACORD CORPORATION. All rights reserved.**

## Exhibit 7: Donor Source Profile Form

**IMPACT ENVIRONMENTAL** 170 Keyland Court| Bohemia| NY | 11716 | 631.269.8800
welcome to solid ground… *www.impactenvironmental.com*

# DONOR SOURCE PROFILE FORM

## FORMER GRIFFIN PIPE PRODUCTS SITE, FLORENCE, NJ

*(PLEASE PRINT OR TYPE – ATTACH ADDITIONAL SHEETS IF NECESSARY)*

### *PROJECT INFORMATION*

**1) NAME, ADDRESS AND TELEPHONE NUMBER OF SOURCE OWNER/GENERATOR:**

NAME: _____

ADDRESS: _____

TEL: _____

**2) SOURCE NAME AND PHYSICAL LOCATION (INCLUDE LOT AND BLOCK):**

NAME: _____

ADDRESS: _____

LOT: _____ BLOCK: _____

**3) VOLUME SUBJECT OF THIS APPLICATION:**

_____ CYD

**4) DESCRIBE BOTH CURRENT AND HISTORIC LAND USES OF THE SITE FROM WHICH THE MATERIAL WAS GENERATED, THE DATE(S) THE MATERIAL WAS GENERATED, REASONS FOR THE GENERATION OF MATERIAL AND/OR THE PROCESS BY WHICH THE MATERIAL WAS GENERATED.**

**5) DESCRIBE ANY REGULATORY (ENVIRONMENTAL) INVOLVEMENT IN THE PROJECT.**

**6) DESCRIBE THE OPERATIONAL CONTROLS TO BE TAKEN DURING THE HANDLING AND TRANSPORTATION OF THE MATERIAL TO MINIMIZE ENVIRONMENTAL AND HUMAN IMPACTS:**

| |
|---|
| |

**7) DEFINE THE TYPE OF SOLID WASTE – IF MIXTURE, INCLUDE EACH COMPONENTS % OF THE WHOLE:**

- ☑ VIRGIN CLEAN FILL – INCLUDING UNCONTAMINATED INERT ROCK, SOIL GRAVEL, AND SAND THAT MEET THE CRITERIA OF N.J.A.C 7:26E 6.4. _____%
- ☑ RECYCLED MASONRY– CRUSHED BRICK, CONCRETE, BROKEN GLASS (NO DEMOLITION WASTE OR DELETERIOUS MATERIAL). _____%
- ☑ CONSTRUCTIONS SITE FILL MEETING FACILITY ACCEPTANCE CRITERIA – INCLUDING SOIL, GRAVEL, BRICK, AND CONCRETE MATERIAL FROM CONSTRUCTION PROJECTS (NO DEMOLITION WASTE OR DELETERIOUS MATERIAL). _____%
- ☑ RECYCLING FACILITY FILL – FROM PERMITTED FACILITIES PURSUANT TO N.J.A.C 7:26A. _____%
- ☑ OTHER - ._____ _____%

**8) INDICATE THE ITEMS CONSIDERED FOR REFERECE WITH THIS APPLICATION:**

- ☑ A SITE MAP OF THE LOCATION OF THE SITE OF ORIGIN.
- ☐ A SAMPLING PLAN FOR ALL SAMPLES THAT WILL BE OBTAINED FROM THE PROPOSED MATERIAL, INCLUDING A SITE MAP DEPICTING SAMPLE LOCATIONS, SAMPLING FREQUENCY AND COMPOSTING FREQUENCY.
- ☐ ALL LABORATORY REPORTS PREPARED BY THE COMMERCIAL TESTING LABORATORY, INCLUSIVE OF CHAIN OF CUSTODY DOCUMENTATION.
- ☐ ANY TABULATED SUMMARY SPREADSHEETS SUMMARIZING THE DATA ON THE LABORATORY REPORTS.
- ☐ ALL AVAILABLE ENVIRONMENTAL OR GEOTECHNICAL REPORTS WITH RESPECT TO THE SITE AND OR SITES THAT WHERE THE WASTE WAS GENERATED.

**9) NAME, ADDRESS AND TELEPHONE NUMBER OF THE LABORATORY:**

NAME: _____

ADDRESS: _____

NJDEP LAB NO.: _____

**10) LIST THE SAMPLE NAMES/ID#'S FOR ALL SAMPLES INCLUDED OR REFERENCED WITHIN THE LABORATORY REPORT(S) AND SUBMITTED FOR CONSIDERATION AS PART OF THIS APPLICATION** (ATTACH ADDITIONAL SHEET IF NECESSARY)**:**

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |

**11) LIST THE SAMPLE NAMES/ID#'S FOR ALL SAMPLES INCLUDED OR REFERENCED WITHIN THE LABORATORY REPORT(S) AND <u>NOT</u> SUBMITTED FOR CONSIDERATION AS PART OF THIS APPLICATION** (ATTACH ADDITIONAL SHEET IF NECESSARY)**:**

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |

**12) INFORMATION OF THE COMPANY THAT PERFORMED THE SAMPLING:**

NAME: _____

ADDRESS: _____

TEL: _____

**13) IS THE PROPOSED MATERIAL CLASSIFIED AS A HAZARDOUS WASTE BY TOXICITY OR BY DEFINITION?**

☐ YES ☐ NA ☐ NO

**14) WAS THE MATERIAL SAMPLED IN ACCORDANCE WITH NAJC 7:26 TECHNICAL REQUIREMENTS FOR SITE REMEDIATION?**

☐ YES ☐ NA ☐ NO

***CHAIN OF PAYMENT***

IN ORDER, STARTING WITH THE OWNER/GENERATOR AND ENDING WITH THE COMPANY TO BE BILLED FOR LOADS OF WASTE RECEIVED, PROVIDE THE CHAIN OF PAYMENT. THIS INFORMATION WILL NOT BE USED TO CIRCUMVENT ANY PARTIES INVOLVED IN THE TRANSACTION.

OWNER/, NAME AND CONTACT #:

IF APPLICABLE, TIER 1 CONTRACTOR/BROKER, NAME AND CONTACT #:

BILLING ENTITY, NAME AND CONTACT #:

***CERTIFICATION***

I CERTIFY UNDER PENALTY OF LAW THAT I AM THE OWNER/GENERATOR OF THE SOLID WASTE REFERENCED WITHIN THIS APPLICATION, AND THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED IN THIS DOCUMENT AND ALL ATTACHMENTS AND THAT, BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THAT THE INFORMATION IS TRUE, ACCURATE AND COMPLETE. FURTHER, I BELIEVE THAT THE MATERIAL WAS SAMPLED IN ACCORDANCE WITH NJAC 7:26E, AND IS CLASSIFIEABLE AS MEETING THE FACILITY ACCEPTANCE CRITERIA.

I AM AWARE THAT THERE ARE SIGNIFICANT PENALITIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBLITY OF FINES AND IMPRISONMENT. I UNDERSTAND THAT, IN ADDITION TO CRIMINAL PENALITIES, I MAY BE LIABLE FOR A CIVIL ADMINISTRATIVE PENALTY PURSUANT TO APPLICABLE LAW AND THAT SUBMITTING FALSE, INACCURATE, OR INCOMPLETE INFORMATION MAY BE GROUNDS FOR DENIAL, REVOCATION, OR TERMINATION OF ANY SOLID WASTE FACILITY PERMIT, LICENSE, OR OTHER OPERATING AUTHORITY FOR WHICH I MAY BE SEEKING APPROVAL OR NOW HOLD.

NAME AND ADDRESS OF OWNER /GENERATOR (PERSONAL OR CORPORATE):

NAME: _____

ADDRESS: _____

TEL: _____

PRINTED NAME OF OWNER/GENERATOR: _____

SIGNATURE OF OWNER/GENERATOR: DATED _____

## Exhibit 8: SESCP and Administrative Consent Order/NJPDES Approval Documentation

BURLINGTON COUNTY SOIL CONSERVATION DISTRICT
1971 Jacksonville - Jobstown Road, Columbus, NJ 08022
Tel: (609) 267-7410 Fax: (609) 267-3347

New Jersey Natural Resources Conservation Programs

# TRANSMITTAL SHEET
## for
## SOIL EROSION AND SEDIMENT CONTROL ACT
## Chapter 251, P.L. 1975, as amended
## (N.J.S.A. 4:24-39 et. seq.)

To: Florence Township Municipal Bldg.
Attn: Thomas Layou
711 Broad Street
Florence, NJ 08518-2323

Application No. 25115-174
Block: 179 Lot: various
Project Name Soil Importation Plans
Municipality Florence Township

The enclosed soil erosion and sediment control plan is:

XX Certified
____ Conditionally Certified
____ Denied
____ More information is required

Comments:

We find this Soil Erosion and Sediment Control Plan effective for the site and in accordance with the requirements of Chapter 251, P.L. 1975. Certification of this plan is for Soil Erosion, Sedimentation, and related Stormwater Management Controls specified in this plan. It is not authorization to engage in the proposed land use unless such use has been previously approved by the municipality or other controlling agency. In no case shall this approval extend beyond three and one half years, at which time resubmission and certification by the district will be required.

Site inspections will be made to this plan and any changes may void this certification.

A statement of compliance must be obtained from this office prior to the issuance of a certificate of occupancy on the use of this facility.

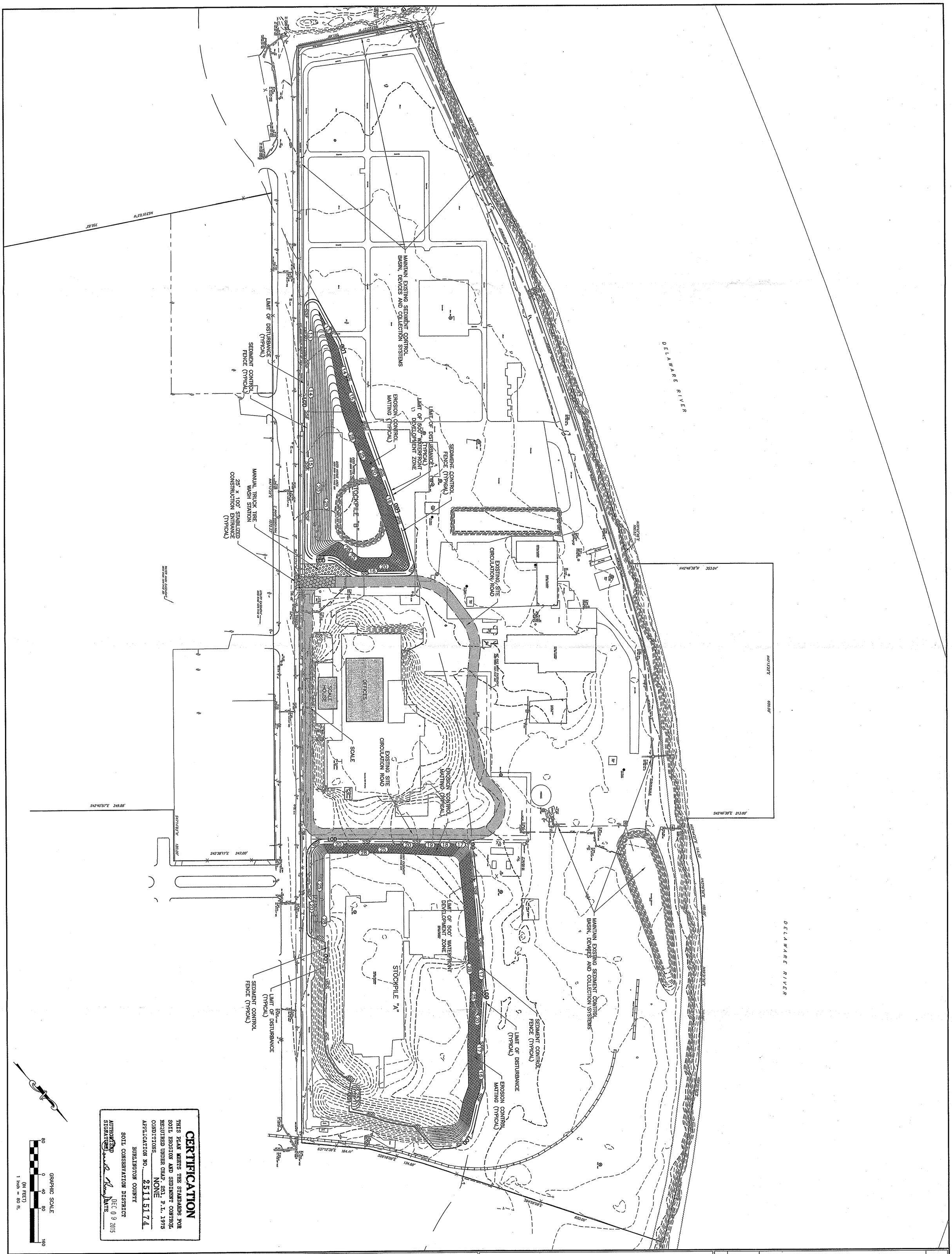
Any conveyance of this project or portion thereof shall be considered a substantial change unless the district office is given written notification of the conveyance indicating new owner(s), address of owner(s), address change, and agent responsible during construction.

**Authorized Signature** Donald Rough **Date:** 12/09/15

DISTRIBUTION:
Municipal Construction Official
Project Engineer
District
File
Applicant
XC-Township Engineer
Planning Bd Secretary
Burlington Co. Planning Board

COPYRIGHT 2015, T&M ASSOCIATES – ALL RIGHTS RESERVED. THE COPYING OR REUSE OF THIS DOCUMENT OR PORTIONS THEREOF, FOR OTHER THAN THE ORIGINAL PROJECT OR THE PURPOSE ORIGINALLY INTENDED, WITHOUT THE WRITTEN PERMISSION OF T&M ASSOCIATES IS PROHIBITED.

PROJECT INFORMATION:
FILE PATH: H:\FLGA\00020\Plans\
FILE NAME: FLGA20-SIP-VGR-PH1.dwg
LAST SAVED DATE AND TIME: 19 Nov 2015, 9:33AM
LAST SAVE BY: LDeVries




GRAPHIC SCALE
(IN FEET)
1 inch = 80 ft.
80 0 40 80 160

## CERTIFICATION

THIS PLAN MEETS THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL REQUIRED UNDER CHAP. 251, P.L. 1975

CONDITIONS NONE

APPLICATION NO. 2511174

BURLINGTON COUNTY

SOIL CONSERVATION DISTRICT

AUTHORIZED SIGNATURE _____ DATE DEC 09 2015

FLORENCE GRIFFIN ADVISORS, LP

# SOIL IMPORTATION PLANS FOR BLOCK 179, LOTS 1.02, 1.03, 1.04 & 1.05

FLORENCE TOWNSHIP,
BURLINGTON COUNTY, NEW JERSEY

## PHASE 1 GRADING AND SOIL EROSION & SEDIMENT CONTROL PLAN

**RICHARD A. MORALLE, P.E., P.L.S.**
PROFESSIONAL ENGINEER & LAND SURVEYOR

10/26/2015

LICENSED PROFESSIONAL ENGINEER
STATE OF NJ LICENSE No. GB25863

| NO. | BY | REVISIONS | DATE |
|---|---|---|---|
| 1 | LDV | REVISIONS PER BURLINGTON COUNTY SCD COMMENTS DATED NOVEMBER 17, 2015 | 11/19/15 |

T&M ASSOCIATES
11 TINDALL ROAD
MIDDLETOWN, NJ 07748
TEL 732-671-6400
FAX 732-671-7365
NEW JERSEY BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS
CERTIFICATE OF AUTHORIZATION 24GA27997500
www.tandmassociates.com
OFFICES LOCATED IN:
DELAWARE, INDIANA, KENTUCKY, MASSACHUSETTS, MICHIGAN, NEW JERSEY, OHIO AND PENNSYLVANIA

YOUR GOALS. OUR MISSION.

| | |
|---|---|
| DESIGNED BY | ASM |
| CHECKED BY | RAM |
| DRAWN BY | LDV |
| DATE | 10/26/2015 |
| SCALE | 1"=80' |
| PROJ. NO. | FLGA-00020 |
| DRAWING | GR1 |
| SHEET | 3 OF 7 |

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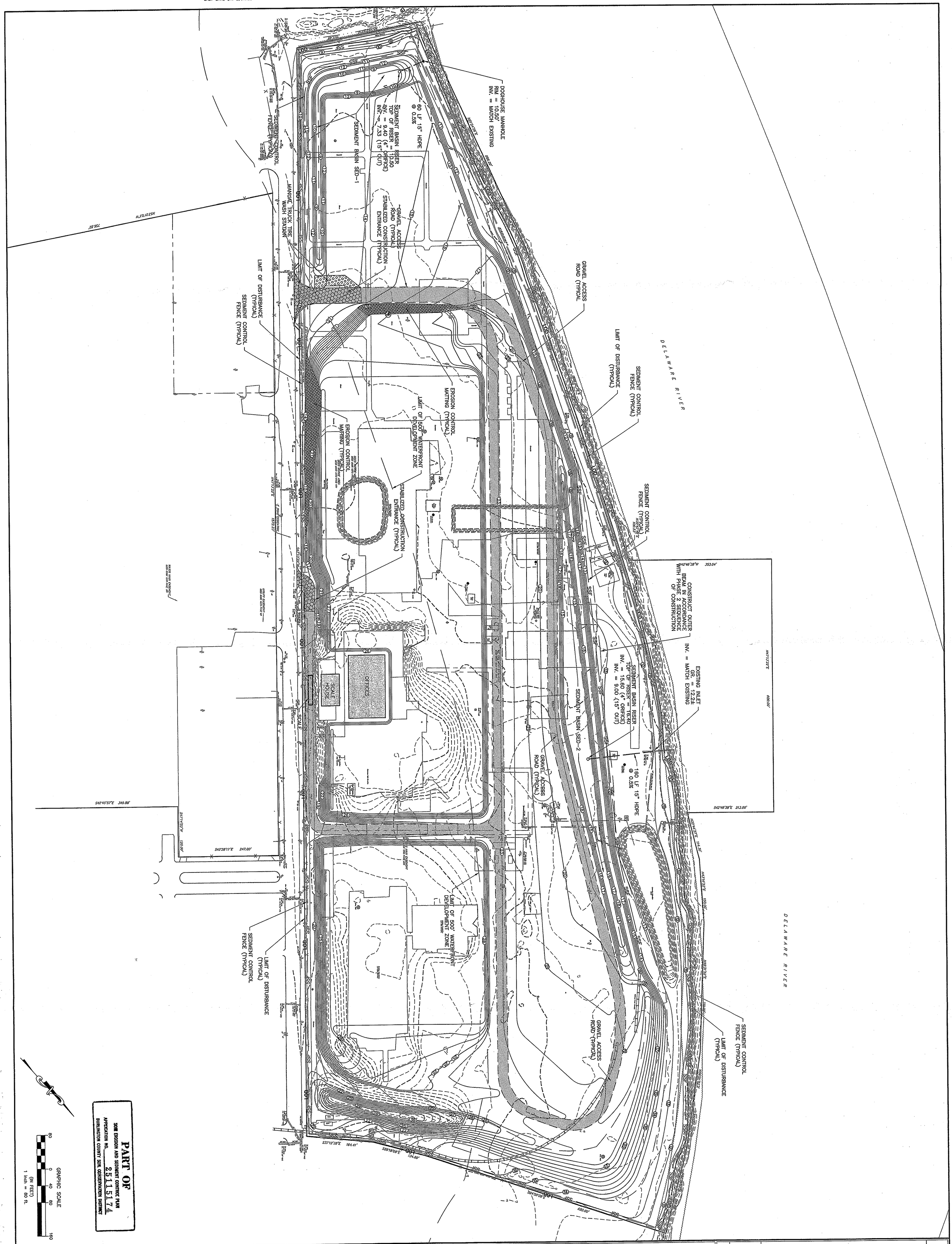
PROJECT INFORMATION:
FILE PATH: H:\FLGA\00020\Plans\
FILE NAME: FLGA20-SIP-VGR-PH2.dwg
LAST SAVED DATE AND TIME: 19 Nov 2015, 10:15AM
LAST SAVE BY: LDeVries




GRAPHIC SCALE
80 0 40 80 160
(IN FEET)
1 inch = 80 ft.

**PART OF**
SOIL EROSION AND SEDIMENT CONTROL PLAN
APPROVAL NO. 2511174
BURLINGTON COUNTY SOIL CONSERVATION DISTRICT

YOUR GOALS. OUR MISSION.

T&M ASSOCIATES
11 TINDALL ROAD
MIDDLETOWN, NJ 07748
TEL 732-671-6400
FAX 732-671-7365
NEW JERSEY BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS
CERTIFICATE OF AUTHORIZATION
24GA27987500
www.tandmassociates.com
OFFICES LOCATED IN:
DELAWARE, INDIANA, KENTUCKY, MASSACHUSETTS, MICHIGAN, NEW JERSEY, OHIO AND PENNSYLVANIA

DESIGNED BY ASM
CHECKED BY RAM
DRAWN BY LDV
DATE 10/26/2015
SCALE 1"=80'
PROJ. NO. FLGA-00020
DRAWING GR2
SHEET 4 OF 7

FLORENCE GRIFFIN ADVISORS, LP

# SOIL IMPORTATION PLANS FOR BLOCK 179, LOTS 1.02, 1.03, 1.04 & 1.05

FLORENCE TOWNSHIP,
BURLINGTON COUNTY, NEW JERSEY

## PHASE 2 GRADING AND SOIL EROSION & SEDIMENT CONTROL PLAN

**RICHARD A. MORALLE, P.E., P.L.S.**
PROFESSIONAL ENGINEER & LAND SURVEYOR
10/26/2015
LICENSED PROFESSIONAL ENGINEER
STATE OF NJ LICENSE No. GB25863

| NO. | BY | REVISIONS | DATE |
|---|---|---|---|
| 2 | LDV | REVISIONS PER BURLINGTON COUNTY SCD COMMENTS DATED NOVEMBER 17, 2015 | 11/19/15 |
| 1 | ASM | TOWNSHIP AND BCSCD COMMENTS | 11/02/15 |

LANDSCAPE PLANTING NOTES AND SPECIFICATIONS:

1. ALL PLANT MATERIAL SHALL BE PROVIDED AND INSTALLED IN STRICT CONFORMANCE WITH USDA STANDARDS FOR NURSERY STOCK AND THE "AMERICAN NURSERY AND LANDSCAPE ASSOCIATION" STANDARDS LATEST EDITIONS.

2. THE CONTRACTOR SHALL VERIFY ALL UTILITIES WITHIN WORK AREA PRIOR TO COMMENCING WITH ANY EXCAVATIONS AND SHALL BE RESPONSIBLE FOR THEIR PROTECTION.

3. THE CONTRACTOR SHALL FURNISH AND PLANT ALL PLANTS SHOWN ON THE DRAWINGS, AS SPECIFIED, AND IN QUANTITIES INDICATED ON THE PLANT LIST. IF A DISCREPANCY SHOULD ARISE BETWEEN THE AMOUNT OF PLANTS SHOWN ON THE PLAN VS. THE PLANT SCHEDULE, THE PLAN SHALL GOVERN.

4. ALL PLANTS SHALL BE NURSERY GROWN.

5. ALL PLANTS SHALL BE HARDY UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT.

6. ALL PLANTS SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY AND SHALL HAVE A NORMAL HABIT OR GROWTH. THEY SHALL BE SOUND, HEALTHY AND VIGOROUS WELL BRANCHED AND DENSELY FOLIATED WHEN IN LEAF THEY SHALL BE FREE OF DISEASE AND INSECT PESTS, EGGS OR LARVAE. THEY SHALL HAVE HEALTHY WELL-DEVELOPED ROOT SYSTEMS.

7. SUBSTITUTIONS: WHEN PLANTS OF A SPECIFIED KIND OR SIZE ARE NOT AVAILABLE WITHIN A REASONABLE DISTANCE, SUBSTITUTIONS MAY BE MADE UPON REQUEST BY THE CONTRACTOR IF APPROVED BY THE LANDSCAPE ARCHITECT OR HIS/HER REPRESENTATIVE.

8. ALL AREAS TO BE SHOWN AS LAWN SHALL BE SEEDED, AS SPECIFIED, AND MATERED UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.

9. TREE LOCATIONS MAY NEED TO BE ADJUSTED BASED ON LOCATIONS OF UTILITIES, FIELD CONDITIONS, OR FINAL GRADING. THE CONTRACTOR SHALL NOTIFY THE OWNER AND/OR THEIR REPRESENTATIVE IF ADJUSTMENTS ARE NECESSARY.

10. ROOT BALLS OF ALL PLANTS SHALL BE ADEQUATELY PROTECTED AT ALL TIMES FROM SUN AND DRYING WINDS OR FROST.

11. PLANTS WITH BROKEN ROOT BALLS, TRUNK AND BARK DAMAGE OR EXCESSIVE DAMAGE TO THE CROWN SHALL BE REPLACED PRIOR TO PLANTING.

12. ROPES AT TOP OF BALL SHALL BE CUT. REMOVE TOP 1/3 OF BURLAP. ALL NON- BIODEGRADABLE MATERIAL SHALL BE TOTALLY REMOVED. WIRE BASKETS SHALL BE CAREFULLY REMOVED ENTIRELY AT THE TIME OF PLANTING, PREFERABLY AFTER THE ROOT BALL HAS BEEN INSTALLED IN THE PLANTING PIT.

13. PREPARATION OF PLANTING: CLEAN SOIL EXCAVATED FROM PLANTING PIT OF ROOTS, PLANTS, STONES LARGER THAN 2", CLAY LUMPS, AND OTHER EXTRANEOUS MATERIALS HARMFUL OR TOXIC TO PLANT GROWTH.

14. DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING.

15. NO PLANT SHALL BE PLACED IN THE GROUND BEFORE ROUGH GRADING HAS BEEN COMPLETED AND APPROVED BY THE PROJECT LANDSCAPE ARCHITECT OR HIS/HER EQUAL.

16. INSTALL ALL PLANTS SO THAT THE TOP OF THE ROOTBALL IS SLIGHTLY ABOVE FINISHED GRADE. IN NO CASE SHALL THE PLAN BE INSTALLED WITH NO LESS THAN THE SAME RELATIONSHIP TO FINISHED GRADE AS THE PLANT'S ORIGINAL ROOT CROWN. EXCESS SOIL MAY EXIST AROUND THE ROOT CROWN FROM NURSERY OPERATIONS. THIS EXCESS MATERIAL SHALL BE REMOVED PRIOR TO PLANTING TO DETERMINE THE PROPER BALL INSTALLATION DEPTH.

17. ALL EXISTING TREES THAT ARE TO BE SAVED AS DETERMINED BY LANDSCAPE ARCHITECT SHALL BE PROTECTED UNTIL CONSTRUCTION HAS BEEN COMPLETED. AREA WITHIN DRIPLINE SHALL NOT BE TRAVELED ACROSS BY CONSTRUCTION TRAFFIC.

18. ALL PLANTS SHALL BE BALLED AND WRAPPED OR CONTAINER GROWN AS SPECIFIED. NO CONTAINER GROWN STOCK WILL BE ACCEPTED IF IT IS ROOT BOUND. ALL NON-BIODEGRADEABLE ROOT WRAPPING MATERIAL SHALL BE REMOVED AT TIME OF PLANTING.

19. THE CONTRACTOR SHALL LAYOUT WITH IDENTIFIABLE STAKES INDIVIDUAL TREE LOCATIONS AND AREAS FOR MULTIPLE PLANTINGS AS INDICATED ON DRAWING. THE LAYOUT OF PLANTING WILL THEN BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO ANY EXCAVATION OF PLANT PITS OR PLANT BEDS.

20. AT PLANTING TIME, ALL PLANT MATERIAL SHALL TRIMMED TO REMOVE BROKEN AND/OR DEAD VEGETATIVE MATERIAL.

21. ALL PLANTS SHALL BE INSTALLED AS PER THE PLANTING DETAILS, WHERE APPLICABLE.

22. ALL PLANTS SHALL BE INSTALLED PLUMB UNLESS OTHERWISE SPECIFIED.

23. ALL PLANTS SHALL BE THOROUGHLY MATERED TWICE DURING THE FIRST 24 HOUR PERIOD AFTER PLANTING. ALL PLANTS SHALL THEN BE MATERED WEEKLY OR MORE OFTEN, IF NECESSARY, DURING THE FIRST GROWING SEASON.

24. CONDITIONS DETRIMENTAL TO PLANTS: THE CONTRACTOR SHALL NOTIFY THE PROJECT REPRESENTATIVE IN WRITING OF ALL SOIL OR DRAINAGE CONDITIONS WHICH THE CONTRACTOR CONSIDERS DETRIMENTAL TO THE GROWTH OF PLANTS. HE SHALL STATE THE CONDITIONS AND SUBMIT A PROPOSAL FOR CORRECTING THE CONDITIONS INCLUDING ANY CHANGE IN COST FOR REVIEW AND ACCEPTANCE BY THE PROJECT REPRESENTATIVE.

25. WARRANT TREES FOR A MINIMUM PERIOD OF ONE (1) YEAR AFTER DATE OF WRITTEN FINAL ACCEPTANCE BY THE LANDSCAPE ARCHITECT AND/OR THE OWNERS AUTHORIZED REPRESENTATIVE AGAINST DEFECTS INCLUDING DEATH AND UNSATISFACTORY GROWTH. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO MONITOR THE PROJECT PLANTINGS DURING THE WARRANTY PERIOD AND NOTIFY THE OWNER IF PROBLEMS DEVELOP. PLANTS THAT DIE DURING THE WARRANTY PERIOD SHALL BE REMOVED IMMEDIATELY AND REPLACED.

SEED MIXES FOR PERMANENT VEGETATIVE STABILIZATION

A. UPLAND AREAS WITH SLOPES WHICH EXCEED 3:1 SHALL BE SEEDED WITH "SHOWY NORTHEAST NATIVE WILDFLOWER & GRASS MIX" AS MANUFACTURED BY ERNST SEED COMPANY AT A RATE OF 9 LBS/AC. WITH A COVER CROP AT A RATE OF 20 LBS/AC. AS FOLLOWS:

JAN I – AUG I
GRAIN OATS
AUG I – JAN I
GRAIN RYE

SHOWY NORTHEAST NATIVE WILDFLOWER & GRASS MIX

31.5% LITTLE BLUESTEM
20% SIDEOATS GRAMA
4% TALL WHITE BEARDTONGUE
4% PARTRIDGE PEA
5% PURPLE CONEFLOWER
2.5% MARSH BLAZING STAR
2% BUTTERFLY MILKWEED
2% LANCELEAF COREOPSIS
2% OXEYE SUNFLOWER
2% BLACKEYED SUSAN
1.5% NEW ENGLAND ASTER
1.5% SMOOTH BLUE ASTER
1.5% OHIO SPIDERWORT
1% AUTUMN BENTONGRASS
0.5% BROWNEYED SUSAN
0.5% WILD SENNA
0.5% WILD BERGAMOT
0.5% MARYLAND SENNA
0.5% BLUE FALSE INDIGO
0.5% EARLY GOLDENROD
0.2% HOARY MOUNTAINMINT

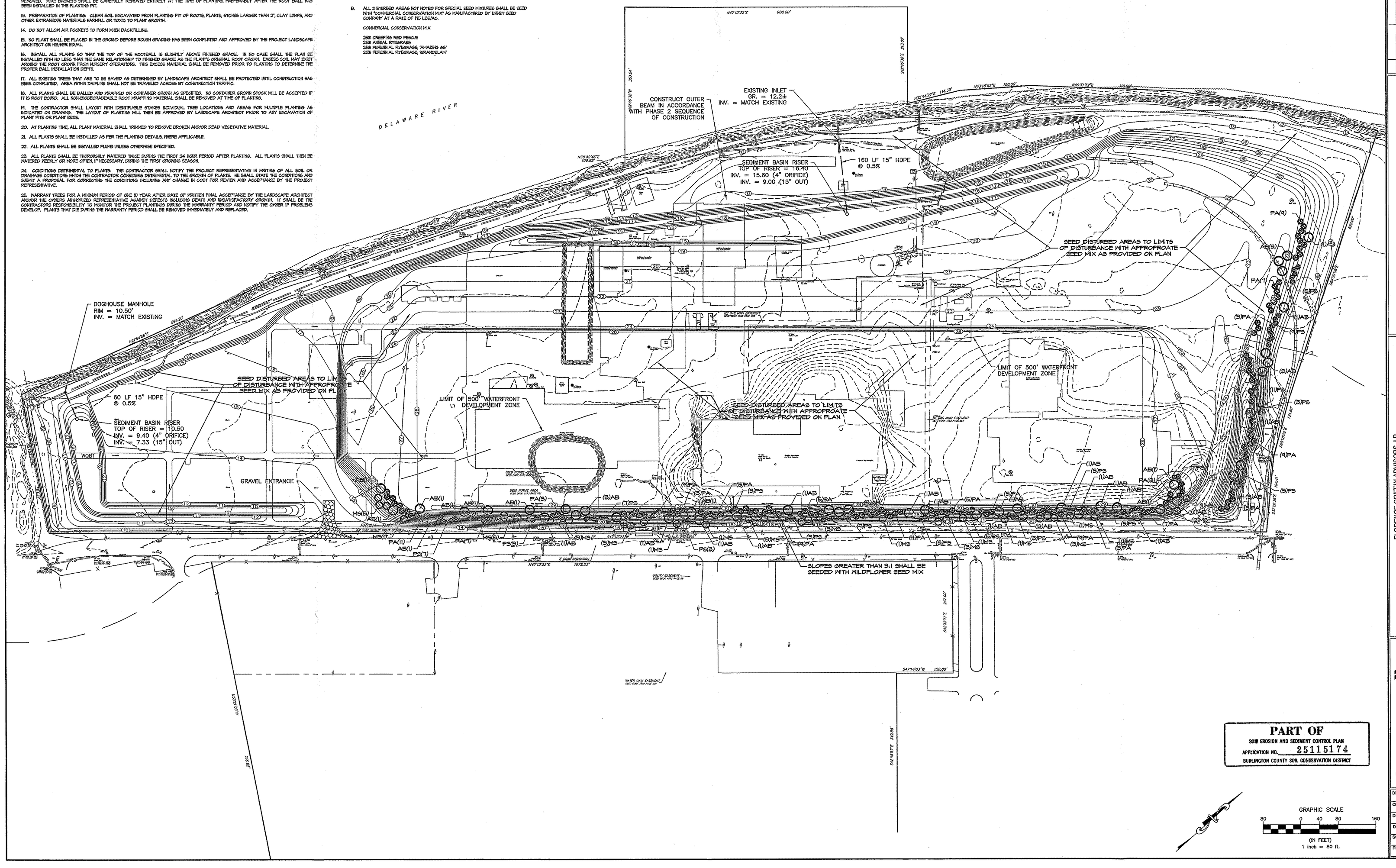
B. ALL DISTURBED AREAS NOT NOTED FOR SPECIAL SEED MIXTURES SHALL BE SEED WITH "COMMERCIAL CONSERVATION MIX" AS MANUFACTURED BY ERNST SEED COMPANY AT A RATE OF 175 LBS/AC.

COMMERCIAL CONSERVATION MIX

25% CREEPING RED FESCUE
25% ANNUAL RYEGRASS
25% PERENNIAL RYEGRASS, 'AMAZING 66'
25% PERENNIAL RYEGRASS, 'GRANDSLAM'

# PLANT SCHEDULE

| DECIDUOUS TREES | QTY | BOTANICAL NAME | COMMON NAME | CONT | CAL | SIZE | REMARKS |
|---|---|---|---|---|---|---|---|
| AB | 46 | ACER SACCHARUM 'BONFIRE' | BONFIRE SUGAR MAPLE | B & B | | 2"-2.5" CAL | |
| MS | 55 | MALUS X 'SNOWDRIFT' | SNOWDRIFT CRAB APPLE | B & B | | 2"-2.5" CAL | |
| **EVERGREEN TREES** | **QTY** | **BOTANICAL NAME** | **COMMON NAME** | **CONT** | **CAL** | **SIZE** | **REMARKS** |
| PA | 137 | PICEA ABIES | NORWAY SPRUCE | B & B | | 7'-8' | |
| PS | 81 | PINUS STROBUS | WHITE PINE | B & B | | 6'-7' | |

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10/26/2015

FLORENCE GRIFFIN ADVISORS, LP
SOIL IMPORTATION PLANS FOR
BLOCK 179, LOTS 1.02, 1.03, 1.04 & 1.05
FLORENCE TOWNSHIP
BURLINGTON COUNTY, NEW JERSEY

FINISHED GRADING & LANDSCAPE PLAN


T AND M
YOUR GOALS. OUR MISSION.
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| DESIGNED BY | ASM |
| CHECKED BY | RAM |
| DRAWN BY | LDV |
| DATE | 10/26/2015 |
| SCALE | 1"=80' |
| PROJ. NO. | FLGA-00020 |
| DRAWING | LS1 |
| SHEET | 5 OF 7 |


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FILE NAME: FLGA-00020-LS1-Grading
LAST SAVED DATE AND TIME: 19 Nov 2015, 11:20AM
LAST SAVE BY: LDAVies

# PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION

STANDARD FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION

Definition

Establishment of permanent vegetative cover on exposed soils where perennial vegetation is needed for long-term protection.

Purpose

To permanently stabilize the soil, ensuring conservation of soil and water, and to enhance the environment. Water Quality Enhancement
Slows the over-land movement of stormwater runoff, increases infiltration and retains soil and nutrients on site, protecting streams or other stormwater conveyances.

Where Applicable

On exposed soils that have a potential for causing off-site environmental damage.

Methods and Materials

1. Site Preparation
   - A. Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. All grading should be done in accordance with Standard for Land Grading.
   - B. Immediately prior to seeding and topsoil application, the subsoil shall be evaluated for compaction in accordance with the Standard for Land Grading.
   - C. Topsoil should be handled only when it is dry enough to work without damaging the soil structure. A uniform application to a depth of 5 inches (unsettled) is required on all sites. Topsoil shall be amended with organic matter, as needed, in accordance with the Standard for Topsoiling.
   - D. Install needed erosion control practices or facilities such as diversions, grade-stabilization structures, channel stabilization measures, sediment basins, and waterways.
2. Seedbed Preparation
   - A. Uniformly apply ground limestone and fertilizer to topsoil which has been spread and firmed, according to soil test recommendations such as offered by Rutgers Co-operative Extension Soil sample mailers are available from the local Rutgers Cooperative Extension offices (http://njaes.rutgers.edu/county/). Fertilizer shall be applied at the rate of 500 pounds per acre or 11 pounds per 1,000 square feet of 10-10-10 or equivalent with 50% water insoluble nitrogen unless a soil test indicates otherwise. Incorporate to a depth of 4 inches. If fertilizer is not incorporated, apply one-half the rate described above during seedbed preparation and repeat another one-half rate application of the same fertilizer within 3 to 5 weeks after seeding.
   - B. Work lime and fertilizer into the soil as nearly as practical to a depth of 4 inches with a disc, spring-tooth harrow, or other suitable equipment. The final harrowing or disking operation should be on the contour. Continue tillage until a reasonably uniform seedbed is prepared.
   - C. High acid producing soil. Soils having a pH of 4 or less or containing iron sulfide shall be covered with a minimum of 12 inches of soil having a pH of 5 or more before initiating seedbed preparation. See Standard for Management of High Acid-Producing Soils for specific requirements.
3. Seeding
   - A. Select a mixture from Table 4–3 or use a mixture recommended by Rutgers Cooperative Extension or Natural Resources Conservation Service which is approved by the Soil Conservation District. Seed germination shall have been tested within 12 months of the planting date. No seed shall be accepted with a germination test date more than 12 months old unless retested.
     1. Seeding rates specified are required when a report of compliance is requested prior to actual establishment of permanent vegetation. Up to 50% reduction in rates may be used when permanent vegetation is established prior to a report of compliance inspection. These rates apply to all methods of seeding. Establishing permanent vegetation means 80% vegetative coverage with the specified seed mixture for the seeded area and mowed once.
     2. Warm-season mixtures are grasses and legumes which maximize growth at high temperatures, generally 85o F and above. See Table 4–3 mixtures 1 to 7. Planting rates for warm-season grasses shall be the amount of Pure Live Seed (PLS) as determined by germination testing results.
     3. Cool-season mixtures are grasses and legumes which maximize growth at temperatures below 85oF. Many grasses become active at 65oF. See Table 4–3, mixtures 8–20. Adjustment of planting rates to compensate for the amount of PLS is not required for cool season grasses.
   - B. Conventional Seeding is performed by applying seed uniformly by hand, cyclone (centrifugal) seeder, drop seeder, drill or cultipacker seeder. Except for drilled, hydroseeded or cultipacked seedings, seed shall be incorporated into the soil within 24 hours of seedbed preparation to a depth of 1/4 to 1/2 inch, by raking or dragging. Depth of seed placement may be 1/4 inch deeper on coarse-textured soil.
   - C. After seeding, firming the soil with a corrugated roller will assure good seed-to-soil contact, restore capillarity, and improve seedling emergence. This is the preferred method. When performed on the contour, sheet erosion will be minimized and water conservation on site will be maximized.
   - D. Hydroseeding is a broadcast seeding method usually involving a truck, or trailer-mounted tank, with an agitation system and hydraulic pump for mixing seed, water and fertilizer and spraying the mix onto the prepared seedbed. Mulch shall not be included in the tank with seed. Short-fibered mulch may be applied with a hydroseeder following seeding. (See also Section 4-Mulching below). Hydroseeding is not a preferred seeding method because seed and fertilizer are applied to the surface and not incorporated into the soil. When poor seed to soil contact occurs, there is a reduced seed germination and growth.
4. Mulching

   Mulching is required on all seeding. Mulch will protect against erosion before grass is established and will promote faster and earlier establishment. The existence of vegetation sufficient to control soil erosion shall be deemed compliance with this mulching requirement.

   - A. Straw or Hay. Unrotted small grain straw, hay free of seeds, to be applied at the rate of 1–1/2 to 2 tons per acre (70 to 90 pounds per 1,000 square feet), except that where a crimper is used instead of a liquid mulch-binder (tackifying or adhesive agent), the rate of application is 3 tons per acre. Mulch chopper-blowers must not grind the mulch. Hay mulch is not recommended for establishing fine turf or lawns due to the presence of weed seed.

     Application – Spread mulch uniformly by hand or mechanically so that at least 85% of the soil surface is covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000 square feet sections and distribute 70 to 90 pounds within each section.

     Anchoring shall be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area, steepness of slopes, and costs.

     1. Peg and Twine. Drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a criss-cross and a square pattern. Secure twine around each peg with two or more round turns.
     2. Mulch Nettings – Staple paper, jute, cotton, or plastic nettings to the soil surface. Use a degradable netting in areas to be mowed.
     3. Crimper (mulch anchoring tool). A tractor-drawn implement, somewhat like a disc harrow, especially designed to push or cut some of the broadcast long fiber mulch 3 to 4 inches into the soil so as to anchor it and leave part standing upright. This technique is limited to areas traversable by a tractor, which must operate on the contour of slopes. Straw mulch rate must be 3 tons per acre. No tackifying or adhesive agent is required.
     4. Liquid Mulch–Binders. – May be used to anchor hay or straw mulch.

        a. Applications should be heavier at edges where wind may catch the mulch, in valleys, and at crests of banks. The remainder of the area should be uniform in appearance.

        b. Use one of the following:

        (1) Organic and Vegetable Based Binders – Naturally occurring, powder based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membraned networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turf grass. Use at rates and weather conditions as recommended by the manufacturer to anchor mulch materials. Many new products are available, some of which may need further evaluation for use in this state.

        (2) Synthetic Binders – High polymer synthetic emulsion, miscible with water when diluted and, following application of mulch, drying and curing, shall no longer be soluble or dispersible in water. Binder shall be applied at rates recommended by the manufacturer and remain tacky until germination of grass.

        Note: All names given above are registered trade names. This does not constitute a recommendation of these products to the exclusion of other products.

     - B. Wood-fiber or paper-fiber mulch – shall be made from wood, plant fibers or paper containing no growth or germination inhibiting materials, used at the rate of 1,500 pounds per acre (or as recommended by the product manufacturer) and may be applied by a hydroseeder. Mulch shall not be mixed in the tank with seed. Use is limited to flatter slopes and during optimum seeding periods in spring and fall.
     - C. Pelletized mulch – compressed and extruded paper and/or wood fiber product, which may contain co-polymers, tackifiers, fertilizers, and coloring agents. The dry pellets, when applied to a seeded area and watered, form a mulch mat. Pelletized mulch shall be applied in accordance with the manufacturer's recommendations. Mulch may be applied by hand or mechanical spreader at the rate of 60–75 lbs/1,000 square feet and activated with 0.2 to 0.4 inches of water. This material has been found to be beneficial for use on small lawn or renovation areas, seeded areas where weed-seed free mulch is desired, or on sites where straw mulch and tackifier agent are not practical or desirable. Applying the full 0.2 to 0.4 inches of water after spreading pelletized mulch on the seed bed is extremely important for sufficient activation and expansion of the mulch to provide soil coverage.
5. Irrigation (where feasible)

   If soil moisture is deficient supply new seeding with adequate water (a minimum of 1/4 inch applied up to twice a day until vegetation is well established). This is especially true when seedings are made in abnormally dry or hot weather or on droughty sites.

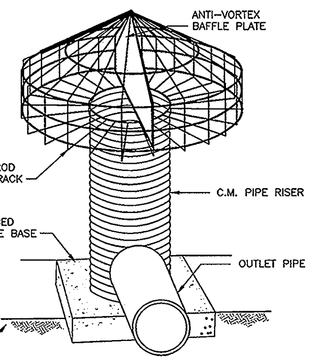
6. Topdressing

   Since soil organic matter content and slow release nitrogen fertilizer (water insoluble) are prescribed in Section 2A – Seedbed Preparation in this Standard, no follow-up of topdressing is mandatory. An exception may be made where gross nitrogen deficiency exists in the soil to the extent that turf failure may develop. In that instance, topdress with 10–10–10 or equivalent at 300 pounds per acre or 7 pounds per 1,000 square feet every 3 to 5 weeks until the grass nitrogen deficiency in the turf is ameliorated.

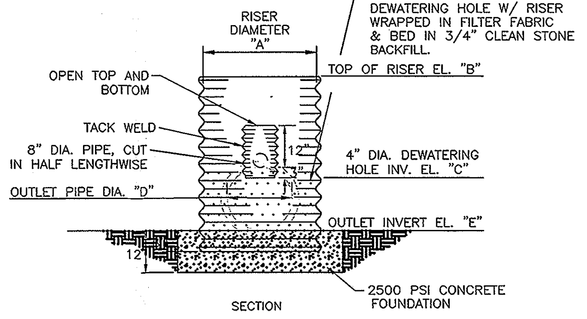
7. Establishing Permanent Vegetative Stabilization

   The quality of permanent vegetation rests with the contractor. The timing of seeding, preparing the seedbed, applying nutrients, mulch and other management are essential. The seed application rates in Table 4–3 are required when a Report of Compliance is requested prior to actual establishment of permanent vegetation. Up to 50% reduction in application rates may be used when permanent vegetation is established prior to requesting a Report of Compliance from the district. These rates apply to all methods of seeding. Establishing permanent vegetation means 80% vegetative cover (of the seeded species) and mowed once. Note this definition of mowed once does not guarantee the necessity of the turf should other maintenance factors be neglected or otherwise mismanaged. mulch shall not be mixed in the tank with seed. Use is limited to flatter slopes and during optimum seeding periods in spring and fall.

| SEDIMENT BASIN | SEDIMENT RISER | | | CONCRETE BASE | | | OUTLET PIPE | |
|---|---|---|---|---|---|---|---|---|
| | "A" DIAMETER (INCHES) | "B" ELEVATION (FEET) | "C" ORIFICE INVERT (FEET) | LENGTH (FEET) | WIDTH (FEET) | THICKNESS (FEET) | "D" DIAMETER (INCHES) | "E" INVERT (INCHES) |
| SED–1 | 24" | 10.50 | 9.40 | 4.00' | 4.00' | 12" | 15" | 7.33 |
| SED–2 | 24" | 16.40 | 15.60 | 4.00' | 4.00' | 12" | 15" | 9.00 |




NOTES:
1. The temporary standpipe risers shall be installed immediately after the construction of the pond and remain in place until all contributing drainage areas are stabilized, and their removal is authorized by the Respective County Soil Conservation District.
2. All sediment basins shall be cleaned out as required.
3. See detail for sediment riser cross section.




## SEDIMENT RISER WITH TRASH RACK AND BAFFLE

NOT TO SCALE

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PROJECT INFORMATION:
FILE PATH: H:\7.0\A\00020\Plans\
FILE NAME: FLA00020-SP-VSD.dwg
PLOT DATE: 19 Nov 2015, 11:36AM
LAST SAVE BY: LDaVries

# TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

STANDARD FOR TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

Definition

Establishment of temporary vegetative cover on soils exposed for periods of two to 6 months which are not being graded, not under active construction or not scheduled for permanent seeding within 60 days.

Purpose

To temporarily stabilize the soil and reduce damage from wind and water erosion until permanent stabilization is accomplished.

Water Quality Enhancement

Provides temporary protection against the impacts of wind and rain, slows the over land movement of stormwater runoff, increases infiltration and retains soil and nutrients on site, protecting streams or other stormwater conveyances.

Where Applicable

On exposed soils that have the potential for causing off–site environmental damage.

Methods and Materials

1. Site Preparation
   - A. Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. All grading should be done in accordance with Standards for Land Grading, pg. 19–1.
   - B. Install needed erosion control practices or facilities such as diversions, grade stabilization structures, channel stabilization measures, sediment basins, and waterways. See Standards 11 through 42.
   - C. Immediately prior to seeding, the surface should be scarified 6" to 12" where there has been soil compaction. This practice is permissible only where there is no danger to underground utilities (cables, irrigation systems, etc.).
2. Seedbed Preparation
   - A. Apply ground limestone and fertilizer according to soil test recommendations such as offered by Rutgers Co–operative Extension. Soil sample mailers are available from the local Rutgers Cooperative Extension offices. Fertilizer shall be applied at the rate of 500 pounds per acre or 11 pounds per 1,000 square feet of 10–10–10 or equivalent with 50% water insoluble nitrogen unless a soil test indicates otherwise. Apply limestone at the rate of 2 tons/acre unless soil testing indicates otherwise. Calcium carbonate is the equivalent and standard for measuring the ability of liming materials to neutralize soil acidity and supply calcium and magnesium to grasses and legumes.
   - B. Work lime and fertilizer into the soil as nearly as practical to a depth of 4 inches with a disc, springtooth harrow, or other suitable equipment. The final harrowing or disking operation should be on the contour. Continue tillage until a reasonably uniform seedbed is prepared.
   - C. Inspect seedbed just before seeding. If traffic has left the soil compacted, the area must be refilled in accordance with the above.
   - D. Soils high in sulfides or having a pH of 4 or less refer to Standard for Management of High Acid Producing Soils, pg. 1–1.
3. Seeding
   - A. Select seed from recommendations in Table 7–2.

**TABLE 7–2**
TEMPORARY VEGETATIVE STABILIZATION GRASSES, SEEDING RATES, DATES AND DEPTH

| SEED SELECTIONS | SEEDING RATE (pounds) | | OPTIMUM SEEDING DATE Based on Plant Hardiness Zone | | OPTIMUM SEED DEPTH[3] (inches) |
|---|---|---|---|---|---|
| | Per Acre | Per 1000 Sq. Ft | ZONE 5b, 6a | ZONE 6b | ZONE 7a, b |
| **COOL SEASON GRASSES** | | | | | |
| 1. Perennial ryegrass | 100 | 1.0 | 3/15–6/1 8/1–9/15 | 3/1–5/15 8/15–10/1 | 3/15–5/1 8/15–10/15 | 0.5 |
| 2. Spring oats | 86 | 2.0 | 3/15–6/1 8/1–9/15 | 3/1–5/15 8/15–10/1 | 3/15–5/1 8/15–10/15 | 1.0 |
| 3. Winter Barley | 96 | 2.2 | 8/1–9/15 | 8/15–10/1 | 8/15–10/15 | 1.0 |
| 4. Annual ryegrass | 100 | 1.0 | 3/15–6/1 8/1–9/15 | 3/15–5/1 8/1–9/15 | 3/15–5/1 8/15–10/15 | 0.5 |
| 5. Winter Cereal Rye | 112 | 2.8 | 8/1 –11/1 | 8/1 –11/15 | 8/1 –12/15 | 1.0 |
| **WARM SEASON GRASSES** | | | | | | |
| 6. Pearl millet | 20 | 0.5 | 6/1–8/1 | 5/15–8/15 | 5/1–9/1 | 1.0 |
| 7. Millet (German or Hungarian) | 30 | 0.7 | 6/1–8/1 | 5/15–8/15 | 5/1–9/1 | 1.0 |

1 Seeding rate for warm season grass, selections 5 – 7 shall be adjusted to reflect the amount of Pure Live Seed (PLS) as determined by a germination test result. No adjustment is required for cool season grasses.
2 May be planted throughout summer if soil moisture is adequate or seeded area can be irrigated.
3 Plant Hardiness Zone (see figure 7–1, pg. 7–4)
4 Twice the depth for sandy soils.

   - B. Conventional Seeding. Apply seed uniformly by hand, cyclone (centrifugal) seeder, drop seeder, drill or cultipacker seeder. Except for drilled, hydroseeded or cultipacked seedings, seed shall be incorporated into the soil, to a depth of 1/4 to 1/2 inch, by raking or dragging. Depth of seed placement may be 1/4 inch deeper on coarse textured soil.
   - C. Hydroseeding is a broadcast seeding method usually involving a truck or trailer mounted tank, with an agitation system and hydraulic pump for mixing seed, water and fertilizer and spraying the mix onto the prepared seedbed. Mulch shall not be included in the tank with seed. Short fibered mulch may be applied with a hydroseeder following seeding. (also see Section 4–Mulching below). Hydroseeding is not a preferred seeding method because seed and fertilizer are applied to the surface and not incorporated into the soil. Poor seed to soil contact occurs reducing seed germination and growth. Hydroseeding may be used where access to use conventional equipment to traverse or too obstructed with rocks, stumps, etc.
   - D. After seeding, firming the soil with a corrugated roller will assure good seed–to–soil contact, restore capillarity, and improve seedling emergence. This is the preferred method. When performed on the contour, sheet erosion will be minimized and water conservation on site will be maximized.
4. Mulching

   Mulching is required on all seeding. Mulch will insure against erosion before grass is established and will promote faster and earlier establishment. The existence of vegetation sufficient to control soil erosion shall be deemed compliance with this mulching requirement.

   - A. Straw or Hay. Unrotted small grain straw, hay free of seeds, applied at the rate of 1–1/2 to 2 tons per acre (70 to 90 pounds per 1,000 square feet), except that where a crimper is used instead of a liquid mulch–binder (tackifying or adhesive agent), the rate of application is 3 tons per acre. Mulch chopper–blowers must not grind the mulch. Hay mulch is not recommended for establishing fine turf or lawns due to the presence of weed seed.

     Application. Spread mulch uniformly by hand or mechanically so that approximately 95% of the soil surface will be covered. For uniform distribution of hand–spread mulch, divide area into approximately 1,000 square feet sections and distribute 70 to 90 pounds within each section.

     Anchoring shall be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area, steepness of slopes, and costs.

     1. Peg and Twine. Drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a cris–cross and a square pattern. Secure twine around each peg with two or more round turns.
     2. Mulch Nettings. Staple paper, jute, cotton, or plastic nettings to the soil surface. Use a degradable netting in areas to be mowed.
     3. Crimper (mulch anchoring tool). A tractor–drawn implement, somewhat like a disc harrow, especially designed to push or cut some of the broadcast long fiber mulch 3 to 4 inches into the soil so as to anchor it and leave part standing upright. This technique is limited to areas traversable by a tractor, which must operate on the contour of slopes. Straw mulch rate must be 3 tons per acre. No tackifying or adhesive agent is required.
     4. Liquid Mulch–Binders. – May be used to anchor hay or straw mulch.

        a. Applications should be heavier at edges where wind may catch the mulch, in valleys, and at crests of banks. The remainder of the area should be uniform in appearance.

        b. Use one of the following:

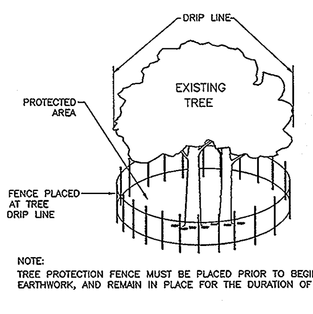
        (1) Organic and Vegetable Based Binders – Naturally occurring, powder based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membraned networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turfgrass. Use at rates and weather conditions as recommended by the manufacturer to anchor mulch materials. Many new products are available, some of which may need further evaluation for use in this state.

        (2) Synthetic Binders – High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates recommended by the manufacturer and remain tacky until germination of grass.

        Note: All names give above are registered trade names. This does not constitute a commendation of these products to the exclusion of other products.

   - B. Wood–fiber or paper–fiber mulch. Shall be made from wood, plant fibers or paper containing no growth or germination inhibiting materials, used at the rate of 1,500 ponds per acre (or as recommended by the project manufacturer) and may be applied by a hydroseeder. This mulch shall not be mixed in the tank with seed. Use is limited to flatter slopes and during optimum seeding periods in spring and fall.
   - C. Pelletized mulch. Compressed and extruded paper and/or wood fiber product, which may contain co–polymers, tackifiers, fertilizers and coloring agents. The dry pellets, when applied to a seeded area and watered, forms mulch mat. Pelletized mulch shall be applies in accordance with the manufacturers recommendations. Mulch may be applied by hand or mechanical spreader at the rate of 60–75 lbs./1,000 square feet and activated with 0.2 to 0.4inches of water. This material has bee found to be beneficial for use on small lawn or renovation areas, seeded areas where weed–seed free mulch is desired or on sites where straw mulch and tackifier agent are not practical or desirable.

   Applying the full 0.2 to 0.4 inches of water after spreading pelletized mulch on the seed bed is extremely important for sufficient activation and expansion of the mulch to provide soil coverage.




NOTE:
TREE PROTECTION FENCE MUST BE PLACED PRIOR TO BEGINNING OF EARTHWORK, AND REMAIN IN PLACE FOR THE DURATION OF CONSTRUCTION.

## TREE PROTECTION DETAIL

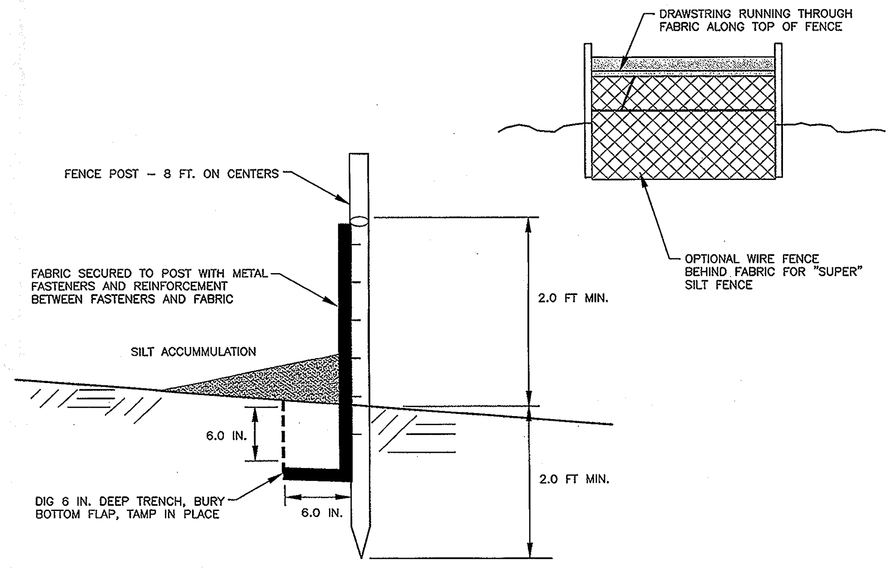
NOT TO SCALE

# BURLINGTON COUNTY SOIL CONSERVATION DISTRICT NOTES FOR SOIL EROSION AND SEDIMENT CONTROL

1. All applicable erosion and sediment control practices shall be in place prior to any grading operation and/or installation of proposed utilities.
2. Soil erosion and sediment control practices on the plan shall be constructed in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey.
3. All applicable erosion and sediment control practices shall be left in place until construction is completed and/or the area is stabilized.
4. Any disturbed area that will be left exposed for more than sixty (60) days and not subject to construction traffic shall immediately receive a temporary seeding and fertilization in accordance with the Standards, if the season prohibits temporary seeding, the disturbed areas will be mulched with salt hay or equivalent and anchored in accordance with the Standards.
5. All critical areas subject to erosion will receive a temporary seeding in combination with straw mulch in accordance with the Standards immediately following rough grading.
6. The site shall at all times be graded and maintained such that all stormwater runoff is diverted to soil erosion and sediment control facilities.
7. All erosion and sediment control structures will be inspected and maintained on a regular basis and after every storm event.
8. Soil stockpiles are not to be located within fifty (50) feet of a floodplain, slope, roadway or drainage facility. The base of all stockpiles should be protected by a hay bale barrier or sediment fence. Proposed locations must be delineated on the plans.
9. A crushed stone tire cleaning pad will be installed wherever a construction access exists. The rip rap pad must be 100 feet in length and the stone must be 1.5" – 4" in size, placed 12" thick and the full width of the entrance. It should be underlain with a suitable synthetic filter fabric and maintained. The structure must be delineated and detailed on the plans.
10. If a stone construction access is to be used as an exit onto a major highway, a thirty (30) foot paved transition area shall be installed.
11. All driveways must be stabilized with 2 1/2" crushed stone or sub base prior to individual lot construction.
12. Paved roadways must be kept clean at all times.
13. All catch basin inlets will be protected during construction (filter details appear on plan).
14. All storm drainage outlets will be stabilized before the discharge points become operational.
15. All dewatering operations must discharge directly into a sediment filtration device. The sediment filter must be placed so as not to cause erosion of the downstream area. Filed placement and use of the structure must be approved by the District Erosion Control Inspector prior to commencement of dewatering activities.
16. The Burlington County Soil Conservation District shall be notified 72 hours prior to any land disturbance.
17. Soil having a pH of 4.0 or less or containing iron sulfide must be covered with a minimum of 12 inches of soil having a pH on 5.0 or more before seedbed preparation.
18. It shall be the responsibility of the developer to provide confirmation of lime, fertilizer and seed application rates at the request of the Burlington County Soil Conservation District.
19. NJSA 4:24–39, et seq. requires that no Certificate of Occupancy be issued before all the provisions of the certified soil erosion and sediment control plan have been complied with for permanent measures. All site work for the project must be completed prior to the District issuing a report of compliance as a prerequisite to the issuance of a Certificate of Occupancy by the municipality.
20. NJSA 4:24–39, et seq. requires that upon permanent site stabilization and completion of construction the contractor shall apply to the Soil Conservation District for a final compliance inspection to check that all the provisions of the certified soil erosion and sediment control plan have been complied with for permanent measures.
21. On site sediment disturbance may require additional control measures to be determined by the District Erosion Control Inspector.
22. A copy of the certified soil erosion and sediment control plan must be maintained on the project site during construction.
23. Any conveyance of this project prior to its completion will transfer full responsibility for compliance with the certified plan to all subsequent owners.
24. Immediately after the completion of stripping and stockpiling topsoil, the stockpile shall be seeded with temporary vegetation. Stabilize topsoil stockpiles with straw mulch for protection if the season does not permit the establishment of temporary seed.
25. Any changes to the site plan will require the submission of a revised soil erosion and sediment control plan to the Burlington County Soil Conservation District. The revised plan must be in accordance with the current Standards for Soil Erosion and Sediment Control in New Jersey.
26. Maximum side slopes of all exposed surfaces shall not be constructed steeper than 3:1.
27. The District Erosion Control Inspector may require additional measures to be installed.
28. The responsibility for erosion controls for individual lots will transfer to subsequent owners of the lot. The responsibility will be described in the deed, and a single family home plan containing all necessary erosion controls will be provided to the owner.
29. Concrete truck washout areas will be maintained on a continual basis and as needed.
30. The Stormwater Pollution Prevention Plan and the Spill Response Plan shall be available on site for review by the SCD Inspector and/or the NJDEP Inspector.
31. The SCD Inspector or NJDEP Inspector may require additional measures for Stormwater Pollution Prevention to be installed.
32. Inspections of all Stormwater Pollution Prevention Plan measures will be conducted and documented on a regular basis and after every storm event.
33. Waste collection containers will not be permitted to overflow.
34. Any spills of hazardous or sanitary wastes will be cleaned up immediately, and in accordance with the spill response plan. Spill kits must be available onsite or adjacent to the site.
35. Any Hazardous Substance release in excess of reportable quantities (RQ) established under 40 C.F.R. 110, 117 and 302 that occur within a 24 hour period must be reported to the National Response Center (800 424–8802).

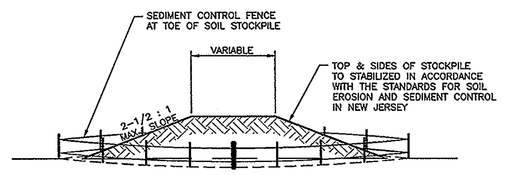
Requirements for silt fence:

1. Fence posts shall be spaced 8 feet center-to-center or closer. They shall extend at least 2 feet into the ground and extend at least 2 feet above ground (Fig. 23-2). Posts shall be constructed of hardwood with a minimum diameter thickness of 1 ½ inches.
2. "Super" silt fence - A metal fence with 6 inch or smaller mesh openings and at least 2 feet high may be utilized, fastened to the fence posts, to provide reinforcement and support to the geotextile fabric. Posts may be spaced less than 8 feet on center and may be constructed of heavier wood or metal as needed to withstand heavier sediment loading. This practice is appropriate where space for other practices is limited and heavy sediment loading is expected. "Super" silt fence is not to be used in place of properly designed diversions (pg. 15-1) which may be needed to control surface runoff rates and velocities.
3. A geotextile fabric, recommended for such use by the manufacturer, shall be buried at least 6 inches deep in the ground. The fabric shall extend at least 2 feet above the ground. The fabric must be securely fastened to the posts using a system consisting of metal fasteners (nails or staples) and a high strength reinforcement material (nylon webbing, grommets, washers etc.) placed between the fastener and the geotextile fabric. The fastening system shall resist tearing away from the post. The fabric shall incorporate a drawstring in the top portion of the fence for added strength.




## SEDIMENT CONTROL FENCE

NOT TO SCALE




## TYPICAL STOCKPILE SECTION

NOT TO SCALE

# GENERAL NOTES PERMANENT STABILIZATION MIXTURES

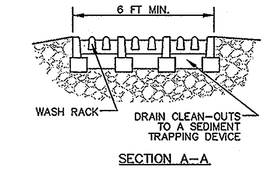
1. See Appendix B for descriptions of turf grass mixtures and cultivars. The actual amount of warm-season grass mixture used in Table 3 (seed mix 1-7) shall be adjusted to reflect the amount of PLS as determined by germination testing results. No adjustment is required for cool-season grasses (seed mixtures 8-20).
2. Seeding mixtures under rates not listed above may be used if recommended by the local Soil Conservation District, Natural Resources Conservation Service, recommendations of Rutgers Cooperative Extension may be used if approved by the Soil Conservation District. Legumes (white clover, flatpea, lespedeza) should be mixed with proper innoculant prior to planting.
3. Seeding rates specified are required when a report of compliance is requested prior to actual establishment of permanent vegetation. Up to 50% reduction in rates may be used when permanent vegetation is established prior to a report of compliance inspection. These rates apply to all methods of seeding. Establishing permanent vegetation means 80% vegetative coverage of the seeded area and mowed once. Grass seed mixes checked by the State Seed Analyst, New Jersey Department of Agriculture, Trenton, New Jersey; will assure the purchaser that the mixture obtained is the mixture ordered, pursuant to the N.J. State Seed Law, N.J.S.A. 4:8-17.13 et. seq.

   O = optimal planting period A = acceptable planting period
4. Maintenance Level:
   - A: Intensive mowing, (3-4 days), fertilization, lime, pest control and irrigation (Examples – high-maintenance lawns, commercial and recreation areas, public facilities).
   - B: Frequent mowing, (4-7 days), occasional fertilization, lime and weed control (Examples – home lawns, commercial sites, school sites).
   - C: Periodic mowing (7-14 days), occasional fertilization and lime (Examples – home lawns, parks).
   - D: Infrequent or no mowing; fertilization and lime the first year of establishment (Examples – roadsides, recreation areas, public open spaces).
5. Summer seedings should only be conducted when the site is irrigated. Mixes including white clover require that at least six weeks of growing season remain after seeding to ensure establishment before freezing conditions.

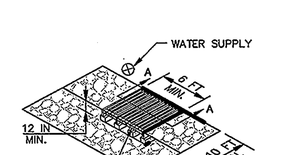
# SEQUENCE OF CONSTRUCTION

| DURATION | PHASE 1 |
|---|---|
| 3 Days | 1. Notify Burlington County Soil Conservation District 72 hours prior to any land disturbance. |
| 7 Days | 2. Install soil erosion control measures as shown on Soil Erosion and Sediment Control Plan. |
| 365 Days | 3. Place, grade and compact fill material to the grades as shown on the Phase 1 Grading and Soil Erosion & Sediment Control Plan. |
| 7 Days | 4. Stabilize all disturbed areas. |
| 7 Days | 5. Install permanent stabilization where required. |
| 7 Days | 6. Remove erosion and sediment control measures and general site clean up. |

| DURATION | PHASE 2 |
|---|---|
| 3 Days | 1. Notify Burlington County Soil Conservation District 72 hours prior to any land disturbance. |
| 7 Days | 2. Install soil erosion control measures as shown on Soil Erosion and Sediment Control Plan. |
| 30 Days | 3. Construct sediment basins as follows: Install sediment risers and outlet piping then construct berms along top of river bank. Extend the berms to form the outer walls of both basins. Also extend the berms and tie into existing berms at north end of the site. Use Phase 2 grading plan for top of berm elevations. |
| 335 Days | 4. Place, grade and compact fill material to the grades as shown on the Phase 2 Grading and Soil Erosion & Sediment Control Plan. Move construction entrance, weigh station & offices after southern area is filled and when needed to fill central area of the site. |
| 7 Days | 5. Stabilize all disturbed areas. |
| 14 Days | 6. Install permanent stabilization & landscape where required. |
| 7 Days | 7. Remove erosion and sediment control measures and temporary sediment risers. Perform general site clean up. |




SECTION A–A



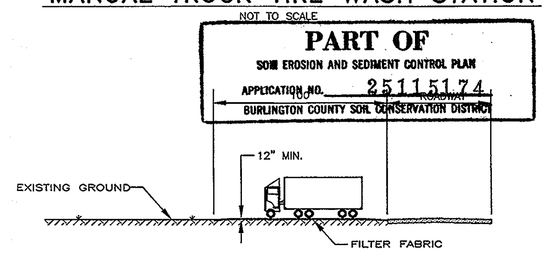

ISOMETRIC VIEW– TRUCK TIRE WASH STATION

CONSTRUCTION SPECIFICATIONS

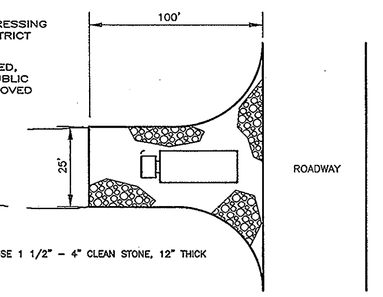
1. USE A WASH RACK DESIGNED AND CONSTRUCTED/MANUFACTURED FOR THE ANTICIPATED TRAFFIC LOADS. CONCRETE, STEEL, OR OTHER MATERIALS ARE ACCEPTABLE. PRE–FABRICATED UNITS SUCH AS CATTLE GUARDS ARE ACCEPTABLE. USE MINIMUM DIMENSION OF 6 FEET x 10 FEET. ORIENT DIRECTION OF RIBS AS SHOWN ON THE DETAIL.
2. INSTALL ALONG SIDE OF THE STABILIZED CONSTRUCTION ENTRANCE.
3. DIRECT WASH WATER TO THE EXISTING SEDIMENT TRAPPING DEVICE.
4. KEEP AREA UNDER WASH RACK FREE OF ACCUMULATED SEDIMENT. IF DAMAGED, REPAIR OR REPLACE WASH RACK.

## MANUAL TRUCK TIRE WASH STATION

NOT TO SCALE




NOTES:
1. ADDITIONAL LENGTH OR TOP DRESSING MAY BE REQUIRED BY THE DISTRICT AS CONDITIONS DEMAND.
2. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS–OF–WAY MUST BE REMOVED IMMEDIATELY.
3. PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION ENTRANCE AND ROADWAY.




NOTE: USE 1 1/2" – 4" CLEAN STONE, 12" THICK

## STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

| NO. | BY | DATE |
|---|---|---|
| 2 | LDV | 11/19/15 |
| 1 | ASM | 11/02/15 |

REVISIONS PER BURLINGTON COUNTY SCD COMMENTS DATED NOVEMBER 27, 2015
TOWNSHIP AND BCSCD COMMENTS

RICHARD A. MORALLE, P.E., P.L.S.
PROFESSIONAL ENGINEER & LAND SURVEYOR
LICENSED PROFESSIONAL ENGINEER
STATE OF NJ LICENSE No. GE28363

10/26/2015

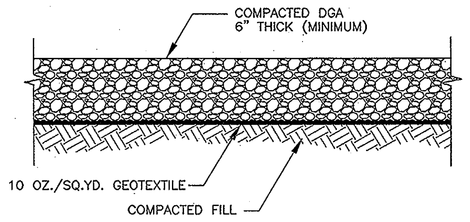
FLORENCE GRIFFIN ADVISORS, LP

SOIL IMPORTATION PLANS FOR
BLOCK 179, LOTS 1.02, 1.03, 1.04 & 1.05

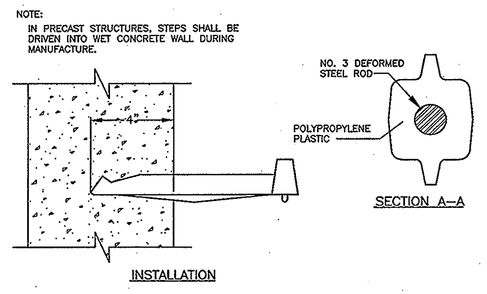
FLORENCE TOWNSHIP
BURLINGTON COUNTY, NEW JERSEY

SOIL EROSION & SEDIMENT CONTROL NOTES AND DETAILS

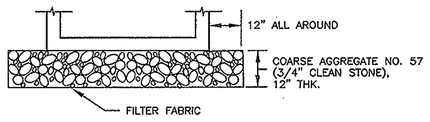
T&M ASSOCIATES
YOUR GOALS. OUR MISSION.
11 TINDALL ROAD
MIDDLETOWN, NJ 07748
TEL 732-671-6400
FAX 732-671-7



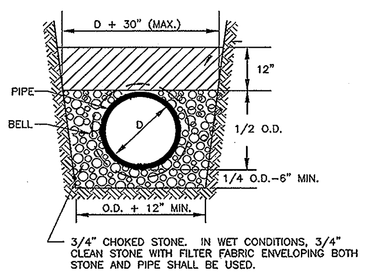

## PHASE 2 GRAVEL ACCESS ROAD
NOT TO SCALE




## POLYPROPYLENE STEP DETAIL
NOT TO SCALE

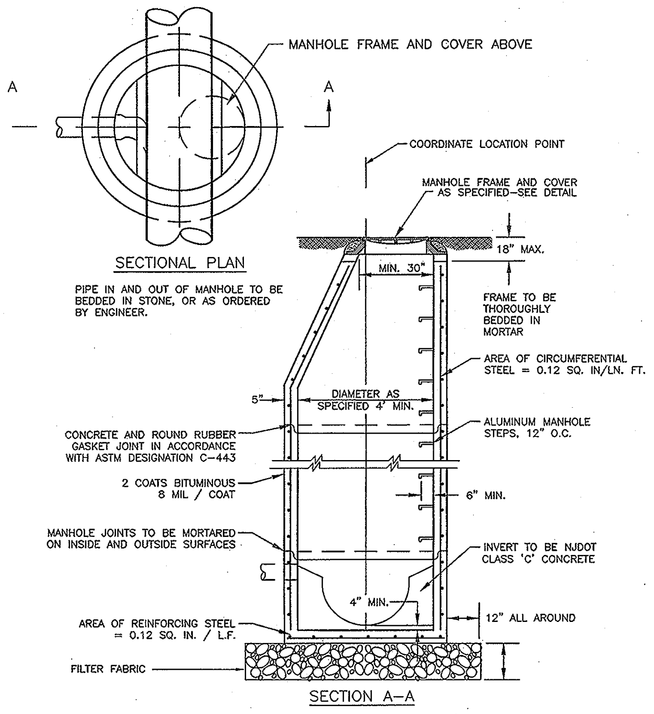



## STONE BEDDING UNDER STRUCTURES
NOT TO SCALE




CLASS 'C' BEDDING

## PIPE BEDDING
NOT TO SCALE

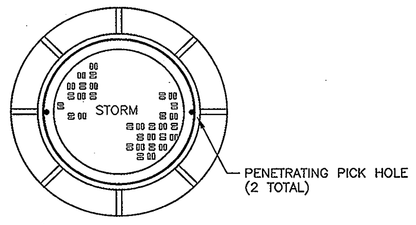



CONSTRUCTION NOTES:

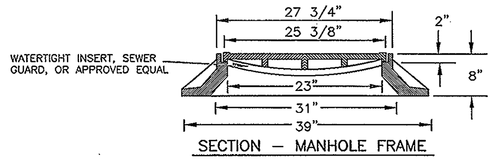
1. PRECAST MANHOLE SECTIONS TO BE IN ACCORDANCE WITH LATEST ASTM DESIGNATION C–478, MINIMUM COMPRESSION STRENGTH TO BE 4000 PSI
2. FLEXIBLE RUBBER BOOT SHALL BE USED FOR CONNECTION OF PVC PIPE TO MANHOLE.
3. PRECAST CHANNELS SHALL NOT BE USED FOR BENDS GREATER THAN 45°. POURED CONCRETE LONG RADIUS CHANNELS SHALL BE CONSTRUCTED.
4. EXTERIOR COATING ON MANHOLES SHALL CONSIST OF TWO COATS, 4 MILS EACH, OF KOPPERS 300 M EPOXY OR PENNSBURY 32–B–4 COATING, OR APPROVED EQUAL.
5. INTERIOR COATING ON MANHOLES SHALL CONSIST OF TWO COATS, 4 MILS EACH, OF SIKAGUARD 62, HIGH BUILD (GREY COLOR), OR APPROVED EQUAL.

## PRECAST DRAINAGE MANHOLE
NOT TO SCALE

MANHOLE COVERS AND FRAMES SHALL BE:
STANDARD (Heavy Traffic Type)
Campbell Foundry Company -------Pattern No. 1202, OR EQUAL




PLAN – MANHOLE FRAME

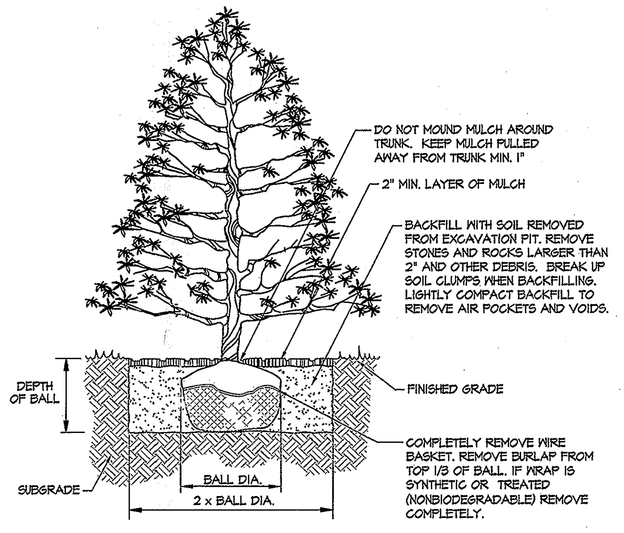



SECTION – MANHOLE FRAME

CONSTRUCTION NOTES:

1. MANHOLE FRAME AND COVER CASTINGS SHALL CONFORM TO THE LATEST ASTM A–48 CLASS 30 SPECIFICATION.
2. FRAME AND COVERS SHALL BE COATED WITH TWO COATS OF ASPHALTUM VARNISH.

## TYPICAL MANHOLE FRAME AND COVER
NOT TO SCALE




## EVERGREEN TREE PLANTING
NOT TO SCALE

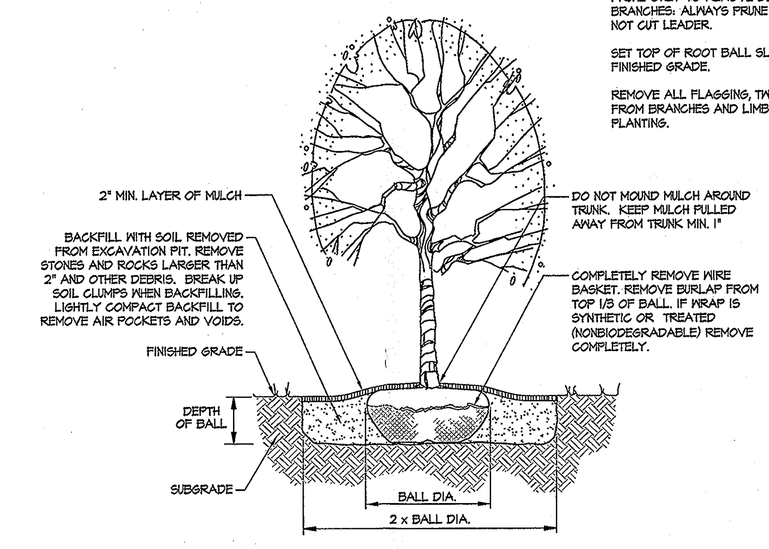
PLANTING NOTES:

SET PLANTS PLUMB AND FACE TO GIVE THE BEST APPEARANCE OR RELATIONSHIP TO ADJACENT AREAS.

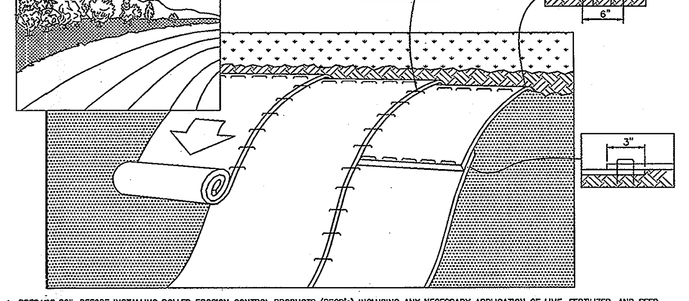
PRUNE ONLY TO REMOVE DEAD AND/OR BROKEN BRANCHES. ALWAYS PRUNE TO NODE OR CROTCH, DO NOT CUT LEADER.

SET TOP OF ROOT BALL SLIGHTLY ABOVE ADJACENT FINISHED GRADE.

REMOVE ALL FLAGGING, TWINE, STRING, TAGS, ETC., FROM BRANCHES AND LIMBS/TRUNKS FOLLOWING PLANTING.




## DECIDUOUS TREE PLANTING
NOT TO SCALE

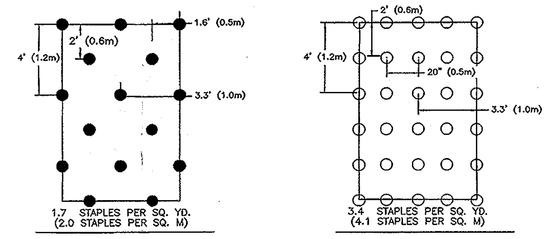



1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's) INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL–O–SEED, DO NOT SEED PREPARED AREA. CELL–O–SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE RECP's IN A 6" DEEP x 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECP's EXTENDED BEYOND THE UP–SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP's WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP's BACK OVER SEED AND COMPACTED SOIL. SECURE RECP's OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" ACROSS THE WIDTH OF THE RECP's.
3. ROLL THE RECP's (4) DOWN (OR) HORIZONTALLY ACROSS THE SLOPE. RECP's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP's MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM™, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL RECP's MUST BE STAPLED WITH APPROXIMATELY 2" – 5" (5 CM – 12.5 CM) OVERLAP DEPENDING ON RECP's TYPE.
5. CONSECUTIVE RECP's SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECP's WIDTH.
6. THE RECPS SHALL BE COMPOSED OF A POLYPROPYLENE MATERIAL (WOVEN GEOTEXTILE) WITHIN THE PROPOSED WET POND SIDE SLOPES

NOTE:
* IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY ANCHOR THE RECP's.

SLOPE INSTALLATION

## EROSION CONTROL MATTING INSTALLATION
NOT TO SCALE




FABRIC: S75BN
6.67' (2.03 M) WIDE ROLLS

NOTE: SOIL STABILIZATION MATTING TO USE THE ROLLMAX BIONET S75BN SHORT TERM BIODEGRADABLE SIGNLE–NET STRAW BLANKET MANUFACTURED BY TENSAR–NORTH AMERICAN GREEN OR APPROVED EQUAL (856) 813–5000

## EROSION CONTROL MATTING STAPLE PATTERN GUIDES
NOT TO SCALE

**PART OF**
SOME EROSION AND SEDIMENT CONTROL PLAN
APPLICATION NO. 25115174
BURLINGTON COUNTY SOIL CONSERVATION DISTRICT

| NO. | BY | REVISIONS | DATE |
|---|---|---|---|
| 1 | LDV | REVISIONS PER BURLINGTON COUNTY SCD COMMENTS DATED NOVEMBER 17, 2015 | 11/19/15 |

RICHARD A. MORALLE, P.E., P.L.S.
PROFESSIONAL ENGINEER & LAND SURVEYOR
LICENSED PROFESSIONAL ENGINEER
STATE OF NJ LICENSE No. GB26863
10/26/2015

FLORENCE GRIFFIN ADVISORS, LP

SOIL IMPORTATION PLANS FOR
BLOCK 179, LOTS 1.02, 1.03, 1.04 & 1.05

FLORENCE TOWNSHIP
BURLINGTON COUNTY, NEW JERSEY

CONSTRUCTION DETAILS


YOUR GOALS. OUR MISSION.
11 TINDALL ROAD
MIDDLETOWN, NJ 07748
TEL 732-671-6400
FAX 732-671-7365
NEW JERSEY BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS
CERTIFICATE OF AUTHORIZATION
24GA27997500
www.tandmassociates.com
OFFICES LOCATED IN:
DELAWARE, INDIANA, KENTUCKY, MASSACHUSETTS, MICHIGAN, NEW JERSEY, OHIO AND PENNSYLVANIA


| | |
|---|---|
| DESIGNED BY ASM | DRAWING CD1 |
| CHECKED BY RAM | |
| DRAWN BY LDV | SHEET 7 OF 7 |
| DATE 10/26/2015 | |
| SCALE AS NOTED | |
| PROJ. NO. FLGA-00020 | |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PROJECT INFORMATION:
FILE PATH: N:\FLGA\00020\Plans\
FILE NAME: FLGA20–SIP–ISO.dwg
LAST SAVED: Wednesday, 18 Nov 2015, 10:31AM
LAST SAVE BY: LDeVries

State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Water Compliance and Enforcement
P.O. Box 422
401 East State Street
Trenton, New Jersey 08625

JON S. CORZINE
*Governor*

LISA P. JACKSON
*Commissioner*

| | | |
|---|---|---|
| IN THE MATTER OF | : | |
| | : | ADMINISTRATIVE |
| GRIFFIN PIPE PRODUCTS CO., INC. | : | |
| | : | CONSENT ORDER |
| AND AMSTED INDUSTRIES, INC. | : | |

This Administrative Consent Order ("ACO") is entered into pursuant to the authority vested in the Commissioner of the New Jersey Department of Environmental Protection ("Department") by N.J.S.A. 13:1D-1 et seq., and the New Jersey Water Pollution Control Act ("Act"), N.J.S.A. 58:10A-1 et seq. and the New Jersey Pollutant Discharge Elimination System regulations, N.J.A.C. 7:14A-1 et seq., and duly delegated to the Administrator of Water Compliance and Enforcement, pursuant to N.J.S.A. 13:1B-4.

## FINDINGS

1. At all relevant times through August 12, 2005, Amsted Industries, Inc ("Amsted") owned and operated a ductile iron pipe manufacturing facility known as Griffin Pipe Products Company ("Griffin Pipe"), located at Block 179, Lots 1.01, 1.02, 1.03, 1.04 and 1.05, West Front Street, Florence Township, Burlington County, New Jersey ("the facility"). On August 12, 2005, Griffin Pipe Products Co., Inc. was incorporated and in October 2005 Griffin Pipe became the owner and operator of the facility. Amsted and Griffin Pipe Products Co., Inc. will be referred to herein as "Respondents".

2. Griffin Pipe was issued a New Jersey Pollutant Discharge Elimination System ("NJPDES") permit on May 28, 1999, effective June 1, 1999 ("the permit"). Part III-B/C, Page 2 of 3 of the permit requires Griffin Pipe to maintain "No Discharge" from the facility, except Griffin Pipe is authorized to discharge treated process wastewater and/or stormwater to the Delaware River via outfall numbers 001 and 002 only in the event of a "documented emergency situation" as defined therein.

3. Pursuant to Part III-B/C, Page 2 of 3 of the permit, if Griffin Pipe discharges as a result of a documented emergency situation, Griffin Pipe must report the discharge to the Department and must sample the discharge for specific parameters. Analytical results of the discharge sampling must be submitted to the Department no later than sixty (60) days after the discharge event.

4. On August 27, 1999, June 18, 2003, November 20, 2003 and December 11, 2003, representatives of the Department inspected the facility and reportedly observed discharges of stormwater to the Delaware River from failing earthen berms in the finished pipe storage area along the River, in violation of Part III-B/C of the Permit.

5. During the December 11, 2003 inspection, the Department representative collected samples of the discharge. The analytical results of the samples are as follows:

| Parameter | Analytical Results |
|---|---|
| Total Suspended Solids | 1,436 mg/L |
| Cadmium | 10.8 ug/L |
| Chromium | 94.4 ug/L |
| Copper | 237 ug/L |
| Iron | 38,800 ug/L |
| Nickel | 51.5 ug/L |
| Zinc | 4,300 ug/L |

mg/L = milligrams per Liter
ug/L = micrograms per Liter

6. The Respondents did not provide notification of the discharges and did not sample the discharges referenced in paragraph four (4), above, in violation of the permit.

7. No person shall discharge any pollutant except in conformity with a valid New Jersey Pollutant Discharge Elimination System ("NJPDES") permit issued pursuant to the New Jersey Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq.

8. On April 19, 2004, the Department issued an Administrative Order and Notice of Civil Administrative Penalty Assessment ("April 2004 Order and Penalty") to Griffin Pipe regarding the violations noted in paragraphs four (4) and six (6) above.

9. On or about May 11, 2004, the Respondents submitted a request for an adjudicatory hearing on the April 2004 Order and Penalty.

10. On March 31, 2005, representatives of the Department and the Respondents met to discuss remedial measures that the Respondents were required to implement at the facility in order to comply with the permit.

11. On August 25, 2005, Ronald J. Patterson, Esq. submitted correspondence to the Department on behalf of the Respondents indicating that, based on an engineering review of current and future stormwater uses and generation at the site, and upon the Department's conclusion that Griffin Pipe's stormwater was subject to the permit, the Respondents would not be able to comply with its 'No Discharge' permit requirement.

12. On October 25, 2005, representatives of the Department and the Respondents met to discuss the Respondents' proposed plans for remedial measures to be implemented at the facility. The representatives also discussed the possibility that the Respondents would be required to install new air pollution treatment for mercury, potentially decreasing the volume of wastewater that can be reused at the facility.

13. Based on the facts set forth in these FINDINGS, the Department has determined that the Respondents have violated and will continue to violate the Permit, the Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq., and the regulations promulgated pursuant thereto, specifically N.J.A.C. 7:14A- 2.1(d). The Respondents deny that they have violated any such statute, regulation or any associated permit condition.

14. The Department and the Respondents enter into this ACO, without any finding of fault or admission of liability, in order to amicably resolve this matter.

## ORDER

NOW, THEREFORE, IT IS HEREBY ORDERED THAT:

15. By execution of this ACO, the Respondents hereby withdraw, with prejudice, the request for an administrative hearing before the Office of Administrative Law (OAL Docket No. EWR06405-2004S) regarding the April 2004 Order and Penalty.

## COMPLIANCE SCHEDULE

16. The Respondents shall take whatever actions are necessary to achieve and maintain compliance with the Permit and the Act, including but not limited to the following:

| Task | Due Date |
|---|---|
| A. Submit to the Department a request for modification of the Permit to allow the proposed discharges of stormwater via Outfalls 001A and 002A. | July 1, 2006 |
| B. Submit to the Department a completed application for Treatment Works Approval regarding the proposed Stormwater Retention Pond, Dedicated Stormwater Tank, and Sand Filters to treat and discharge via Outfall 002A and/or reuse stormwater generated in the production and raw material storage areas. | December 1, 2006 |
| C. Regrade the finished pipe storage area, re-pave any traffic areas and install storm sewers as necessary in order to direct stormwater in this area to existing outfall 001A. | December 1, 2006 |
| D. Develop, implement and submit to the Department a Best Management Practices Plan for the Finished Pipe Storage Area that will achieve compliance with the Interim Effluent Limitations in paragraph thirty (30) and will minimize the discharge of the "Monitor Only" parameters in paragraph thirty (30). | Concurrently with item 16C, but no later than December 1, 2006 |
| E. Begin construction of Stormwater Retention Pond, Sand Filters and re-piping of Dedicated Stormwater Tank. | April 1, 2007 |
| F. Complete construction of Stormwater Retention Pond, Sand Filters and re-piping of Dedicated Stormwater Tank, directing stormwater flows from the production and raw material storage areas for recycling and/or to Outfall 002A. | November 1, 2007 |
| G. Develop, implement and submit to the Department a Best Management Practices Plan for the Production and Raw Material Storage Areas that will achieve compliance with the Interim Effluent Limitations in paragraph thirty-two (32) and will minimize the discharge of the "Monitor Only" parameters in paragraph thirty-two (32). | Concurrently with item 16E and 16F, but no later than November 1, 2007 |

17. During the period from the execution date of this ACO until June 30, 2007 (unless extended pursuant to paragraph thirty-one (31) below), the Respondents shall report any discharge of stormwater to surface waters of the State, including from outfall 001A to the Department's 24 hour Hotline. During the period from July 1, 2007 until October 31, 2007, the Respondents shall report any discharge of stormwater to surface waters of the State not discharged from outfall 001A to the Department's 24 hour Hotline.

18. Commencing July 1, 2007 (unless extended pursuant to paragraph thirty-one (31) below), there shall be no discharges from the finished pipe storage area to surface waters of the State except through outfall 001A; and commencing November 1, 2007, there shall be no discharge at any location at the facility except through outfalls 001A and 002A as authorized in this ACO and any revisions to the permit.

19. If the Respondents are not able to achieve compliance by taking the above actions, the Respondents are responsible for taking whatever additional actions are necessary in order to comply with all applicable federal, state and local permits as well as all applicable statutes, codes, rules, regulations and orders, including but not limited to the statutes and regulations cited herein.

## FINANCIAL ASSURANCE

20. The Respondents shall obtain and provide to the Department, in a form acceptable to the Department, financial assurance to assure full compliance with the Water Pollution Control Act, the regulations promulgated pursuant thereto and this ACO, including the enforcement construction and compliance schedules in paragraph sixteen (16). The Respondents shall obtain and provide financial assurance to the Department in two phases. Within sixty (60) calendar days after the "final effective date" of this ACO, the Respondents shall obtain and provide to the Department financial assurance in the amount of $500,000. By April 1, 2007, the Respondents shall obtain and provide to the Department additional financial assurance to cover the full cost of all measures required under paragraph sixteen (16). The financial assurance must conform to the requirements of N.J.S.A. 58:10A-6.1(a), N.J.A.C. 7:14-8.3(h) and this ACO. The financial assurance shall be in a form of a surety bond guaranteeing payment, an irrevocable letter of credit, a fully funded trust, or in such other form as the Department individually approves in writing for this purpose.

21. In the event the Department determines that the Respondents have failed to perform any of its obligations under this ACO, the Department may draw on the financial assurance pursuant to this ACO; provided, however, that before any such demand is made, the Department shall notify the Respondents in writing of the obligation(s) which they have not performed, and the Respondents shall have a reasonable time, not to exceed thirty (30) calendar days unless otherwise notified by the Department in writing, to perform such obligation(s) before the Department proceeds to have the financial assurance deposited into a standby trust fund. Nothing in this paragraph shall prevent the Department from collecting stipulated penalties for violations of this ACO. However, the Department will not draw on the financial assurance to collect stipulated penalties.

22. At any time, the Respondents may apply to the Department to substitute other financial assurances in a form or manner acceptable to the Department.

23. The Respondents agree that for purposes of complying with the financial assurance requirements of this ACO, the Respondents shall select a financial institution or surety and/or trustee that shall agree in writing to be subject to the jurisdiction of the New Jersey Courts for all claims made by the Department against the financial assurance.

24. Upon the Department's written approval of the completion of the work required by the construction schedules of this ACO, that portion of the financial assurance attributable to such construction may be released, including any financial assurance amounts drawn down by the Department and placed into a standby trust fund pursuant to paragraph twenty-one (21) above.

25. Upon satisfaction by the Respondents of all financial obligations in connection with this ACO and upon the Department's written notification of same, the Respondents shall be relieved of any further obligation to maintain in full force and effect the financial assurance required by this ACO. In addition, any financial assurance amounts drawn down by the Department and placed

into a standby trust fund pursuant to paragraph twenty-one (21) above, but not used by the Department, shall be returned to the Respondents at such time.

## PUBLIC NOTICE

26. Pursuant to N.J.S.A. 58:10A-6.1 and N.J.A.C. 7:14-8.3A, the public shall be afforded an opportunity to comment on this ACO prior to the ACO becoming final and effective because this ACO relaxes effluent limitations established in the permit. The date upon which the public participation process is complete shall be referred to as "the final effective date" of this ACO. The date the ACO is signed by the parties shall be referred to as "the execution date" of this ACO.

27. If at the end of the public participation process the Department determines it is necessary to impose terms that were not in the ACO on the execution date, and the Respondents accept these terms, then this ACO shall be amended in writing and signed by all parties. The agreed upon terms shall he enforced from the date the ACO was initially executed. However, if the Respondents do not agree with these terms within thirty (30) days of receipt of the Department's proposed amendment, then this ACO is null and void and never of any force and effect. In this instance, the permit, including all permit effluent limitations and monitoring and reporting requirements, shall be enforced as if this ACO never existed. In that event, the Department has the right to seek penalties for past, present and future NJPDES permit violations committed by the Respondents, and the Respondents may move to reinstate its hearing request before the Office of Administrative Law.

28. If there are no changes to this ACO upon completion of the public participation process, then this ACO automatically becomes the final effective ACO without any further signatures. Furthermore, if there are no changes to this ACO upon completion of the public participation process, this ACO shall be effective and enforceable from the execution date.

## INTERIM EFFLUENT MONITORING REQUIREMENTS AND LIMITATIONS

29. From the execution date of this ACO until June 30, 2007 (unless extended pursuant to paragraph thirty-one (31) below), the Respondents shall monitor every discharge from the site, including those at Outfall 001A, as follows; and from the execution date of this ACO until October 31, 2007 the Respondents shall monitor every discharge from Outfall 002A or any other location, excluding outfall 001A, as follows:

| **Parameter** | **Limitation** | **Monitoring Frequency & Sample Type** |
|---|---|---|
| Total Suspended Solids | Monitor Only | Monthly 3 hr. comp. |
| Chemical Oxygen Demand | Monitor Only | Monthly 3 hr. comp. |
| Zinc | Monitor Only | Monthly 3 hr. comp. |
| Aluminum | Monitor Only | Monthly 3 hr. comp. |
| Copper | Monitor Only | Monthly 3 hr. comp. |
| Iron | Monitor Only | Monthly 3 hr. comp. |
| Lead | Monitor Only | Monthly 3 hr. comp. |
| Mercury | Monitor Only | Monthly 3 hr. comp. |
| pH | Monitor Only | Monthly 3 hr. comp. |
| Petroleum Hydrocarbons | Monitor Only | Monthly 3 hr. comp. |

30. From July 1, 2007 (unless extended pursuant to paragraph thirty-one (31) below), and until the effective date of a revised NJPDES permit authorizing the discharge of stormwater via Outfall 001A, the Respondents shall meet the Interim Effluent Monitoring Requirements and Limitations at Outfall 001A, set forth below:

| **Parameter** | **Limitation** | **Monitoring Frequency & Sample Type** |
|---|---|---|
| Total Suspended Solids | 67 mg/L, quarterly average | Monthly 3 hr. comp. |
| Chemical Oxygen Demand | 101 mg/L, quarterly average | Monthly 3 hr. comp. |
| Zinc | 1 mg/L, quarterly average | Monthly 3 hr. comp. |
| Aluminum | Monitor Only | Monthly 3 hr. comp. |
| Copper | Monitor Only | Monthly 3 hr. comp. |
| Iron | Monitor Only | Monthly 3 hr. comp. |
| Lead | Monitor Only | Monthly 3 hr. comp. |
| Mercury | Monitor Only | Monthly 3 hr. comp. |
| pH | Monitor Only | Monthly 3 hr. comp. |
| Petroleum Hydrocarbons | Monitor Only | Monthly 3 hr. comp. |

31. In the event of insufficient rainfall during the period from December 1, 2006 through June 30, 2007 that precludes at least three (3) discharge events that can be monitored at Outfall 001A, the Respondents may request in writing to the Department an extension to the BMP evaluation ("Monitor Only") period of paragraph twenty-nine (29) above until August 31, 2007. If approved in writing by the Department, the Interim Effluent Limitations established in paragraph thirty (30) above would not become effective until September 1, 2007.

32. From November 1, 2007, and until the effective date of a revised NJPDES permit authorizing the discharge of stormwater via Outfall 002A, the Respondents shall meet the Interim Effluent Monitoring Requirements and Limitations at Outfall 002A, set forth below:

| **Parameter** | **Limitation** | **Monitoring Frequency & Sample Type** |
|---|---|---|
| Total Suspended Solids | 67 mg/L, quarterly average | Monthly 3 hr. comp. |
| Chemical Oxygen Demand | 101 mg/L, quarterly average | Monthly 3 hr. comp. |
| Zinc | 1 mg/L, quarterly average | Monthly 3 hr. comp. |
| Aluminum | Monitor Only | Monthly 3 hr. comp. |
| Copper | Monitor Only | Monthly 3 hr. comp. |
| Iron | Monitor Only | Monthly 3 hr. comp. |
| Lead | Monitor Only | Monthly 3 hr. comp. |
| Mercury | Monitor Only | Monthly 3 hr. comp. |
| pH | Monitor Only | Monthly 3 hr. comp. |
| Petroleum Hydrocarbons | Monitor Only | Monthly 3 hr. comp. |

33. All analyses conducted in accordance with the Interim Effluent Monitoring Requirements above shall be conducted by an environmental laboratory certified by the Department to perform those analyses.

34. All monitoring results obtained in accordance with the paragraphs thirty (30) and thirty-two (32) above shall be reported on Discharge Monitoring Report Forms ("DMRs"). DMRs shall be postmarked by the 25th of the month following the month being reported to the Bureau of Permit Management at P.O. Box 029, 401 E. State St., Trenton, NJ 08625-0029. Monitoring results, including laboratory reports, obtained in accordance with paragraph twenty-nine (29) above shall be submitted to the Department at the address in paragraph fifty-three (53) within thirty (30) days of the monitored discharge event.

35. For the purposes of this ACO, "Monthly 3 hr. comp." means:

> The Respondents shall commence three (3) hour composite sampling of a discharge within fifteen (15) minutes of the onset of the discharge. Three (3) hour composite samples shall be time-weighted and collected at fifteen (15) minute intervals over the three (3) hour monitoring period. In the event that the Respondents are unable to complete an entire three (3) hour sampling event due to early cessation of the storm event which causes the discharge to cease, the Respondents shall discard that sample and initiate another three (3) hour composite when the next discharge occurs.

## PROGRESS REPORTS

36. The Respondents shall submit quarterly progress reports to the Department by the twenty-fifth (25th) day of the month following the calendar quarter being reported, beginning with the July - September 2006 report, due October 25, 2006. Each report shall explain the status of the Respondents' compliance with this ACO and shall include, but not be limited to, the following:

A identification of site and reference to this ACO;
B. status of permitting and planning approvals and any work at the site and progress to date;
C. difficulties or problems encountered during reporting period and actions taken to rectify;
D. activities planned for the next reporting period;
E. required and actual completion date for each item required by this ACO;
F. an explanation of any non-compliance with the compliance schedule; and
G. evaluation of all corrective measures implemented to date.

## PENALTY

37. In settlement of the violations cited in the April 2004 Order and Penalty, the Respondents shall pay a penalty of $20,000.00 by check made payable to "Treasurer, State of New Jersey" and remitted to the Division of Revenue at the address stated on the enclosed invoice by July 15, 2006. In the event that the Respondents fail to submit full payment by July 15, 2006, then the full amount of $40,000.00 assessed in the April 2004 Order and Penalty shall be immediately due and owing without further notice or adjudication, with interest and penalties as allowed by law.

## STIPULATED PENALTIES

38. The Respondents shall pay stipulated penalties to the Department as set forth below for failure to comply with the deadlines set forth in paragraphs sixteen (16), seventeen (17) and twenty (20) above and/or for failure to submit timely progress reports pursuant to paragraph thirty-six (36) above, unless the Department has notified the Respondents in writing that a stipulated penalty will not be assessed for violations of paragraph sixteen (16) pursuant to the force majeure provisions of this ACO.

| Calendar Days After Due Date | Per Calendar Day |
|---|---|
| 1-7 | $100 |
| 8-14 | $200 |
| 15 or more | $500 |

39. Within forty-five (45) calendar days after the Respondents' receipt of a written demand from the Department for stipulated penalties, the Respondents shall submit a check to the Department in the manner outlined in paragraph thirty-seven (37) above.

40. If the Respondents fail to pay stipulated penalties pursuant to the preceding paragraphs, the Department may take action to collect same, including, but not limited to, instituting civil proceedings to collect such penalties pursuant to R. 4:67 and R. 4:70 or assess civil administrative penalties for violations of this ACO.

41. The payment of stipulated penalties does not alter the Respondents' responsibility to complete all requirements of this ACO.

42. If the Respondents are found to have unintentionally and unforeseeably failed to comply with any Interim Effluent Limitation set forth in paragraphs thirty (30) or thirty-two (32) of this ACO, the Respondents shall be assessed only the amount of stipulated penalties as set forth below:

| Seriousness | Stipulated Penalties |
|---|---|
| Minor | $1,000 |
| Moderate | $2,500 |
| Major | $10,000 |

Seriousness shall be determined pursuant to N.J.A.C. 7:14-8.5(g).

However, in no case shall stipulated penalties for violations of an Interim Effluent Limitation be less than $5,000 for a violation that causes an violator to be, or continue to be, a "significant non-complier," as defined by N.J.S.A. 58:10A-3 and N.J.A.C. 7:14A-1.2.

43. Penalties for violations of this ACO, the permit, the Act or N.J.A.C. 7:14A-1 et seq. that are not covered by paragraphs thirty-eight (38) or forty-two (42) above shall be assessed pursuant to the Act and N.J.A.C. 7:14-8.1 et seq.

## FORCE MAJEURE

44. If any event occurs which is beyond the control of the Respondents and which the Respondents believe will or may cause delay in the achievement of the compliance schedule provisions of paragraph sixteen (16), the Respondents shall notify the Department in writing within seven (7) calendar days of becoming aware of the delay, anticipated delay or period of non-compliance, as appropriate. In the notification, the Respondents shall reference this paragraph, describe the anticipated length of the delay, the precise cause or causes of the delay, and any measures taken or to be taken to minimize the delay. The Respondents shall take all necessary action to prevent or minimize any such delay.

45. The Department may adjust the deadlines in paragraph sixteen (16) of this ACO for a period no longer than the delay if the Department finds that:

A. the Respondents have complied with the notice requirements of paragraph forty-four (44);
B. any delay or anticipated delay has been or will be caused by fire, flood, riot, strike, or other circumstances beyond the control of the Respondents; and

C. the Respondents have taken all necessary and reasonable actions to prevent or minimize the delay.

46. If the Department denies the Respondents' force majeure request, the Respondents may be subject to stipulated penalties. The burden of proving that any delay is caused by circumstances beyond the control of the Respondents and the length of any such delay attributable to those circumstances shall rest with the Respondents. Increases in the cost or expenses incurred by the Respondents in fulfilling the requirements of this ACO shall not be a basis for an extension of time. Delay in an interim requirement shall not automatically justify or excuse delay in the attainment of subsequent requirements. Contractor's breach shall not automatically constitute force majeure.

## GENERAL PROVISIONS

47. Nothing contained in this ACO restricts the ability of the Department to raise the above Findings in any other proceeding, specifically including but not limited to proceedings pursuant to N.J.S.A. 13:1E-126 et seq., (commonly referred to as A-901).

48. This ACO shall be binding on the Respondents, their agents, successors, assigns, responsible corporate officials, and any trustee in bankruptcy or receiver appointed pursuant to a proceeding in law or equity.

49. This ACO shall be fully enforceable as a final Administrative Order in the New Jersey Superior Court.

50. The Respondents agree not to contest the terms or conditions of this ACO except that the Respondents may contest the Department's interpretation or application of such terms or conditions in any action brought by the Department to enforce this ACO's provisions. In addition, to the extent that the terms and conditions of any modification of the Permit are consistent with the Interim Effluent Monitoring and Limitations of this ACO, the Respondents waive any right to contest any such terms and conditions.

51. This ACO shall not relieve the Respondents from obtaining and complying with all applicable federal, state and local permits as well as all applicable statutes, codes, rule, regulations and orders, including but not limited to the statutes and regulations cited herein.

52. No modification or waiver of this ACO shall be valid except by written amendment duly executed by the Respondents and the Department or by the Department's written modification pursuant to the Force Majeure provisions herein, or by an extension approved pursuant to paragraph thirty-one (31).

53. Unless otherwise specifically provided herein, the Respondents shall submit all documents required by this ACO, except penalty payments, to the Department by certified mail, return receipt requested or by hand delivery with an acknowledgment of receipt form for the Department's signature to:

Bureau Chief
Southern Bureau of Water Compliance & Enforcement
2 Riverside Drive, Suite 201
Camden, NJ 08103

The date the Department receives the certified mail or executes the acknowledgment will be the date the Department uses to determine the Respondents' compliance with this ACO.

54. Unless otherwise specifically provided herein, any communication made by the Department to the Respondents pursuant to this ACO shall be sent to:

Works Manager
Griffin Pipe Products Co., Inc.
1100 West Front Street
Florence, New Jersey 08518

55. The Respondents shall not construe any unwritten or informal advice, guidance, suggestions, or comments by the Department, or by persons acting on behalf of the Department, as relieving the Respondents of its obligations under its permit(s), this ACO, or the Water Pollution Control Act.

56. In addition to the Department's statutory and regulatory rights to enter and inspect, the Respondents shall allow the Department and its authorized representatives access to the site at all times for the purpose of determining compliance with this ACO.

57. Nothing in this ACO shall preclude the Department from taking enforcement action against the Respondents for matters not set forth in the findings of this ACO.

58. No obligations or penalties imposed by this ACO are intended to constitute debt(s) which may be limited or discharged in a bankruptcy proceeding. All obligations and penalties are imposed pursuant to the police powers of the State of New Jersey for the enforcement of tbe law and the protection of public health, safety, welfare and the environment.

59. The Respondents shall give written notice of this ACO to any successor in interest thirty (30) calendar days prior to transfer of ownership or control of the facility or facilities which are the subject of this ACO and shall simultaneously notify the Department that such notice has been given. This requirement shall be in addition to any other statutory or regulatory requirements arising from the transfer of ownership or control of the Respondents' facility. In addition, the parties agree that any contract, lease, deed or any other agreement that the Respondents enters into to convey the property/facility that is the subject of this ACO shall include a provision which states that the successor, assignee, tenant or purchaser has agreed to assume the obligations imposed by this ACO.

60. The Department reserves all statutory and common law rights to require the Respondents to take additional action(s) if the Department determines that such actions are necessary to protect public health, safety, welfare and the environment. Nothing in this ACO shall constitute a waiver of any statutory or common law right of the Department to require such additional measures should the Department determine that such measures are necessary.

61. This ACO shall be governed and interpreted under the laws of the State of New Jersey.

62. If any provision of this ACO is found invalid or unenforceable, the remainder of this ACO shall not be affected thereby and each provision shall be valid and enforced to the fullest extent permitted by law. The Department does, however, retain the right to terminate the remainder of this ACO if, after such finding, it determines that the remaining ACO does not serve the purpose for which it was intended.

63. This ACO represents the entire integrated agreement between the Department and the Respondents on the matters contained herein.

64. The Department reserves the right to unilaterally terminate this ACO in the event the Respondents violate its terms and to take any additional enforcement action it deems necessary.

65. This ACO shall terminate upon receipt by the Respondents of written notice from the Department that all the requirements of this ACO have been satisfied.

66. This ACO shall become effective upon the execution hereof by all parties, subject to completion of any required public participation process.

**GRIFFIN PIPE PRODUCTS CO., INC.**

DATED: 9/29/2006

BY: [signature]

NAME: Paul T. Greene

TITLE: President

By this signature, I certify that I have full authority to execute this document on behalf of Griffin Pipe Products Co., Inc.

**AMSTED INDUSTRIES, INC.**

DATED: 9/29/06

BY: [signature]

NAME: Thomas C. Berg

TITLE: Vice President

By this signature, I certify that I have full authority to execute this document on behalf of Amsted Industries, Inc.

**NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION**

DATED: _____

BY: _____

NAME: _____

TITLE: _____

By this signature, I certify that I have full authority to execute this document on behalf of the Department.

## Exhibit 9: Sample Transportation and Disposal Notification

**Subject:** Project #xxxx Example Development, Example, NJ Transport and Disposal Notification for (Example Date)

This is a transportation notification/confirmation for a project. It is intended as a courtesy and does not represent substantive information with respect to the project. Information contained herein should be verified by telephone. Further, receipt of this notice does not guarantee acceptance into the referenced facility.

| PJT # | SITE ADDRESS | MATERIAL | FACILITY | TRUCKER | # TRUCKS | RDS | START TIME | COMPANY MANAGING | JOB TYPE |
|---|---|---|---|---|---|---|---|---|---|
| xxxx | Example Development | Example | Example | Example | x | x | Example Start time | Example | Example code |

This email is intended to be reviewed in HTML format. If your device is unable to accept HTML formatted email, please notify accordingly.

Lead Coordinator

**IMPACT ENVIRONMENTAL** – *welcome to solid ground...*
www.impactenvironmental.com

Corporate Headquarters
170 Keyland Court | Bohemia | NY | 11716
T | 631.269.8800 F | 631.269.1599 C|631.524.7863

This transmission and any attachments, or documents accompanying this transmission contain information that is confidential and/or privileged. The information is intended only for the use of the individual or entity named on this transmission sheet. If you are not the intended recipient, you are hereby notified that any action in reliance on the contents of this transmission is strictly prohibited and that the document(s) along with this transmission should be returned to the sender immediately and deleted immediately from your device.

## Exhibit 10: Transportation Charter

# Transportation Charter / Manifest

**Generator:**

1

Authorized By (print)

Authorized By (title)

Authorized By (sig)

**Transporter:**

2

Driven By

Truck/Trailer Plate

Driver Signature

**Material/Note(s):**

Manifest Number 02724

TARE WEIGHT MUST BE INCLUDED

NET WEIGHT _____ GROSS WEIGHT _____

NET TONS _____ TARE WEIGHT _____

TICKET NUMBER _____

Project under the management of Impact Environmental. In case of emergency call 631-269-8800 or 516-805-8900

Received By (print)

**Receiving Facility:**

3

Date/Time

By signing this manifest the Hauler accepts that it is solely responsible for the amount of material that is being transported as well as the methods and means for its travel.

Driven By (sig)