

*Via email to [rob.decandia@dec.ny.gov](mailto:rob.decandia@dec.ny.gov)*

August 12, 2019

Mr. Robert D. DeCandia Jr. P.E.  
NYSDEC, Division of Environmental Remediation  
Division of Environmental Remediation  
625 Broadway  
Albany, New York 12233-7015

Re: Progress Report: July 2019  
Frost Street Sites: Site ID #s 1-30043 I, L, M  
New Cassel Industrial Area, Westbury, New York

Dear Mr. DeCandia:

EnSafe Inc. is pleased to submit this Progress Report for the Frost Street Sites (Site ID #s 1-30043 I, L, M) for work completed in July 2019.

**Soil Vapor Extraction (SVE)/Air Sparge (AS) System Operation and Maintenance (O&M) (OU1)**

- Operations continued this month, per the O&M Manual. During periodic O&M visits, system parameters were logged on dedicated O&M forms (**Appendix A**). Two alarm calls were received in July 2019 due to high temperature and were rectified by resetting the thermal and restarting the system.
- The Frost Street Parties submitted a proposal for system reconfiguration/optimization to support site redevelopment efforts on September 27, 2018. NYSDEC preliminary comments were received via email on December 20, 2018; once a formal comment letter is received, the Frost Street Parties will prepare a response and/or revised proposal, as needed.
- Quantitative sampling of the SVE system granular activated carbon influent and effluent air flow was conducted on July 19, 2019, using Summa canisters. These samples were obtained by EnviroTrac, submitted to Phoenix Environmental Laboratories, and analyzed by Method TO-15. Results are included in **Appendix B**.
  - o Photoionization detector readings and influent concentrations of Frost Street-related contaminants of concern (tetrachloroethene, trichloroethene, cis-1,2-dichloroethene, and vinyl chloride [15,413 µg/m<sup>3</sup>]) continue to indicate significant mass extraction.

| Frost Street Sites<br>Effluent Compliance |                                             |                                                                                             |                                                             |
|-------------------------------------------|---------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------|
| System Flow Rate =                        |                                             | 800 ft <sup>3</sup> /m                                                                      |                                                             |
| Compound                                  | Annual Mass Emission<br>Limit<br>(lbs/year) | Carbon Exchange<br>Required Indicator<br>Concentration<br>(µg/m <sup>3</sup> ) <sup>2</sup> | July 2019<br>Effluent Concentration<br>(µg/m <sup>3</sup> ) |
| Trichloroethene                           | 500                                         | 19,000                                                                                      | 0.74                                                        |
| Tetrachloroethene                         | 1,000                                       | 38,000                                                                                      | 49.2                                                        |
| Vinyl Chloride                            | 100                                         | 3,800                                                                                       | ND                                                          |
| Cis-1,2-Dichloroethene <sup>1</sup>       | 100                                         | 3,800                                                                                       | 68.2                                                        |

**Notes:**

Source of Mass Emission Limit: Part 212-2.2 Table 2 - High Toxicity Air Contaminant List

- 1 Cis-1,2-dichloroethene is not a listed HTAC, so the default is 100 lbs/year.
- 2 These limits were calculated based on Frost Street-specific system operations (i.e., flow rate) in order to remain below the annual HTAC emissions listed in Part 212-2.2 Table 2. Remaining below these concentrations ensures that annual emissions will not exceed the limit which demonstrates compliance with Part 212 without having to perform compound-specific analyses.

**Groundwater Extraction/Hydraulic Containment System Installation (OU2)**

The pumps in EX-1A, EX-1B, EX-1C, and EX-1D operated near design flow rates (30, 30, 48, and 48 gallons per minute, respectively) for all of July 2019 except from July 16, 2019 at approximately 5:00 pm through July 19, 2019 at approximately 10:00 am, which is likely due to high winds in the area at the time of the outage.

EnSafe collected and prepared the additional information requested by NYSDEC on February 21, 2019, (additional pressure transducer data and groundwater elevation maps) to facilitate review and comment on the *Expanded Pumping Test Summary, Findings, and Recommendations*, submitted on August 10, 2018. This information was transmitted to NYSDEC on March 22, 2019.

**Groundwater Monitoring**

The second quarter 2019 groundwater sampling event, which sampled all active Frost Street Sites' wells, was completed from June 17 to June 24, 2019. The data was submitted to NYSDEC via electronic data deliverable on July 29, 2019; the report will be submitted once complete.

If you have any questions or require additional information, please do not hesitate to contact me at 860-665-1140 or [astark@ensafe.com](mailto:astark@ensafe.com).

Sincerely,

EnSafe, Inc., by



Alexandra Stark, P.E.

## Attachments

|                                 |                                                                                                            |
|---------------------------------|------------------------------------------------------------------------------------------------------------|
| Copies: A. Tamuno, Esq., NYSDEC | <i>Via email to <a href="mailto:amtamuno@gw.dec.state.ny.us">amtamuno@gw.dec.state.ny.us</a></i>           |
| C. Bethoney, NYSDOH             | <i>Via email to <a href="mailto:charlotte.bethoney@health.ny.gov">charlotte.bethoney@health.ny.gov</a></i> |
| J. Nealon, NYSDOH               | <i>Via email to <a href="mailto:jacquelyn.nealon@health.ny.gov">jacquelyn.nealon@health.ny.gov</a></i>     |
| R. Putnam, NCDOH                | <i>Via email to <a href="mailto:rputnam@nassaucountyny.gov">rputnam@nassaucountyny.gov</a></i>             |
| J. Vasquez, U.S. EPA            | <i>Via email to <a href="mailto:vazquez.julio@epa.gov">vazquez.julio@epa.gov</a></i>                       |
| T. Pupilla, Sanders Equities    | <i>Via email to <a href="mailto:tpupilla@sandersequities.com">tpupilla@sandersequities.com</a></i>         |
| K. Maldonado, Esq.              | <i>Via email to <a href="mailto:kevinmaldonado64@yahoo.com">kevinmaldonado64@yahoo.com</a></i>             |
| J. Privitera, Esq.              | <i>Via email to <a href="mailto:privitera@mltw.com">privitera@mltw.com</a></i>                             |
| P. Coop, EnSafe                 | <i>Via email to <a href="mailto:pcoop@ensafe.com">pcoop@ensafe.com</a></i>                                 |
| J. Wilkinson, Envirotrac        | <i>Via email to <a href="mailto:jamesw@envirotrac.com">jamesw@envirotrac.com</a></i>                       |

**Appendix A**  
**SVE/AS System O&M Logs**

**Operation & Maintenance Data Sheet**  
 Ensae-Frost Street  
 101 Frost Street  
 Westbury, NY

**EnviroTrac Environmental Services**  
 5 Old Dock Road, Yaphank, NY 11980  
 (631)924-3001, Fax (631)924-5001

**Date:** 2-Jul  
**Weather / Temp:** Sunny / 80 DEG  
**Technician / Operator:** JW

**Arrival Time:** 9:30  
**Departure Time:** 10:30

| System Status                             |                 |           |                                                  |                                 |                                 |
|-------------------------------------------|-----------------|-----------|--------------------------------------------------|---------------------------------|---------------------------------|
|                                           | Arrival         | Departure |                                                  | Arrival                         | Departure                       |
| SVE Blower 1 (ON/OFF)                     | ON              | OFF       | Sensaphone (ON/OFF)                              | ON                              | ON                              |
| SVE Blower 2 (ON/OFF)                     | OFF             | ON        | Surge Protection (ON/OFF)                        | ON                              | ON                              |
| AS Compressor 1 (ON/OFF)                  | OFF             | OFF       | Lightning Protection (White/Black)               | White                           | White                           |
| AS Compressor 2 (ON/OFF)                  | ON              | ON        |                                                  |                                 |                                 |
| Soil Vapor Extraction System              |                 |           |                                                  |                                 |                                 |
| Blower Air Velocity/Flow Rate (fpm)/(cfm) | 4600            | 903       | Blower 1 Total Runtime (hrs)                     | 55,239.1                        |                                 |
| Blower 1 Fresh Air Valve Open (%)         | 0               |           | Blower 2 Total Runtime (hrs)                     | 53,455.4                        |                                 |
| Blower 2 Fresh Air Valve Open (%)         | 0               |           | Blower 1 Air Filter Differential Pressure ("H2O) | 0                               |                                 |
| Moisture Separator Vacuum ("Hg)           | 3               |           | Blower 2 Air Filter Differential Pressure ("H2O) | 0                               |                                 |
| VGAC-1 Influent Vacuum ("H2O)             | 34              |           | VGAC-1 Influent PID (ppm)                        | 6.0                             |                                 |
| VGAC-1 Effluent Vacuum ("H2O)             | 35              |           | VGAC-1 Effluent PID (ppm)                        | 0.0                             |                                 |
| VGAC-2 Influent Vacuum ("H2O)             | 30              |           | VGAC-2 Influent PID (ppm)                        | 6.0                             |                                 |
| VGAC-2 Effluent Vacuum ("H2O)             | 35              |           | VGAC-2 Effluent PID (ppm)                        | 0.0                             |                                 |
| VGAC-3 Influent Vacuum ("H2O)             | 40              |           | VGAC-3 Influent PID (ppm)                        | 0.0                             |                                 |
| VGAC-3 Effluent Vacuum ("H2O)             | 45              |           | VGAC-3 Effluent PID (ppm)                        | 0.0                             |                                 |
| VGAC-3 Influent Temp (DegF)               | NA              |           | Blower Effluent PID (ppm)                        | 0.0                             |                                 |
| Blower Effluent Pressure ("H2O)           | 15              |           |                                                  |                                 |                                 |
| Transfer Pump Total Runtime (hrs)         | 25,035.9        |           | Condensate Storage Tank Level (gal)              | 100                             |                                 |
| SVE Manifold Legs - Vacuum/Flow Rate/PID  |                 |           |                                                  |                                 |                                 |
|                                           | Vacuum          | Velocity  | Flow Rate                                        | PID                             |                                 |
| SVE-1 ("H2O)/(FPM)/(cfm)/(ppm)            | 39              | 6000      | 131                                              |                                 | SVE-4 ("H2O)/(FPM)/(cfm)/(ppm)  |
| SVE-2 ("H2O)/(FPM)/(cfm)/(ppm)            | 40              | 3800      | 83                                               |                                 | SVE-5 ("H2O)/(FPM)/(cfm)/(ppm)  |
| SVE-3 ("H2O)/(FPM)/(cfm)/(ppm)            | 30              | 4000      | 87                                               |                                 | SVE-6B ("H2O)/(FPM)/(cfm)/(ppm) |
| SVE-3A ("H2O)/(FPM)/(cfm)/(ppm)           | 28              | 3700      | 81                                               |                                 | SVE-7 ("H2O)/(FPM)/(cfm)/(ppm)  |
|                                           |                 |           |                                                  |                                 |                                 |
| Air Sparge System                         |                 |           |                                                  |                                 |                                 |
| Compressor 1 Pressure (psi)               | Off for repairs |           |                                                  | Compressor 2 Pressure (psi)     | 91                              |
| Compressor 1 Temperature (degF)           | Off for repairs |           |                                                  | Compressor 2 Temperature (degF) | 206                             |
| Compressor 1 Runtime (hrs)                | 27,317          |           |                                                  | Compressor 2 Runtime (hrs)      | 33,247                          |
| Manifold Regulator Pressure (psi)         | 80              |           |                                                  |                                 |                                 |
| AS Manifold Legs - Pressure/Flow Rate     |                 |           |                                                  |                                 |                                 |
|                                           | Pressure        | Flow Rate |                                                  | Pressure                        | Flow Rate                       |
| AS-1 (psi)/(cfm)                          | 15              | 10        | AS-11 (psi)/(cfm)                                | 14                              | 4                               |
| AS-2 (psi)/(cfm)                          | 15              | 6         | AS-12B (psi)/(cfm)                               | 15                              | 8                               |
| AS-3 (psi)/(cfm)                          | 14              | 6         | AS-13B (psi)/(cfm)                               | 15                              | 8                               |
| AS-4 (psi)/(cfm)                          | 0               | 20        | AS-14 (psi)/(cfm)                                | 17                              | 10                              |
| AS-5 (psi)/(cfm)                          | 16              | 7         | AS-15 (psi)/(cfm)                                | 14                              | 8                               |
| AS-6 (psi)/(cfm)                          | 16              | 8         | AS-16B (psi)/(cfm)                               | 15                              | 10                              |
| AS-7 (psi)/(cfm)                          | 16              | 5         | AS-17 (psi)/(cfm)                                | 16                              | 5                               |
| AS-8 (psi)/(cfm)                          | 14              | 10        | AS-18 (psi)/(cfm)                                | 16                              | 7                               |
| AS-9 (psi)/(cfm)                          | 15              | 7         | AS-19 (psi)/(cfm)                                | 14                              | 4                               |
| AS-10B (psi)/(cfm)                        | 15              | 10        |                                                  |                                 |                                 |

**Notes, Comments & Observations:** \_\_\_\_\_

AS-4 pipe cracked on manifold, shut off.

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**Operation & Maintenance Data Sheet**  
Ensae-Frost Street  
101 Frost Street  
Westbury, NY

**EnviroTrac Environmental Services**  
5 Old Dock Road, Yaphank, NY 11980  
(631)924-3001, Fax (631)924-5001

Date: 12-Jul  
Weather / Temp: Sunny / 85 DEG  
Technician / Operator: JW

Arrival Time: 9:30  
Departure Time: 10:30

| System Status                             |                 |           |                    |     |                                                  |           |          |           |     |
|-------------------------------------------|-----------------|-----------|--------------------|-----|--------------------------------------------------|-----------|----------|-----------|-----|
|                                           | Arrival         |           | Departure          |     |                                                  | Arrival   |          | Departure |     |
| SVE Blower 1 (ON/OFF)                     | ON              |           | ON                 |     | Sensaphone (ON/OFF)                              | ON        |          | ON        |     |
| SVE Blower 2 (ON/OFF)                     | OFF             |           | OFF                |     | Surge Protection (ON/OFF)                        | ON        |          | ON        |     |
| AS Compressor 1 (ON/OFF)                  | OFF             |           | OFF                |     | Lightning Protection (White/Black)               | White     |          | White     |     |
| AS Compressor 2 (ON/OFF)                  | ON              |           | ON                 |     |                                                  |           |          |           |     |
| Soil Vapor Extraction System              |                 |           |                    |     |                                                  |           |          |           |     |
| Blower Air Velocity/Flow Rate (fpm)/(cfm) | 4600            |           | 903                |     | Blower 1 Total Runtime (hrs)                     | 55,359.0  |          |           |     |
| Blower 1 Fresh Air Valve Open (%)         | 0               |           |                    |     | Blower 2 Total Runtime (hrs)                     | 53,575.3  |          |           |     |
| Blower 2 Fresh Air Valve Open (%)         | 0               |           |                    |     | Blower 1 Air Filter Differential Pressure ("H2O) | 0         |          |           |     |
| Moisture Separator Vacuum ("Hg)           | 3               |           |                    |     | Blower 2 Air Filter Differential Pressure ("H2O) | 0         |          |           |     |
| VGAC-1 Influent Vacuum ("H2O)             | 34              |           |                    |     | VGAC-1 Influent PID (ppm)                        | 5.4       |          |           |     |
| VGAC-1 Effluent Vacuum ("H2O)             | 35              |           |                    |     | VGAC-1 Effluent PID (ppm)                        | 0.0       |          |           |     |
| VGAC-2 Influent Vacuum ("H2O)             | 30              |           |                    |     | VGAC-2 Influent PID (ppm)                        | 5.4       |          |           |     |
| VGAC-2 Effluent Vacuum ("H2O)             | 35              |           |                    |     | VGAC-2 Effluent PID (ppm)                        | 0.0       |          |           |     |
| VGAC-3 Influent Vacuum ("H2O)             | 40              |           |                    |     | VGAC-3 Influent PID (ppm)                        | 0.0       |          |           |     |
| VGAC-3 Effluent Vacuum ("H2O)             | 44              |           |                    |     | VGAC-3 Effluent PID (ppm)                        | 0.0       |          |           |     |
| VGAC-3 Influent Temp (DegF)               | NA              |           |                    |     | Blower Effluent PID (ppm)                        | 0.0       |          |           |     |
| Blower Effluent Pressure ("H2O)           | 15              |           |                    |     |                                                  |           |          |           |     |
| Transfer Pump Total Runtime (hrs)         | 25,035.9        |           |                    |     | Condensate Storage Tank Level (gal)              | 100       |          |           |     |
| SVE Manifold Legs - Vacuum/Flow Rate/PID  |                 |           |                    |     |                                                  |           |          |           |     |
|                                           | Vacuum          | Velocity  | Flow Rate          | PID |                                                  | Vacuum    | Velocity | Flow Rate | PID |
| SVE-1 ("H2O)/(FPM)/(cfm)/(ppm)            | 40              | 6000      | 131                |     | SVE-4 ("H2O)/(FPM)/(cfm)/(ppm)                   | 30        | 3500     | 76        |     |
| SVE-2 ("H2O)/(FPM)/(cfm)/(ppm)            | 40              | 3800      | 83                 |     | SVE-5 ("H2O)/(FPM)/(cfm)/(ppm)                   | 30        | 2700     | 59        |     |
| SVE-3 ("H2O)/(FPM)/(cfm)/(ppm)            | 30              | 4000      | 87                 |     | SVE-6B ("H2O)/(FPM)/(cfm)/(ppm)                  | 30        | 5200     | 113       |     |
| SVE-3A ("H2O)/(FPM)/(cfm)/(ppm)           | 30              | 3700      | 81                 |     | SVE-7 ("H2O)/(FPM)/(cfm)/(ppm)                   | 30        | 2700     | 59        |     |
| Air Sparge System                         |                 |           |                    |     |                                                  |           |          |           |     |
| Compressor 1 Pressure (psi)               | Off for repairs |           |                    |     | Compressor 2 Pressure (psi)                      | 92        |          |           |     |
| Compressor 1 Temperature (degF)           | Off for repairs |           |                    |     | Compressor 2 Temperature (degF)                  | 198       |          |           |     |
| Compressor 1 Runtime (hrs)                | 27,317          |           |                    |     | Compressor 2 Runtime (hrs)                       | 33,465    |          |           |     |
| Manifold Regulator Pressure (psi)         | 80              |           |                    |     |                                                  |           |          |           |     |
| AS Manifold Legs - Pressure/Flow Rate     |                 |           |                    |     |                                                  |           |          |           |     |
|                                           | Pressure        | Flow Rate |                    |     | Pressure                                         | Flow Rate |          |           |     |
| AS-1 (psi)/(cfm)                          | 15              | 10        | AS-11 (psi)/(cfm)  |     | 14                                               | 4         |          |           |     |
| AS-2 (psi)/(cfm)                          | 15              | 8         | AS-12B (psi)/(cfm) |     | 15                                               | 8         |          |           |     |
| AS-3 (psi)/(cfm)                          | 15              | 8         | AS-13B (psi)/(cfm) |     | 15                                               | 8         |          |           |     |
| AS-4 (psi)/(cfm)                          |                 |           | AS-14 (psi)/(cfm)  |     | 17                                               | 10        |          |           |     |
| AS-5 (psi)/(cfm)                          | 15              | 7         | AS-15 (psi)/(cfm)  |     | 14                                               | 8         |          |           |     |
| AS-6 (psi)/(cfm)                          | 15              | 8         | AS-16B (psi)/(cfm) |     | 15                                               | 10        |          |           |     |
| AS-7 (psi)/(cfm)                          | 15              | 5         | AS-17 (psi)/(cfm)  |     | 16                                               | 5         |          |           |     |
| AS-8 (psi)/(cfm)                          | 14              | 10        | AS-18 (psi)/(cfm)  |     | 16                                               | 7         |          |           |     |
| AS-9 (psi)/(cfm)                          | 15              | 7         | AS-19 (psi)/(cfm)  |     | 14                                               | 4         |          |           |     |
| AS-10B (psi)/(cfm)                        | 15              | 10        |                    |     |                                                  |           |          |           |     |

Notes, Comments & Observations: \_\_\_\_\_

AS-4 pipe cracked on manifold, shut off.

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**Operation & Maintenance Data Sheet**  
 Ensafe-Frost Street  
 101 Frost Street  
 Westbury, NY

**EnviroTrac Environmental Services**  
 5 Old Dock Road, Yaphank, NY 11980  
 (631)924-3001, Fax (631)924-5001

Date: 19-Jul  
 Weather / Temp: Sunny / 80 DEG  
 Technician / Operator: JW

Arrival Time: 9:00  
 Departure Time: 10:00

| System Status                            |                 |           |                                                  |          |                                 |          |          |           |      |
|------------------------------------------|-----------------|-----------|--------------------------------------------------|----------|---------------------------------|----------|----------|-----------|------|
|                                          | Arrival         | Departure |                                                  | Arrival  | Departure                       |          |          |           |      |
| SVE Blower 1 (ON/OFF)                    | OFF             | ON        | Sensaphone (ON/OFF)                              | ON       | ON                              |          |          |           |      |
| SVE Blower 2 (ON/OFF)                    | ON              | OFF       | Surge Protection (ON/OFF)                        | ON       | ON                              |          |          |           |      |
| AS Compressor 1 (ON/OFF)                 | OFF             | OFF       | Lightning Protection (White/Black)               | White    | White                           |          |          |           |      |
| AS Compressor 2 (ON/OFF)                 | ON              | ON        |                                                  |          |                                 |          |          |           |      |
| Soil Vapor Extraction System             |                 |           |                                                  |          |                                 |          |          |           |      |
| Blower Air Velocity/Flow Rate (fpm)/cfm) | 4600            | 903       | Blower 1 Total Runtime (hrs)                     | 55,443.0 |                                 |          |          |           |      |
| Blower 1 Fresh Air Valve Open (%)        | 0               |           | Blower 2 Total Runtime (hrs)                     | 53,659.8 |                                 |          |          |           |      |
| Blower 2 Fresh Air Valve Open (%)        | 0               |           | Blower 1 Air Filter Differential Pressure ("H2O) | 0        |                                 |          |          |           |      |
| Moisture Separator Vacuum ("Hg)          | 3               |           | Blower 2 Air Filter Differential Pressure ("H2O) | 0        |                                 |          |          |           |      |
| VGAC-1 Influent Vacuum ("H2O)            | 35              |           | VGAC-1 Influent PID (ppm)                        | 3.8      |                                 |          |          |           |      |
| VGAC-1 Effluent Vacuum ("H2O)            | 35              |           | VGAC-1 Effluent PID (ppm)                        | 0.0      |                                 |          |          |           |      |
| VGAC-2 Influent Vacuum ("H2O)            | 32              |           | VGAC-2 Influent PID (ppm)                        | 3.8      |                                 |          |          |           |      |
| VGAC-2 Effluent Vacuum ("H2O)            | 34              |           | VGAC-2 Effluent PID (ppm)                        | 0.0      |                                 |          |          |           |      |
| VGAC-3 Influent Vacuum ("H2O)            | 40              |           | VGAC-3 Influent PID (ppm)                        | 0.0      |                                 |          |          |           |      |
| VGAC-3 Effluent Vacuum ("H2O)            | 45              |           | VGAC-3 Effluent PID (ppm)                        | 0.0      |                                 |          |          |           |      |
| VGAC-3 Influent Temp (DegF)              | NA              |           | Blower Effluent PID (ppm)                        | 0.0      |                                 |          |          |           |      |
| Blower Effluent Pressure ("H2O)          | 15              |           |                                                  |          |                                 |          |          |           |      |
| Transfer Pump Total Runtime (hrs)        | 25,035.9        |           | Condensate Storage Tank Level (gal)              | 100      |                                 |          |          |           |      |
| SVE Manifold Legs - Vacuum/Flow Rate/PID |                 |           |                                                  |          |                                 |          |          |           |      |
|                                          | Vacuum          | Velocity  | Flow Rate                                        | PID      |                                 | Vacuum   | Velocity | Flow Rate | PID  |
| SVE-1 ("H2O)/(FPM)/(cfm)/(ppm)           | 36              | 6000      | 131                                              | 0.0      | SVE-4 ("H2O)/(FPM)/(cfm)/(ppm)  | 30       | 3700     | 81        | 1.1  |
| SVE-2 ("H2O)/(FPM)/(cfm)/(ppm)           | 38              | 3500      | 76                                               | 5.4      | SVE-5 ("H2O)/(FPM)/(cfm)/(ppm)  | 30       | 2600     | 57        | 0.0  |
| SVE-3 ("H2O)/(FPM)/(cfm)/(ppm)           | 30              | 4200      | 92                                               | 4.0      | SVE-6B ("H2O)/(FPM)/(cfm)/(ppm) | 30       | 5500     | 120       | 12.8 |
| SVE-3A ("H2O)/(FPM)/(cfm)/(ppm)          | 28              | 3700      | 81                                               | 0.0      | SVE-7 ("H2O)/(FPM)/(cfm)/(ppm)  | 30       | 2600     | 57        | 1.8  |
| Air Sparge System                        |                 |           |                                                  |          |                                 |          |          |           |      |
| Compressor 1 Pressure (psi)              | Off for repairs |           |                                                  |          | Compressor 2 Pressure (psi)     | 84       |          |           |      |
| Compressor 1 Temperature (degF)          | Off for repairs |           |                                                  |          | Compressor 2 Temperature (degF) | 193      |          |           |      |
| Compressor 1 Runtime (hrs)               | 27,317          |           |                                                  |          | Compressor 2 Runtime (hrs)      | 33,520   |          |           |      |
| Manifold Regulator Pressure (psi)        | 75              |           |                                                  |          |                                 |          |          |           |      |
| AS Manifold Legs - Pressure/Flow Rate    |                 |           |                                                  |          |                                 |          |          |           |      |
|                                          | Pressure        |           | Flow Rate                                        |          |                                 | Pressure |          | Flow Rate |      |
| AS-1 (psi)/(cfm)                         | 16              |           | 10                                               |          | AS-11 (psi)/(cfm)               | 15       |          | 4         |      |
| AS-2 (psi)/(cfm)                         | 15              |           | 5                                                |          | AS-12B (psi)/(cfm)              | 16       |          | 7         |      |
| AS-3 (psi)/(cfm)                         | 15              |           | 5                                                |          | AS-13B (psi)/(cfm)              | 15       |          | 7         |      |
| AS-4 (psi)/(cfm)                         |                 |           |                                                  |          | AS-14 (psi)/(cfm)               | 17       |          | 10        |      |
| AS-5 (psi)/(cfm)                         | 16              |           | 7                                                |          | AS-15 (psi)/(cfm)               | 15       |          | 8         |      |
| AS-6 (psi)/(cfm)                         | 16              |           | 8                                                |          | AS-16B (psi)/(cfm)              | 15       |          | 9         |      |
| AS-7 (psi)/(cfm)                         | 16              |           | 4                                                |          | AS-17 (psi)/(cfm)               | 16       |          | 6         |      |
| AS-8 (psi)/(cfm)                         | 15              |           | 9                                                |          | AS-18 (psi)/(cfm)               | 16       |          | 7         |      |
| AS-9 (psi)/(cfm)                         | 16              |           | 6                                                |          | AS-19 (psi)/(cfm)               | 15       |          | 4         |      |
| AS-10B (psi)/(cfm)                       | 15              |           | 9                                                |          |                                 |          |          |           |      |

**Notes, Comments & Observations:**

AS-4 pipe cracked on manifold, shut off.

Collected monthly samples.

**Operation & Maintenance Data Sheet**  
**Ensae-Frost Street**  
**101 Frost Street**  
**Westbury, NY**

**EnviroTrac Environmental Services**  
**5 Old Dock Road, Yaphank, NY 11980**  
**(631)924-3001, Fax (631)924-5001**

**Date:** 25-Jul  
**Weather / Temp:** Sunny / 80 DEG  
**Technician / Operator:** JW

**Arrival Time:** 9:30  
**Departure Time:** 10:00

| System Status                            |                 |          |           |     |                                                  |          |          |           |     |
|------------------------------------------|-----------------|----------|-----------|-----|--------------------------------------------------|----------|----------|-----------|-----|
|                                          | Arrival         |          | Departure |     |                                                  | Arrival  |          | Departure |     |
| SVE Blower 1 (ON/OFF)                    | ON              |          | ON        |     | Sensaphone (ON/OFF)                              | ON       |          | ON        |     |
| SVE Blower 2 (ON/OFF)                    | OFF             |          | OFF       |     | Surge Protection (ON/OFF)                        | ON       |          | ON        |     |
| AS Compressor 1 (ON/OFF)                 | OFF             |          | OFF       |     | Lightning Protection (White/Black)               | White    |          | White     |     |
| AS Compressor 2 (ON/OFF)                 | OFF             |          | ON        |     |                                                  |          |          |           |     |
| Soil Vapor Extraction System             |                 |          |           |     |                                                  |          |          |           |     |
| Blower Air Velocity/Flow Rate (fpm)/cfm) | 4600            |          | 903       |     | Blower 1 Total Runtime (hrs)                     | 55,519.3 |          |           |     |
| Blower 1 Fresh Air Valve Open (%)        | 0               |          |           |     | Blower 2 Total Runtime (hrs)                     | 53,727.7 |          |           |     |
| Blower 2 Fresh Air Valve Open (%)        | 0               |          |           |     | Blower 1 Air Filter Differential Pressure ("H2O) | 0        |          |           |     |
| Moisture Separator Vacuum ("Hg)          | 3               |          |           |     | Blower 2 Air Filter Differential Pressure ("H2O) | 0        |          |           |     |
| VGAC-1 Influent Vacuum ("H2O)            | 35              |          |           |     | VGAC-1 Influent PID (ppm)                        | 1.4      |          |           |     |
| VGAC-1 Effluent Vacuum ("H2O)            | 35              |          |           |     | VGAC-1 Effluent PID (ppm)                        | 0.0      |          |           |     |
| VGAC-2 Influent Vacuum ("H2O)            | 32              |          |           |     | VGAC-2 Influent PID (ppm)                        | 1.4      |          |           |     |
| VGAC-2 Effluent Vacuum ("H2O)            | 34              |          |           |     | VGAC-2 Effluent PID (ppm)                        | 0.0      |          |           |     |
| VGAC-3 Influent Vacuum ("H2O)            | 40              |          |           |     | VGAC-3 Influent PID (ppm)                        | 0.0      |          |           |     |
| VGAC-3 Effluent Vacuum ("H2O)            | 45              |          |           |     | VGAC-3 Effluent PID (ppm)                        | 0.0      |          |           |     |
| VGAC-3 Influent Temp (DegF)              | NA              |          |           |     | Blower Effluent PID (ppm)                        | 0.0      |          |           |     |
| Blower Effluent Pressure ("H2O)          | 15              |          |           |     |                                                  |          |          |           |     |
| Transfer Pump Total Runtime (hrs)        | 25,035.9        |          |           |     | Condensate Storage Tank Level (gal)              | 100      |          |           |     |
| SVE Manifold Legs - Vacuum/Flow Rate/PID |                 |          |           |     |                                                  |          |          |           |     |
|                                          | Vacuum          | Velocity | Flow Rate | PID |                                                  | Vacuum   | Velocity | Flow Rate | PID |
| SVE-1 ("H2O)/(FPM)/(cfm)/(ppm)           | 38              | 6000     | 131       |     | SVE-4 ("H2O)/(FPM)/(cfm)/(ppm)                   | 30       | 4000     | 87        |     |
| SVE-2 ("H2O)/(FPM)/(cfm)/(ppm)           | 38              | 3500     | 76        |     | SVE-5 ("H2O)/(FPM)/(cfm)/(ppm)                   | 30       | 2700     | 59        |     |
| SVE-3 ("H2O)/(FPM)/(cfm)/(ppm)           | 30              | 4100     | 89        |     | SVE-6B ("H2O)/(FPM)/(cfm)/(ppm)                  | 30       | 5200     | 113       |     |
| SVE-3A ("H2O)/(FPM)/(cfm)/(ppm)          | 30              | 3700     | 81        |     | SVE-7 ("H2O)/(FPM)/(cfm)/(ppm)                   | 30       | 2600     | 57        |     |
| Air Sparge System                        |                 |          |           |     |                                                  |          |          |           |     |
| Compressor 1 Pressure (psi)              | Off for repairs |          |           |     | Compressor 2 Pressure (psi)                      | 84       |          |           |     |
| Compressor 1 Temperature (degF)          | Off for repairs |          |           |     | Compressor 2 Temperature (degF)                  | 190      |          |           |     |
| Compressor 1 Runtime (hrs)               | 27,317          |          |           |     | Compressor 2 Runtime (hrs)                       | 33,545   |          |           |     |
| Manifold Regulator Pressure (psi)        | 80              |          |           |     |                                                  |          |          |           |     |
| AS Manifold Legs - Pressure/Flow Rate    |                 |          |           |     |                                                  |          |          |           |     |
|                                          | Pressure        |          | Flow Rate |     |                                                  | Pressure |          | Flow Rate |     |
| AS-1 (psi)/(cfm)                         | 15              |          | 10        |     | AS-11 (psi)/(cfm)                                | 15       |          | 5         |     |
| AS-2 (psi)/(cfm)                         | 15              |          | 5         |     | AS-12B (psi)/(cfm)                               | 16       |          | 8         |     |
| AS-3 (psi)/(cfm)                         | 15              |          | 5         |     | AS-13B (psi)/(cfm)                               | 16       |          | 8         |     |
| AS-4 (psi)/(cfm)                         |                 |          |           |     | AS-14 (psi)/(cfm)                                | 116      |          | 10        |     |
| AS-5 (psi)/(cfm)                         | 16              |          | 8         |     | AS-15 (psi)/(cfm)                                | 15       |          | 8         |     |
| AS-6 (psi)/(cfm)                         | 16              |          | 8         |     | AS-16B (psi)/(cfm)                               | 15       |          | 7         |     |
| AS-7 (psi)/(cfm)                         | 16              |          | 4         |     | AS-17 (psi)/(cfm)                                | 15       |          | 6         |     |
| AS-8 (psi)/(cfm)                         | 15              |          | 10        |     | AS-18 (psi)/(cfm)                                | 15       |          | 7         |     |
| AS-9 (psi)/(cfm)                         | 16              |          | 7         |     | AS-19 (psi)/(cfm)                                | 15       |          | 4         |     |
| AS-10B (psi)/(cfm)                       | 15              |          | 9         |     |                                                  |          |          |           |     |

**Notes, Comments & Observations:**

AS-4 pipe cracked on manifold, shut off.

AS compressor off upon arrival due to tripped thermal overload. Reset overload, restarted system.



**ALARM VISIT LOG**  
**AS/SVE SYSTEM**  
**101 FROST STREET, WESTBURY, NY**

[illegible]

**Appendix B**  
**SVE System Influent/Effluent Sampling (TO-15)**  
**Laboratory Analytical Results**



Friday, July 26, 2019

Attn: James Wilkinson  
EnviroTrac  
5 Old Dock Rd  
Yaphank, NY 11980

Project ID: ENSAFE-WESTBURY  
SDG ID: GCD62844  
Sample ID#s: CD62844 - CD62845

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Phyllis Shiller".

Phyllis/Shiller

Laboratory Director

NELAC - #NY11301  
CT Lab Registration #PH-0618  
MA Lab Registration #M-CT007  
ME Lab Registration #CT-007  
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003  
NY Lab Registration #11301  
PA Lab Registration #68-03530  
RI Lab Registration #63  
UT Lab Registration #CT00007  
VT Lab Registration #VT11301



Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Sample Id Cross Reference

July 26, 2019

SDG I.D.: GCD62844

Project ID: ENSAFE-WESTBURY

---

| Client Id    | Lab Id  | Matrix |
|--------------|---------|--------|
| SVE EFFLUENT | CD62844 | AIR    |
| SVE INFLUENT | CD62845 | AIR    |



Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

July 26, 2019

FOR: Attn: James Wilkinson  
EnviroTrac  
5 Old Dock Rd  
Yaphank, NY 11980

### Sample Information

Matrix: AIR  
Location Code: ENVIOTR  
Rush Request: Standard  
P.O.#:  
Canister Id: 811

### Custody Information

Collected by: JW  
Received by: SW  
Analyzed by: see "By" below

### Date

07/19/19  
07/23/19

### Time

9:46  
15:02

### Laboratory Data

SDG ID: GCD62844  
Phoenix ID: CD62844

Project ID: ENSAFE-WESTBURY  
Client ID: SVE EFFLUENT

| Parameter                      | ppbv<br>Result | ppbv<br>RL | ug/m3<br>Result | ug/m3<br>RL | Date/Time | By  | Dilution |
|--------------------------------|----------------|------------|-----------------|-------------|-----------|-----|----------|
| <b><u>Volatiles (TO15)</u></b> |                |            |                 |             |           |     |          |
| 1,1,1,2-Tetrachloroethane      | ND             | 0.146      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| 1,1,1-Trichloroethane          | ND             | 0.183      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| 1,1,2,2-Tetrachloroethane      | ND             | 0.146      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| 1,1,2-Trichloroethane          | ND             | 0.183      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| 1,1-Dichloroethane             | ND             | 0.247      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| 1,1-Dichloroethene             | ND             | 0.051      | ND              | 0.20        | 07/25/19  | KCA | 1        |
| 1,2,4-Trichlorobenzene         | ND             | 0.135      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| 1,2,4-Trimethylbenzene         | ND             | 0.204      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| 1,2-Dibromoethane(EDB)         | ND             | 0.130      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| 1,2-Dichlorobenzene            | ND             | 0.166      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| 1,2-Dichloroethane             | ND             | 0.247      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| 1,2-dichloropropane            | ND             | 0.217      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| 1,2-Dichlorotetrafluoroethane  | ND             | 0.143      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| 1,3,5-Trimethylbenzene         | ND             | 0.204      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| 1,3-Butadiene                  | ND             | 0.452      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| 1,3-Dichlorobenzene            | ND             | 0.166      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| 1,4-Dichlorobenzene            | ND             | 0.166      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| 1,4-Dioxane                    | ND             | 0.278      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| 2-Hexanone(MBK)                | ND             | 0.244      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| 4-Ethyltoluene                 | ND             | 0.204      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| 4-Isopropyltoluene             | ND             | 0.182      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| 4-Methyl-2-pentanone(MIBK)     | ND             | 0.244      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| Acetone                        | 2.74           | 0.421      | 6.50            | 1.00        | 07/25/19  | KCA | 1        |
| Acrylonitrile                  | ND             | 0.461      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| Benzene                        | ND             | 0.313      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| Benzyl chloride                | ND             | 0.193      | ND              | 1.00        | 07/25/19  | KCA | 1        |

| Parameter                                | ppbv<br>Result | ppbv<br>RL | ug/m3<br>Result | ug/m3<br>RL | Date/Time | By  | Dilution |
|------------------------------------------|----------------|------------|-----------------|-------------|-----------|-----|----------|
| Bromodichloromethane                     | ND             | 0.149      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| Bromoform                                | ND             | 0.097      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| Bromomethane                             | ND             | 0.258      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| Carbon Disulfide                         | ND             | 0.321      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| Carbon Tetrachloride                     | ND             | 0.032      | ND              | 0.20        | 07/25/19  | KCA | 1        |
| Chlorobenzene                            | 0.259          | 0.217      | 1.19            | 1.00        | 07/25/19  | KCA | 1        |
| Chloroethane                             | ND             | 0.379      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| Chloroform                               | ND             | 0.205      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| Chloromethane                            | ND             | 0.485      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| Cis-1,2-Dichloroethene                   | 17.2           | 0.051      | 68.2            | 0.20        | 07/25/19  | KCA | 1        |
| cis-1,3-Dichloropropene                  | ND             | 0.221      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| Cyclohexane                              | ND             | 0.291      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| Dibromochloromethane                     | ND             | 0.118      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| Dichlorodifluoromethane                  | 0.416          | 0.202      | 2.06            | 1.00        | 07/25/19  | KCA | 1        |
| Ethanol                                  | 2.93           | 0.531      | 5.52            | 1.00        | 07/25/19  | KCA | 1 1      |
| Ethyl acetate                            | ND             | 0.278      | ND              | 1.00        | 07/25/19  | KCA | 1 1      |
| Ethylbenzene                             | ND             | 0.230      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| Heptane                                  | ND             | 0.244      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| Hexachlorobutadiene                      | ND             | 0.094      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| Hexane                                   | ND             | 0.284      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| Isopropylalcohol                         | 1.60           | 0.407      | 3.93            | 1.00        | 07/25/19  | KCA | 1        |
| Isopropylbenzene                         | ND             | 0.204      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| m,p-Xylene                               | 1.11           | 0.230      | 4.82            | 1.00        | 07/25/19  | KCA | 1        |
| Methyl Ethyl Ketone                      | 6.80           | 0.339      | 20.0            | 1.00        | 07/25/19  | KCA | 1        |
| Methyl tert-butyl ether(MTBE)            | ND             | 0.278      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| Methylene Chloride                       | ND             | 0.864      | ND              | 3.00        | 07/25/19  | KCA | 1        |
| n-Butylbenzene                           | ND             | 0.182      | ND              | 1.00        | 07/25/19  | KCA | 1 1      |
| o-Xylene                                 | 0.333          | 0.230      | 1.45            | 1.00        | 07/25/19  | KCA | 1        |
| Propylene                                | ND             | 0.581      | ND              | 1.00        | 07/25/19  | KCA | 1 1      |
| sec-Butylbenzene                         | ND             | 0.182      | ND              | 1.00        | 07/25/19  | KCA | 1 1      |
| Styrene                                  | ND             | 0.235      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| Tetrachloroethene                        | 7.26           | 0.037      | 49.2            | 0.25        | 07/25/19  | KCA | 1        |
| Tetrahydrofuran                          | ND             | 0.339      | ND              | 1.00        | 07/25/19  | KCA | 1 1      |
| Toluene                                  | 0.333          | 0.266      | 1.25            | 1.00        | 07/25/19  | KCA | 1        |
| Trans-1,2-Dichloroethene                 | 0.308          | 0.252      | 1.22            | 1.00        | 07/25/19  | KCA | 1        |
| trans-1,3-Dichloropropene                | ND             | 0.221      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| Trichloroethene                          | 0.138          | 0.037      | 0.74            | 0.20        | 07/25/19  | KCA | 1        |
| Trichlorofluoromethane                   | ND             | 0.178      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| Trichlorotrifluoroethane                 | ND             | 0.131      | ND              | 1.00        | 07/25/19  | KCA | 1        |
| Vinyl Chloride                           | ND             | 0.078      | ND              | 0.20        | 07/25/19  | KCA | 1        |
| <b><u>QA/QC Surrogates/Internals</u></b> |                |            |                 |             |           |     |          |
| % Bromofluorobenzene                     | 102            | %          | 102             | %           | 07/25/19  | KCA | 1        |
| % IS-1,4-Difluorobenzene                 | 110            | %          | 110             | %           | 07/25/19  | KCA | 1        |
| % IS-Bromochloromethane                  | 94             | %          | 94              | %           | 07/25/19  | KCA | 1        |
| % IS-Chlorobenzene-d5                    | 104            | %          | 104             | %           | 07/25/19  | KCA | 1        |

Client ID: SVE EFFLUENT

| Parameter | ppbv<br>Result | ppbv<br>RL | ug/m3<br>Result | ug/m3<br>RL | Date/Time | By | Dilution |
|-----------|----------------|------------|-----------------|-------------|-----------|----|----------|
|-----------|----------------|------------|-----------------|-------------|-----------|----|----------|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL  
BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

July 26, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Report

July 26, 2019

FOR: Attn: James Wilkinson  
EnviroTrac  
5 Old Dock Rd  
Yaphank, NY 11980

### Sample Information

Matrix: AIR  
Location Code: ENVIOTR  
Rush Request: Standard  
P.O.#:  
Canister Id: 770

### Custody Information

Collected by: JW  
Received by: SW  
Analyzed by: see "By" below

### Date

07/19/19 9:51  
07/23/19 15:02

### Time

Project ID: ENSAFE-WESTBURY  
Client ID: SVE INFLUENT

### Laboratory Data

SDG ID: GCD62844  
Phoenix ID: CD62845

| Parameter                     | ppbv<br>Result | ppbv<br>RL | ug/m3<br>Result | ug/m3<br>RL | Date/Time | By  | Dilution |
|-------------------------------|----------------|------------|-----------------|-------------|-----------|-----|----------|
| <b>Volatiles (TO15)</b>       |                |            |                 |             |           |     |          |
| 1,1,1,2-Tetrachloroethane     | ND             | 0.729      | ND              | 5.00        | 07/24/19  | KCA | 5        |
| 1,1,1-Trichloroethane         | ND             | 0.917      | ND              | 5.00        | 07/24/19  | KCA | 5        |
| 1,1,2,2-Tetrachloroethane     | ND             | 0.729      | ND              | 5.00        | 07/24/19  | KCA | 5        |
| 1,1,2-Trichloroethane         | ND             | 0.917      | ND              | 5.00        | 07/24/19  | KCA | 5        |
| 1,1-Dichloroethane            | ND             | 1.24       | ND              | 5.02        | 07/24/19  | KCA | 5        |
| 1,1-Dichloroethene            | ND             | 0.252      | ND              | 1.00        | 07/24/19  | KCA | 5        |
| 1,2,4-Trichlorobenzene        | ND             | 0.674      | ND              | 5.00        | 07/24/19  | KCA | 5        |
| 1,2,4-Trimethylbenzene        | ND             | 1.02       | ND              | 5.01        | 07/24/19  | KCA | 5        |
| 1,2-Dibromoethane(EDB)        | ND             | 0.651      | ND              | 5.00        | 07/24/19  | KCA | 5        |
| 1,2-Dichlorobenzene           | ND             | 0.832      | ND              | 5.00        | 07/24/19  | KCA | 5        |
| 1,2-Dichloroethane            | ND             | 1.24       | ND              | 5.02        | 07/24/19  | KCA | 5        |
| 1,2-dichloropropane           | ND             | 1.08       | ND              | 4.99        | 07/24/19  | KCA | 5        |
| 1,2-Dichlorotetrafluoroethane | ND             | 0.716      | ND              | 5.00        | 07/24/19  | KCA | 5        |
| 1,3,5-Trimethylbenzene        | ND             | 1.02       | ND              | 5.01        | 07/24/19  | KCA | 5        |
| 1,3-Butadiene                 | ND             | 2.26       | ND              | 5.00        | 07/24/19  | KCA | 5        |
| 1,3-Dichlorobenzene           | ND             | 0.832      | ND              | 5.00        | 07/24/19  | KCA | 5        |
| 1,4-Dichlorobenzene           | ND             | 0.832      | ND              | 5.00        | 07/24/19  | KCA | 5        |
| 1,4-Dioxane                   | ND             | 1.39       | ND              | 5.01        | 07/24/19  | KCA | 5        |
| 2-Hexanone(MBK)               | ND             | 1.22       | ND              | 4.99        | 07/24/19  | KCA | 5        |
| 4-Ethyltoluene                | ND             | 1.02       | ND              | 5.01        | 07/24/19  | KCA | 5        |
| 4-Isopropyltoluene            | ND             | 0.911      | ND              | 5.00        | 07/24/19  | KCA | 5        |
| 4-Methyl-2-pentanone(MIBK)    | ND             | 1.22       | ND              | 4.99        | 07/24/19  | KCA | 5        |
| Acetone                       | 7.75           | 2.11       | 18.4            | 5.01        | 07/24/19  | KCA | 5        |
| Acrylonitrile                 | ND             | 2.31       | ND              | 5.01        | 07/24/19  | KCA | 5        |
| Benzene                       | ND             | 1.57       | ND              | 5.01        | 07/24/19  | KCA | 5        |
| Benzyl chloride               | ND             | 0.966      | ND              | 5.00        | 07/24/19  | KCA | 5        |



| Parameter                                | ppbv<br>Result | ppbv<br>RL | ug/m3<br>Result | ug/m3<br>RL | Date/Time | By  | Dilution |   |
|------------------------------------------|----------------|------------|-----------------|-------------|-----------|-----|----------|---|
| Bromodichloromethane                     | ND             | 0.747      | ND              | 5.00        | 07/24/19  | KCA | 5        |   |
| Bromoform                                | ND             | 0.484      | ND              | 5.00        | 07/24/19  | KCA | 5        |   |
| Bromomethane                             | ND             | 1.29       | ND              | 5.01        | 07/24/19  | KCA | 5        |   |
| Carbon Disulfide                         | ND             | 1.61       | ND              | 5.01        | 07/24/19  | KCA | 5        |   |
| Carbon Tetrachloride                     | ND             | 0.159      | ND              | 1.00        | 07/24/19  | KCA | 5        |   |
| Chlorobenzene                            | ND             | 1.09       | ND              | 5.01        | 07/24/19  | KCA | 5        |   |
| Chloroethane                             | ND             | 1.90       | ND              | 5.01        | 07/24/19  | KCA | 5        |   |
| Chloroform                               | ND             | 1.02       | ND              | 4.98        | 07/24/19  | KCA | 5        |   |
| Chloromethane                            | ND             | 2.42       | ND              | 4.99        | 07/24/19  | KCA | 5        |   |
| Cis-1,2-Dichloroethene                   | 90.7           | 0.252      | 359             | 1.00        | 07/24/19  | KCA | 5        |   |
| cis-1,3-Dichloropropene                  | ND             | 1.10       | ND              | 4.99        | 07/24/19  | KCA | 5        |   |
| Cyclohexane                              | ND             | 1.45       | ND              | 4.99        | 07/24/19  | KCA | 5        |   |
| Dibromochloromethane                     | ND             | 0.587      | ND              | 5.00        | 07/24/19  | KCA | 5        |   |
| Dichlorodifluoromethane                  | ND             | 1.01       | ND              | 4.99        | 07/24/19  | KCA | 5        |   |
| Ethanol                                  | 4.50           | 2.66       | 8.47            | 5.01        | 07/24/19  | KCA | 5        | 1 |
| Ethyl acetate                            | ND             | 1.39       | ND              | 5.01        | 07/24/19  | KCA | 5        | 1 |
| Ethylbenzene                             | ND             | 1.15       | ND              | 4.99        | 07/24/19  | KCA | 5        |   |
| Heptane                                  | ND             | 1.22       | ND              | 5.00        | 07/24/19  | KCA | 5        |   |
| Hexachlorobutadiene                      | ND             | 0.469      | ND              | 5.00        | 07/24/19  | KCA | 5        |   |
| Hexane                                   | ND             | 1.42       | ND              | 5.00        | 07/24/19  | KCA | 5        |   |
| Isopropylalcohol                         | 46.7           | 2.04       | 115             | 5.01        | 07/24/19  | KCA | 5        |   |
| Isopropylbenzene                         | ND             | 1.02       | ND              | 5.01        | 07/24/19  | KCA | 5        |   |
| m,p-Xylene                               | ND             | 1.15       | ND              | 4.99        | 07/24/19  | KCA | 5        |   |
| Methyl Ethyl Ketone                      | 1.86           | 1.70       | 5.48            | 5.01        | 07/24/19  | KCA | 5        |   |
| Methyl tert-butyl ether(MTBE)            | ND             | 1.39       | ND              | 5.01        | 07/24/19  | KCA | 5        |   |
| Methylene Chloride                       | ND             | 4.32       | ND              | 15.0        | 07/24/19  | KCA | 5        |   |
| n-Butylbenzene                           | ND             | 0.911      | ND              | 5.00        | 07/24/19  | KCA | 5        | 1 |
| o-Xylene                                 | ND             | 1.15       | ND              | 4.99        | 07/24/19  | KCA | 5        |   |
| Propylene                                | ND             | 2.91       | ND              | 5.01        | 07/24/19  | KCA | 5        | 1 |
| sec-Butylbenzene                         | ND             | 0.911      | ND              | 5.00        | 07/24/19  | KCA | 5        | 1 |
| Styrene                                  | ND             | 1.17       | ND              | 4.98        | 07/24/19  | KCA | 5        |   |
| Tetrachloroethene                        | 2100           | 3.32       | 14200           | 22.5        | 07/25/19  | KCA | 90       |   |
| Tetrahydrofuran                          | 2.73           | 1.70       | 8.05            | 5.01        | 07/24/19  | KCA | 5        | 1 |
| Toluene                                  | ND             | 1.33       | ND              | 5.01        | 07/24/19  | KCA | 5        |   |
| Trans-1,2-Dichloroethene                 | ND             | 1.26       | ND              | 4.99        | 07/24/19  | KCA | 5        |   |
| trans-1,3-Dichloropropene                | ND             | 1.10       | ND              | 4.99        | 07/24/19  | KCA | 5        |   |
| Trichloroethene                          | 159            | 0.186      | 854             | 1.00        | 07/24/19  | KCA | 5        |   |
| Trichlorofluoromethane                   | ND             | 0.891      | ND              | 5.00        | 07/24/19  | KCA | 5        |   |
| Trichlorotrifluoroethane                 | ND             | 0.653      | ND              | 5.00        | 07/24/19  | KCA | 5        |   |
| Vinyl Chloride                           | ND             | 0.391      | ND              | 1.00        | 07/24/19  | KCA | 5        |   |
| <b><u>QA/QC Surrogates/Internals</u></b> |                |            |                 |             |           |     |          |   |
| % Bromofluorobenzene (5x)                | 107            | %          | 107             | %           | 07/24/19  | KCA | 5        |   |
| % IS-1,4-Difluorobenzene (5x)            | 73             | %          | 73              | %           | 07/24/19  | KCA | 5        |   |
| % IS-Bromochloromethane (5x)             | 84             | %          | 84              | %           | 07/24/19  | KCA | 5        |   |
| % IS-Chlorobenzene-d5 (5x)               | 88             | %          | 88              | %           | 07/24/19  | KCA | 5        |   |
| % Bromofluorobenzene (90x)               | 103            | %          | 103             | %           | 07/25/19  | KCA | 90       |   |
| % IS-1,4-Difluorobenzene (90x)           | 113            | %          | 113             | %           | 07/25/19  | KCA | 90       |   |
| % IS-Bromochloromethane (90x)            | 119            | %          | 119             | %           | 07/25/19  | KCA | 90       |   |
| % IS-Chlorobenzene-d5 (90x)              | 98             | %          | 98              | %           | 07/25/19  | KCA | 90       |   |

| Parameter | ppbv<br>Result | ppbv<br>RL | ug/m3<br>Result | ug/m3<br>RL | Date/Time | By | Dilution |
|-----------|----------------|------------|-----------------|-------------|-----------|----|----------|
|-----------|----------------|------------|-----------------|-------------|-----------|----|----------|

1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL  
BRL=Below Reporting Level L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.  
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

July 26, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



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## QA/QC Report

July 26, 2019

### QA/QC Data

SDG I.D.: GCD62844

| Parameter                                                        | Blk<br>ppbv | Blk<br>RL<br>ppbv | Blk<br>ug/m3 | Blk<br>RL<br>ug/m3 | LCS<br>% | Sample<br>Result<br>ug/m3 | Sample<br>Dup<br>ug/m3 | Sample<br>Result<br>ppbv | Sample<br>Dup<br>ppbv | DUP<br>RPD | %<br>Rec<br>Limits | %<br>RPD<br>Limits |
|------------------------------------------------------------------|-------------|-------------------|--------------|--------------------|----------|---------------------------|------------------------|--------------------------|-----------------------|------------|--------------------|--------------------|
| QA/QC Batch 489229 (ppbv), QC Sample No: CD61214 (CD62845 (5X) ) |             |                   |              |                    |          |                           |                        |                          |                       |            |                    |                    |
| <b>Volatiles</b>                                                 |             |                   |              |                    |          |                           |                        |                          |                       |            |                    |                    |
| 1,1,1,2-Tetrachloroethane                                        | ND          | 0.150             | ND           | 1.03               | 100      | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| 1,1,1-Trichloroethane                                            | ND          | 0.180             | ND           | 0.98               | 98       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| 1,1,2,2-Tetrachloroethane                                        | ND          | 0.150             | ND           | 1.03               | 96       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| 1,1,2-Trichloroethane                                            | ND          | 0.180             | ND           | 0.98               | 99       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| 1,1-Dichloroethane                                               | ND          | 0.250             | ND           | 1.01               | 98       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| 1,1-Dichloroethene                                               | ND          | 0.050             | ND           | 0.20               | 95       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| 1,2,4-Trichlorobenzene                                           | ND          | 0.130             | ND           | 0.96               | 82       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| 1,2,4-Trimethylbenzene                                           | ND          | 0.200             | ND           | 0.98               | 112      | 3.77                      | 3.90                   | 0.768                    | 0.793                 | NC         | 70 - 130           | 25                 |
| 1,2-Dibromoethane(EDB)                                           | ND          | 0.130             | ND           | 1.00               | 105      | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| 1,2-Dichlorobenzene                                              | ND          | 0.170             | ND           | 1.02               | 105      | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| 1,2-Dichloroethane                                               | ND          | 0.250             | ND           | 1.01               | 95       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| 1,2-dichloropropane                                              | ND          | 0.220             | ND           | 1.02               | 104      | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| 1,2-Dichlorotetrafluoroethane                                    | ND          | 0.140             | ND           | 0.98               | 92       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| 1,3,5-Trimethylbenzene                                           | ND          | 0.200             | ND           | 0.98               | 111      | 1.16                      | 1.13                   | 0.237                    | 0.231                 | NC         | 70 - 130           | 25                 |
| 1,3-Butadiene                                                    | ND          | 0.450             | ND           | 0.99               | 80       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| 1,3-Dichlorobenzene                                              | ND          | 0.170             | ND           | 1.02               | 99       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| 1,4-Dichlorobenzene                                              | ND          | 0.170             | ND           | 1.02               | 103      | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| 1,4-Dioxane                                                      | ND          | 0.280             | ND           | 1.01               | 111      | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| 2-Hexanone(MBK)                                                  | ND          | 0.240             | ND           | 0.98               | 102      | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| 4-Ethyltoluene                                                   | ND          | 0.200             | ND           | 0.98               | 105      | 2.23                      | 2.26                   | 0.454                    | 0.461                 | NC         | 70 - 130           | 25                 |
| 4-Isopropyltoluene                                               | ND          | 0.180             | ND           | 0.99               | 109      | 1.60                      | 1.61                   | 0.292                    | 0.293                 | NC         | 70 - 130           | 25                 |
| 4-Methyl-2-pentanone(MIBK)                                       | ND          | 0.240             | ND           | 0.98               | 85       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Acetone                                                          | ND          | 0.420             | ND           | 1.00               | 73       | 61.7                      | 54.6                   | 26.0                     | 23.0                  | 12.2       | 70 - 130           | 25                 |
| Acrylonitrile                                                    | ND          | 0.460             | ND           | 1.00               | 87       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Benzene                                                          | ND          | 0.310             | ND           | 0.99               | 96       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Benzyl chloride                                                  | ND          | 0.190             | ND           | 0.98               | 107      | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Bromodichloromethane                                             | ND          | 0.150             | ND           | 1.00               | 103      | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Bromoform                                                        | ND          | 0.097             | ND           | 1.00               | 103      | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Bromomethane                                                     | ND          | 0.260             | ND           | 1.01               | 93       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Carbon Disulfide                                                 | ND          | 0.320             | ND           | 1.00               | 95       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Carbon Tetrachloride                                             | ND          | 0.032             | ND           | 0.20               | 102      | 0.72                      | 0.65                   | 0.115                    | 0.104                 | NC         | 70 - 130           | 25                 |
| Chlorobenzene                                                    | ND          | 0.220             | ND           | 1.01               | 106      | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Chloroethane                                                     | ND          | 0.380             | ND           | 1.00               | 92       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Chloroform                                                       | ND          | 0.200             | ND           | 0.98               | 103      | 6.15                      | 5.81                   | 1.26                     | 1.19                  | 5.7        | 70 - 130           | 25                 |
| Chloromethane                                                    | ND          | 0.480             | ND           | 0.99               | 79       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Cis-1,2-Dichloroethene                                           | ND          | 0.256             | ND           | 1.01               | 104      | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| cis-1,3-Dichloropropene                                          | ND          | 0.220             | ND           | 1.00               | 107      | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Cyclohexane                                                      | ND          | 0.290             | ND           | 1.00               | 101      | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Dibromochloromethane                                             | ND          | 0.120             | ND           | 1.02               | 103      | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Dichlorodifluoromethane                                          | ND          | 0.200             | ND           | 0.99               | 101      | 1.62                      | 1.43                   | 0.328                    | 0.290                 | NC         | 70 - 130           | 25                 |
| Ethanol                                                          | ND          | 0.530             | ND           | 1.00               | 96       | 81.0 E                    | 73.1                   | 43.0 E                   | 38.8                  | 10.3       | 70 - 130           | 25                 |

# QA/QC Data

SDG I.D.: GCD62844

| Parameter                     | Blk<br>ppbv | Blk<br>RL<br>ppbv | Blk<br>ug/m3 | Blk<br>RL<br>ug/m3 | LCS<br>% | Sample<br>Result<br>ug/m3 | Sample<br>Dup<br>ug/m3 | Sample<br>Result<br>ppbv | Sample<br>Dup<br>ppbv | DUP<br>RPD | %<br>Rec<br>Limits | %<br>RPD<br>Limits |
|-------------------------------|-------------|-------------------|--------------|--------------------|----------|---------------------------|------------------------|--------------------------|-----------------------|------------|--------------------|--------------------|
| Ethyl acetate                 | ND          | 0.280             | ND           | 1.01               | 90       | 2.02                      | 1.88                   | 0.562                    | 0.522                 | NC         | 70 - 130           | 25                 |
| Ethylbenzene                  | ND          | 0.230             | ND           | 1.00               | 104      | 3.50                      | 3.55                   | 0.806                    | 0.819                 | NC         | 70 - 130           | 25                 |
| Heptane                       | ND          | 0.240             | ND           | 0.98               | 85       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Hexachlorobutadiene           | ND          | 0.094             | ND           | 1.00               | 92       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Hexane                        | ND          | 0.280             | ND           | 0.99               | 108      | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Isopropylalcohol              | ND          | 0.410             | ND           | 1.01               | 79       | 3.73                      | 3.37                   | 1.52                     | 1.37                  | NC         | 70 - 130           | 25                 |
| Isopropylbenzene              | ND          | 0.200             | ND           | 0.98               | 115      | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| m,p-Xylene                    | ND          | 0.230             | ND           | 1.00               | 110      | 12.8                      | 12.9                   | 2.94                     | 2.98                  | 1.4        | 70 - 130           | 25                 |
| Methyl Ethyl Ketone           | ND          | 0.340             | ND           | 1.00               | 80       | 7.60                      | 8.02                   | 2.58                     | 2.72                  | 5.3        | 70 - 130           | 25                 |
| Methyl tert-butyl ether(MTBE) | ND          | 0.280             | ND           | 1.01               | 98       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Methylene Chloride            | ND          | 0.860             | ND           | 2.99               | 87       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| n-Butylbenzene                | ND          | 0.180             | ND           | 0.99               | 103      | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| o-Xylene                      | ND          | 0.230             | ND           | 1.00               | 117      | 4.14                      | 4.10                   | 0.953                    | 0.944                 | NC         | 70 - 130           | 25                 |
| Propylene                     | ND          | 0.580             | ND           | 1.00               | 94       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| sec-Butylbenzene              | ND          | 0.180             | ND           | 0.99               | 108      | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Styrene                       | ND          | 0.230             | ND           | 0.98               | 111      | 1.32                      | 1.27                   | 0.309                    | 0.299                 | NC         | 70 - 130           | 25                 |
| Tetrahydrofuran               | ND          | 0.340             | ND           | 1.00               | 88       | 68.1                      | 61.3                   | 23.1                     | 20.8                  | 10.5       | 70 - 130           | 25                 |
| Toluene                       | ND          | 0.270             | ND           | 1.02               | 110      | 4.56                      | 4.56                   | 1.21                     | 1.21                  | NC         | 70 - 130           | 25                 |
| Trans-1,2-Dichloroethene      | ND          | 0.250             | ND           | 0.99               | 92       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| trans-1,3-Dichloropropene     | ND          | 0.220             | ND           | 1.00               | 93       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Trichloroethene               | ND          | 0.037             | ND           | 0.20               | 108      | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Trichlorofluoromethane        | ND          | 0.180             | ND           | 1.01               | 91       | 1.85                      | 1.44                   | 0.330                    | 0.256                 | NC         | 70 - 130           | 25                 |
| Trichlorotrifluoroethane      | ND          | 0.130             | ND           | 1.00               | 96       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Vinyl Chloride                | ND          | 0.078             | ND           | 0.20               | 85       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| % Bromofluorobenzene          | 93          | %                 | 93           | %                  | 99       | 94                        | 91                     | 94                       | 91                    | NC         | 70 - 130           | 25                 |
| % IS-1,4-Difluorobenzene      | 113         | %                 | 113          | %                  | 80       | 91                        | 101                    | 91                       | 101                   | NC         | 60 - 140           | 25                 |
| % IS-Bromochloromethane       | 118         | %                 | 118          | %                  | 73       | 92                        | 101                    | 92                       | 101                   | NC         | 60 - 140           | 25                 |
| % IS-Chlorobenzene-d5         | 109         | %                 | 109          | %                  | 81       | 73                        | 77                     | 73                       | 77                    | NC         | 60 - 140           | 25                 |

QA/QC Batch 489404 (ppbv), QC Sample No: CD62846 (CD62844, CD62845 (90X) )

## Volatiles

|                               |    |       |    |      |     |      |      |       |       |    |          |    |
|-------------------------------|----|-------|----|------|-----|------|------|-------|-------|----|----------|----|
| 1,1,1,2-Tetrachloroethane     | ND | 0.150 | ND | 1.03 | 98  | ND   | ND   | ND    | ND    | NC | 70 - 130 | 25 |
| 1,1,1-Trichloroethane         | ND | 0.180 | ND | 0.98 | 95  | ND   | ND   | ND    | ND    | NC | 70 - 130 | 25 |
| 1,1,2,2-Tetrachloroethane     | ND | 0.150 | ND | 1.03 | 94  | ND   | ND   | ND    | ND    | NC | 70 - 130 | 25 |
| 1,1,2-Trichloroethane         | ND | 0.180 | ND | 0.98 | 98  | ND   | ND   | ND    | ND    | NC | 70 - 130 | 25 |
| 1,1-Dichloroethane            | ND | 0.250 | ND | 1.01 | 98  | ND   | ND   | ND    | ND    | NC | 70 - 130 | 25 |
| 1,1-Dichloroethene            | ND | 0.050 | ND | 0.20 | 95  | ND   | ND   | ND    | ND    | NC | 70 - 130 | 25 |
| 1,2,4-Trichlorobenzene        | ND | 0.130 | ND | 0.96 | 80  | ND   | ND   | ND    | ND    | NC | 70 - 130 | 25 |
| 1,2,4-Trimethylbenzene        | ND | 0.200 | ND | 0.98 | 110 | 2.50 | 2.52 | 0.509 | 0.513 | NC | 70 - 130 | 25 |
| 1,2-Dibromoethane(EDB)        | ND | 0.130 | ND | 1.00 | 104 | ND   | ND   | ND    | ND    | NC | 70 - 130 | 25 |
| 1,2-Dichlorobenzene           | ND | 0.170 | ND | 1.02 | 100 | ND   | ND   | ND    | ND    | NC | 70 - 130 | 25 |
| 1,2-Dichloroethane            | ND | 0.250 | ND | 1.01 | 94  | ND   | ND   | ND    | ND    | NC | 70 - 130 | 25 |
| 1,2-dichloropropane           | ND | 0.220 | ND | 1.02 | 104 | ND   | ND   | ND    | ND    | NC | 70 - 130 | 25 |
| 1,2-Dichlorotetrafluoroethane | ND | 0.140 | ND | 0.98 | 91  | ND   | ND   | ND    | ND    | NC | 70 - 130 | 25 |
| 1,3,5-Trimethylbenzene        | ND | 0.200 | ND | 0.98 | 108 | ND   | ND   | ND    | ND    | NC | 70 - 130 | 25 |
| 1,3-Butadiene                 | ND | 0.450 | ND | 0.99 | 82  | 1.15 | 1.09 | 0.518 | 0.491 | NC | 70 - 130 | 25 |
| 1,3-Dichlorobenzene           | ND | 0.170 | ND | 1.02 | 97  | ND   | ND   | ND    | ND    | NC | 70 - 130 | 25 |
| 1,4-Dichlorobenzene           | ND | 0.170 | ND | 1.02 | 102 | ND   | ND   | ND    | ND    | NC | 70 - 130 | 25 |
| 1,4-Dioxane                   | ND | 0.280 | ND | 1.01 | 110 | ND   | ND   | ND    | ND    | NC | 70 - 130 | 25 |
| 2-Hexanone(MBK)               | ND | 0.240 | ND | 0.98 | 104 | ND   | ND   | ND    | ND    | NC | 70 - 130 | 25 |
| 4-Ethyltoluene                | ND | 0.200 | ND | 0.98 | 102 | 1.98 | 2.00 | 0.404 | 0.407 | NC | 70 - 130 | 25 |
| 4-Isopropyltoluene            | ND | 0.180 | ND | 0.99 | 108 | ND   | ND   | ND    | ND    | NC | 70 - 130 | 25 |
| 4-Methyl-2-pentanone(MIBK)    | ND | 0.240 | ND | 0.98 | 88  | ND   | ND   | ND    | ND    | NC | 70 - 130 | 25 |

## QA/QC Data

SDG I.D.: GCD62844

| Parameter                     | Blk<br>ppbv | Blk<br>RL<br>ppbv | Blk<br>ug/m3 | Blk<br>RL<br>ug/m3 | LCS<br>% | Sample<br>Result<br>ug/m3 | Sample<br>Dup<br>ug/m3 | Sample<br>Result<br>ppbv | Sample<br>Dup<br>ppbv | DUP<br>RPD | %<br>Rec<br>Limits | %<br>RPD<br>Limits |
|-------------------------------|-------------|-------------------|--------------|--------------------|----------|---------------------------|------------------------|--------------------------|-----------------------|------------|--------------------|--------------------|
| Acetone                       | ND          | 0.420             | ND           | 1.00               | 75       | 17.8                      | 17.0                   | 7.50                     | 7.17                  | 4.5        | 70 - 130           | 25                 |
| Acrylonitrile                 | ND          | 0.460             | ND           | 1.00               | 89       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Benzene                       | ND          | 0.310             | ND           | 0.99               | 93       | 5.04                      | 5.08                   | 1.58                     | 1.59                  | 0.6        | 70 - 130           | 25                 |
| Benzyl chloride               | ND          | 0.190             | ND           | 0.98               | 105      | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Bromodichloromethane          | ND          | 0.150             | ND           | 1.00               | 102      | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Bromoform                     | ND          | 0.097             | ND           | 1.00               | 99       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Bromomethane                  | ND          | 0.260             | ND           | 1.01               | 91       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Carbon Disulfide              | ND          | 0.320             | ND           | 1.00               | 94       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Carbon Tetrachloride          | ND          | 0.032             | ND           | 0.20               | 100      | 0.40                      | 0.45                   | 0.063                    | 0.071                 | NC         | 70 - 130           | 25                 |
| Chlorobenzene                 | ND          | 0.220             | ND           | 1.01               | 102      | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Chloroethane                  | ND          | 0.380             | ND           | 1.00               | 91       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Chloroform                    | ND          | 0.200             | ND           | 0.98               | 101      | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Chloromethane                 | ND          | 0.480             | ND           | 0.99               | 81       | 1.28                      | 1.17                   | 0.619                    | 0.568                 | NC         | 70 - 130           | 25                 |
| Cis-1,2-Dichloroethene        | ND          | 0.256             | ND           | 1.01               | 102      | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| cis-1,3-Dichloropropene       | ND          | 0.220             | ND           | 1.00               | 105      | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Cyclohexane                   | ND          | 0.290             | ND           | 1.00               | 100      | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Dibromochloromethane          | ND          | 0.120             | ND           | 1.02               | 103      | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Dichlorodifluoromethane       | ND          | 0.200             | ND           | 0.99               | 97       | 1.73                      | 1.71                   | 0.351                    | 0.347                 | NC         | 70 - 130           | 25                 |
| Ethanol                       | ND          | 0.530             | ND           | 1.00               | 97       | 237 E                     | 235                    | 126 E                    | 125                   | 0.8        | 70 - 130           | 25                 |
| Ethyl acetate                 | ND          | 0.280             | ND           | 1.01               | 94       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Ethylbenzene                  | ND          | 0.230             | ND           | 1.00               | 101      | 1.95                      | 1.93                   | 0.449                    | 0.445                 | NC         | 70 - 130           | 25                 |
| Heptane                       | ND          | 0.240             | ND           | 0.98               | 88       | 1.68                      | 1.65                   | 0.411                    | 0.404                 | NC         | 70 - 130           | 25                 |
| Hexachlorobutadiene           | ND          | 0.094             | ND           | 1.00               | 89       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Hexane                        | ND          | 0.280             | ND           | 0.99               | 108      | 1.65                      | 1.67                   | 0.467                    | 0.475                 | NC         | 70 - 130           | 25                 |
| Isopropylalcohol              | ND          | 0.410             | ND           | 1.01               | 80       | 12.9                      | 12.6                   | 5.24                     | 5.12                  | 2.3        | 70 - 130           | 25                 |
| Isopropylbenzene              | ND          | 0.200             | ND           | 0.98               | 112      | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| m,p-Xylene                    | ND          | 0.230             | ND           | 1.00               | 107      | 7.07                      | 6.94                   | 1.63                     | 1.60                  | 1.9        | 70 - 130           | 25                 |
| Methyl Ethyl Ketone           | ND          | 0.340             | ND           | 1.00               | 87       | 1.99                      | 1.76                   | 0.674                    | 0.596                 | NC         | 70 - 130           | 25                 |
| Methyl tert-butyl ether(MTBE) | ND          | 0.280             | ND           | 1.01               | 96       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Methylene Chloride            | ND          | 0.860             | ND           | 2.99               | 88       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| n-Butylbenzene                | ND          | 0.180             | ND           | 0.99               | 101      | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| o-Xylene                      | ND          | 0.230             | ND           | 1.00               | 114      | 2.23                      | 2.24                   | 0.514                    | 0.516                 | NC         | 70 - 130           | 25                 |
| Propylene                     | ND          | 0.580             | ND           | 1.00               | 97       | 8.60                      | 8.57                   | 5.00                     | 4.98                  | 0.4        | 70 - 130           | 25                 |
| sec-Butylbenzene              | ND          | 0.180             | ND           | 0.99               | 104      | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Styrene                       | ND          | 0.230             | ND           | 0.98               | 109      | 3.06                      | 3.06                   | 0.718                    | 0.719                 | NC         | 70 - 130           | 25                 |
| Tetrachloroethene             | ND          | 0.037             | ND           | 0.25               | 104      | 1.48                      | 1.36                   | 0.219                    | 0.201                 | 8.6        | 70 - 130           | 25                 |
| Tetrahydrofuran               | ND          | 0.340             | ND           | 1.00               | 90       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Toluene                       | ND          | 0.270             | ND           | 1.02               | 109      | 15.6                      | 15.4                   | 4.15                     | 4.09                  | 1.5        | 70 - 130           | 25                 |
| Trans-1,2-Dichloroethene      | ND          | 0.250             | ND           | 0.99               | 92       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| trans-1,3-Dichloropropene     | ND          | 0.220             | ND           | 1.00               | 92       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Trichloroethene               | ND          | 0.037             | ND           | 0.20               | 107      | 0.49                      | 0.48                   | 0.091                    | 0.090                 | NC         | 70 - 130           | 25                 |
| Trichlorofluoromethane        | ND          | 0.180             | ND           | 1.01               | 89       | 1.10                      | 1.04                   | 0.196                    | 0.185                 | NC         | 70 - 130           | 25                 |
| Trichlorotrifluoroethane      | ND          | 0.130             | ND           | 1.00               | 96       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| Vinyl Chloride                | ND          | 0.078             | ND           | 0.20               | 87       | ND                        | ND                     | ND                       | ND                    | NC         | 70 - 130           | 25                 |
| % Bromofluorobenzene          | 91          | %                 | 91           | %                  | 100      | 99                        | 97                     | 99                       | 97                    | NC         | 70 - 130           | 25                 |
| % IS-1,4-Difluorobenzene      | 113         | %                 | 113          | %                  | 83       | 94                        | 98                     | 94                       | 98                    | NC         | 60 - 140           | 25                 |
| % IS-Bromochloromethane       | 117         | %                 | 117          | %                  | 75       | 92                        | 94                     | 92                       | 94                    | NC         | 60 - 140           | 25                 |
| % IS-Chlorobenzene-d5         | 109         | %                 | 109          | %                  | 85       | 98                        | 102                    | 98                       | 102                   | NC         | 60 - 140           | 25                 |

## QA/QC Data

SDG I.D.: GCD62844

| Parameter | Blk  | Blk  | Blk   | Blk   | LCS | Sample | Sample | Sample | Sample | DUP | %      | %      |
|-----------|------|------|-------|-------|-----|--------|--------|--------|--------|-----|--------|--------|
|           | ppbv | RL   | ug/m3 | RL    | %   | Result | Dup    | Result | Dup    | RPD | Rec    | RPD    |
|           |      | ppbv |       | ug/m3 |     | ug/m3  | ug/m3  | ppbv   | ppbv   |     | Limits | Limits |

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference  
LCS - Laboratory Control Sample  
LCSD - Laboratory Control Sample Duplicate  
MS - Matrix Spike  
MS Dup - Matrix Spike Duplicate  
NC - No Criteria  
Intf - Interference



Phyllis Shiller, Laboratory Director  
July 26, 2019

Friday, July 26, 2019

Criteria: None

State: NY

Sample Criteria Exceedances Report  
GCD62844 - ENVIROTR

| SampNo | Acode | Phoenix Analyte | Criteria | Result | RL | Criteria | RL<br>Criteria | Analysis<br>Units |
|--------|-------|-----------------|----------|--------|----|----------|----------------|-------------------|
|--------|-------|-----------------|----------|--------|----|----------|----------------|-------------------|

\*\*\* No Data to Display \*\*\*

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



**Environmental Laboratories, Inc.**  
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Tel. (860) 645-1102 Fax (860) 645-0823



## Analysis Comments

July 26, 2019

SDG I.D.: GCD62844

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The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report: None.





**800-827-5426**

**email: [greg@phoenixlabs.com](mailto:greg@phoenixlabs.com)**

Page 1 of 1

Fax #:

**Email:**

**Phone #:**

Report to: James Wilkinson

Invoice to: **EnviroTrac**

Project Name: EnSafe - Westbury

**Customer:** EnviroTrac

**Requested Deliverable:**  
RCP ☐ ASP CAT B ☐

Address: 5 Old Rock Road

MCP ☐ NJ Deliverables ☐

Yaphank, NY 11980

Sampled by: Jim Wilkinson

State where samples collected:

|                                                                                                      |                                                                                                  |               |             |                                                                                                                                     |
|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|---------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Relinquished by:  | Accepted by:  | Date: 7-23-19 | Time: 10:00 | Data Format: Excel <input checked="" type="checkbox"/> Equis <input type="checkbox"/> Other <input checked="" type="checkbox"/> pdf |
|                                                                                                      | K. Hall                                                                                          | 7-23-19       | 15:02       | Turnaround Time:                                                                                                                    |

**SPECIAL INSTRUCTIONS, OC REQUIREMENTS, REGULATORY INFORMATION:**

| Requested Criteria |
|--------------------|
|--------------------|

☐ 24 Hour      ☐ 48 Hour      ☐ 72 Hour      ☒ Standard

I attest that all media released by Phoenix Environmental Laboratories, Inc. have been received in good working condition and agree to the terms and conditions as listed on the back of this document:

**Quote Number:**

**Signature:**

Date: