

April 10, 2020

Ms. Kerry Maloney, P.G.
NYSDEC, Division of Environmental Remediation
Division of Environmental Remediation
625 Broadway
Albany, New York 12233-7015

Via email: Kerry.maloney@dec.ny.gov

Re: Progress Report: March 2020
Frost Street Sites: Site ID#s 1-30043 I, L, M
New Cassel Industrial Area, Westbury, New York

Dear Ms. Maloney:

EnSafe Inc. is pleased to submit this Progress Report for the Frost Street Sites (Site ID#s 1-30043 I, L, M) for operation, maintenance, and monitoring (OM&M) activities completed in March 2020 for the onsite air sparge/soil vapor extraction (AS/SVE) and groundwater extraction systems.

Air Sparge/Soil Vapor Extraction System – Operable Unit 1

- AS/SVE system operations continued this month, per the OM&M Manual. During periodic visits, system parameters were logged on dedicated forms (Appendix A). No alarm calls were received in March 2020.
- Quantitative sampling of the SVE system granular activated carbon influent and effluent air flow was conducted on March 18, 2020, 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.
 - Photoionization detector readings and influent concentrations of Frost Street-related contaminants of concern (tetrachloroethene, trichloroethene, and cis-1,2-dichloroethene [10,597 µg/m³]) continue to indicate significant mass extraction.
 - Effluent concentrations are below the carbon exchange indicator concentrations, as shown below.

Frost Street Sites Effluent Compliance			
System Flow Rate =		800 ft ³ /min	
Compound	Annual Mass Emission Limit ¹ (lbs/year)	Carbon Exchange Required Indicator Concentration (µg/m ³) ²	March 2020 Effluent Concentration (µg/m ³)
Trichloroethene	500	19,000	0.32
Tetrachloroethene	1,000	38,000	0.41
Vinyl Chloride	100	3,800	ND
Cis-1,2-Dichloroethene ³	100	3,800	3.96

Notes:

ft/min cubic feet per minute

lbs/year pounds per year

µg/m³ micrograms per cubic meter

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

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.

3 Cis-1,2-dichloroethene is not a listed HTAC, so the default is 100 lbs/year.

- System condensate water was discharged from the holding tank to the sewer via the onsite connection (March 17 – 50 gallons and March 31 – 550 gallons). All water is treated via activate carbon adsorption prior to discharge. Groundwater concentrations did not exceed applicable limits, as shown in Appendix C.

Groundwater Extraction System – Operable Unit 2

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 March.

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 first quarter 2020 groundwater sampling event was completed the week of March 9; results will be submitted in a forthcoming report, once available.

EnSafe made recommendations regarding the monitoring program in the *2019 Comprehensive Groundwater Monitoring Report* (EnSafe, September 2019), and is awaiting NYSDEC response.



The recommendations include a revised list of wells sampled and discontinuing the second quarter and fourth quarter sampling events and only sampling in the first quarter (7 wells) and third quarter (full list of 15 wells) of each year.

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

Sincerely,

EnSafe, Inc., by



Alexandra Stark, P.E.

Attachments

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

Appendix A
AS/SVE System Operation and Maintenance Logs

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: 6-Mar
Weather / Temp: Cloudy / 50 DEG
Technician / Operator: JW

Arrival Time: 10:30
Departure Time: 11:00

System Status									
	Arrival		Departure			Arrival		Departure	
SVE Blower 1 (ON/OFF)	OFF		OFF		Sensaphone (ON/OFF)	ON		ON	
SVE Blower 2 (ON/OFF)	ON		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)	4300		844		Blower 1 Total Runtime (hrs)	58,235.5			
Blower 1 Fresh Air Valve Open (%)	0				Blower 2 Total Runtime (hrs)	56,223.8			
Blower 2 Fresh Air Valve Open (%)	0				Blower 1 Air Filter Differential Pressure ("H2O)	0			
Moisture Separator Vacuum ("Hg)	4				Blower 2 Air Filter Differential Pressure ("H2O)	0			
VGAC-1 Influent Vacuum ("H2O)	80				VGAC-1 Influent PID (ppm)	11.2			
VGAC-1 Effluent Vacuum ("H2O)	72				VGAC-1 Effluent PID (ppm)	1.4			
VGAC-2 Influent Vacuum ("H2O)	65				VGAC-2 Influent PID (ppm)	11.2			
VGAC-2 Effluent Vacuum ("H2O)	70				VGAC-2 Effluent PID (ppm)	1.4			
VGAC-3 Influent Pressure ("H2O)	20				VGAC-3 Influent PID (ppm)	1.4			
VGAC-3 Effluent Pressure ("H2O)	2				VGAC-3 Effluent PID (ppm)	0.0			
VGAC-3 Influent Temp (DegF)	140				Blower Effluent PID (ppm)	1.4			
Blower Effluent Pressure ("H2O)	20								
Transfer Pump Total Runtime (hrs)	25,040.5				Condensate Storage Tank Level (gal)	400			
SVE Manifold Legs - Vacuum/Flow Rate/PID									
	Vacuum	Velocity	Flow Rate	PID		Vacuum	Velocity	Flow Rate	PID
SVE-1 ("H2O)/(FPM)/(cfm)/(ppm)	52	7900	172		SVE-4 ("H2O)/(FPM)/(cfm)/(ppm)	45	4200	92	
SVE-2 ("H2O)/(FPM)/(cfm)/(ppm)	54	4500	98		SVE-5 ("H2O)/(FPM)/(cfm)/(ppm)	46	3000	65	
SVE-3 ("H2O)/(FPM)/(cfm)/(ppm)	46	5300	116		SVE-6B ("H2O)/(FPM)/(cfm)/(ppm)	44	6800	148	
SVE-3A ("H2O)/(FPM)/(cfm)/(ppm)	45	4400	96		SVE-7 ("H2O)/(FPM)/(cfm)/(ppm)	45	2900	63	
Air Sparge System									
Compressor 1 Pressure (psi)	Off for repairs				Compressor 2 Pressure (psi)	88			
Compressor 1 Temperature (degF)	Off for repairs				Compressor 2 Temperature (degF)	196			
Compressor 1 Runtime (hrs)	27,317				Compressor 2 Runtime (hrs)	38,061			
Manifold Regulator Pressure (psi)	75								
AS Manifold Legs - Pressure/Flow Rate									
	Pressure		Flow Rate			Pressure		Flow Rate	
AS-1 (psi)/(cfm)	18		10		AS-11 (psi)/(cfm)	16		4	
AS-2 (psi)/(cfm)	17		8		AS-12B (psi)/(cfm)	17		9	
AS-3 (psi)/(cfm)	16		7		AS-13B (psi)/(cfm)	15		10	
AS-4 (psi)/(cfm)	15		4		AS-14 (psi)/(cfm)	16		10	
AS-5 (psi)/(cfm)	17		7		AS-15 (psi)/(cfm)	17		10	
AS-6 (psi)/(cfm)	17		9		AS-16B (psi)/(cfm)	15		10	
AS-7 (psi)/(cfm)	15		5		AS-17 (psi)/(cfm)	16		5	
AS-8 (psi)/(cfm)	17		10		AS-18 (psi)/(cfm)	16		7	
AS-9 (psi)/(cfm)	17		7		AS-19 (psi)/(cfm)	16		4	
AS-10B (psi)/(cfm)	16		10						

Notes, Comments & Observations:

Inspection, Maintenance, Lubrication Schedule
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: 6-Mar
Weather / Temp: Cloudy / 50 DEG
Technician / Operator: JW

Arrival Time: 10:30
Departure Time: 11:00

Maintenance Item	Perform	Completed (yes/no)	Comments
SVE Blower B-1			
-Inspect	Weekly	Y	
-Lubricate	As Required	N	
-Inspect Air Filter	Weekly	Y	
-Amp Draw	Quarterly	N	
-Inspect Belts	Weekly	Y	
SVE Blower B-2			
-Inspect	Weekly	Y	
-Lubricate	As Required	N	
-Inspect Air Filter	Weekly	Y	
-Amp Draw	Quarterly	N	
-Inspect Belts	Weekly	Y	
SVE Piping			
-Inspect	Weekly	Y	
-Valves	Weekly	Y	
Phase Separator/Storage Tank			
-Inspect	Weekly	Y	
-Check Level Switches	As Required	Y	
-Inspect water storage tank	Weekly	Y	
-Pump water to sewer drain	As Required	Y	
AS Compressor 1			
-Inspect	Weekly	N	Off for repairs.
-Lubricate	As Required	N	
-Inspect Filters	Weekly	N	
-Amp Draw	Quarterly	N	
AS Compressor 2			
-Inspect	Weekly	Y	
-Lubricate	As Required	N	
-Inspect Filters	Weekly	Y	
-Amp Draw	Quarterly	N	
AS Piping			
-Inspect	Weekly	Y	
-Valves	Weekly	Y	
-Drain Filters/Collectors	Weekly	Y	
-Drain Pressure Tank	Weekly	Y	

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: 12-Mar
 Weather / Temp: Cloudy / 45 DEG
 Technician / Operator: JW

Arrival Time: 12:00
 Departure Time: 12:30

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)	OFF		ON						
Soil Vapor Extraction System									
Blower Air Velocity/Flow Rate (fpm)/cfm)	4400		864		Blower 1 Total Runtime (hrs)	58,307.5			
Blower 1 Fresh Air Valve Open (%)	0				Blower 2 Total Runtime (hrs)	56,296.1			
Blower 2 Fresh Air Valve Open (%)	0				Blower 1 Air Filter Differential Pressure ("H2O)	0			
Moisture Separator Vacuum ("Hg)	4				Blower 2 Air Filter Differential Pressure ("H2O)	0			
VGAC-1 Influent Vacuum ("H2O)	80				VGAC-1 Influent PID (ppm)	3.1			
VGAC-1 Effluent Vacuum ("H2O)	72				VGAC-1 Effluent PID (ppm)	1.4			
VGAC-2 Influent Vacuum ("H2O)	65				VGAC-2 Influent PID (ppm)	3.1			
VGAC-2 Effluent Vacuum ("H2O)	70				VGAC-2 Effluent PID (ppm)	1.4			
VGAC-3 Influent Pressure ("H2O)	20				VGAC-3 Influent PID (ppm)	1.4			
VGAC-3 Effluent Pressure ("H2O)	2				VGAC-3 Effluent PID (ppm)	0.0			
VGAC-3 Influent Temp (DegF)	138				Blower Effluent PID (ppm)	1.4			
Blower Effluent Pressure ("H2O)	20								
Transfer Pump Total Runtime (hrs)	25,040.5				Condensate Storage Tank Level (gal)	475			
SVE Manifold Legs - Vacuum/Flow Rate/PID									
	Vacuum	Velocity	Flow Rate	PID		Vacuum	Velocity	Flow Rate	PID
SVE-1 ("H2O)/(FPM)/(cfm)/(ppm)	55	8000	175		SVE-4 ("H2O)/(FPM)/(cfm)/(ppm)	48	4400	96	
SVE-2 ("H2O)/(FPM)/(cfm)/(ppm)	58	5000	109		SVE-5 ("H2O)/(FPM)/(cfm)/(ppm)	48	3400	74	
SVE-3 ("H2O)/(FPM)/(cfm)/(ppm)	50	5500	120		SVE-6B ("H2O)/(FPM)/(cfm)/(ppm)	48	7000	153	
SVE-3A ("H2O)/(FPM)/(cfm)/(ppm)	48	4500	98		SVE-7 ("H2O)/(FPM)/(cfm)/(ppm)	48	3100	68	
Air Sparge System									
Compressor 1 Pressure (psi)	Off for repairs				Compressor 2 Pressure (psi)	89			
Compressor 1 Temperature (degF)	Off for repairs				Compressor 2 Temperature (degF)	161			
Compressor 1 Runtime (hrs)	27,317				Compressor 2 Runtime (hrs)	38,087			
Manifold Regulator Pressure (psi)	75								
AS Manifold Legs - Pressure/Flow Rate									
	Pressure		Flow Rate			Pressure		Flow Rate	
AS-1 (psi)/cfm)	21		6		AS-11 (psi)/cfm)	19		10	
AS-2 (psi)/cfm)	20		4		AS-12B (psi)/cfm)	20		6	
AS-3 (psi)/cfm)	19		10		AS-13B (psi)/cfm)	18		6	
AS-4 (psi)/cfm)	10		4		AS-14 (psi)/cfm)	19		8	
AS-5 (psi)/cfm)	20		10		AS-15 (psi)/cfm)	20		9	
AS-6 (psi)/cfm)	20		8		AS-16B (psi)/cfm)	18		7	
AS-7 (psi)/cfm)	20		9		AS-17 (psi)/cfm)	19		5	
AS-8 (psi)/cfm)	18		10		AS-18 (psi)/cfm)	17		8	
AS-9 (psi)/cfm)	19		10		AS-19 (psi)/cfm)	17		10	
AS-10B (psi)/cfm)	18		7						

Notes, Comments & Observations:

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101 Frost Street
Westbury, NY

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

Date: 12-Mar
Weather / Temp: Cloudy / 45 DEG
Technician / Operator: JW

Arrival Time: 12:00
Departure Time: 12:30

Maintenance Item	Perform	Completed (yes/no)	Comments
SVE Blower B-1			
-Inspect	Weekly	Y	
-Lubricate	As Required	N	
-Inspect Air Filter	Weekly	Y	
-Amp Draw	Quarterly	N	
-Inspect Belts	Weekly	Y	
SVE Blower B-2			
-Inspect	Weekly	Y	
-Lubricate	As Required	N	
-Inspect Air Filter	Weekly	Y	
-Amp Draw	Quarterly	N	
-Inspect Belts	Weekly	Y	
SVE Piping			
-Inspect	Weekly	Y	
-Valves	Weekly	Y	
Phase Separator/Storage Tank			
-Inspect	Weekly	Y	
-Check Level Switches	As Required	Y	
-Inspect water storage tank	Weekly	Y	
-Pump water to sewer drain	As Required	Y	
AS Compressor 1			
-Inspect	Weekly	N	Off for repairs.
-Lubricate	As Required	N	
-Inspect Filters	Weekly	N	
-Amp Draw	Quarterly	N	
AS Compressor 2			
-Inspect	Weekly	Y	
-Lubricate	As Required	Y	Added 2-gallons of oil.
-Inspect Filters	Weekly	Y	
-Amp Draw	Quarterly	N	
AS Piping			
-Inspect	Weekly	Y	
-Valves	Weekly	Y	
-Drain Filters/Collectors	Weekly	Y	
-Drain Pressure Tank	Weekly	Y	

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 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: 17-Mar
 Weather / Temp: Rain / 45 DEG
 Technician / Operator: JW

Arrival Time: 10:30
 Departure Time: 11:00

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)	4500		884		Blower 1 Total Runtime (hrs)	58,367.4			
Blower 1 Fresh Air Valve Open (%)	0				Blower 2 Total Runtime (hrs)	56,354.5			
Blower 2 Fresh Air Valve Open (%)	0				Blower 1 Air Filter Differential Pressure ("H2O)	0			
Moisture Separator Vacuum ("Hg)	4				Blower 2 Air Filter Differential Pressure ("H2O)	0			
VGAC-1 Influent Vacuum ("H2O)	80				VGAC-1 Influent PID (ppm)	7.5			
VGAC-1 Effluent Vacuum ("H2O)	72				VGAC-1 Effluent PID (ppm)	1.5			
VGAC-2 Influent Vacuum ("H2O)	65				VGAC-2 Influent PID (ppm)	7.5			
VGAC-2 Effluent Vacuum ("H2O)	70				VGAC-2 Effluent PID (ppm)	1.5			
VGAC-3 Influent Pressure ("H2O)	20				VGAC-3 Influent PID (ppm)	1.5			
VGAC-3 Effluent Pressure ("H2O)	2				VGAC-3 Effluent PID (ppm)	0.0			
VGAC-3 Influent Temp (DegF)	138				Blower Effluent PID (ppm)	1.5			
Blower Effluent Pressure ("H2O)	20								
Transfer Pump Total Runtime (hrs)	25,040.6				Condensate Storage Tank Level (gal)	550 -> 500			
SVE Manifold Legs - Vacuum/Flow Rate/PID									
	Vacuum	Velocity	Flow Rate	PID		Vacuum	Velocity	Flow Rate	PID
SVE-1 ("H2O)/(FPM)/(cfm)/(ppm)	55	8000	175	2.0	SVE-4 ("H2O)/(FPM)/(cfm)/(ppm)	48	4500	98	0.0
SVE-2 ("H2O)/(FPM)/(cfm)/(ppm)	57	5000	109	3.0	SVE-5 ("H2O)/(FPM)/(cfm)/(ppm)	48	3200	70	3.3
SVE-3 ("H2O)/(FPM)/(cfm)/(ppm)	49	5600	122	1.5	SVE-6B ("H2O)/(FPM)/(cfm)/(ppm)	48	7000	153	11.9
SVE-3A ("H2O)/(FPM)/(cfm)/(ppm)	48	4500	98	1.4	SVE-7 ("H2O)/(FPM)/(cfm)/(ppm)	50	3200	70	1.8
Air Sparge System									
Compressor 1 Pressure (psi)	Off for repairs				Compressor 2 Pressure (psi)	83			
Compressor 1 Temperature (degF)	Off for repairs				Compressor 2 Temperature (degF)	165			
Compressor 1 Runtime (hrs)	27,317				Compressor 2 Runtime (hrs)	38,205			
Manifold Regulator Pressure (psi)	70								
AS Manifold Legs - Pressure/Flow Rate									
	Pressure		Flow Rate			Pressure		Flow Rate	
AS-1 (psi)/(cfm)	18		10		AS-11 (psi)/(cfm)	17		4	
AS-2 (psi)/(cfm)	17		7		AS-12B (psi)/(cfm)	17		10	
AS-3 (psi)/(cfm)	16		7		AS-13B (psi)/(cfm)	15		10	
AS-4 (psi)/(cfm)	15		4		AS-14 (psi)/(cfm)	16		10	
AS-5 (psi)/(cfm)	18		7		AS-15 (psi)/(cfm)	17		10	
AS-6 (psi)/(cfm)	17		9		AS-16B (psi)/(cfm)	15		10	
AS-7 (psi)/(cfm)	18		5		AS-17 (psi)/(cfm)	16		8	
AS-8 (psi)/(cfm)	16		10		AS-18 (psi)/(cfm)	16		8	
AS-9 (psi)/(cfm)	17		7		AS-19 (psi)/(cfm)	16		4	
AS-10B (psi)/(cfm)	15		10						

Notes, Comments & Observations:

Collected monthly samples.

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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: 17-Mar
Weather / Temp: Rain / 45 DEG
Technician / Operator: JW

Arrival Time: 10:30
Departure Time: 11:00

Maintenance Item	Perform	Completed (yes/no)	Comments
SVE Blower B-1			
-Inspect	Weekly	Y	
-Lubricate	As Required	N	
-Inspect Air Filter	Weekly	Y	
-Amp Draw	Quarterly	N	
-Inspect Belts	Weekly	Y	
SVE Blower B-2			
-Inspect	Weekly	Y	
-Lubricate	As Required	N	
-Inspect Air Filter	Weekly	Y	
-Amp Draw	Quarterly	N	
-Inspect Belts	Weekly	Y	
SVE Piping			
-Inspect	Weekly	Y	
-Valves	Weekly	Y	
Phase Separator/Storage Tank			
-Inspect	Weekly	Y	
-Check Level Switches	As Required	Y	
-Inspect water storage tank	Weekly	Y	
-Pump water to sewer drain	As Required	Y	
AS Compressor 1			
-Inspect	Weekly	N	Off for repairs.
-Lubricate	As Required	N	
-Inspect Filters	Weekly	N	
-Amp Draw	Quarterly	N	
AS Compressor 2			
-Inspect	Weekly	Y	
-Lubricate	As Required	N	
-Inspect Filters	Weekly	Y	
-Amp Draw	Quarterly	N	
AS Piping			
-Inspect	Weekly	Y	
-Valves	Weekly	Y	
-Drain Filters/Collectors	Weekly	Y	
-Drain Pressure Tank	Weekly	Y	

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: 27-Mar
Weather / Temp: Clear / 45 DEG
Technician / Operator: JW

Arrival Time: 9:30
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)	4300		844		Blower 1 Total Runtime (hrs)	58,487.4			
Blower 1 Fresh Air Valve Open (%)	0				Blower 2 Total Runtime (hrs)	56,473.6			
Blower 2 Fresh Air Valve Open (%)	0				Blower 1 Air Filter Differential Pressure ("H2O)	0			
Moisture Separator Vacuum ("Hg)	4				Blower 2 Air Filter Differential Pressure ("H2O)	0			
VGAC-1 Influent Vacuum ("H2O)	80				VGAC-1 Effluent PID (ppm)	5.7			
VGAC-1 Effluent Vacuum ("H2O)	72				VGAC-2 Effluent PID (ppm)	1.8			
VGAC-2 Influent Vacuum ("H2O)	65				VGAC-2 Influent PID (ppm)	5.7			
VGAC-2 Effluent Vacuum ("H2O)	70				VGAC-2 Effluent PID (ppm)	1.8			
VGAC-3 Influent Pressure ("H2O)	20				VGAC-3 Influent PID (ppm)	1.8			
VGAC-3 Effluent Pressure ("H2O)	2				VGAC-3 Effluent PID (ppm)	0.0			
VGAC-3 Influent Temp (DegF)	138				Blower Effluent PID (ppm)	1.8			
Blower Effluent Pressure ("H2O)	20								
Transfer Pump Total Runtime (hrs)	25,040.8				Condensate Storage Tank Level (gal)	520			
SVE Manifold Legs - Vacuum/Flow Rate/PID									
	Vacuum	Velocity	Flow Rate	PID		Vacuum	Velocity	Flow Rate	PID
SVE-1 ("H2O)/(FPM)/(cfm)/(ppm)	55	8000	175		SVE-4 ("H2O)/(FPM)/(cfm)/(ppm)	48	4500	98	
SVE-2 ("H2O)/(FPM)/(cfm)/(ppm)	57	5000	109		SVE-5 ("H2O)/(FPM)/(cfm)/(ppm)	48	3400	74	
SVE-3 ("H2O)/(FPM)/(cfm)/(ppm)	50	5500	120		SVE-6B ("H2O)/(FPM)/(cfm)/(ppm)	48	7000	153	
SVE-3A ("H2O)/(FPM)/(cfm)/(ppm)	48	4500	98		SVE-7 ("H2O)/(FPM)/(cfm)/(ppm)	50	3200	70	
Air Sparge System									
Compressor 1 Pressure (psi)	Off for repairs				Compressor 2 Pressure (psi)	83			
Compressor 1 Temperature (degF)	Off for repairs				Compressor 2 Temperature (degF)	185			
Compressor 1 Runtime (hrs)	27,317				Compressor 2 Runtime (hrs)	38,444			
Manifold Regulator Pressure (psi)	72								
AS Manifold Legs - Pressure/Flow Rate									
	Pressure	Flow Rate			Pressure	Flow Rate			
AS-1 (psi)/(cfm)	18	10	AS-11 (psi)/(cfm)		17	4			
AS-2 (psi)/(cfm)	17	10	AS-12B (psi)/(cfm)		17	10			
AS-3 (psi)/(cfm)	16	8	AS-13B (psi)/(cfm)		15	10			
AS-4 (psi)/(cfm)	15	4	AS-14 (psi)/(cfm)		16	10			
AS-5 (psi)/(cfm)	18	6	AS-15 (psi)/(cfm)		17	10			
AS-6 (psi)/(cfm)	17	9	AS-16B (psi)/(cfm)		15	10			
AS-7 (psi)/(cfm)	18	5	AS-17 (psi)/(cfm)		16	10			
AS-8 (psi)/(cfm)	16	10	AS-18 (psi)/(cfm)		16	10			
AS-9 (psi)/(cfm)	17	8	AS-19 (psi)/(cfm)		16	4			
AS-10B (psi)/(cfm)	15	10							

Notes, Comments & Observations:

Inspection, Maintenance, Lubrication Schedule
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: 27-Mar
Weather / Temp: Clear / 45 DEG
Technician / Operator: JW

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

Maintenance Item	Perform	Completed (yes/no)	Comments
SVE Blower B-1			
-Inspect	Weekly	Y	
-Lubricate	As Required	N	
-Inspect Air Filter	Weekly	Y	
-Amp Draw	Quarterly	N	
-Inspect Belts	Weekly	Y	
SVE Blower B-2			
-Inspect	Weekly	Y	
-Lubricate	As Required	N	
-Inspect Air Filter	Weekly	Y	
-Amp Draw	Quarterly	N	
-Inspect Belts	Weekly	Y	
SVE Piping			
-Inspect	Weekly	Y	
-Valves	Weekly	Y	
Phase Separator/Storage Tank			
-Inspect	Weekly	Y	
-Check Level Switches	As Required	Y	
-Inspect water storage tank	Weekly	Y	
-Pump water to sewer drain	As Required	Y	
AS Compressor 1			
-Inspect	Weekly	N	Off for repairs.
-Lubricate	As Required	N	
-Inspect Filters	Weekly	N	
-Amp Draw	Quarterly	N	
AS Compressor 2			
-Inspect	Weekly	Y	
-Lubricate	As Required	N	
-Inspect Filters	Weekly	Y	
-Amp Draw	Quarterly	N	
AS Piping			
-Inspect	Weekly	Y	
-Valves	Weekly	Y	
-Drain Filters/Collectors	Weekly	Y	
-Drain Pressure Tank	Weekly	Y	

Operation & Maintenance Data Sheet
 Ensaf-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: 31-Mar
Weather / Temp: Clear / 45 DEG
Technician / Operator: JW

Arrival Time: 8:00
Departure Time: 8:15

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)			Blower 1 Total Runtime (hrs)	58,534.4					
Blower 1 Fresh Air Valve Open (%)			Blower 2 Total Runtime (hrs)	56,519.8					
Blower 2 Fresh Air Valve Open (%)			Blower 1 Air Filter Differential Pressure ("H2O)						
Moisture Separator Vacuum ("Hg)			Blower 2 Air Filter Differential Pressure ("H2O)						
VGAC-1 Influent Vacuum ("H2O)			VGAC-1 Influent PID (ppm)						
VGAC-1 Effluent Vacuum ("H2O)			VGAC-1 Effluent PID (ppm)						
VGAC-2 Influent Vacuum ("H2O)			VGAC-2 Influent PID (ppm)						
VGAC-2 Effluent Vacuum ("H2O)			VGAC-2 Effluent PID (ppm)						
VGAC-3 Influent Pressure ("H2O)			VGAC-3 Influent PID (ppm)						
VGAC-3 Effluent Pressure ("H2O)			VGAC-3 Effluent PID (ppm)						
VGAC-3 Influent Temp (DegF)			Blower Effluent PID (ppm)						
Blower Effluent Pressure ("H2O)									
Transfer Pump Total Runtime (hrs)	25,040.8		Condensate Storage Tank Level (gal)	550 -> 0					
SVE Manifold Legs - Vacuum/Flow Rate/PID									
	Vacuum	Velocity	Flow Rate	PID		Vacuum	Velocity	Flow Rate	PID
SVE-1 ("H2O)/(FPM)/(cfm)/(ppm)					SVE-4 ("H2O)/(FPM)/(cfm)/(ppm)				
SVE-2 ("H2O)/(FPM)/(cfm)/(ppm)					SVE-5 ("H2O)/(FPM)/(cfm)/(ppm)				
SVE-3 ("H2O)/(FPM)/(cfm)/(ppm)					SVE-6B ("H2O)/(FPM)/(cfm)/(ppm)				
SVE-3A ("H2O)/(FPM)/(cfm)/(ppm)					SVE-7 ("H2O)/(FPM)/(cfm)/(ppm)				
Air Sparge System									
Compressor 1 Pressure (psi)	Off for repairs			Compressor 2 Pressure (psi)					
Compressor 1 Temperature (degF)	Off for repairs			Compressor 2 Temperature (degF)					
Compressor 1 Runtime (hrs)				Compressor 2 Runtime (hrs)	38,537				
Manifold Regulator Pressure (psi)									
AS Manifold Legs - Pressure/Flow Rate									
	Pressure	Flow Rate		Pressure	Flow Rate				
AS-1 (psi)/(cfm)			AS-11 (psi)/(cfm)						
AS-2 (psi)/(cfm)			AS-12B (psi)/(cfm)						
AS-3 (psi)/(cfm)			AS-13B (psi)/(cfm)						
AS-4 (psi)/(cfm)			AS-14 (psi)/(cfm)						
AS-5 (psi)/(cfm)			AS-15 (psi)/(cfm)						
AS-6 (psi)/(cfm)			AS-16B (psi)/(cfm)						
AS-7 (psi)/(cfm)			AS-17 (psi)/(cfm)						
AS-8 (psi)/(cfm)			AS-18 (psi)/(cfm)						
AS-9 (psi)/(cfm)			AS-19 (psi)/(cfm)						
AS-10B (psi)/(cfm)									

Notes, Comments & Observations: _____

Collected water sample. _____

Inspection, Maintenance, Lubrication Schedule
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: 31-Mar
Weather / Temp: Clear / 45 DEG
Technician / Operator: JW

Arrival Time: 8:00
Departure Time: 8:15

Maintenance Item	Perform	Completed (yes/no)	Comments
SVE Blower B-1			
-Inspect	Weekly	Y	
-Lubricate	As Required	N	
-Inspect Air Filter	Weekly	N	
-Amp Draw	Quarterly	N	
-Inspect Belts	Weekly	N	
SVE Blower B-2			
-Inspect	Weekly	Y	
-Lubricate	As Required	N	
-Inspect Air Filter	Weekly	N	
-Amp Draw	Quarterly	N	
-Inspect Belts	Weekly	N	
SVE Piping			
-Inspect	Weekly	Y	
-Valves	Weekly	Y	
Phase Separator/Storage Tank			
-Inspect	Weekly	Y	
-Check Level Switches	As Required	Y	
-Inspect water storage tank	Weekly	Y	
-Pump water to sewer drain	As Required	Y	
AS Compressor 1			
-Inspect	Weekly	N	Off for repairs.
-Lubricate	As Required	N	
-Inspect Filters	Weekly	N	
-Amp Draw	Quarterly	N	
AS Compressor 2			
-Inspect	Weekly	Y	
-Lubricate	As Required	N	
-Inspect Filters	Weekly	N	
-Amp Draw	Quarterly	N	
AS Piping			
-Inspect	Weekly	Y	
-Valves	Weekly	N	
-Drain Filters/Collectors	Weekly	N	
-Drain Pressure Tank	Weekly	N	

Appendix B
AS/SVE System Influent/Effluent Sampling
Laboratory Analytical Results



Tuesday, March 24, 2020

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

Project ID: ENSAFE WESTBURY
SDG ID: GCF53521
Sample ID#s: CF53521 - CF53522

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

March 24, 2020

SDG I.D.: GCF53521

Project ID: ENSAFE WESTBURY

Client Id	Lab Id	Matrix
SVE EFFLUENT	CF53521	AIR
SVE INFLUENT	CF53522	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

March 24, 2020

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: 732

Custody Information

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

Date

03/18/20 10:03
03/19/20 15:16

Time

Project ID: ENSAFE WESTBURY
Client ID: SVE EFFLUENT

Laboratory Data

SDG ID: GCF53521
Phoenix ID: CF53521

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution
<u>Volatiles (TO15)</u>							
1,1,1,2-Tetrachloroethane	ND	0.146	ND	1.00	03/23/20	KCA	1
1,1,1-Trichloroethane	ND	0.183	ND	1.00	03/23/20	KCA	1
1,1,2,2-Tetrachloroethane	ND	0.146	ND	1.00	03/23/20	KCA	1
1,1,2-Trichloroethane	ND	0.183	ND	1.00	03/23/20	KCA	1
1,1-Dichloroethane	ND	0.247	ND	1.00	03/23/20	KCA	1
1,1-Dichloroethene	ND	0.051	ND	0.20	03/23/20	KCA	1
1,2,4-Trichlorobenzene	ND	0.135	ND	1.00	03/23/20	KCA	1
1,2,4-Trimethylbenzene	ND	0.204	ND	1.00	03/23/20	KCA	1
1,2-Dibromoethane(EDB)	ND	0.130	ND	1.00	03/23/20	KCA	1
1,2-Dichlorobenzene	ND	0.166	ND	1.00	03/23/20	KCA	1
1,2-Dichloroethane	ND	0.247	ND	1.00	03/23/20	KCA	1
1,2-dichloropropane	ND	0.217	ND	1.00	03/23/20	KCA	1
1,2-Dichlorotetrafluoroethane	ND	0.143	ND	1.00	03/23/20	KCA	1
1,3,5-Trimethylbenzene	ND	0.204	ND	1.00	03/23/20	KCA	1
1,3-Butadiene	ND	0.452	ND	1.00	03/23/20	KCA	1
1,3-Dichlorobenzene	ND	0.166	ND	1.00	03/23/20	KCA	1
1,4-Dichlorobenzene	ND	0.166	ND	1.00	03/23/20	KCA	1
1,4-Dioxane	ND	0.278	ND	1.00	03/23/20	KCA	1
2-Hexanone(MBK)	ND	0.244	ND	1.00	03/23/20	KCA	1
4-Ethyltoluene	ND	0.204	ND	1.00	03/23/20	KCA	1
4-Isopropyltoluene	ND	0.182	ND	1.00	03/23/20	KCA	1
4-Methyl-2-pentanone(MIBK)	ND	0.244	ND	1.00	03/23/20	KCA	1
Acetone	1.68	0.421	3.99	1.00	03/23/20	KCA	1
Acrylonitrile	ND	0.461	ND	1.00	03/23/20	KCA	1
Benzene	0.452	0.313	1.44	1.00	03/23/20	KCA	1
Benzyl chloride	ND	0.193	ND	1.00	03/23/20	KCA	1

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution
Bromodichloromethane	ND	0.149	ND	1.00	03/23/20	KCA	1
Bromoform	ND	0.097	ND	1.00	03/23/20	KCA	1
Bromomethane	ND	0.258	ND	1.00	03/23/20	KCA	1
Carbon Disulfide	ND	0.321	ND	1.00	03/23/20	KCA	1
Carbon Tetrachloride	ND	0.032	ND	0.20	03/23/20	KCA	1
Chlorobenzene	ND	0.217	ND	1.00	03/23/20	KCA	1
Chloroethane	ND	0.379	ND	1.00	03/23/20	KCA	1
Chloroform	ND	0.205	ND	1.00	03/23/20	KCA	1
Chloromethane	ND	0.485	ND	1.00	03/23/20	KCA	1
Cis-1,2-Dichloroethene	1.00	0.051	3.96	0.20	03/23/20	KCA	1
cis-1,3-Dichloropropene	ND	0.221	ND	1.00	03/23/20	KCA	1
Cyclohexane	ND	0.291	ND	1.00	03/23/20	KCA	1
Dibromochloromethane	ND	0.118	ND	1.00	03/23/20	KCA	1
Dichlorodifluoromethane	0.504	0.202	2.49	1.00	03/23/20	KCA	1
Ethanol	7.76	0.531	14.6	1.00	03/23/20	KCA	1 1
Ethyl acetate	ND	0.278	ND	1.00	03/23/20	KCA	1 1
Ethylbenzene	ND	0.230	ND	1.00	03/23/20	KCA	1
Heptane	ND	0.244	ND	1.00	03/23/20	KCA	1
Hexachlorobutadiene	ND	0.094	ND	1.00	03/23/20	KCA	1
Hexane	ND	0.284	ND	1.00	03/23/20	KCA	1
Isopropylalcohol	0.772	0.407	1.90	1.00	03/23/20	KCA	1
Isopropylbenzene	ND	0.204	ND	1.00	03/23/20	KCA	1
m,p-Xylene	ND	0.230	ND	1.00	03/23/20	KCA	1
Methyl Ethyl Ketone	0.938	0.339	2.76	1.00	03/23/20	KCA	1
Methyl tert-butyl ether(MTBE)	ND	0.278	ND	1.00	03/23/20	KCA	1
Methylene Chloride	ND	0.864	ND	3.00	03/23/20	KCA	1
n-Butylbenzene	ND	0.182	ND	1.00	03/23/20	KCA	1 1
o-Xylene	ND	0.230	ND	1.00	03/23/20	KCA	1
Propylene	ND	0.581	ND	1.00	03/23/20	KCA	1 1
sec-Butylbenzene	ND	0.182	ND	1.00	03/23/20	KCA	1 1
Styrene	ND	0.235	ND	1.00	03/23/20	KCA	1
Tetrachloroethene	0.061	0.037	0.41	0.25	03/23/20	KCA	1
Tetrahydrofuran	ND	0.339	ND	1.00	03/23/20	KCA	1 1
Toluene	ND	0.266	ND	1.00	03/23/20	KCA	1
Trans-1,2-Dichloroethene	ND	0.252	ND	1.00	03/23/20	KCA	1
trans-1,3-Dichloropropene	ND	0.221	ND	1.00	03/23/20	KCA	1
Trichloroethene	0.059	0.037	0.32	0.20	03/23/20	KCA	1
Trichlorofluoromethane	ND	0.178	ND	1.00	03/23/20	KCA	1
Trichlorotrifluoroethane	ND	0.131	ND	1.00	03/23/20	KCA	1
Vinyl Chloride	ND	0.078	ND	0.20	03/23/20	KCA	1
<u>QA/QC Surrogates/Internals</u>							
% Bromofluorobenzene	98	%	98	%	03/23/20	KCA	1
% IS-1,4-Difluorobenzene	110	%	110	%	03/23/20	KCA	1
% IS-Bromochloromethane	110	%	110	%	03/23/20	KCA	1
% IS-Chlorobenzene-d5	109	%	109	%	03/23/20	KCA	1

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution
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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

March 24, 2020

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

March 24, 2020

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: 846

Custody Information

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

Date

03/18/20 10:06
03/19/20 15:16

Time

Project ID: ENSAFE WESTBURY
Client ID: SVE INFLUENT

Laboratory Data

SDG ID: GCF53521
Phoenix ID: CF53522

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution
<u>Volatiles (TO15)</u>							
1,1,1,2-Tetrachloroethane	ND	0.729	ND	5.00	03/23/20	KCA	5
1,1,1-Trichloroethane	ND	0.917	ND	5.00	03/23/20	KCA	5
1,1,2,2-Tetrachloroethane	ND	0.729	ND	5.00	03/23/20	KCA	5
1,1,2-Trichloroethane	ND	0.917	ND	5.00	03/23/20	KCA	5
1,1-Dichloroethane	ND	1.24	ND	5.02	03/23/20	KCA	5
1,1-Dichloroethene	ND	0.252	ND	1.00	03/23/20	KCA	5
1,2,4-Trichlorobenzene	ND	0.674	ND	5.00	03/23/20	KCA	5
1,2,4-Trimethylbenzene	ND	1.02	ND	5.01	03/23/20	KCA	5
1,2-Dibromoethane(EDB)	ND	0.651	ND	5.00	03/23/20	KCA	5
1,2-Dichlorobenzene	ND	0.832	ND	5.00	03/23/20	KCA	5
1,2-Dichloroethane	ND	1.24	ND	5.02	03/23/20	KCA	5
1,2-dichloropropane	ND	1.08	ND	4.99	03/23/20	KCA	5
1,2-Dichlorotetrafluoroethane	ND	0.716	ND	5.00	03/23/20	KCA	5
1,3,5-Trimethylbenzene	ND	1.02	ND	5.01	03/23/20	KCA	5
1,3-Butadiene	ND	2.26	ND	5.00	03/23/20	KCA	5
1,3-Dichlorobenzene	ND	0.832	ND	5.00	03/23/20	KCA	5
1,4-Dichlorobenzene	ND	0.832	ND	5.00	03/23/20	KCA	5
1,4-Dioxane	ND	1.39	ND	5.01	03/23/20	KCA	5
2-Hexanone(MBK)	ND	1.22	ND	4.99	03/23/20	KCA	5
4-Ethyltoluene	ND	1.02	ND	5.01	03/23/20	KCA	5
4-Isopropyltoluene	ND	0.911	ND	5.00	03/23/20	KCA	5
4-Methyl-2-pentanone(MIBK)	ND	1.22	ND	4.99	03/23/20	KCA	5
Acetone	4.86	2.11	11.5	5.01	03/23/20	KCA	5
Acrylonitrile	ND	2.31	ND	5.01	03/23/20	KCA	5
Benzene	ND	1.57	ND	5.01	03/23/20	KCA	5
Benzyl chloride	ND	0.966	ND	5.00	03/23/20	KCA	5

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution	
Bromodichloromethane	ND	0.747	ND	5.00	03/23/20	KCA	5	
Bromoform	ND	0.484	ND	5.00	03/23/20	KCA	5	
Bromomethane	ND	1.29	ND	5.01	03/23/20	KCA	5	
Carbon Disulfide	ND	1.61	ND	5.01	03/23/20	KCA	5	
Carbon Tetrachloride	ND	0.159	ND	1.00	03/23/20	KCA	5	
Chlorobenzene	ND	1.09	ND	5.01	03/23/20	KCA	5	
Chloroethane	ND	1.90	ND	5.01	03/23/20	KCA	5	
Chloroform	ND	1.02	ND	4.98	03/23/20	KCA	5	
Chloromethane	ND	2.42	ND	4.99	03/23/20	KCA	5	
Cis-1,2-Dichloroethene	50.1	0.252	199	1.00	03/23/20	KCA	5	
cis-1,3-Dichloropropene	ND	1.10	ND	4.99	03/23/20	KCA	5	
Cyclohexane	ND	1.45	ND	4.99	03/23/20	KCA	5	
Dibromochloromethane	ND	0.587	ND	5.00	03/23/20	KCA	5	
Dichlorodifluoromethane	ND	1.01	ND	4.99	03/23/20	KCA	5	
Ethanol	10.7	2.66	20.1	5.01	03/23/20	KCA	5	1
Ethyl acetate	ND	1.39	ND	5.01	03/23/20	KCA	5	1
Ethylbenzene	ND	1.15	ND	4.99	03/23/20	KCA	5	
Heptane	ND	1.22	ND	5.00	03/23/20	KCA	5	
Hexachlorobutadiene	ND	0.469	ND	5.00	03/23/20	KCA	5	
Hexane	ND	1.42	ND	5.00	03/23/20	KCA	5	
Isopropylalcohol	ND	2.04	ND	5.01	03/23/20	KCA	5	
Isopropylbenzene	ND	1.02	ND	5.01	03/23/20	KCA	5	
m,p-Xylene	ND	1.15	ND	4.99	03/23/20	KCA	5	
Methyl Ethyl Ketone	ND	1.70	ND	5.01	03/23/20	KCA	5	
Methyl tert-butyl ether(MTBE)	ND	1.39	ND	5.01	03/23/20	KCA	5	
Methylene Chloride	ND	4.32	ND	15.0	03/23/20	KCA	5	
n-Butylbenzene	ND	0.911	ND	5.00	03/23/20	KCA	5	1
o-Xylene	ND	1.15	ND	4.99	03/23/20	KCA	5	
Propylene	ND	2.91	ND	5.01	03/23/20	KCA	5	1
sec-Butylbenzene	ND	0.911	ND	5.00	03/23/20	KCA	5	1
Styrene	ND	1.17	ND	4.98	03/23/20	KCA	5	
Tetrachloroethene	1470	2.77	9960	18.8	03/23/20	KCA	75	
Tetrahydrofuran	2.38	1.70	7.01	5.01	03/23/20	KCA	5	1
Toluene	ND	1.33	ND	5.01	03/23/20	KCA	5	
Trans-1,2-Dichloroethene	ND	1.26	ND	4.99	03/23/20	KCA	5	
trans-1,3-Dichloropropene	ND	1.10	ND	4.99	03/23/20	KCA	5	
Trichloroethene	81.6	0.186	438	1.00	03/23/20	KCA	5	
Trichlorofluoromethane	ND	0.891	ND	5.00	03/23/20	KCA	5	
Trichlorotrifluoroethane	ND	0.653	ND	5.00	03/23/20	KCA	5	
Vinyl Chloride	ND	0.391	ND	1.00	03/23/20	KCA	5	
<u>QA/OC Surrogates/Internals</u>								
% Bromofluorobenzene (5x)	102	%	102	%	03/23/20	KCA	5	
% IS-1,4-Difluorobenzene (5x)	97	%	97	%	03/23/20	KCA	5	
% IS-Bromochloromethane (5x)	100	%	100	%	03/23/20	KCA	5	
% IS-Chlorobenzene-d5 (5x)	99	%	99	%	03/23/20	KCA	5	
% Bromofluorobenzene (30x)	100	%	100	%	03/23/20	KCA	30	
% IS-1,4-Difluorobenzene (30x)	103	%	103	%	03/23/20	KCA	30	
% IS-Bromochloromethane (30x)	104	%	104	%	03/23/20	KCA	30	
% IS-Chlorobenzene-d5 (30x)	99	%	99	%	03/23/20	KCA	30	

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution
% Bromofluorobenzene (75x)	99	%	99	%	03/23/20	KCA	75
% IS-1,4-Difluorobenzene (75x)	102	%	102	%	03/23/20	KCA	75
% IS-Bromochloromethane (75x)	104	%	104	%	03/23/20	KCA	75
% IS-Chlorobenzene-d5 (75x)	101	%	101	%	03/23/20	KCA	75

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

March 24, 2020

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



Environmental Laboratories, Inc.
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QA/QC Report

March 24, 2020

QA/QC Data

SDG I.D.: GCF53521

Parameter	Blk ppbv	Blk RL ppbv	Blk ug/m3	Blk RL ug/m3	LCS %	Sample Result ug/m3	Sample Dup ug/m3	Sample Result ppbv	Sample Dup ppbv	DUP RPD	% Rec Limits	% RPD Limits
QA/QC Batch 523542 (ppbv), QC Sample No: CF54430 (CF53521, CF53522 (30X, 75X))												
<u>Volatiles</u>												
1,1,1,2-Tetrachloroethane	ND	0.150	ND	1.03	115	ND	ND	ND	ND	NC	70 - 130	25
1,1,1-Trichloroethane	ND	0.180	ND	0.98	106	ND	ND	ND	ND	NC	70 - 130	25
1,1,2,2-Tetrachloroethane	ND	0.150	ND	1.03	103	ND	ND	ND	ND	NC	70 - 130	25
1,1,2-Trichloroethane	ND	0.180	ND	0.98	104	ND	ND	ND	ND	NC	70 - 130	25
1,1-Dichloroethane	ND	0.250	ND	1.01	100	ND	ND	ND	ND	NC	70 - 130	25
1,1-Dichloroethene	ND	0.050	ND	0.20	101	ND	ND	ND	ND	NC	70 - 130	25
1,2,4-Trichlorobenzene	ND	0.130	ND	0.96	109	ND	ND	ND	ND	NC	70 - 130	25
1,2,4-Trimethylbenzene	ND	0.200	ND	0.98	107	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dibromoethane(EDB)	ND	0.130	ND	1.00	108	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dichlorobenzene	ND	0.170	ND	1.02	117	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dichloroethane	ND	0.250	ND	1.01	104	ND	ND	ND	ND	NC	70 - 130	25
1,2-dichloropropane	ND	0.220	ND	1.02	101	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dichlorotetrafluoroethane	ND	0.140	ND	0.98	103	ND	ND	ND	ND	NC	70 - 130	25
1,3,5-Trimethylbenzene	ND	0.200	ND	0.98	103	ND	ND	ND	ND	NC	70 - 130	25
1,3-Butadiene	ND	0.450	ND	0.99	93	ND	ND	ND	ND	NC	70 - 130	25
1,3-Dichlorobenzene	ND	0.170	ND	1.02	114	ND	ND	ND	ND	NC	70 - 130	25
1,4-Dichlorobenzene	ND	0.170	ND	1.02	112	ND	ND	ND	ND	NC	70 - 130	25
1,4-Dioxane	ND	0.280	ND	1.01	105	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	104	ND	ND	ND	ND	NC	70 - 130	25
4-Isopropyltoluene	ND	0.180	ND	0.99	106	ND	ND	ND	ND	NC	70 - 130	25
4-Methyl-2-pentanone(MIBK)	ND	0.240	ND	0.98	98	ND	ND	ND	ND	NC	70 - 130	25
Acetone	ND	0.420	ND	1.00	93	46.1	44.6	19.4	18.8	3.1	70 - 130	25
Acrylonitrile	ND	0.460	ND	1.00	86	ND	ND	ND	ND	NC	70 - 130	25
Benzene	ND	0.310	ND	0.99	95	ND	ND	ND	ND	NC	70 - 130	25
Benzyl chloride	ND	0.190	ND	0.98	103	ND	ND	ND	ND	NC	70 - 130	25
Bromodichloromethane	ND	0.150	ND	1.00	113	ND	ND	ND	ND	NC	70 - 130	25
Bromoform	ND	0.097	ND	1.00	108	ND	ND	ND	ND	NC	70 - 130	25
Bromomethane	ND	0.260	ND	1.01	97	ND	ND	ND	ND	NC	70 - 130	25
Carbon Disulfide	ND	0.320	ND	1.00	101	ND	ND	ND	ND	NC	70 - 130	25
Carbon Tetrachloride	ND	0.032	ND	0.20	115	0.57	0.55	0.090	0.088	NC	70 - 130	25
Chlorobenzene	ND	0.220	ND	1.01	105	ND	ND	ND	ND	NC	70 - 130	25
Chloroethane	ND	0.380	ND	1.00	90	ND	ND	ND	ND	NC	70 - 130	25
Chloroform	ND	0.200	ND	0.98	103	ND	ND	ND	ND	NC	70 - 130	25
Chloromethane	ND	0.480	ND	0.99	107	ND	ND	ND	ND	NC	70 - 130	25
Cis-1,2-Dichloroethene	ND	0.256	ND	1.01	99	0.59	ND	0.150	ND	NC	70 - 130	25
cis-1,3-Dichloropropene	ND	0.220	ND	1.00	106	ND	ND	ND	ND	NC	70 - 130	25
Cyclohexane	ND	0.290	ND	1.00	93	ND	ND	ND	ND	NC	70 - 130	25
Dibromochloromethane	ND	0.120	ND	1.02	118	ND	ND	ND	ND	NC	70 - 130	25
Dichlorodifluoromethane	ND	0.200	ND	0.99	109	4.40	4.23	0.891	0.856	NC	70 - 130	25
Ethanol	ND	0.530	ND	1.00	69	165 E	161	87.4 E	85.6	2.1	70 - 130	25

QA/QC Data

SDG I.D.: GCF53521

Parameter	Blk ppbv	Blk RL ppbv	Blk ug/m3	Blk RL ug/m3	LCS %	Sample Result ug/m3	Sample Dup ug/m3	Sample Result ppbv	Sample Dup ppbv	DUP RPD	% Rec Limits	% RPD Limits
Ethyl acetate	ND	0.280	ND	1.01	101	ND	ND	ND	ND	NC	70 - 130	25
Ethylbenzene	ND	0.230	ND	1.00	105	ND	ND	ND	ND	NC	70 - 130	25
Heptane	ND	0.240	ND	0.98	95	ND	ND	ND	ND	NC	70 - 130	25
Hexachlorobutadiene	ND	0.094	ND	1.00	110	ND	ND	ND	ND	NC	70 - 130	25
Hexane	ND	0.280	ND	0.99	97	ND	ND	ND	ND	NC	70 - 130	25
Isopropylalcohol	ND	0.410	ND	1.01	86	10.6	10.2	4.32	4.16	3.8	70 - 130	25
Isopropylbenzene	ND	0.200	ND	0.98	102	ND	ND	ND	ND	NC	70 - 130	25
m,p-Xylene	ND	0.230	ND	1.00	108	ND	ND	ND	ND	NC	70 - 130	25
Methyl Ethyl Ketone	ND	0.340	ND	1.00	93	1.30	1.25	0.441	0.425	NC	70 - 130	25
Methyl tert-butyl ether(MTBE)	ND	0.280	ND	1.01	93	ND	ND	ND	ND	NC	70 - 130	25
Methylene Chloride	ND	0.860	ND	2.99	95	ND	ND	ND	ND	NC	70 - 130	25
n-Butylbenzene	ND	0.180	ND	0.99	106	ND	ND	ND	ND	NC	70 - 130	25
o-Xylene	ND	0.230	ND	1.00	105	ND	ND	ND	ND	NC	70 - 130	25
Propylene	ND	0.580	ND	1.00	98	ND	ND	ND	ND	NC	70 - 130	25
sec-Butylbenzene	ND	0.180	ND	0.99	105	ND	ND	ND	ND	NC	70 - 130	25
Styrene	ND	0.230	ND	0.98	106	ND	ND	ND	ND	NC	70 - 130	25
Tetrachloroethene	ND	0.037	ND	0.25	108	2.43	2.25	0.358	0.332	7.5	70 - 130	25
Tetrahydrofuran	ND	0.340	ND	1.00	87	ND	ND	ND	ND	NC	70 - 130	25
Toluene	ND	0.270	ND	1.02	103	1.32	1.31	0.350	0.348	NC	70 - 130	25
Trans-1,2-Dichloroethene	ND	0.250	ND	0.99	97	ND	ND	ND	ND	NC	70 - 130	25
trans-1,3-Dichloropropene	ND	0.220	ND	1.00	117	ND	ND	ND	ND	NC	70 - 130	25
Trichloroethene	ND	0.037	ND	0.20	108	12.4	12.4	2.31	2.31	0.0	70 - 130	25
Trichlorofluoromethane	ND	0.180	ND	1.01	109	5.06	4.96	0.902	0.883	NC	70 - 130	25
Trichlorotrifluoroethane	ND	0.130	ND	1.00	106	ND	ND	ND	ND	NC	70 - 130	25
Vinyl Chloride	ND	0.078	ND	0.20	97	ND	ND	ND	ND	NC	70 - 130	25
% Bromofluorobenzene	97	%	97	%	101	98	97	98	97	NC	70 - 130	25
% IS-1,4-Difluorobenzene	108	%	108	%	103	103	105	103	105	NC	60 - 140	25
% IS-Bromochloromethane	108	%	108	%	104	103	104	103	104	NC	60 - 140	25
% IS-Chlorobenzene-d5	106	%	106	%	103	104	106	104	106	NC	60 - 140	25

QA/QC Batch 523538 (ppbv), QC Sample No: CF54432 (CF53522 (5X))

Volatiles

1,1,1,2-Tetrachloroethane	ND	0.150	ND	1.03	113	ND	ND	ND	ND	NC	70 - 130	25
1,1,1-Trichloroethane	ND	0.180	ND	0.98	105	ND	ND	ND	ND	NC	70 - 130	25
1,1,2,2-Tetrachloroethane	ND	0.150	ND	1.03	103	ND	ND	ND	ND	NC	70 - 130	25
1,1,2-Trichloroethane	ND	0.180	ND	0.98	104	ND	ND	ND	ND	NC	70 - 130	25
1,1-Dichloroethane	ND	0.250	ND	1.01	99	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	112	ND	ND	ND	ND	NC	70 - 130	25
1,2,4-Trimethylbenzene	ND	0.200	ND	0.98	108	4.68	4.81	0.952	0.978	NC	70 - 130	25
1,2-Dibromoethane(EDB)	ND	0.130	ND	1.00	109	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dichlorobenzene	ND	0.170	ND	1.02	112	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dichloroethane	ND	0.250	ND	1.01	101	ND	ND	ND	ND	NC	70 - 130	25
1,2-dichloropropane	ND	0.220	ND	1.02	103	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dichlorotetrafluoroethane	ND	0.140	ND	0.98	102	ND	ND	ND	ND	NC	70 - 130	25
1,3,5-Trimethylbenzene	ND	0.200	ND	0.98	105	1.15	1.17	0.234	0.238	NC	70 - 130	25
1,3-Butadiene	ND	0.450	ND	0.99	94	ND	ND	ND	ND	NC	70 - 130	25
1,3-Dichlorobenzene	ND	0.170	ND	1.02	112	ND	ND	ND	ND	NC	70 - 130	25
1,4-Dichlorobenzene	ND	0.170	ND	1.02	112	ND	ND	ND	ND	NC	70 - 130	25
1,4-Dioxane	ND	0.280	ND	1.01	107	ND	ND	ND	ND	NC	70 - 130	25
2-Hexanone(MBK)	ND	0.240	ND	0.98	101	ND	ND	ND	ND	NC	70 - 130	25
4-Ethyltoluene	ND	0.200	ND	0.98	104	4.44	4.53	0.904	0.922	NC	70 - 130	25
4-Isopropyltoluene	ND	0.180	ND	0.99	103	ND	ND	ND	ND	NC	70 - 130	25

QA/QC Data

SDG I.D.: GCF53521

Parameter	Blk ppbv	Blk RL ppbv	Blk ug/m3	Blk RL ug/m3	LCS %	Sample Result ug/m3	Sample Dup ug/m3	Sample Result ppbv	Sample Dup ppbv	DUP RPD	% Rec Limits	% RPD Limits
4-Methyl-2-pentanone(MIBK)	ND	0.240	ND	0.98	97	1.00	0.99	0.244	0.243	NC	70 - 130	25
Acetone	ND	0.420	ND	1.00	91	29.2	28.5	12.3	12.0	2.5	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	2.81	2.77	0.879	0.868	NC	70 - 130	25
Benzyl chloride	ND	0.190	ND	0.98	103	ND	ND	ND	ND	NC	70 - 130	25
Bromodichloromethane	ND	0.150	ND	1.00	111	ND	ND	ND	ND	NC	70 - 130	25
Bromoform	ND	0.097	ND	1.00	107	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	97	ND	ND	ND	ND	NC	70 - 130	25
Carbon Tetrachloride	ND	0.032	ND	0.20	111	0.52	0.51	0.083	0.081	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	86	ND	ND	ND	ND	NC	70 - 130	25
Chloroform	ND	0.200	ND	0.98	103	ND	ND	ND	ND	NC	70 - 130	25
Chloromethane	ND	0.480	ND	0.99	104	1.01	ND	0.487	ND	NC	70 - 130	25
Cis-1,2-Dichloroethene	ND	0.256	ND	1.01	99	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	94	2.47	2.48	0.717	0.722	NC	70 - 130	25
Dibromochloromethane	ND	0.120	ND	1.02	116	ND	ND	ND	ND	NC	70 - 130	25
Dichlorodifluoromethane	ND	0.200	ND	0.99	104	2.29	2.14	0.463	0.433	NC	70 - 130	25
Ethanol	ND	0.530	ND	1.00	70	168 E	154	89.0 E	81.9	8.3	70 - 130	25
Ethyl acetate	ND	0.280	ND	1.01	100	ND	ND	ND	ND	NC	70 - 130	25
Ethylbenzene	ND	0.230	ND	1.00	104	3.98	4.00	0.916	0.921	NC	70 - 130	25
Heptane	ND	0.240	ND	0.98	94	4.51	4.71	1.10	1.15	NC	70 - 130	25
Hexachlorobutadiene	ND	0.094	ND	1.00	107	ND	ND	ND	ND	NC	70 - 130	25
Hexane	ND	0.280	ND	0.99	98	6.38	6.38	1.81	1.81	0.0	70 - 130	25
Isopropylalcohol	ND	0.410	ND	1.01	87	41.5	40.5	16.9	16.5	2.4	70 - 130	25
Isopropylbenzene	ND	0.200	ND	0.98	102	ND	ND	ND	ND	NC	70 - 130	25
m,p-Xylene	ND	0.230	ND	1.00	108	11.2	11.1	2.57	2.56	0.4	70 - 130	25
Methyl Ethyl Ketone	ND	0.340	ND	1.00	92	2.20	2.08	0.747	0.707	NC	70 - 130	25
Methyl tert-butyl ether(MTBE)	ND	0.280	ND	1.01	95	ND	ND	ND	ND	NC	70 - 130	25
Methylene Chloride	ND	0.860	ND	2.99	94	ND	ND	ND	ND	NC	70 - 130	25
n-Butylbenzene	ND	0.180	ND	0.99	105	ND	ND	ND	ND	NC	70 - 130	25
o-Xylene	ND	0.230	ND	1.00	105	3.56	3.63	0.821	0.837	NC	70 - 130	25
Propylene	ND	0.580	ND	1.00	95	ND	ND	ND	ND	NC	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	106	ND	ND	ND	ND	NC	70 - 130	25
Tetrahydrofuran	ND	0.340	ND	1.00	88	ND	ND	ND	ND	NC	70 - 130	25
Toluene	ND	0.270	ND	1.02	106	17.2	17.2	4.58	4.57	0.2	70 - 130	25
Trans-1,2-Dichloroethene	ND	0.250	ND	0.99	97	ND	ND	ND	ND	NC	70 - 130	25
trans-1,3-Dichloropropene	ND	0.220	ND	1.00	115	ND	ND	ND	ND	NC	70 - 130	25
Trichloroethene	ND	0.037	ND	0.20	108	0.97	0.82	0.181	0.152	NC	70 - 130	25
Trichlorofluoromethane	ND	0.180	ND	1.01	101	1.35	1.27	0.241	0.227	NC	70 - 130	25
Trichlorotrifluoroethane	ND	0.130	ND	1.00	97	ND	ND	ND	ND	NC	70 - 130	25
Vinyl Chloride	ND	0.078	ND	0.20	97	ND	ND	ND	ND	NC	70 - 130	25
% Bromofluorobenzene	99	%	99	%	101	99	101	99	101	NC	70 - 130	25
% IS-1,4-Difluorobenzene	107	%	107	%	100	105	105	105	105	NC	60 - 140	25
% IS-Bromochloromethane	107	%	107	%	101	103	103	103	103	NC	60 - 140	25
% IS-Chlorobenzene-d5	106	%	106	%	102	106	104	106	104	NC	60 - 140	25

I = This parameter is outside laboratory LCS/LCSD specified recovery limits.

QA/QC Data

SDG I.D.: GCF53521

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
March 24, 2020

Criteria: None
State: NJ

Sample Criteria Exceedances Report
GCF53521 - ENVIROTR

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
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*** 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.



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Analysis Comments

March 24, 2020

SDG I.D.: GCF53521

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

CHAIN OF CUSTODY RECORD AIR ANALYSES



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Telephone: 860.645.1102 • Fax: 860.645.0873

Report to: James Wilkerson

Customer: Enpro Tec

Address: 5 Old Pack Road

Yaphank, NY 11980

Project Name: **EnSafe - Westbury**

Invoice to:

Sampled by:

Data Delivery:

Fax to:

✓ Email:

Phone #:

Data	Other:
(Circle)	Equis
Format:	Exce

Requested Deliverable:

Quote Number:

[illegible]

Relinquished by:

Requisitioned by:	Accepted by:
<i>[Signature]</i>	<i>[Signature]</i>
<i>[Signature]</i>	<i>[Signature]</i>

tate Where Samples Collected:

Signature: _____

Please Circle)

SPECIAL INSTRUCTIONS, QC REQUIREMENTS, REGULATORY INFORMATION:

(2) (1.4L)

(Grab)

<u>Indoor Air</u>	<u>Indoor Air</u>
-------------------	-------------------

	Residential	Industrial
Residential		

Sub-slab	Residential
Residential	

Industrial
PEL-115 Rev

10

Appendix C
Water Sample
Laboratory Analytical Results



Thursday, April 02, 2020

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

Project ID: FROST STREET-OU1
SDG ID: GCF58874
Sample ID#s: CF58874

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

April 02, 2020

SDG I.D.: GCF58874

Project ID: FROST STREET-OU1

Client Id	Lab Id	Matrix
SVE DISCHARGE WATER	CF58874	GW DISCHARGE



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Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

April 02, 2020

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

Sample Information

Matrix: GW DISCHARGE
Location Code: ENVIOTR
Rush Request: Standard
P.O.#:

Custody Information

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

Date

03/31/20
03/31/20

Time

8:00
15:16

Laboratory Data

SDG ID: GCF58874
Phoenix ID: CF58874

Project ID: FROST STREET-OU1
Client ID: SVE DISCHARGE WATER

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Cadmium	< 0.001	0.001		mg/L	1	04/02/20	EK	E200.7
Chromium	< 0.001	0.001		mg/L	1	04/02/20	EK	E200.7
Copper	< 0.003	0.003		mg/L	1	04/02/20	EK	E200.7
Iron	0.114	0.005		mg/L	1	04/02/20	EK	E200.7
Nickel	0.003	0.001		mg/L	1	04/02/20	EK	E200.7
Zinc	0.980	0.002		mg/L	1	04/02/20	EK	E200.7
Chromium, Hexavalent	< 0.01	0.01		mg/L	1	03/31/20 17:28	O	SM3500CRB-11
PCB Extraction (LDL)	Completed					03/31/20	AT/AT	E608.3
Total Metals Digestion	Completed					04/01/20	AG	

Polychlorinated Biphenyls

PCB-1016	ND	0.047		ug/L	1	04/01/20	SC	E608.3
PCB-1221	ND	0.047		ug/L	1	04/01/20	SC	E608.3
PCB-1232	ND	0.047		ug/L	1	04/01/20	SC	E608.3
PCB-1242	ND	0.047		ug/L	1	04/01/20	SC	E608.3
PCB-1248	ND	0.047		ug/L	1	04/01/20	SC	E608.3
PCB-1254	ND	0.047		ug/L	1	04/01/20	SC	E608.3
PCB-1260	ND	0.047		ug/L	1	04/01/20	SC	E608.3
PCB-1262	ND	0.047		ug/L	1	04/01/20	SC	E608.3
PCB-1268	ND	0.047		ug/L	1	04/01/20	SC	E608.3

QA/QC Surrogates

% DCBP	71			%	1	04/01/20	SC	30 - 150 %
% DCBP (Confirmation)	71			%	1	04/01/20	SC	30 - 150 %
% TCMX	77			%	1	04/01/20	SC	30 - 150 %
% TCMX (Confirmation)	76			%	1	04/01/20	SC	30 - 150 %

Volatiles

1,1,1-Trichloroethane	ND	0.50	0.25	ug/L	1	04/01/20	MH	E624.1
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Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
1,1,2,2-tetrachloroethane	ND	0.50	0.25	ug/L	1	04/01/20	MH	E624.1
1,1,2-Trichloroethane	ND	0.50	0.25	ug/L	1	04/01/20	MH	E624.1
1,1-Dichloroethane	ND	0.50	0.25	ug/L	1	04/01/20	MH	E624.1
1,1-Dichloroethene	ND	0.50	0.25	ug/L	1	04/01/20	MH	E624.1
1,2-Dichlorobenzene	ND	0.50	0.25	ug/L	1	04/01/20	MH	E624.1
1,2-Dichloroethane	ND	0.50	0.25	ug/L	1	04/01/20	MH	E624.1
1,2-Dichloropropane	ND	0.50	0.25	ug/L	1	04/01/20	MH	E624.1
1,3-Dichlorobenzene	ND	0.50	0.25	ug/L	1	04/01/20	MH	E624.1
1,4-Dichlorobenzene	ND	0.50	0.25	ug/L	1	04/01/20	MH	E624.1
Benzene	ND	0.50	0.25	ug/L	1	04/01/20	MH	E624.1
Bromodichloromethane	ND	0.50	0.25	ug/L	1	04/01/20	MH	E624.1
Bromoform	ND	0.50	0.25	ug/L	1	04/01/20	MH	E624.1
Bromomethane	ND	0.50	0.50	ug/L	1	04/01/20	MH	E624.1
Carbon tetrachloride	ND	0.50	0.25	ug/L	1	04/01/20	MH	E624.1
Chlorobenzene	ND	0.50	0.25	ug/L	1	04/01/20	MH	E624.1
Chloroethane	ND	0.50	0.25	ug/L	1	04/01/20	MH	E624.1
Chloroform	ND	0.50	0.25	ug/L	1	04/01/20	MH	E624.1
Chloromethane	0.38	J 0.50	0.25	ug/L	1	04/01/20	MH	E624.1
cis-1,2-Dichloroethene	ND	0.50	0.25	ug/L	1	04/01/20	MH	E624.1
cis-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	04/01/20	MH	E624.1
Dibromochloromethane	ND	0.50	0.25	ug/L	1	04/01/20	MH	E624.1
Ethylbenzene	ND	0.50	0.25	ug/L	1	04/01/20	MH	E624.1
m&p-Xylene	ND	0.50	0.42	ug/L	1	04/01/20	MH	E624.1
Methyl tert-butyl ether (MTBE)	ND	1.0	0.50	ug/L	1	04/01/20	MH	E624.1
Methylene chloride	ND	0.50	0.25	ug/L	1	04/01/20	MH	E624.1
o-Xylene	ND	0.50	0.45	ug/L	1	04/01/20	MH	E624.1
Tetrachloroethene	0.50	0.50	0.25	ug/L	1	04/01/20	MH	E624.1
Toluene	ND	0.50	0.25	ug/L	1	04/01/20	MH	E624.1
trans-1,2-Dichloroethene	ND	0.50	0.25	ug/L	1	04/01/20	MH	E624.1
trans-1,3-Dichloropropene	ND	0.40	0.25	ug/L	1	04/01/20	MH	E624.1
Trichloroethene	ND	0.50	0.25	ug/L	1	04/01/20	MH	E624.1
Trichlorofluoromethane	ND	0.50	0.25	ug/L	1	04/01/20	MH	E624.1
Vinyl chloride	ND	0.50	0.25	ug/L	1	04/01/20	MH	E624.1
<u>QA/QC Surrogates</u>								
% 1,2-dichlorobenzene-d4	103			%	1	04/01/20	MH	70 - 130 %
% Bromofluorobenzene	95			%	1	04/01/20	MH	70 - 130 %
% Dibromofluoromethane	98			%	1	04/01/20	MH	70 - 130 %
% Toluene-d8	108			%	1	04/01/20	MH	70 - 130 %

Project ID: FROST STREET-OU1
Client ID: SVE DISCHARGE WATER

Phoenix I.D.: CF58874

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
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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 J=Estimated Below RL LOD=Limit of Detection MDL=Method Detection Limit1
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

April 02, 2020

Reviewed and Released by: Rashmi Makol, Project Manager



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



QA/QC Report

April 02, 2020

QA/QC Data

SDG I.D.: GCF58874

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 524803 (mg/L), QC Sample No: CF58733 (CF58874)													
<u>ICP Metals - Aqueous</u>													
Cadmium	BRL	0.0005	<0.001	<0.0005	NC	94.4	94.9	0.5	94.4			80 - 120	20
Chromium	BRL	0.0005	0.002	0.0016	NC	94.8	95.5	0.7	96.7			80 - 120	20
Copper	BRL	0.0025	0.024	0.0265	9.90	101	101	0.0	108			80 - 120	20
Iron	BRL	0.0050	3.22	3.20	0.60	93.5	94.3	0.9	NC			80 - 120	20
Nickel	BRL	0.0005	0.011	0.0140	24.0	95.5	95.9	0.4	96.1			80 - 120	20
Zinc	BRL	0.0020	0.060	0.0612	2.00	94.8	95.6	0.8	98.7			80 - 120	20

Comment:

Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.

r = This parameter is outside laboratory RPD specified recovery limits.



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QA/QC Report

April 02, 2020

QA/QC Data

SDG I.D.: GCF58874

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 524688 (mg/L), QC Sample No: CF54874 (CF58874)													
Chromium, Hexavalent	BRL	0.01	<0.01	<0.01	NC	102			114			90 - 110	20
Comment:													
Additional Hexavalent Chromium criteria: LCS acceptance range for waters is 90-110% and MS acceptance range is 85-115%.													



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QA/QC Report

April 02, 2020

QA/QC Data

SDG I.D.: GCF58874

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 524658 (ug/L), QC Sample No: CF58581 (CF58874)										
Polychlorinated Biphenyls										
PCB-1016	ND	0.050	93	92	1.1				40 - 140	20
PCB-1221	ND	0.050							40 - 140	20
PCB-1232	ND	0.050							40 - 140	20
PCB-1242	ND	0.050							40 - 140	20
PCB-1248	ND	0.050							40 - 140	20
PCB-1254	ND	0.050							40 - 140	20
PCB-1260	ND	0.050	100	99	1.0				40 - 140	20
PCB-1262	ND	0.050							40 - 140	20
PCB-1268	ND	0.050							40 - 140	20
% DCBP (Surrogate Rec)	90	%	94	98	4.2				30 - 150	20
% DCBP (Surrogate Rec) (Confirm)	89	%	96	99	3.1				30 - 150	20
% TCMX (Surrogate Rec)	90	%	99	97	2.0				30 - 150	20
% TCMX (Surrogate Rec) (Confirm)	89	%	97	94	3.1				30 - 150	20
QA/QC Batch 524932 (ug/L), QC Sample No: CF59369 (CF58874)										
Volatiles										
1,1,1-Trichloroethane	ND	1.0	101	93	8.2	99	114	14.1	75 - 125	20
1,1,1,2-Tetrachloroethane	ND	0.50	102	86	17.0	96	110	13.6	60 - 140	20
1,1,2-Trichloroethane	ND	1.0	90	91	1.1	102	100	2.0	71 - 129	20
1,1-Dichloroethane	ND	1.0	103	91	12.4	97	115	17.0	72 - 128	20
1,1-Dichloroethene	ND	1.0	105	95	10.0	96	116	18.9	50 - 150	20
1,2-Dichlorobenzene	ND	1.0	100	86	15.1	93	108	14.9	63 - 137	20
1,2-Dichloroethane	ND	1.0	94	95	1.1	109	107	1.9	68 - 132	20
1,2-Dichloropropane	ND	1.0	93	91	2.2	101	101	0.0	40 - 160	20
1,3-Dichlorobenzene	ND	1.0	102	90	12.5	98	112	13.3	73 - 127	20
1,4-Dichlorobenzene	ND	1.0	97	84	14.4	92	106	14.1	63 - 137	20
Benzene	ND	0.70	93	97	4.2	105	105	0.0	64 - 136	20
Bromodichloromethane	ND	0.50	96	98	2.1	107	105	1.9	65 - 135	20
Bromoform	ND	1.0	110	96	13.6	108	119	9.7	71 - 129	20
Bromomethane	ND	1.0	89	83	7.0	82	100	19.8	40 - 160	20
Carbon tetrachloride	ND	1.0	103	111	7.5	117	135	14.3	73 - 127	20 m
Chlorobenzene	ND	1.0	99	88	11.8	96	108	11.8	66 - 134	20
Chloroethane	ND	1.0	107	96	10.8	96	117	19.7	40 - 160	20
Chloroform	ND	1.0	103	93	10.2	100	113	12.2	67 - 133	20
Chloromethane	ND	1.0	99	87	12.9	94	107	12.9	40 - 160	20
cis-1,2-Dichloroethene	ND	1.0	100	88	12.8	94	109	14.8	69 - 131	20
cis-1,3-Dichloropropene	ND	0.40	92	94	2.2	100	99	1.0	40 - 160	20
Dibromochloromethane	ND	0.50	109	93	15.8	103	118	13.6	67 - 133	20
Ethylbenzene	ND	1.0	104	93	11.2	100	115	14.0	59 - 141	20
m&p-Xylene	ND	1.0	104	93	11.2	100	112	11.3	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	96	82	15.7	89	106	17.4	70 - 130	30
Methylene chloride	ND	1.0	89	80	10.7	86	98	13.0	60 - 140	20

QA/QC Data

SDG I.D.: GCF58874

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
o-Xylene	ND	1.0	104	93	11.2	101	114	12.1	70 - 130	30
Tetrachloroethene	ND	1.0	87	92	5.6	97	95	2.1	73 - 127	20
Toluene	ND	1.0	93	98	5.2	107	104	2.8	74 - 126	20
trans-1,2-Dichloroethene	ND	1.0	101	93	8.2	96	113	16.3	69 - 131	20
trans-1,3-Dichloropropene	ND	0.40	94	97	3.1	103	101	2.0	50 - 150	20
Trichloroethene	ND	1.0	96	85	12.2	91	105	14.3	66 - 134	20
Trichlorofluoromethane	ND	1.0	105	97	7.9	101	120	17.2	48 - 152	20
Vinyl chloride	ND	1.0	104	95	9.0	97	116	17.8	40 - 160	20
% 1,2-dichlorobenzene-d4	103	%	102	100	2.0	100	102	2.0	70 - 130	30
% Bromofluorobenzene	96	%	102	101	1.0	102	101	1.0	70 - 130	30
% Dibromofluoromethane	99	%	95	98	3.1	95	95	0.0	70 - 130	30
% Toluene-d8	97	%	91	108	17.1	108	92	16.0	70 - 130	30

Comment:

A blank MS/MSD was analyzed with this batch.

m = This parameter is outside laboratory MS/MSD specified recovery 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
April 02, 2020

Thursday, April 02, 2020

Criteria: None

State: NY

Sample Criteria Exceedances Report

GCF58874 - ENVIROTR

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
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*** 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.



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Analysis Comments

April 02, 2020

SDG I.D.: GCF58874

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



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NY Temperature Narration

April 02, 2020

SDG I.D.: GCF58874

The samples in this delivery group were received at 1.2°C.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

