

December 4, 2020

Mr. Mark Krening
Waste Management, Inc.
7227 NE 55th Avenue
Portland, OR 97218

RE: NW Natural Source Control Groundwater Treatment Facility - T-201 NAPL
Recovery Tank

Dear Mark:

Sevenson Environmental Services, Inc. (SES), on behalf of NW Natural, requests approval of Profile 1342150OR for the disposal of one (1) 18 cubic yard roll-off bin of NW Natural Pretreatment NAPL Recovery Tank T-201 oily solids residuals to Waste Management's Hillsboro (Subtitle D) Landfill. This package includes lab analyses and a Waste Management profile for the disposal of NAPL recovery tank residuals.

Table 1 includes sample data from NW Natural Pretreatment NAPL Recovery Tank T-201 oily solids residuals. The testing results are from a three-part composite sample of the oily solids from the 18 cubic yard roll-off covered container, then composited by Apex into a single sample for analysis. These data include samples that were submitted to Apex Laboratories, LLC (Apex) on September 8, 2020 for analysis of: gasoline-range total petroleum hydrocarbons (TPH), diesel- and oil-range TPH, total cyanide, volatile organic compounds, leachable (TCLP) volatile organic compounds, semi-volatile organic compounds, total metals, and leachable (TCLP) metals.

APEX provided the testing results for the above analyses in laboratory report number A0I0221 (enclosed) and SES has summarized the results in Table 1 (enclosed). Table 1 includes method detection limits (MDLs) for "non-detect" constituents, as well as Resource Conservation and Recovery Act (RCRA) Toxicity Characteristic (TC) threshold values. As summarized in Table 1, no detected analytes exceed the TC threshold levels.

With regard to the non-detected analytes, only one (2,4-dinitrotoluene) had an MDL that was greater than the TC threshold, thereby preventing a meaningful comparison to TC threshold levels. This occurrence, however, is not considered to be a data gap with regard to the waste determination since generator knowledge is sufficient to conclude that 2,4-dinitrotoluene is not a constituent expected to be within the waste stream at concentrations greater than its TC threshold level.

Attached please find Profile 134215OR, inclusive of the Apex Laboratory analytical report documenting the chemistry of the residual treatment materials, and Table 1, a summary of those testing results. In response to the EZ Profile Addendum #D.7, NW Natural's Voluntary Agreement with DEQ, no. WMCVC-NWR-94-13, dated August 8, 1994, as amended July 19, 2006, has been provided to Waste Management under separate cover.

Please contact me if you have any questions.

Thank You,



William Byrd
WWTP Superintendent
Sevenson Environmental Services

Cc: Robert Wyatt (NW Natural), Mike Hayward (NW Natural), Patty Dost (Pearl Legal Group), Avalyn Taylor (Pearl Legal Group), Rob Ede (Hahn and Associates), Ryan Barth (Anchor QEA), Tim Stone (Anchor QEA), Jen Mott (Anchor QEA), Mike Crystal (Sevenson Environmental Services), Joe Burke (Sevenson Environmental Services), Dana Bayuk (ODEQ), Terence Driscoll (Aponowich, Driscoll & Associates, Inc.)

Enclosures (1):
Table 1- T-201 Disposal Chart
Waste Management Disposal Profile 134215OR
APEX Lab Report #A0I0221

Table 1 - T-201 Disposal Chart

Sample: (Type)			
Sample ID		T201-090820-2	
LAB ID		A010221-01	
	EPA TCLP Level (20 x) in ug/kg dry (Actual TCLP Level in µg/L)	Results	Qualifier
Diesel and/or Oil Hydrocarbons by NWTPH-Dx (ug/kg dry)			
Diesel		36000000	F24
Oil		13600000	F24
Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx (ug/kg dry)			
Gasoline Range Organics		3740000	
Volatile Organic Compounds by EPA 8260B (ug/kg dry)			
Acetone		<105000	
Acrylonitrile		<10500	
Benzene	10,000 (500 µg/L)	<1050	
Bromobenzene		<2620	
Bromochloromethane		<5250	
Bromodichloromethane		<5250	
Bromoform		<10500	
Bromomethane		<105000	
2-Butanone (MEK)		<52500	
n-Butylbenzene		<5250	
sec-Butylbenzene		<5250	
tert-Butylbenzene		<5250	
Carbon disulfide		<52500	
Carbon tetrachloride	10,000 (500µg/L)	<5250	
Chlorobenzene	2,000,000 (100,000 µg/L)	<2620	
Chloroethane		<52500	
Chloroform	120,000 (6,000 µg/L)	<5250	
Chloromethane		<26200	
2-Chlorotoluene		<5250	
4-Chlorotoluene		<5250	
Dibromochloromethane		<10500	
1,2-Dibromo-3-chloropropane		<26200	
1,2-Dibromoethane (EDB)		<5250	
Dibromomethane		<5250	
1,2-Dichlorobenzene		<2620	
1,3-Dichlorobenzene		<2620	
1,4-Dichlorobenzene	150,000 (7,500 µg/L)	<2620	
Dichlorodifluoromethane		<10500	
1,1-Dichloroethane		<2620	
1,2-Dichloroethane (EDC)	10,000 (500 µg/L)	<2620	
1,1-Dichloroethene	14,000 (700 µg/L)	<2620	
cis-1,2-Dichloroethene		<2620	
trans-1,2-Dichloroethene		<2620	
1,2-Dichloropropane		<2620	
1,3-Dichloropropane		<5250	
2,2-Dichloropropane		<5250	
1,1-Dichloropropene		<5250	
cis-1,3-Dichloropropene		<5250	
trans-1,3-Dichloropropene		<10500	
Ethylbenzene		6170	
Hexachlorobutadiene	10,000 (500 µg/L)	<10500	
2-Hexanone		<52500	
Isopropylbenzene		<5250	
4-Isopropyltoluene		<5250	
Methylene chloride		<52500	
4-Methyl-2-pentanone (MiBK)		<52500	
Methyl tert-butyl ether (MTBE)		<5250	
Naphthalene		1210000	
n-Propylbenzene		<2620	
Stryrene		<5250	
1,1,1,2-Tetrachloroethane		<5250	
1,1,2,2-Tetrachloroethane		<5250	
Tetrachloroethene (PCE)	14,000 (700 µg/L)	<2620	
Toluene		<5250	
1,2,3-Trichlorobenzene		<26200	

Table 1 - T-201 Disposal Chart

1,2,4-Trichlorobenzene		<26200	
1,1,1-Trichloroethane		<2620	
1,1,2-Trichloroethane		<2620	
Trichloroethene (TCE)	10,000 (500 µg/L)	<2620	
Trichlorofluoromethane		<21000	
1,2,3-Trichloropropane		<5250	
1,2,4-Trimethylbenzene		22500	
1,3,5-Trimethylbenzene		8010	J
Vinyl chloride	4,000 (200 µg/L)	<2620	
m,p-Xylene		7740	J
o-Xylene		6590	
TCLP Volatile Organic Compounds by EPA 8260B (µg/L)			
	(Actual TCLP Level in µg/L)		
Acetone		<500	
Benzene	10,000 (500 µg/L)	<6.25	
Bromobenzene		<12.5	
Bromochloromethane		<25.0	
Bromodichloromethane		<25.0	
Bromoform		<25.0	
Bromomethane		<250	
2-Butanone (MEK)		<250	
n-Butylbenzene		<25.0	
sec-Butylbenzene		<25.0	
tert-Butylbenzene		<25.0	
Carbon tetrachloride	10,000 (500µg/L)	<25.0	
Chlorobenzene	2,000,000 (100,000 µg/L)	<12.5	
Chloroethane		<250	
Chloroform	120,000 (6,000 µg/L)	<25.0	
Chloromethane		<125	
2-Chlorotoluene		<25.0	
4-Chlorotoluene		<25.0	
1,2-Dibromo-3-chloropropane		<125	
Dibromochloromethane		<25.0	
1,2-Dibromoethane (EDB)		<12.5	
Dibromomethane		<25.0	
1,2-Dichlorobenzene		<12.5	
1,3-Dichlorobenzene		<12.5	
1,4-Dichlorobenzene	150,000 (7,500 µg/L)	<12.5	
Dichlorodifluoromethane		<25.0	
1,1-Dichloroethane		<12.5	
1,2-Dichloroethane (EDC)	10,000 (500 µg/L)	<12.5	
1,1-Dichloroethene	14,000 (700 µg/L)	<12.5	
cis-1,2-Dichloroethene		<25.0	
trans-1,2-Dichloroethene		<12.5	
1,2-Dichloropropane		<12.5	
1,3-Dichloropropane		<25.0	
2,2-Dichloropropane		<25.0	
1,1-Dichloropropene		<25.0	
cis-1,3-Dichloropropene		<25.0	
trans-1,3-Dichloropropene		<25.0	
Ethylbenzene		50.5	
Hexachlorobutadiene	10,000 (500 µg/L)	<125	
2-Hexanone		<250	
Isopropylbenzene		<25.0	
4-Isopropyltoluene		<50.0	
4-Methyl-2-pentanone (MIBK)		<250	
Methyl tert-butyl ether (MTBE)		<25.0	
Methylene chloride		<250	
n-Propylbenzene		<12.5	
Styrene		<25.0	
1,1,1,2-Tetrachloroethane		<12.5	
1,1,1,2-Tetrachloroethane		<12.5	
Naphthalene		5880	
Tetrachloroethene (PCE)	14,000 (700 µg/L)	<12.5	
Toluene		<25.0	
1,2,3-Trichlorobenzene		<25.0	

Table 1 - T-201 Disposal Chart

1,2,4-Trichlorobenzene		<50.0	
1,1,1-Trichloroethane		<12.5	
1,1,2-Trichloroethane		<12.5	
Trichloroethene (TCE)	10,000 (500 µg/L)	<12.5	
Trichlorofluoromethane		<50.0	
1,2,3-Trichloropropane		<25.0	
1,2,4-Trimethylbenzene		68.2	
1,3,5-Trimethylbenzene		26.9	J
Vinyl chloride	4,000 (200 µg/L)	<12.5	
m,p-Xylene		55.5	
o-Xylene		45.6	
Cyanide - Total (Non-Aqueous Water Leach) by EPA 9013M/9014 (ug/kg dry)			
Total Cyanide		6010	
Semivolatile Organic Compounds by EPA 8270D (ug/kg dry)			
	EPA TCLP Level (20 x) in ug/kg dry (Actual TCLP Level in µg/L)		
Acenaphthene		440000	B, Q-42
Acenaphthylene		172000	B, Q-42
Anthracene		339000	Q-42
Benz(a)anthracene		263000	Q-42
Benzo(a)pyrene		310000	Q-42
Benzo(b)fluoranthene		265000	Q-42
Benzo(k)fluoranthene		91200	M-05, Q-42
Benzo(g,h,i)perylene		249000	Q-42
Chrysene		311000	Q-42
Dibenz(a,h)anthracene		21800	Q-42
Fluoranthene		1030000	
Fluorene		412000	B, Q-42
Indeno(1,2,3-cd)pyrene		190000	Q-42
1-Methlnaphthalene		520000	B, Q-42
2-Methlnaphthalene		748000	B, Q-42
Naphthalene		1120000	B, Q-42
Phenanthrene		2290000	B
Pyrene		1100000	Q-42
Carbazole		23400	Q-42
Dibenzofuran		107000	B-02, Q-42
2-Chlorophenol		<10000	
4-Chloro-3-methylphenol		<20000	
2,4-Dichlorophenol		<10000	
2,4-Dimethylphenol		<10000	
2,4-Dinitrophenol		<50000	
4,6-Dinitro-2-methylphenol		<50000	
2-Methylphenol	4,000,000 (200,000µg/L)	<5000	
3+4-Methylphenol(s)	4,000,000 (200,000µg/L)	<5000	
2-Nitrophenol		<20000	
4-Nitrophenol		<60100	R-02
Pentachlorophenol(PCP)	2,000,000 (100,000µg/L)	<20000	
Phenol		<4010	
2,3,4,6-Tetrachlorophenol		<10000	
2,3,5,6-Tetrachlorophenol		<10000	
2,4,5-Trichlorophenol	8,000,000 (400,000µg/L)	<10000	
Nitrobenzene	40,000 (2,000µg/L)	<20000	
2,4,6-Trichlorophenol	40,000 (2,000µg/L)	<10000	
Bis(2-ethylhexyl)phthalate		<30000	
Butyl benzyl phtalate		<20000	
Diethylphthalate		<20000	
Dimethylphthalate		<20000	
Di-n-butylphthalate		<20000	
Di-n-octyl phthalate		<20000	
N-Nitrosodimethylamine		<5000	
N-Nitroso-di-n-propylamine		<5000	
N-Nitrosodiphenylamine		<33000	R-02
Bis(2-Chloroethoxy) methane		<5000	
Bis(2-Chloroethyl) ether		<5000	
2,2'- Oxybis (1-Chloropropane)		<5000	
Hexachlorobenzene	2,600 (130µg/L)	<2000	

Table 1 - T-201 Disposal Chart

Hexachlorobutadiene	10,000 (500µg/L)	<5000	
Hexachlorocyclopentadiene		<10000	
Hexachloroethane	60,000 (3,000µg/L)	<5000	
2-Chloronaphthalene		<4010	
1,2,4-Trichlorobenzene		<5000	
4-Bromophenyl phenyl ether		<5000	
4-Chlorophenyl phenyl ether		<5000	
Aniline		<10000	
4-Chloroaniline		<5000	
2-Nitroaniline		<40100	
3-Nitroaniline		<40100	
4-Nitroaniline		<40100	
2,4-Dinitrotoluene	2,600 (130µg/L)	<20000	
2,6-Dinitrotoluene		<20000	
Benzoic acid		<251000	
Benzyl alcohol		<10000	
Isophorone		<5000	
Azobenzene (1,2-DPH)		<5000	
Bis(2-Ethylhexyl)adipate		<50000	
3,3'-Dichlorobenzidine		<40100	Q-52
1,2-Dinitrobenzene		<50000	
1,3-Dinitrobenzene		<50000	
1,4-Dinitrobenzene		<50000	
Pyridine	100,000 (5,000µg/L)	<10000	
1,2-Dichlorobenzene		<5000	
1,3-Dichlorobenzene		<5000	
1,4-Dichlorobenzene	150,000 (7,500µg/L)	<5000	
Total Metals by EPA 6020 (ICPMS) (ug/kg dry)			
Arsenic	100,000 (5,000µg/L)	10500	
Barium	2,000,000 (100,000µg/L)	182000	
Cadmium	20,000 (1,000µg/L)	<162	
Chromium	100,000 (5,000µg/L)	20600	
Lead	100,000 (5,000µg/L)	3030	
Mercury	4,000 (200µg/L)	<64.8	
Selenium	20,000 (1,000µg/L)	<809	
Silver	100,000 (5,000µg/L)	<162	
TCLP Metals by EPA 6020 (ICPMS) (ug/L)			
Arsenic	100,000 (5,000µg/L)	<50.0	
Barium	2,000,000 (100,000µg/L)	<2500	Q-41
Cadmium	20,000 (1,000µg/L)	<50.0	
Chromium	100,000 (5,000µg/L)	<50.0	
Lead	100,000 (5,000µg/L)	<25.0	
Mercury	4,000 (200µg/L)	<3.50	
Selenium	20,000 (1,000µg/L)	<50.0	
Silver	100,000 (5,000µg/L)	<50.0	
Percent Dry Weight by EPA 8000C			
%Solids		62.6	

NOTES:

B = Analyte detected in an associated blank at a level above the MRL.

B-02 = Analyte detected in an associated blank at a level between one-half the MRL and the MRL.

F-24 = The chromatographic pattern does not resemble the fuel standard used

J = Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.

M-05 = Estimated results. Peak separation for structural isomers is insufficient for accurate quantification.

Q-41 = Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.

Q-42 = Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits.

Q-52 = Due to erratic or low blank spike recoveries results are considered estimated.

R-02 = The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.

Requested Facility: Hillsboro Landfill Unsure Profile Number: 134215OR
 Multiple Generator Locations (Attach Locations) Request Certificate of Disposal Renewal? Original Profile Number: _____

A. GENERATOR INFORMATION (MATERIAL ORIGIN)

- Generator Name: NW Natural
- Site Address: 7900 N.W. St. Helens Road
(City, State, ZIP) Portland OR 97210
- County: Multnomah
- Contact Name: Chip Byrd
- Email: wbyrd@sevenson.com
- Phone: (503) 286-1785 7. Fax: _____
- Generator EPA ID: OR0000204701 N/A
- State ID: _____ N/A

C. MATERIAL INFORMATION

- Common Name: Oilly Solids
Describe Process Generating Material: See Attached

Contaminated petroleum groundwater passes through an oil water separator, which retains solids for disposal. The solids are then pumped out of the separator as a slurry into de-watering box. The solid residuals are filtered and recovered
- Material Composition and Contaminants: See Attached

1. Oily /Solids	10-80 %
2. sand/silt	25-50 %
3. miscellaneous (PPE, filter, etc.)	0-10 %
4.	
Total comp. must be equal to or greater than 100% ≥100%	
- State Waste Codes: _____ N/A
- Color: Brown to black
- Physical State at 70°F: Solid Liquid Other: _____
- Free Liquid Range Percentage: _____ to _____ N/A
- pH: _____ to _____ N/A
- Strong Odor: Yes No Describe: Petroleum odor
- Flash Point: <140°F 140°-199°F ≥200° N/A

E. ANALYTICAL AND OTHER REPRESENTATIVE INFORMATION

- Analytical attached Yes
Please identify applicable samples and/or lab reports:

Apex Report A010221, APEX Sample ID A010221-01 & A010221-02, SES ID # T201-09820-2. See attached Charted Lab Results Table.
- Other information attached (such as MSDS)? Yes

G. GENERATOR CERTIFICATION (PLEASE READ AND CERTIFY BY SIGNATURE)

By signing this EZ Profile™ form, I hereby certify that all information submitted in this and all attached documents contain true and accurate descriptions of this material, and that all relevant information necessary for proper material characterization and to identify known and suspected hazards has been provided. Any analytical data attached was derived from a sample that is representative as defined in 40 CFR 261 - Appendix 1 or by using an equivalent method. All changes occurring in the character of the material (i.e., changes in the process or new analytical) will be identified by the Generator and be disclosed to Waste Management prior to providing the material to Waste Management.

I am an Authorized Agent signing on behalf of the Generator, and I have confirmed with the Generator that information contained in this profile, as well as supporting documents provided, are accurate and complete.

Name (Print): Robert J. Wyatt Date: 12/04/2020
Title: Director, Legacy Environmental Program
Company: NW Natural

B. BILLING INFORMATION

SAME AS GENERATOR

- Billing Name: Sevenson Environmental Services
- Billing Address: 2749 Lockport Road
(City, State, ZIP) Niagara Falls NY 14305
- Contact Name: William Byrd
- Email: wbyrd@sevenson.com
- Phone: (503) 286-1785 6. Fax: (503) 286-0298
- WM Hauled? Yes No
- P.O. Number: _____
- Payment Method: Credit Account Cash Credit Card

D. REGULATORY INFORMATION

- EPA Hazardous Waste? Yes* No
Code: _____
- State Hazardous Waste? Yes No
Code: _____
- Is this material non-hazardous due to Treatment, Delisting, or an Exclusion? Yes* No
- Contains Underlying Hazardous Constituents? Yes* No
- From an industry regulated under Benzene NESHAP? Yes* No
- Facility remediation subject to 40 CFR 63 GGGGG? Yes* No
- CERCLA or State-mandated clean-up? Yes* No
- NRC or State-regulated radioactive or NORM waste? Yes* No
***If Yes, see Addendum (page 2) for additional questions and space.**
- Contains PCBs? → If Yes, answer a, b and c. Yes No
 - Regulated by 40 CFR 761? Yes No
 - Remediation under 40 CFR 761.61 (a)? Yes No
 - Were PCB imported into the US? Yes No
- Regulated and/or Untreated Medical/Infectious Waste? Yes No
- Contains Asbestos? Yes No
→ If Yes: Non-Friable Non-Friable - Regulated Friable

F. SHIPPING AND DOT INFORMATION

- One-Time Event Repeat Event/Ongoing Business
- Estimated Quantity/Unit of Measure: 20
 Tons Yards Drums Gallons Other: _____
- Container Type and Size: 20 cubic yard roll-off box
- USDOT Proper Shipping Name: _____ N/A

Certification Signature





Only complete this Addendum if prompted by responses on EZ Profile™ (page 1) or to provide additional information. Sections and question numbers correspond to EZ Profile™.

Profile Number: 134215OR

C. MATERIAL INFORMATION

Describe Process Generating Material (Continued from page 1): If more space is needed, please attach additional pages.

as oily solids and sediments through the de-watering process.

Material Composition and Contaminants (Continued from page 1): If more space is needed, please attach additional pages.

5.	
6.	
7.	
8.	
9.	
Total composition must be equal to or greater than 100%	
	≥100%

D. REGULATORY INFORMATION

Only questions with a "Yes" response in Section D on the EZ Profile™ form (page 1) need to be answered here.

1. EPA Hazardous Waste

a. Please list all USEPA listed and characteristic waste code numbers:

- b. Is the material subject to the Alternative Debris standards (40 CFR 268.45)? Yes No
- c. Is the material subject to the Alternative Soil standards (40 CFR 268.49)? → If Yes, complete question 4. Yes No
- d. Is the material exempt from Subpart CC Controls (40 CFR 264.1083)? Yes No
 → If Yes, please check **one** of the following:
 - Waste meets LDR or treatment exemptions for organics (40 CFR 264.1082(c)(2) or (c)(4))
 - Waste contains VOCs that average <500 ppmw (CFR 264.1082(c)(1)) – will require annual update.

2. State Hazardous Waste → Please list all state waste codes: _____

3. For material that is Treated, Delisted, or Excluded → Please indicate the category, below:
 Delisted Hazardous Waste Excluded Waste under 40 CFR 261.4 → Specify Exclusion: _____
 Treated Hazardous Waste Debris Treated Characteristic Hazardous Waste → If checked, complete question 4.

4. Underlying Hazardous Constituents → Please list all Underlying Hazardous Constituents:

5. Industries regulated under Benzene NESHAP include petroleum refineries, chemical manufacturing plants, coke by-product recovery plants, and TSDFs.

- a. Are you a TSDF? → If yes, please complete Benzene NESHAP questionnaire. If not, continue. Yes No
- b. Does this material contain benzene? Yes No
 1. If yes, what is the flow weighted average concentration? _____ ppmw
- c. What is your facility's current total annual benzene quantity in Megagrams? <1 Mg 1–9.99 Mg ≥10 Mg
- d. Is this waste soil from a remediation? Yes No
 1. If yes, what is the benzene concentration in remediation waste? _____ ppmw
- e. Does the waste contain >10% water/moisture? Yes No
- f. Has material been treated to remove 99% of the benzene or to achieve <10 ppmw? Yes No
- g. Is material exempt from controls in accordance with 40 CFR 61.342? Yes No
 → If yes, specify exemption: _____
- h. Based on your knowledge of your waste and the BWON regulations, do you believe that this waste stream is subject to treatment and control requirements at an off-site TSDF? Yes No

6. 40 CFR 63 GGGGG → Does the material contain <500 ppmw VOHAPs at the point of determination? Yes No

7. CERCLA or State-Mandated clean up → Please submit the Record of Decision or other documentation with process information to assist others in the evaluation for proper disposal. A "Determination of Acceptability" may be needed for CERCLA wastes not going to a CERCLA approved facility.

8. NRC or state regulated radioactive or NORM Waste → Please identify Isotopes and pCi/g: _____



AMENDED REPORT

Friday, September 25, 2020

Chip Byrd
Sevenson Environmental Services, Inc.
2749 Lockport Road
Niagara Falls, NY 14305

RE: A010221 - Gasco - Soil Residuals - 111323

Thank you for using Apex Laboratories. We greatly appreciate your business and strive to provide the highest quality services to the environmental industry.

Enclosed are the results of analyses for work order A010221, which was received by the laboratory on 9/9/2020 at 9:12:00AM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: dthomas@apex-labs.com, or by phone at 503-718-2323.

Please note: All samples will be disposed of within 30 days of sample receipt, unless prior arrangements have been made.

Cooler Receipt Information

(See Cooler Receipt Form for details)

Cooler#1 3.3 degC

This Final Report is the official version of the data results for this sample submission, unless superseded by a subsequent, labeled amended report. All other deliverables derived from this data, including Electronic Data Deliverables (EDDs), CLP-like forms, client requested summary sheets, and all other products are considered secondary to this report.



Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
T201-090820-2	A010221-01	Soil	09/08/20 12:00	09/09/20 09:12
T201-090820-2-TCLP	A010221-02	Soil	09/08/20 12:00	09/09/20 09:12

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503-718-2323
ORELAP ID: OR100062

AMENDED REPORT

<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road Niagara Falls, NY 14305	Project: <u>Gasco - Soil Residuals</u> Project Number: 111323 Project Manager: Chip Byrd	<u>Report ID:</u> A010221 - 09 25 20 0716
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ANALYTICAL CASE NARRATIVE

Work Order: A010221

Amended Report Revision 1:

Additional Data-

This report supersedes all previous reports.

The final report has been amended to include TCLP-8 by EPA methods 1311/6020 (Apex ID: A010221).

Darwin Thomas
Business Development Director
9/25/2020

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
T201-090820-2 (A010221-01)				Matrix: Soil		Batch: 0090433			
Diesel	36000000	603000	1210000	ug/kg dry	40	09/15/20 21:21	NWTPH-Dx	F-24	
Oil	13600000	1210000	2410000	ug/kg dry	40	09/15/20 21:21	NWTPH-Dx	F-24	
<i>Surrogate: o-Terphenyl (Surr)</i>		<i>Recovery: %</i>		<i>Limits: 50-150 %</i>		<i>40</i>	<i>09/15/20 21:21</i>	<i>NWTPH-Dx</i>	<i>S-01</i>

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T201-090820-2 (A010221-01)				Matrix: Soil		Batch: 0090422		V-15
Gasoline Range Organics	3740000	525000	1050000	ug/kg dry	5000	09/15/20 19:17	NWTPH-Gx (MS)	
<i>Surrogate: 4-Bromofluorobenzene (Sur)</i>		<i>Recovery: 105 %</i>		<i>Limits: 50-150 %</i>		<i>1</i>	<i>09/15/20 19:17</i>	<i>NWTPH-Gx (MS)</i>
<i>1,4-Difluorobenzene (Sur)</i>		<i>94 %</i>		<i>50-150 %</i>		<i>1</i>	<i>09/15/20 19:17</i>	<i>NWTPH-Gx (MS)</i>

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T201-090820-2 (A010221-01)				Matrix: Soil		Batch: 0090422		V-15
Acetone	ND	105000	210000	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
Acrylonitrile	ND	10500	21000	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
Benzene	ND	1050	2100	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
Bromobenzene	ND	2620	5250	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
Bromochloromethane	ND	5250	10500	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
Bromodichloromethane	ND	5250	10500	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
Bromoform	ND	10500	21000	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
Bromomethane	ND	105000	105000	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
2-Butanone (MEK)	ND	52500	105000	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
n-Butylbenzene	ND	5250	10500	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
sec-Butylbenzene	ND	5250	10500	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
tert-Butylbenzene	ND	5250	10500	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
Carbon disulfide	ND	52500	105000	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
Carbon tetrachloride	ND	5250	10500	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
Chlorobenzene	ND	2620	5250	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
Chloroethane	ND	52500	105000	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
Chloroform	ND	5250	10500	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
Chloromethane	ND	26200	52500	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
2-Chlorotoluene	ND	5250	10500	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
4-Chlorotoluene	ND	5250	10500	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
Dibromochloromethane	ND	10500	21000	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	26200	52500	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	5250	10500	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
Dibromomethane	ND	5250	10500	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
1,2-Dichlorobenzene	ND	2620	5250	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
1,3-Dichlorobenzene	ND	2620	5250	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
1,4-Dichlorobenzene	ND	2620	5250	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
Dichlorodifluoromethane	ND	10500	21000	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
1,1-Dichloroethane	ND	2620	5250	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	2620	5250	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
1,1-Dichloroethene	ND	2620	5250	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
cis-1,2-Dichloroethene	ND	2620	5250	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
trans-1,2-Dichloroethene	ND	2620	5250	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T201-090820-2 (A010221-01)				Matrix: Soil		Batch: 0090422		V-15
1,2-Dichloropropane	ND	2620	5250	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
1,3-Dichloropropane	ND	5250	10500	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
2,2-Dichloropropane	ND	5250	10500	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
1,1-Dichloropropene	ND	5250	10500	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
cis-1,3-Dichloropropene	ND	5250	10500	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
trans-1,3-Dichloropropene	ND	10500	21000	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
Ethylbenzene	6170	2620	5250	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
Hexachlorobutadiene	ND	10500	21000	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
2-Hexanone	ND	52500	105000	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
Isopropylbenzene	ND	5250	10500	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
4-Isopropyltoluene	ND	5250	10500	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
Methylene chloride	ND	52500	105000	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
4-Methyl-2-pentanone (MIBK)	ND	52500	105000	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	5250	10500	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
Naphthalene	1210000	10500	21000	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
n-Propylbenzene	ND	2620	5250	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
Styrene	ND	5250	10500	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	5250	10500	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	5250	10500	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
Tetrachloroethene (PCE)	ND	2620	5250	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
Toluene	ND	5250	10500	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
1,2,3-Trichlorobenzene	ND	26200	52500	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
1,2,4-Trichlorobenzene	ND	26200	52500	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
1,1,1-Trichloroethane	ND	2620	5250	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
1,1,2-Trichloroethane	ND	2620	5250	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
Trichloroethene (TCE)	ND	2620	5250	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
Trichlorofluoromethane	ND	21000	21000	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
1,2,3-Trichloropropane	ND	5250	10500	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
1,2,4-Trimethylbenzene	22500	5250	10500	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
1,3,5-Trimethylbenzene	8010	5250	10500	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	J
Vinyl chloride	ND	2620	5250	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	
m,p-Xylene	7740	5250	10500	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	J
o-Xylene	6590	2620	5250	ug/kg dry	5000	09/15/20 19:17	5035A/8260D	

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AMENDED REPORT

Sevenson Environmental Services, Inc.
2749 Lockport Road
Niagara Falls, NY 14305

Project: Gasco - Soil Residuals
Project Number: 111323
Project Manager: Chip Byrd

Report ID:
A010221 - 09 25 20 0716

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T201-090820-2 (A010221-01)				Matrix: Soil		Batch: 0090422		V-15
Surrogate: 1,4-Difluorobenzene (Surr)		Recovery: 103 %	Limits: 80-120 %	80-120 %	1	09/15/20 19:17	5035A/8260D	
Toluene-d8 (Surr)		98 %	80-120 %	80-120 %	1	09/15/20 19:17	5035A/8260D	
4-Bromofluorobenzene (Surr)		99 %	79-120 %	79-120 %	1	09/15/20 19:17	5035A/8260D	

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Darwin Thomas, Business Development Director



AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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ANALYTICAL SAMPLE RESULTS

TCLP Volatile Organic Compounds by EPA 1311/8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T201-090820-2 (A010221-01)				Matrix: Soil		Batch: 0090441		
Acetone	ND	500	1000	ug/L	50	09/16/20 13:13	1311/8260D	
Benzene	ND	6.25	12.5	ug/L	50	09/16/20 13:13	1311/8260D	
Bromobenzene	ND	12.5	25.0	ug/L	50	09/16/20 13:13	1311/8260D	
Bromochloromethane	ND	25.0	50.0	ug/L	50	09/16/20 13:13	1311/8260D	
Bromodichloromethane	ND	25.0	50.0	ug/L	50	09/16/20 13:13	1311/8260D	
Bromoform	ND	25.0	50.0	ug/L	50	09/16/20 13:13	1311/8260D	
Bromomethane	ND	250	250	ug/L	50	09/16/20 13:13	1311/8260D	
2-Butanone (MEK)	ND	250	500	ug/L	50	09/16/20 13:13	1311/8260D	
n-Butylbenzene	ND	25.0	50.0	ug/L	50	09/16/20 13:13	1311/8260D	
sec-Butylbenzene	ND	25.0	50.0	ug/L	50	09/16/20 13:13	1311/8260D	
tert-Butylbenzene	ND	25.0	50.0	ug/L	50	09/16/20 13:13	1311/8260D	
Carbon tetrachloride	ND	25.0	50.0	ug/L	50	09/16/20 13:13	1311/8260D	
Chlorobenzene	ND	12.5	25.0	ug/L	50	09/16/20 13:13	1311/8260D	
Chloroethane	ND	250	250	ug/L	50	09/16/20 13:13	1311/8260D	
Chloroform	ND	25.0	50.0	ug/L	50	09/16/20 13:13	1311/8260D	
Chloromethane	ND	125	250	ug/L	50	09/16/20 13:13	1311/8260D	
2-Chlorotoluene	ND	25.0	50.0	ug/L	50	09/16/20 13:13	1311/8260D	
4-Chlorotoluene	ND	25.0	50.0	ug/L	50	09/16/20 13:13	1311/8260D	
1,2-Dibromo-3-chloropropane	ND	125	250	ug/L	50	09/16/20 13:13	1311/8260D	
Dibromochloromethane	ND	25.0	50.0	ug/L	50	09/16/20 13:13	1311/8260D	
1,2-Dibromoethane (EDB)	ND	12.5	25.0	ug/L	50	09/16/20 13:13	1311/8260D	
Dibromomethane	ND	25.0	50.0	ug/L	50	09/16/20 13:13	1311/8260D	
1,2-Dichlorobenzene	ND	12.5	25.0	ug/L	50	09/16/20 13:13	1311/8260D	
1,3-Dichlorobenzene	ND	12.5	25.0	ug/L	50	09/16/20 13:13	1311/8260D	
1,4-Dichlorobenzene	ND	12.5	25.0	ug/L	50	09/16/20 13:13	1311/8260D	
Dichlorodifluoromethane	ND	25.0	50.0	ug/L	50	09/16/20 13:13	1311/8260D	
1,1-Dichloroethane	ND	12.5	25.0	ug/L	50	09/16/20 13:13	1311/8260D	
1,1-Dichloroethene	ND	12.5	25.0	ug/L	50	09/16/20 13:13	1311/8260D	
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/L	50	09/16/20 13:13	1311/8260D	
cis-1,2-Dichloroethene	ND	25.0	50.0	ug/L	50	09/16/20 13:13	1311/8260D	
trans-1,2-Dichloroethene	ND	12.5	25.0	ug/L	50	09/16/20 13:13	1311/8260D	
1,2-Dichloropropane	ND	12.5	25.0	ug/L	50	09/16/20 13:13	1311/8260D	
1,3-Dichloropropane	ND	25.0	50.0	ug/L	50	09/16/20 13:13	1311/8260D	

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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ANALYTICAL SAMPLE RESULTS

TCLP Volatile Organic Compounds by EPA 1311/8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T201-090820-2 (A010221-01)				Matrix: Soil		Batch: 0090441		
2,2-Dichloropropane	ND	25.0	50.0	ug/L	50	09/16/20 13:13	1311/8260D	
1,1-Dichloropropene	ND	25.0	50.0	ug/L	50	09/16/20 13:13	1311/8260D	
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/L	50	09/16/20 13:13	1311/8260D	
trans-1,3-Dichloropropene	ND	25.0	50.0	ug/L	50	09/16/20 13:13	1311/8260D	
Ethylbenzene	50.5	12.5	25.0	ug/L	50	09/16/20 13:13	1311/8260D	
Hexachlorobutadiene	ND	125	250	ug/L	50	09/16/20 13:13	1311/8260D	
2-Hexanone	ND	250	500	ug/L	50	09/16/20 13:13	1311/8260D	
Isopropylbenzene	ND	25.0	100	ug/L	50	09/16/20 13:13	1311/8260D	
4-Isopropyltoluene	ND	50.0	100	ug/L	50	09/16/20 13:13	1311/8260D	
4-Methyl-2-pentanone (MIBK)	ND	250	500	ug/L	50	09/16/20 13:13	1311/8260D	
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	ug/L	50	09/16/20 13:13	1311/8260D	
Methylene chloride	ND	250	500	ug/L	50	09/16/20 13:13	1311/8260D	
n-Propylbenzene	ND	12.5	25.0	ug/L	50	09/16/20 13:13	1311/8260D	
Styrene	ND	25.0	50.0	ug/L	50	09/16/20 13:13	1311/8260D	
1,1,1,2-Tetrachloroethane	ND	12.5	25.0	ug/L	50	09/16/20 13:13	1311/8260D	
1,1,2,2-Tetrachloroethane	ND	12.5	25.0	ug/L	50	09/16/20 13:13	1311/8260D	
Naphthalene	5880	100	200	ug/L	50	09/16/20 13:13	1311/8260D	
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/L	50	09/16/20 13:13	1311/8260D	
Toluene	ND	25.0	50.0	ug/L	50	09/16/20 13:13	1311/8260D	
1,2,3-Trichlorobenzene	ND	25.0	50.0	ug/L	50	09/16/20 13:13	1311/8260D	
1,2,4-Trichlorobenzene	ND	50.0	100	ug/L	50	09/16/20 13:13	1311/8260D	
1,1,1-Trichloroethane	ND	12.5	25.0	ug/L	50	09/16/20 13:13	1311/8260D	
1,1,2-Trichloroethane	ND	12.5	25.0	ug/L	50	09/16/20 13:13	1311/8260D	
Trichloroethene (TCE)	ND	12.5	25.0	ug/L	50	09/16/20 13:13	1311/8260D	
Trichlorofluoromethane	ND	50.0	100	ug/L	50	09/16/20 13:13	1311/8260D	
1,2,3-Trichloropropane	ND	25.0	50.0	ug/L	50	09/16/20 13:13	1311/8260D	
1,2,4-Trimethylbenzene	68.2	25.0	50.0	ug/L	50	09/16/20 13:13	1311/8260D	
1,3,5-Trimethylbenzene	26.9	25.0	50.0	ug/L	50	09/16/20 13:13	1311/8260D	J
Vinyl chloride	ND	12.5	25.0	ug/L	50	09/16/20 13:13	1311/8260D	
m,p-Xylene	55.5	25.0	50.0	ug/L	50	09/16/20 13:13	1311/8260D	
o-Xylene	45.6	12.5	25.0	ug/L	50	09/16/20 13:13	1311/8260D	
<i>Surrogate: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 108 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>09/16/20 13:13</i>	<i>1311/8260D</i>
<i>Toluene-d8 (Surr)</i>		<i>101 %</i>		<i>80-120 %</i>		<i>1</i>	<i>09/16/20 13:13</i>	<i>1311/8260D</i>

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Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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ANALYTICAL SAMPLE RESULTS

TCLP Volatile Organic Compounds by EPA 1311/8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T201-090820-2 (A010221-01)				Matrix: Soil		Batch: 0090441		
<i>Surrogate: 4-Bromofluorobenzene (Surr)</i>		<i>Recovery: 101 %</i>		<i>Limits: 80-120 %</i>		<i>1</i>	<i>09/16/20 13:13</i>	<i>1311/8260D</i>

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T201-090820-2 (A010221-01)				Matrix: Soil		Batch: 0090453		
Acenaphthene	440000	2000	4010	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	B, Q-42
Acenaphthylene	172000	2000	4010	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	B, Q-42
Anthracene	339000	2000	4010	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	Q-42
Benz(a)anthracene	263000	2000	4010	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	Q-42
Benzo(a)pyrene	310000	3000	6010	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	Q-42
Benzo(b)fluoranthene	265000	3000	6010	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	Q-42
Benzo(k)fluoranthene	91200	3000	6010	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	M-05, Q-42
Benzo(g,h,i)perylene	249000	2000	4010	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	Q-42
Chrysene	311000	2000	4010	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	Q-42
Dibenz(a,h)anthracene	21800	2000	4010	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	Q-42
Fluorene	412000	2000	4010	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	B, Q-42
Indeno(1,2,3-cd)pyrene	190000	2000	4010	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	Q-42
1-Methylnaphthalene	520000	4010	8010	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	B, Q-42
2-Methylnaphthalene	748000	4010	8010	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	B, Q-42
Naphthalene	1120000	4010	8010	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	B, Q-42
Pyrene	1100000	2000	4010	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	Q-42
Carbazole	23400	3000	6010	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	Q-42
Dibenzofuran	107000	2000	4010	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	B-02, Q-42
2-Chlorophenol	ND	10000	20000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
4-Chloro-3-methylphenol	ND	20000	40100	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
2,4-Dichlorophenol	ND	10000	20000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
2,4-Dimethylphenol	ND	10000	20000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
2,4-Dinitrophenol	ND	50000	100000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	50000	100000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
2-Methylphenol	ND	5000	10000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
3+4-Methylphenol(s)	ND	5000	10000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
2-Nitrophenol	ND	20000	40100	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
4-Nitrophenol	ND	60100	60100	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	R-02
Pentachlorophenol (PCP)	ND	20000	40100	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
Phenol	ND	4010	8010	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	10000	20000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
2,3,5,6-Tetrachlorophenol	ND	10000	20000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
2,4,5-Trichlorophenol	ND	10000	20000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T201-090820-2 (A010221-01)				Matrix: Soil		Batch: 0090453		
Nitrobenzene	ND	20000	40100	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
2,4,6-Trichlorophenol	ND	10000	20000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	30000	60100	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
Butyl benzyl phthalate	ND	20000	40100	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
Diethylphthalate	ND	20000	40100	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
Dimethylphthalate	ND	20000	40100	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
Di-n-butylphthalate	ND	20000	40100	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
Di-n-octyl phthalate	ND	20000	40100	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
N-Nitrosodimethylamine	ND	5000	10000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	5000	10000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
N-Nitrosodiphenylamine	ND	33000	33000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	R-02
Bis(2-Chloroethoxy) methane	ND	5000	10000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	5000	10000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	5000	10000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
Hexachlorobenzene	ND	2000	4010	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
Hexachlorobutadiene	ND	5000	10000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
Hexachlorocyclopentadiene	ND	10000	20000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
Hexachloroethane	ND	5000	10000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
2-Chloronaphthalene	ND	4010	4010	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
1,2,4-Trichlorobenzene	ND	5000	10000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
4-Bromophenyl phenyl ether	ND	5000	10000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	5000	10000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
Aniline	ND	10000	20000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
4-Chloroaniline	ND	5000	10000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
2-Nitroaniline	ND	40100	80100	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
3-Nitroaniline	ND	40100	80100	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
4-Nitroaniline	ND	40100	80100	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
2,4-Dinitrotoluene	ND	20000	40100	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
2,6-Dinitrotoluene	ND	20000	40100	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
Benzoic acid	ND	251000	500000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
Benzyl alcohol	ND	10000	20000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
Isophorone	ND	5000	10000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
Azobenzene (1,2-DPH)	ND	5000	10000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	

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AMENDED REPORT

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ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T201-090820-2 (A010221-01)			Matrix: Soil			Batch: 0090453		
Bis(2-Ethylhexyl) adipate	ND	50000	100000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
3,3'-Dichlorobenzidine	ND	40100	80100	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	50000	100000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
1,3-Dinitrobenzene	ND	50000	100000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
1,4-Dinitrobenzene	ND	50000	100000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
Pyridine	ND	10000	20000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
1,2-Dichlorobenzene	ND	5000	10000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
1,3-Dichlorobenzene	ND	5000	10000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
1,4-Dichlorobenzene	ND	5000	10000	ug/kg dry	1000	09/16/20 15:14	EPA 8270E	
<i>Surrogate: Nitrobenzene-d5 (Surr)</i>			<i>Recovery: 255 %</i>	<i>Limits: 37-122 %</i>	<i>1000</i>	<i>09/16/20 15:14</i>	<i>EPA 8270E</i>	<i>S-05</i>
<i>2-Fluorobiphenyl (Surr)</i>			<i>240 %</i>	<i>44-120 %</i>	<i>1000</i>	<i>09/16/20 15:14</i>	<i>EPA 8270E</i>	<i>S-05</i>
<i>Phenol-d6 (Surr)</i>			<i>75 %</i>	<i>33-122 %</i>	<i>1000</i>	<i>09/16/20 15:14</i>	<i>EPA 8270E</i>	<i>S-05</i>
<i>p-Terphenyl-d14 (Surr)</i>			<i>210 %</i>	<i>54-127 %</i>	<i>1000</i>	<i>09/16/20 15:14</i>	<i>EPA 8270E</i>	<i>S-05</i>
<i>2-Fluorophenol (Surr)</i>			<i>41 %</i>	<i>35-120 %</i>	<i>1000</i>	<i>09/16/20 15:14</i>	<i>EPA 8270E</i>	<i>S-05</i>
<i>2,4,6-Tribromophenol (Surr)</i>			<i>543 %</i>	<i>39-132 %</i>	<i>1000</i>	<i>09/16/20 15:14</i>	<i>EPA 8270E</i>	<i>S-05</i>
T201-090820-2 (A010221-01RE1)			Matrix: Soil			Batch: 0090453		
Fluoranthene	1030000	20000	40100	ug/kg dry	10000	09/16/20 16:38	EPA 8270E	
Phenanthrene	2290000	20000	40100	ug/kg dry	10000	09/16/20 16:38	EPA 8270E	B

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ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020A (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes	
T201-090820-2 (A010221-01)		Matrix: Soil							
Batch: 0090386									
Arsenic	10500	809	1620	ug/kg dry	10	09/15/20 14:57	EPA 6020A		
Barium	182000	809	1620	ug/kg dry	10	09/15/20 14:57	EPA 6020A		
Cadmium	ND	162	324	ug/kg dry	10	09/15/20 14:57	EPA 6020A		
Chromium	20600	809	1620	ug/kg dry	10	09/15/20 14:57	EPA 6020A		
Lead	3030	162	324	ug/kg dry	10	09/15/20 14:57	EPA 6020A		
Mercury	ND	64.8	130	ug/kg dry	10	09/15/20 14:57	EPA 6020A		
Selenium	ND	809	1620	ug/kg dry	10	09/15/20 14:57	EPA 6020A		
Silver	ND	162	324	ug/kg dry	10	09/15/20 14:57	EPA 6020A		

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ANALYTICAL SAMPLE RESULTS

TCLP Metals by EPA 6020A (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T201-090820-2-TCLP (A010221-02)		Matrix: Soil						
Batch: 0090645								
Arsenic	ND	50.0	100	ug/L	10	09/23/20 23:37	1311/6020A	
Barium	ND	2500	5000	ug/L	10	09/23/20 23:37	1311/6020A	Q-41
Cadmium	ND	50.0	100	ug/L	10	09/23/20 23:37	1311/6020A	
Chromium	ND	50.0	100	ug/L	10	09/23/20 23:37	1311/6020A	
Lead	ND	25.0	50.0	ug/L	10	09/23/20 23:37	1311/6020A	
Mercury	ND	3.50	7.00	ug/L	10	09/23/20 23:37	1311/6020A	
Selenium	ND	50.0	100	ug/L	10	09/23/20 23:37	1311/6020A	
Silver	ND	50.0	100	ug/L	10	09/23/20 23:37	1311/6020A	

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ANALYTICAL SAMPLE RESULTS

Soluble Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T201-090820-2 (A010221-01RE2)				Matrix: Soil		Batch: 0090400		
Total Cyanide	6010	794	1590	ug/kg dry	10	09/16/20 12:31	D7511-12	

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ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T201-090820-2 (A010221-01)				Matrix: Soil		Batch: 0090286		
% Solids	62.6	1.00	1.00	%	1	09/11/20 08:12	EPA 8000D	

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ANALYTICAL SAMPLE RESULTS

TCLP Extraction by EPA 1311 (ZHE)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T201-090820-2 (A010221-01)				Matrix: Soil		Batch: 0090434		
TCLP ZHE Extraction	PREP			N/A	1	09/15/20 13:43	EPA 1311 ZHE	
T201-090820-2-TCLP (A010221-02)				Matrix: Soil		Batch: 0090601		
TCLP Extraction	PREP			N/A	1	09/22/20 15:30	EPA 1311	

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QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090433 - EPA 3546 (Fuels)						Soil						
Blank (0090433-BLK1)			Prepared: 09/15/20 13:16 Analyzed: 09/15/20 20:35									
<u>NWTPH-Dx</u>												
Diesel	ND	10000	20000	ug/kg wet	1	---	---	---	---	---	---	
Oil	ND	20000	40000	ug/kg wet	1	---	---	---	---	---	---	
Mineral Oil	ND	20000	40000	ug/kg wet	1	---	---	---	---	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 93 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
LCS (0090433-BS1)			Prepared: 09/15/20 13:16 Analyzed: 09/15/20 20:58									
<u>NWTPH-Dx</u>												
Diesel	122000	10000	20000	ug/kg wet	1	125000	---	98	73-115%	---	---	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 95 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						
Duplicate (0090433-DUP1)			Prepared: 09/15/20 13:16 Analyzed: 09/15/20 21:43									
<u>QC Source Sample: T201-090820-2 (A010221-01)</u>												
<u>NWTPH-Dx</u>												
Diesel	38100000	606000	1210000	ug/kg dry	40	---	36000000	---	---	6	30%	F-24
Oil	14400000	1210000	2420000	ug/kg dry	40	---	13600000	---	---	6	30%	F-24
Mineral Oil	ND	1210000	2420000	ug/kg dry	40	---	ND	---	---	---	30%	
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 40x</i>						S-01
Duplicate (0090433-DUP2)			Prepared: 09/15/20 13:16 Analyzed: 09/15/20 21:43									
<u>QC Source Sample: Non-SDG (A010336-01)</u>												
Diesel	ND	10700	21400	ug/kg dry	1	---	ND	---	---	---	30%	
Oil	413000	21400	42900	ug/kg dry	1	---	349000	---	---	17	30%	A-02
Mineral Oil	140000	21400	42900	ug/kg dry	1	---	162000	---	---	14	30%	A-01
<i>Surr: o-Terphenyl (Surr)</i>		<i>Recovery: 96 %</i>		<i>Limits: 50-150 %</i>		<i>Dilution: 1x</i>						

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QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
Batch 0090422 - EPA 5035A												Soil	
Blank (0090422-BLK1)												Prepared: 09/15/20 09:00 Analyzed: 09/15/20 13:19	
<u>NWTPH-Gx (MS)</u>													
Gasoline Range Organics	ND	1670	3330	ug/kg wet	50	---	---	---	---	---	---		
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 102 %	Limits: 50-150 %			Dilution: 1x							
1,4-Difluorobenzene (Sur)		99 %	50-150 %			"							
LCS (0090422-BS2)												Prepared: 09/15/20 09:00 Analyzed: 09/15/20 12:51	
<u>NWTPH-Gx (MS)</u>													
Gasoline Range Organics	26800	2500	5000	ug/kg wet	50	25000	---	107	80-120%	---	---		
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 101 %	Limits: 50-150 %			Dilution: 1x							
1,4-Difluorobenzene (Sur)		100 %	50-150 %			"							
Duplicate (0090422-DUP1)												Prepared: 09/10/20 15:55 Analyzed: 09/15/20 20:39	V-15
<u>QC Source Sample: Non-SDG (A010273-01)</u>													
Gasoline Range Organics	42500	3250	6500	ug/kg dry	50	---	16000	---	---	90	30%	F-09	
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 122 %	Limits: 50-150 %			Dilution: 1x							
1,4-Difluorobenzene (Sur)		95 %	50-150 %			"							
Duplicate (0090422-DUP2)												Prepared: 09/10/20 09:30 Analyzed: 09/15/20 21:34	
<u>QC Source Sample: Non-SDG (A010273-02)</u>													
Gasoline Range Organics	ND	3870	7750	ug/kg dry	50	---	ND	---	---	---	30%		
Surr: 4-Bromofluorobenzene (Sur)		Recovery: 102 %	Limits: 50-150 %			Dilution: 1x							
1,4-Difluorobenzene (Sur)		93 %	50-150 %			"							

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090422 - EPA 5035A						Soil						
Blank (0090422-BLK1)			Prepared: 09/15/20 09:00 Analyzed: 09/15/20 13:19									
<u>5035A/8260D</u>												
Acetone	ND	333	667	ug/kg wet	50	---	---	---	---	---	---	
Acrylonitrile	ND	33.3	66.7	ug/kg wet	50	---	---	---	---	---	---	
Benzene	3.53	3.33	6.67	ug/kg wet	50	---	---	---	---	---	---	J, B-02
Bromobenzene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Bromochloromethane	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Bromodichloromethane	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Bromoform	ND	33.3	66.7	ug/kg wet	50	---	---	---	---	---	---	
Bromomethane	ND	333	333	ug/kg wet	50	---	---	---	---	---	---	
2-Butanone (MEK)	ND	167	333	ug/kg wet	50	---	---	---	---	---	---	
n-Butylbenzene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
sec-Butylbenzene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
tert-Butylbenzene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Carbon disulfide	ND	167	333	ug/kg wet	50	---	---	---	---	---	---	
Carbon tetrachloride	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Chlorobenzene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Chloroethane	ND	167	333	ug/kg wet	50	---	---	---	---	---	---	
Chloroform	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Chloromethane	ND	83.3	167	ug/kg wet	50	---	---	---	---	---	---	
2-Chlorotoluene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
4-Chlorotoluene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Dibromochloromethane	ND	33.3	66.7	ug/kg wet	50	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	83.3	167	ug/kg wet	50	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Dibromomethane	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	33.3	66.7	ug/kg wet	50	---	---	---	---	---	---	
1,1-Dichloroethane	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,1-Dichloroethene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090422 - EPA 5035A						Soil						
Blank (0090422-BLK1)			Prepared: 09/15/20 09:00 Analyzed: 09/15/20 13:19									
1,2-Dichloropropane	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,3-Dichloropropane	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
2,2-Dichloropropane	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,1-Dichloropropene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	33.3	66.7	ug/kg wet	50	---	---	---	---	---	---	
Ethylbenzene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Hexachlorobutadiene	ND	33.3	66.7	ug/kg wet	50	---	---	---	---	---	---	
2-Hexanone	ND	167	333	ug/kg wet	50	---	---	---	---	---	---	
Isopropylbenzene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
4-Isopropyltoluene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Methylene chloride	ND	167	333	ug/kg wet	50	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	167	333	ug/kg wet	50	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Naphthalene	ND	33.3	66.7	ug/kg wet	50	---	---	---	---	---	---	
n-Propylbenzene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Styrene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Toluene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	83.3	167	ug/kg wet	50	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	83.3	167	ug/kg wet	50	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
Trichlorofluoromethane	ND	66.7	66.7	ug/kg wet	50	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
Vinyl chloride	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	
m,p-Xylene	ND	16.7	33.3	ug/kg wet	50	---	---	---	---	---	---	
o-Xylene	ND	8.33	16.7	ug/kg wet	50	---	---	---	---	---	---	

Surr: 1,4-Difluorobenzene (Surr) Recovery: 102 % Limits: 80-120 % Dilution: 1x

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Darwin Thomas, Business Development Director

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090422 - EPA 5035A						Soil						
Blank (0090422-BLK1)						Prepared: 09/15/20 09:00 Analyzed: 09/15/20 13:19						
<i>Surr: Toluene-d8 (Surr)</i>		<i>Recovery: 100 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>100 %</i>		<i>79-120 %</i>		<i>"</i>						
LCS (0090422-BS1)						Prepared: 09/15/20 09:00 Analyzed: 09/15/20 12:24						
5035A/8260D												
Acetone	2010	500	1000	ug/kg wet	50	2000	---	100	80-120%	---	---	
Acrylonitrile	1100	50.0	100	ug/kg wet	50	1000	---	110	80-120%	---	---	
Benzene	1080	5.00	10.0	ug/kg wet	50	1000	---	108	80-120%	---	---	
Bromobenzene	1060	12.5	25.0	ug/kg wet	50	1000	---	106	80-120%	---	---	
Bromochloromethane	1030	25.0	50.0	ug/kg wet	50	1000	---	103	80-120%	---	---	
Bromodichloromethane	1110	25.0	50.0	ug/kg wet	50	1000	---	111	80-120%	---	---	
Bromoform	970	50.0	100	ug/kg wet	50	1000	---	97	80-120%	---	---	
Bromomethane	1130	500	500	ug/kg wet	50	1000	---	113	80-120%	---	---	
2-Butanone (MEK)	2100	250	500	ug/kg wet	50	2000	---	105	80-120%	---	---	
n-Butylbenzene	1010	25.0	50.0	ug/kg wet	50	1000	---	101	80-120%	---	---	
sec-Butylbenzene	1040	25.0	50.0	ug/kg wet	50	1000	---	104	80-120%	---	---	
tert-Butylbenzene	1030	25.0	50.0	ug/kg wet	50	1000	---	103	80-120%	---	---	
Carbon disulfide	1080	250	500	ug/kg wet	50	1000	---	108	80-120%	---	---	
Carbon tetrachloride	1110	25.0	50.0	ug/kg wet	50	1000	---	111	80-120%	---	---	
Chlorobenzene	1040	12.5	25.0	ug/kg wet	50	1000	---	104	80-120%	---	---	
Chloroethane	887	250	500	ug/kg wet	50	1000	---	89	80-120%	---	---	
Chloroform	1160	25.0	50.0	ug/kg wet	50	1000	---	116	80-120%	---	---	
Chloromethane	814	125	250	ug/kg wet	50	1000	---	81	80-120%	---	---	
2-Chlorotoluene	1040	25.0	50.0	ug/kg wet	50	1000	---	104	80-120%	---	---	
4-Chlorotoluene	1070	25.0	50.0	ug/kg wet	50	1000	---	107	80-120%	---	---	
Dibromochloromethane	994	50.0	100	ug/kg wet	50	1000	---	99	80-120%	---	---	
1,2-Dibromo-3-chloropropane	854	125	250	ug/kg wet	50	1000	---	85	80-120%	---	---	
1,2-Dibromoethane (EDB)	1070	25.0	50.0	ug/kg wet	50	1000	---	107	80-120%	---	---	
Dibromomethane	1070	25.0	50.0	ug/kg wet	50	1000	---	107	80-120%	---	---	
1,2-Dichlorobenzene	1050	12.5	25.0	ug/kg wet	50	1000	---	105	80-120%	---	---	
1,3-Dichlorobenzene	1060	12.5	25.0	ug/kg wet	50	1000	---	106	80-120%	---	---	
1,4-Dichlorobenzene	986	12.5	25.0	ug/kg wet	50	1000	---	99	80-120%	---	---	
Dichlorodifluoromethane	980	50.0	100	ug/kg wet	50	1000	---	98	80-120%	---	---	
1,1-Dichloroethane	1080	12.5	25.0	ug/kg wet	50	1000	---	108	80-120%	---	---	

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Darwin Thomas, Business Development Director



AMENDED REPORT

Sevenson Environmental Services, Inc.
2749 Lockport Road
Niagara Falls, NY 14305

Project: Gasco - Soil Residuals
Project Number: 111323
Project Manager: Chip Byrd

Report ID:
A010221 - 09 25 20 0716

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090422 - EPA 5035A						Soil						
LCS (0090422-BS1)			Prepared: 09/15/20 09:00 Analyzed: 09/15/20 12:24									
1,2-Dichloroethane (EDC)	1090	12.5	25.0	ug/kg wet	50	1000	---	109	80-120%	---	---	
1,1-Dichloroethene	956	12.5	25.0	ug/kg wet	50	1000	---	96	80-120%	---	---	
cis-1,2-Dichloroethene	1050	12.5	25.0	ug/kg wet	50	1000	---	105	80-120%	---	---	
trans-1,2-Dichloroethene	1080	12.5	25.0	ug/kg wet	50	1000	---	108	80-120%	---	---	
1,2-Dichloropropane	1070	12.5	25.0	ug/kg wet	50	1000	---	107	80-120%	---	---	
1,3-Dichloropropane	1070	25.0	50.0	ug/kg wet	50	1000	---	107	80-120%	---	---	
2,2-Dichloropropane	1190	25.0	50.0	ug/kg wet	50	1000	---	119	80-120%	---	---	
1,1-Dichloropropene	1080	25.0	50.0	ug/kg wet	50	1000	---	108	80-120%	---	---	
cis-1,3-Dichloropropene	964	25.0	50.0	ug/kg wet	50	1000	---	96	80-120%	---	---	
trans-1,3-Dichloropropene	955	50.0	100	ug/kg wet	50	1000	---	96	80-120%	---	---	
Ethylbenzene	1060	12.5	25.0	ug/kg wet	50	1000	---	106	80-120%	---	---	
Hexachlorobutadiene	935	50.0	100	ug/kg wet	50	1000	---	94	80-120%	---	---	
2-Hexanone	1860	250	500	ug/kg wet	50	2000	---	93	80-120%	---	---	
Isopropylbenzene	1040	25.0	50.0	ug/kg wet	50	1000	---	104	80-120%	---	---	
4-Isopropyltoluene	1040	25.0	50.0	ug/kg wet	50	1000	---	104	80-120%	---	---	
Methylene chloride	1050	250	500	ug/kg wet	50	1000	---	105	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	2120	250	500	ug/kg wet	50	2000	---	106	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	1030	25.0	50.0	ug/kg wet	50	1000	---	103	80-120%	---	---	
Naphthalene	872	50.0	100	ug/kg wet	50	1000	---	87	80-120%	---	---	
n-Propylbenzene	1020	12.5	25.0	ug/kg wet	50	1000	---	102	80-120%	---	---	
Styrene	976	25.0	50.0	ug/kg wet	50	1000	---	98	80-120%	---	---	
1,1,1,2-Tetrachloroethane	967	25.0	50.0	ug/kg wet	50	1000	---	97	80-120%	---	---	
1,1,2,2-Tetrachloroethane	1230	25.0	50.0	ug/kg wet	50	1000	---	123	80-120%	---	---	Q-56
Tetrachloroethene (PCE)	1000	12.5	25.0	ug/kg wet	50	1000	---	100	80-120%	---	---	
Toluene	983	25.0	50.0	ug/kg wet	50	1000	---	98	80-120%	---	---	
1,2,3-Trichlorobenzene	956	125	250	ug/kg wet	50	1000	---	96	80-120%	---	---	
1,2,4-Trichlorobenzene	943	125	250	ug/kg wet	50	1000	---	94	80-120%	---	---	
1,1,1-Trichloroethane	1140	12.5	25.0	ug/kg wet	50	1000	---	114	80-120%	---	---	
1,1,2-Trichloroethane	1050	12.5	25.0	ug/kg wet	50	1000	---	105	80-120%	---	---	
Trichloroethene (TCE)	1040	12.5	25.0	ug/kg wet	50	1000	---	104	80-120%	---	---	
Trichlorofluoromethane	692	100	100	ug/kg wet	50	1000	---	69	80-120%	---	---	Q-55
1,2,3-Trichloropropane	1100	25.0	50.0	ug/kg wet	50	1000	---	110	80-120%	---	---	
1,2,4-Trimethylbenzene	1050	25.0	50.0	ug/kg wet	50	1000	---	105	80-120%	---	---	
1,3,5-Trimethylbenzene	1050	25.0	50.0	ug/kg wet	50	1000	---	105	80-120%	---	---	

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Darwin Thomas, Business Development Director



AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090422 - EPA 5035A												
Soil												
LCS (0090422-BS1)												
Prepared: 09/15/20 09:00 Analyzed: 09/15/20 12:24												
Vinyl chloride	1040	12.5	25.0	ug/kg wet	50	1000	---	104	80-120%	---	---	
m,p-Xylene	2180	25.0	50.0	ug/kg wet	50	2000	---	109	80-120%	---	---	
o-Xylene	1050	12.5	25.0	ug/kg wet	50	1000	---	105	80-120%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr) Recovery: 101 % Limits: 80-120 % Dilution: 1x</i>												
<i>Toluene-d8 (Surr) 99 % 80-120 % "</i>												
<i>4-Bromofluorobenzene (Surr) 97 % 79-120 % "</i>												

Duplicate (0090422-DUP1) Prepared: 09/10/20 15:55 Analyzed: 09/15/20 20:39 V-15

QC Source Sample: Non-SDG (A010273-01)

Acetone	ND	650	1300	ug/kg dry	50	---	ND	---	---	---	30%	
Acrylonitrile	ND	65.0	130	ug/kg dry	50	---	ND	---	---	---	30%	
Benzene	ND	6.50	13.0	ug/kg dry	50	---	ND	---	---	---	30%	
Bromobenzene	ND	16.2	32.5	ug/kg dry	50	---	ND	---	---	---	30%	
Bromochloromethane	ND	32.5	65.0	ug/kg dry	50	---	ND	---	---	---	30%	
Bromodichloromethane	ND	32.5	65.0	ug/kg dry	50	---	ND	---	---	---	30%	
Bromoform	ND	65.0	130	ug/kg dry	50	---	ND	---	---	---	30%	
Bromomethane	ND	650	650	ug/kg dry	50	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	325	650	ug/kg dry	50	---	ND	---	---	---	30%	
n-Butylbenzene	ND	32.5	65.0	ug/kg dry	50	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	32.5	65.0	ug/kg dry	50	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	32.5	65.0	ug/kg dry	50	---	ND	---	---	---	30%	
Carbon disulfide	ND	325	650	ug/kg dry	50	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	32.5	65.0	ug/kg dry	50	---	ND	---	---	---	30%	
Chlorobenzene	ND	16.2	32.5	ug/kg dry	50	---	ND	---	---	---	30%	
Chloroethane	ND	325	650	ug/kg dry	50	---	ND	---	---	---	30%	
Chloroform	ND	32.5	65.0	ug/kg dry	50	---	ND	---	---	---	30%	
Chloromethane	ND	162	325	ug/kg dry	50	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	32.5	65.0	ug/kg dry	50	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	32.5	65.0	ug/kg dry	50	---	ND	---	---	---	30%	
Dibromochloromethane	ND	65.0	130	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	162	325	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	32.5	65.0	ug/kg dry	50	---	ND	---	---	---	30%	
Dibromomethane	ND	32.5	65.0	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	16.2	32.5	ug/kg dry	50	---	ND	---	---	---	30%	

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Darwin Thomas, Business Development Director



AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
Batch 0090422 - EPA 5035A							Soil						
Duplicate (0090422-DUP1)			Prepared: 09/10/20 15:55 Analyzed: 09/15/20 20:39						V-15				
QC Source Sample: Non-SDG (A010273-01)													
1,3-Dichlorobenzene	ND	16.2	32.5	ug/kg dry	50	---	ND	---	---	---	30%		
1,4-Dichlorobenzene	ND	16.2	32.5	ug/kg dry	50	---	ND	---	---	---	30%		
Dichlorodifluoromethane	ND	65.0	130	ug/kg dry	50	---	ND	---	---	---	30%		
1,1-Dichloroethane	ND	16.2	32.5	ug/kg dry	50	---	ND	---	---	---	30%		
1,2-Dichloroethane (EDC)	ND	16.2	32.5	ug/kg dry	50	---	ND	---	---	---	30%		
1,1-Dichloroethene	ND	16.2	32.5	ug/kg dry	50	---	ND	---	---	---	30%		
cis-1,2-Dichloroethene	ND	16.2	32.5	ug/kg dry	50	---	ND	---	---	---	30%		
trans-1,2-Dichloroethene	ND	16.2	32.5	ug/kg dry	50	---	ND	---	---	---	30%		
1,2-Dichloropropane	ND	16.2	32.5	ug/kg dry	50	---	ND	---	---	---	30%		
1,3-Dichloropropane	ND	32.5	65.0	ug/kg dry	50	---	ND	---	---	---	30%		
2,2-Dichloropropane	ND	32.5	65.0	ug/kg dry	50	---	ND	---	---	---	30%		
1,1-Dichloropropene	ND	32.5	65.0	ug/kg dry	50	---	ND	---	---	---	30%		
cis-1,3-Dichloropropene	ND	32.5	65.0	ug/kg dry	50	---	ND	---	---	---	30%		
trans-1,3-Dichloropropene	ND	65.0	130	ug/kg dry	50	---	ND	---	---	---	30%		
Ethylbenzene	ND	16.2	32.5	ug/kg dry	50	---	ND	---	---	---	30%		
Hexachlorobutadiene	ND	65.0	130	ug/kg dry	50	---	ND	---	---	---	30%		
2-Hexanone	ND	325	650	ug/kg dry	50	---	ND	---	---	---	30%		
Isopropylbenzene	ND	32.5	65.0	ug/kg dry	50	---	ND	---	---	---	30%		
4-Isopropyltoluene	ND	32.5	65.0	ug/kg dry	50	---	ND	---	---	---	30%		
Methylene chloride	ND	325	650	ug/kg dry	50	---	ND	---	---	---	30%		
4-Methyl-2-pentanone (MiBK)	ND	325	650	ug/kg dry	50	---	ND	---	---	---	30%		
Methyl tert-butyl ether (MTBE)	ND	32.5	65.0	ug/kg dry	50	---	ND	---	---	---	30%		
Naphthalene	ND	65.0	130	ug/kg dry	50	---	ND	---	---	---	30%		
n-Propylbenzene	ND	16.2	32.5	ug/kg dry	50	---	ND	---	---	---	30%		
Styrene	ND	32.5	65.0	ug/kg dry	50	---	ND	---	---	---	30%		
1,1,1,2-Tetrachloroethane	ND	32.5	65.0	ug/kg dry	50	---	ND	---	---	---	30%		
1,1,2,2-Tetrachloroethane	ND	179	179	ug/kg dry	50	---	ND	---	---	---	30%	R-02	
Tetrachloroethene (PCE)	ND	16.2	32.5	ug/kg dry	50	---	ND	---	---	---	30%		
Toluene	ND	32.5	65.0	ug/kg dry	50	---	ND	---	---	---	30%		
1,2,3-Trichlorobenzene	ND	162	325	ug/kg dry	50	---	ND	---	---	---	30%		
1,2,4-Trichlorobenzene	ND	162	325	ug/kg dry	50	---	ND	---	---	---	30%		
1,1,1-Trichloroethane	ND	16.2	32.5	ug/kg dry	50	---	ND	---	---	---	30%		
1,1,2-Trichloroethane	ND	16.2	32.5	ug/kg dry	50	---	ND	---	---	---	30%		

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090422 - EPA 5035A												
Soil												
Duplicate (0090422-DUP1)												
Prepared: 09/10/20 15:55						Analyzed: 09/15/20 20:39						
QC Source Sample: Non-SDG (A010273-01)												
Trichloroethene (TCE)	ND	16.2	32.5	ug/kg dry	50	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	130	130	ug/kg dry	50	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	65.0	65.0	ug/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	32.5	65.0	ug/kg dry	50	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	32.5	65.0	ug/kg dry	50	---	ND	---	---	---	30%	
Vinyl chloride	ND	16.2	32.5	ug/kg dry	50	---	ND	---	---	---	30%	
m,p-Xylene	ND	32.5	65.0	ug/kg dry	50	---	ND	---	---	---	30%	
o-Xylene	ND	16.2	32.5	ug/kg dry	50	---	ND	---	---	---	30%	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 102 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>97 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>100 %</i>		<i>79-120 %</i>		<i>"</i>						

Duplicate (0090422-DUP2)												
Prepared: 09/10/20 09:30						Analyzed: 09/15/20 21:34						
QC Source Sample: Non-SDG (A010273-02)												
Acetone	ND	775	1550	ug/kg dry	50	---	ND	---	---	---	30%	
Acrylonitrile	ND	77.5	155	ug/kg dry	50	---	ND	---	---	---	30%	
Benzene	ND	7.75	15.5	ug/kg dry	50	---	ND	---	---	---	30%	
Bromobenzene	ND	19.4	38.7	ug/kg dry	50	---	ND	---	---	---	30%	
Bromochloromethane	ND	38.7	77.5	ug/kg dry	50	---	ND	---	---	---	30%	
Bromodichloromethane	ND	38.7	77.5	ug/kg dry	50	---	ND	---	---	---	30%	
Bromoform	ND	77.5	155	ug/kg dry	50	---	ND	---	---	---	30%	
Bromomethane	ND	775	775	ug/kg dry	50	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	387	775	ug/kg dry	50	---	ND	---	---	---	30%	
n-Butylbenzene	ND	38.7	77.5	ug/kg dry	50	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	38.7	77.5	ug/kg dry	50	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	38.7	77.5	ug/kg dry	50	---	ND	---	---	---	30%	
Carbon disulfide	ND	387	775	ug/kg dry	50	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	38.7	77.5	ug/kg dry	50	---	ND	---	---	---	30%	
Chlorobenzene	ND	19.4	38.7	ug/kg dry	50	---	ND	---	---	---	30%	
Chloroethane	ND	387	775	ug/kg dry	50	---	ND	---	---	---	30%	
Chloroform	ND	38.7	77.5	ug/kg dry	50	---	ND	---	---	---	30%	
Chloromethane	ND	194	387	ug/kg dry	50	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	38.7	77.5	ug/kg dry	50	---	ND	---	---	---	30%	

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Darwin Thomas, Business Development Director



AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090422 - EPA 5035A												
Soil												
Duplicate (0090422-DUP2)												
Prepared: 09/10/20 09:30 Analyzed: 09/15/20 21:34												
QC Source Sample: Non-SDG (A010273-02)												
4-Chlorotoluene	ND	38.7	77.5	ug/kg dry	50	---	ND	---	---	---	30%	
Dibromochloromethane	ND	77.5	155	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	194	387	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	38.7	77.5	ug/kg dry	50	---	ND	---	---	---	30%	
Dibromomethane	ND	38.7	77.5	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	19.4	38.7	ug/kg dry	50	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	19.4	38.7	ug/kg dry	50	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	19.4	38.7	ug/kg dry	50	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	77.5	155	ug/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	19.4	38.7	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	19.4	38.7	ug/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	19.4	38.7	ug/kg dry	50	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	19.4	38.7	ug/kg dry	50	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	19.4	38.7	ug/kg dry	50	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	19.4	38.7	ug/kg dry	50	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	38.7	77.5	ug/kg dry	50	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	38.7	77.5	ug/kg dry	50	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	38.7	77.5	ug/kg dry	50	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	38.7	77.5	ug/kg dry	50	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	77.5	155	ug/kg dry	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	19.4	38.7	ug/kg dry	50	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	77.5	155	ug/kg dry	50	---	ND	---	---	---	30%	
2-Hexanone	ND	387	775	ug/kg dry	50	---	ND	---	---	---	30%	
Isopropylbenzene	ND	38.7	77.5	ug/kg dry	50	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	38.7	77.5	ug/kg dry	50	---	ND	---	---	---	30%	
Methylene chloride	ND	387	775	ug/kg dry	50	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	387	775	ug/kg dry	50	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	38.7	77.5	ug/kg dry	50	---	ND	---	---	---	30%	
Naphthalene	ND	77.5	155	ug/kg dry	50	---	ND	---	---	---	30%	
n-Propylbenzene	ND	19.4	38.7	ug/kg dry	50	---	ND	---	---	---	30%	
Styrene	ND	38.7	77.5	ug/kg dry	50	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	38.7	77.5	ug/kg dry	50	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	38.7	77.5	ug/kg dry	50	---	ND	---	---	---	30%	

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090422 - EPA 5035A												
Soil												
Duplicate (0090422-DUP2)												
Prepared: 09/10/20 09:30 Analyzed: 09/15/20 21:34												
QC Source Sample: Non-SDG (A010273-02)												
Tetrachloroethene (PCE)	ND	19.4	38.7	ug/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	38.7	77.5	ug/kg dry	50	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	194	387	ug/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	194	387	ug/kg dry	50	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	19.4	38.7	ug/kg dry	50	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	19.4	38.7	ug/kg dry	50	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	19.4	38.7	ug/kg dry	50	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	155	155	ug/kg dry	50	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	38.7	77.5	ug/kg dry	50	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	38.7	77.5	ug/kg dry	50	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	38.7	77.5	ug/kg dry	50	---	ND	---	---	---	30%	
Vinyl chloride	ND	19.4	38.7	ug/kg dry	50	---	ND	---	---	---	30%	
m,p-Xylene	ND	38.7	77.5	ug/kg dry	50	---	ND	---	---	---	30%	
o-Xylene	ND	19.4	38.7	ug/kg dry	50	---	ND	---	---	---	30%	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 103 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>98 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>100 %</i>		<i>79-120 %</i>		<i>"</i>						

Matrix Spike (0090422-MS1)												
Prepared: 09/10/20 10:20 Analyzed: 09/16/20 00:18												
QC Source Sample: Non-SDG (A010273-03)												
5035A/8260D												
Acetone	3760	828	1660	ug/kg dry	50	3310	ND	114	36-164%	---	---	
Acrylonitrile	1970	82.8	166	ug/kg dry	50	1660	ND	119	65-134%	---	---	
Benzene	1730	8.28	16.6	ug/kg dry	50	1660	ND	104	77-121%	---	---	
Bromobenzene	1690	20.7	41.4	ug/kg dry	50	1660	ND	102	78-121%	---	---	
Bromochloromethane	1610	41.4	82.8	ug/kg dry	50	1660	ND	97	78-125%	---	---	
Bromodichloromethane	1820	41.4	82.8	ug/kg dry	50	1660	ND	110	75-127%	---	---	
Bromoform	1560	82.8	166	ug/kg dry	50	1660	ND	94	67-132%	---	---	
Bromomethane	1870	828	828	ug/kg dry	50	1660	ND	113	53-143%	---	---	
2-Butanone (MEK)	3750	414	828	ug/kg dry	50	3310	ND	113	51-148%	---	---	
n-Butylbenzene	1660	41.4	82.8	ug/kg dry	50	1660	62.7	97	70-128%	---	---	
sec-Butylbenzene	1670	41.4	82.8	ug/kg dry	50	1660	44.7	98	73-126%	---	---	
tert-Butylbenzene	1620	41.4	82.8	ug/kg dry	50	1660	ND	98	73-125%	---	---	

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090422 - EPA 5035A						Soil						
Matrix Spike (0090422-MS1)						Prepared: 09/10/20 10:20 Analyzed: 09/16/20 00:18						
QC Source Sample: Non-SDG (A010273-03)												
Carbon disulfide	1760	414	828	ug/kg dry	50	1660	ND	106	63-132%	---	---	
Carbon tetrachloride	1790	41.4	82.8	ug/kg dry	50	1660	ND	108	70-135%	---	---	
Chlorobenzene	1650	20.7	41.4	ug/kg dry	50	1660	ND	100	79-120%	---	---	
Chloroethane	1150	414	828	ug/kg dry	50	1660	ND	70	59-139%	---	---	
Chloroform	1820	41.4	82.8	ug/kg dry	50	1660	ND	110	78-123%	---	---	
Chloromethane	1200	207	414	ug/kg dry	50	1660	ND	72	50-136%	---	---	
2-Chlorotoluene	1650	41.4	82.8	ug/kg dry	50	1660	ND	100	75-122%	---	---	
4-Chlorotoluene	1670	41.4	82.8	ug/kg dry	50	1660	ND	101	72-124%	---	---	
Dibromochloromethane	1600	82.8	166	ug/kg dry	50	1660	ND	97	74-126%	---	---	
1,2-Dibromo-3-chloropropane	1610	207	414	ug/kg dry	50	1660	ND	97	61-132%	---	---	
1,2-Dibromoethane (EDB)	1770	41.4	82.8	ug/kg dry	50	1660	ND	107	78-122%	---	---	
Dibromomethane	1790	41.4	82.8	ug/kg dry	50	1660	ND	108	78-125%	---	---	
1,2-Dichlorobenzene	1680	20.7	41.4	ug/kg dry	50	1660	ND	102	78-121%	---	---	
1,3-Dichlorobenzene	1650	20.7	41.4	ug/kg dry	50	1660	ND	100	77-121%	---	---	
1,4-Dichlorobenzene	1530	20.7	41.4	ug/kg dry	50	1660	ND	92	75-120%	---	---	
Dichlorodifluoromethane	1470	82.8	166	ug/kg dry	50	1660	ND	89	29-149%	---	---	
1,1-Dichloroethane	1720	20.7	41.4	ug/kg dry	50	1660	ND	104	76-125%	---	---	
1,2-Dichloroethane (EDC)	1720	20.7	41.4	ug/kg dry	50	1660	ND	104	73-128%	---	---	
1,1-Dichloroethene	1580	20.7	41.4	ug/kg dry	50	1660	ND	95	70-131%	---	---	
cis-1,2-Dichloroethene	1680	20.7	41.4	ug/kg dry	50	1660	ND	102	77-123%	---	---	
trans-1,2-Dichloroethene	1710	20.7	41.4	ug/kg dry	50	1660	ND	103	74-125%	---	---	
1,2-Dichloropropane	1710	20.7	41.4	ug/kg dry	50	1660	ND	103	76-123%	---	---	
1,3-Dichloropropane	1720	41.4	82.8	ug/kg dry	50	1660	ND	104	77-121%	---	---	
2,2-Dichloropropane	1480	41.4	82.8	ug/kg dry	50	1660	ND	90	67-133%	---	---	
1,1-Dichloropropene	1730	41.4	82.8	ug/kg dry	50	1660	ND	104	76-125%	---	---	
cis-1,3-Dichloropropene	1530	41.4	82.8	ug/kg dry	50	1660	ND	92	74-126%	---	---	
trans-1,3-Dichloropropene	1460	82.8	166	ug/kg dry	50	1660	ND	88	71-130%	---	---	
Ethylbenzene	1640	20.7	41.4	ug/kg dry	50	1660	ND	99	76-122%	---	---	
Hexachlorobutadiene	1670	82.8	166	ug/kg dry	50	1660	ND	101	61-135%	---	---	
2-Hexanone	3290	414	828	ug/kg dry	50	3310	ND	99	53-145%	---	---	
Isopropylbenzene	1680	41.4	82.8	ug/kg dry	50	1660	ND	101	68-134%	---	---	
4-Isopropyltoluene	1620	41.4	82.8	ug/kg dry	50	1660	ND	98	73-127%	---	---	
Methylene chloride	1840	414	828	ug/kg dry	50	1660	ND	111	70-128%	---	---	

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Darwin Thomas, Business Development Director



AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090422 - EPA 5035A						Soil						
Matrix Spike (0090422-MS1)						Prepared: 09/10/20 10:20 Analyzed: 09/16/20 00:18						
QC Source Sample: Non-SDG (A010273-03)												
4-Methyl-2-pentanone (MiBK)	3590	414	828	ug/kg dry	50	3310	ND	108	65-135%	---	---	
Methyl tert-butyl ether (MTBE)	1720	41.4	82.8	ug/kg dry	50	1660	ND	104	73-125%	---	---	
Naphthalene	1610	82.8	166	ug/kg dry	50	1660	ND	97	62-129%	---	---	
n-Propylbenzene	1620	20.7	41.4	ug/kg dry	50	1660	60.3	94	73-125%	---	---	
Styrene	1570	41.4	82.8	ug/kg dry	50	1660	ND	95	76-124%	---	---	
1,1,1,2-Tetrachloroethane	1540	41.4	82.8	ug/kg dry	50	1660	ND	93	78-125%	---	---	
1,1,2,2-Tetrachloroethane	1970	41.4	82.8	ug/kg dry	50	1660	ND	119	70-124%	---	---	Q-54c
Tetrachloroethene (PCE)	1570	20.7	41.4	ug/kg dry	50	1660	ND	95	73-128%	---	---	
Toluene	1530	41.4	82.8	ug/kg dry	50	1660	ND	92	77-121%	---	---	
1,2,3-Trichlorobenzene	1590	207	414	ug/kg dry	50	1660	ND	96	66-130%	---	---	
1,2,4-Trichlorobenzene	1610	207	414	ug/kg dry	50	1660	ND	97	67-129%	---	---	
1,1,1-Trichloroethane	1810	20.7	41.4	ug/kg dry	50	1660	ND	109	73-130%	---	---	
1,1,2-Trichloroethane	1730	20.7	41.4	ug/kg dry	50	1660	ND	105	78-121%	---	---	
Trichloroethene (TCE)	1750	20.7	41.4	ug/kg dry	50	1660	ND	106	77-123%	---	---	
Trichlorofluoromethane	1910	166	166	ug/kg dry	50	1660	ND	116	62-140%	---	---	Q-54d
1,2,3-Trichloropropane	1810	41.4	82.8	ug/kg dry	50	1660	ND	110	73-125%	---	---	
1,2,4-Trimethylbenzene	1630	41.4	82.8	ug/kg dry	50	1660	ND	98	75-123%	---	---	
1,3,5-Trimethylbenzene	1620	41.4	82.8	ug/kg dry	50	1660	ND	98	73-124%	---	---	
Vinyl chloride	1670	20.7	41.4	ug/kg dry	50	1660	ND	101	56-135%	---	---	
m,p-Xylene	3370	41.4	82.8	ug/kg dry	50	3310	ND	102	77-124%	---	---	
o-Xylene	1720	20.7	41.4	ug/kg dry	50	1660	ND	104	77-123%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 102 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>97 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>98 %</i>		<i>79-120 %</i>		<i>"</i>						

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Volatile Organic Compounds by EPA 1311/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090441 - EPA 1311/5030B TCLP Volatiles						Water						
Blank (0090441-BLK1)						Prepared: 09/16/20 08:00 Analyzed: 09/16/20 09:34						TCLP
<u>1311/8260D</u>												
Acetone	ND	500	1000	ug/L	50	---	---	---	---	---	---	
Benzene	ND	6.25	12.5	ug/L	50	---	---	---	---	---	---	
Bromobenzene	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
Bromochloromethane	ND	25.0	50.0	ug/L	50	---	---	---	---	---	---	
Bromodichloromethane	ND	25.0	50.0	ug/L	50	---	---	---	---	---	---	
Bromoform	ND	25.0	50.0	ug/L	50	---	---	---	---	---	---	
Bromomethane	ND	250	250	ug/L	50	---	---	---	---	---	---	
2-Butanone (MEK)	ND	250	500	ug/L	50	---	---	---	---	---	---	
n-Butylbenzene	ND	25.0	50.0	ug/L	50	---	---	---	---	---	---	
sec-Butylbenzene	ND	25.0	50.0	ug/L	50	---	---	---	---	---	---	
tert-Butylbenzene	ND	25.0	50.0	ug/L	50	---	---	---	---	---	---	
Carbon tetrachloride	ND	25.0	50.0	ug/L	50	---	---	---	---	---	---	
Chlorobenzene	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
Chloroethane	ND	250	250	ug/L	50	---	---	---	---	---	---	
Chloroform	ND	25.0	50.0	ug/L	50	---	---	---	---	---	---	
Chloromethane	ND	125	250	ug/L	50	---	---	---	---	---	---	
2-Chlorotoluene	ND	25.0	50.0	ug/L	50	---	---	---	---	---	---	
4-Chlorotoluene	ND	25.0	50.0	ug/L	50	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	125	250	ug/L	50	---	---	---	---	---	---	
Dibromochloromethane	ND	25.0	50.0	ug/L	50	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
Dibromomethane	ND	25.0	50.0	ug/L	50	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	25.0	50.0	ug/L	50	---	---	---	---	---	---	
1,1-Dichloroethane	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
1,1-Dichloroethene	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	25.0	50.0	ug/L	50	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
1,2-Dichloropropane	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
1,3-Dichloropropane	ND	25.0	50.0	ug/L	50	---	---	---	---	---	---	

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Volatile Organic Compounds by EPA 1311/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090441 - EPA 1311/5030B TCLP Volatiles						Water						
Blank (0090441-BLK1)						Prepared: 09/16/20 08:00 Analyzed: 09/16/20 09:34						TCLP
2,2-Dichloropropane	ND	25.0	50.0	ug/L	50	---	---	---	---	---	---	
1,1-Dichloropropene	ND	25.0	50.0	ug/L	50	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/L	50	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	25.0	50.0	ug/L	50	---	---	---	---	---	---	
Ethylbenzene	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
Hexachlorobutadiene	ND	125	250	ug/L	50	---	---	---	---	---	---	
2-Hexanone	ND	250	500	ug/L	50	---	---	---	---	---	---	
Isopropylbenzene	ND	25.0	50.0	ug/L	50	---	---	---	---	---	---	
4-Isopropyltoluene	ND	50.0	50.0	ug/L	50	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	250	500	ug/L	50	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	ug/L	50	---	---	---	---	---	---	
Methylene chloride	ND	250	500	ug/L	50	---	---	---	---	---	---	
n-Propylbenzene	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
Styrene	ND	25.0	50.0	ug/L	50	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
Naphthalene	ND	100	200	ug/L	50	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
Toluene	ND	25.0	50.0	ug/L	50	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	25.0	50.0	ug/L	50	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	50.0	100	ug/L	50	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
Trichlorofluoromethane	ND	50.0	100	ug/L	50	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	25.0	50.0	ug/L	50	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	25.0	50.0	ug/L	50	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	25.0	50.0	ug/L	50	---	---	---	---	---	---	
Vinyl chloride	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
m,p-Xylene	ND	25.0	50.0	ug/L	50	---	---	---	---	---	---	
o-Xylene	ND	12.5	25.0	ug/L	50	---	---	---	---	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 107 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>102 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>105 %</i>		<i>80-120 %</i>		<i>"</i>						

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Darwin Thomas, Business Development Director



AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Volatile Organic Compounds by EPA 1311/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090441 - EPA 1311/5030B TCLP Volatiles						Water						
LCS (0090441-BS1)						Prepared: 09/16/20 08:00 Analyzed: 09/16/20 09:06						TCLP
1311/8260D												
Acetone	1840	500	1000	ug/L	50	2000	---	92	80-120%	---	---	
Benzene	1050	6.25	12.5	ug/L	50	1000	---	105	80-120%	---	---	
Bromobenzene	1010	12.5	25.0	ug/L	50	1000	---	101	80-120%	---	---	
Bromochloromethane	955	25.0	50.0	ug/L	50	1000	---	96	80-120%	---	---	
Bromodichloromethane	1070	25.0	50.0	ug/L	50	1000	---	107	80-120%	---	---	
Bromoform	994	25.0	50.0	ug/L	50	1000	---	99	80-120%	---	---	
Bromomethane	1090	250	250	ug/L	50	1000	---	109	80-120%	---	---	
2-Butanone (MEK)	2070	250	500	ug/L	50	2000	---	104	80-120%	---	---	
n-Butylbenzene	1020	25.0	50.0	ug/L	50	1000	---	102	80-120%	---	---	
sec-Butylbenzene	1040	25.0	50.0	ug/L	50	1000	---	104	80-120%	---	---	
tert-Butylbenzene	1100	25.0	50.0	ug/L	50	1000	---	110	80-120%	---	---	
Carbon tetrachloride	1210	25.0	50.0	ug/L	50	1000	---	121	80-120%	---	---	Q-56
Chlorobenzene	1000	12.5	25.0	ug/L	50	1000	---	100	80-120%	---	---	
Chloroethane	873	250	250	ug/L	50	1000	---	87	80-120%	---	---	
Chloroform	1010	25.0	50.0	ug/L	50	1000	---	101	80-120%	---	---	
Chloromethane	846	125	250	ug/L	50	1000	---	85	80-120%	---	---	
2-Chlorotoluene	1100	25.0	50.0	ug/L	50	1000	---	110	80-120%	---	---	
4-Chlorotoluene	1100	25.0	50.0	ug/L	50	1000	---	110	80-120%	---	---	
1,2-Dibromo-3-chloropropane	1010	125	250	ug/L	50	1000	---	101	80-120%	---	---	
Dibromochloromethane	1070	25.0	50.0	ug/L	50	1000	---	107	80-120%	---	---	
1,2-Dibromoethane (EDB)	1090	12.5	25.0	ug/L	50	1000	---	109	80-120%	---	---	
Dibromomethane	1080	25.0	50.0	ug/L	50	1000	---	108	80-120%	---	---	
1,2-Dichlorobenzene	1100	12.5	25.0	ug/L	50	1000	---	110	80-120%	---	---	
1,3-Dichlorobenzene	1090	12.5	25.0	ug/L	50	1000	---	109	80-120%	---	---	
1,4-Dichlorobenzene	1020	12.5	25.0	ug/L	50	1000	---	102	80-120%	---	---	
Dichlorodifluoromethane	1030	25.0	50.0	ug/L	50	1000	---	103	80-120%	---	---	
1,1-Dichloroethane	989	12.5	25.0	ug/L	50	1000	---	99	80-120%	---	---	
1,1-Dichloroethene	868	12.5	25.0	ug/L	50	1000	---	87	80-120%	---	---	
1,2-Dichloroethane (EDC)	1030	12.5	25.0	ug/L	50	1000	---	103	80-120%	---	---	
cis-1,2-Dichloroethene	1050	25.0	50.0	ug/L	50	1000	---	105	80-120%	---	---	
trans-1,2-Dichloroethene	1010	12.5	25.0	ug/L	50	1000	---	101	80-120%	---	---	
1,2-Dichloropropane	953	12.5	25.0	ug/L	50	1000	---	95	80-120%	---	---	
1,3-Dichloropropane	1010	25.0	50.0	ug/L	50	1000	---	101	80-120%	---	---	

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Volatile Organic Compounds by EPA 1311/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090441 - EPA 1311/5030B TCLP Volatiles						Water						
LCS (0090441-BS1)						Prepared: 09/16/20 08:00 Analyzed: 09/16/20 09:06						TCLP
2,2-Dichloropropane	1390	25.0	50.0	ug/L	50	1000	---	139	80-120%	---	---	Q-56
1,1-Dichloropropene	1120	25.0	50.0	ug/L	50	1000	---	112	80-120%	---	---	
cis-1,3-Dichloropropene	985	25.0	50.0	ug/L	50	1000	---	98	80-120%	---	---	
trans-1,3-Dichloropropene	991	25.0	50.0	ug/L	50	1000	---	99	80-120%	---	---	
Ethylbenzene	1120	12.5	25.0	ug/L	50	1000	---	112	80-120%	---	---	
Hexachlorobutadiene	1220	125	250	ug/L	50	1000	---	122	80-120%	---	---	Q-56
2-Hexanone	1920	250	500	ug/L	50	2000	---	96	80-120%	---	---	
Isopropylbenzene	1000	25.0	100	ug/L	50	1000	---	100	80-120%	---	---	
4-Isopropyltoluene	1000	50.0	100	ug/L	50	1000	---	100	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	2040	250	500	ug/L	50	2000	---	102	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	1040	25.0	50.0	ug/L	50	1000	---	104	80-120%	---	---	
Methylene chloride	1020	250	500	ug/L	50	1000	---	102	80-120%	---	---	
n-Propylbenzene	1050	12.5	25.0	ug/L	50	1000	---	105	80-120%	---	---	
Styrene	997	25.0	50.0	ug/L	50	1000	---	100	80-120%	---	---	
1,1,1,2-Tetrachloroethane	1140	12.5	25.0	ug/L	50	1000	---	114	80-120%	---	---	
1,1,2,2-Tetrachloroethane	1040	12.5	25.0	ug/L	50	1000	---	104	80-120%	---	---	
Naphthalene	823	100	200	ug/L	50	1000	---	82	80-120%	---	---	
Tetrachloroethene (PCE)	1090	12.5	25.0	ug/L	50	1000	---	109	80-120%	---	---	
Toluene	1010	25.0	50.0	ug/L	50	1000	---	101	80-120%	---	---	
1,2,3-Trichlorobenzene	983	25.0	50.0	ug/L	50	1000	---	98	80-120%	---	---	
1,2,4-Trichlorobenzene	931	50.0	100	ug/L	50	1000	---	93	80-120%	---	---	
1,1,1-Trichloroethane	1150	12.5	25.0	ug/L	50	1000	---	115	80-120%	---	---	
1,1,2-Trichloroethane	1020	12.5	25.0	ug/L	50	1000	---	102	80-120%	---	---	
Trichloroethene (TCE)	1030	12.5	25.0	ug/L	50	1000	---	103	80-120%	---	---	
Trichlorofluoromethane	1080	50.0	100	ug/L	50	1000	---	108	80-120%	---	---	
1,2,3-Trichloropropane	1010	25.0	50.0	ug/L	50	1000	---	101	80-120%	---	---	
1,2,4-Trimethylbenzene	997	25.0	50.0	ug/L	50	1000	---	100	80-120%	---	---	
1,3,5-Trimethylbenzene	1110	25.0	50.0	ug/L	50	1000	---	111	80-120%	---	---	
Vinyl chloride	959	12.5	25.0	ug/L	50	1000	---	96	80-120%	---	---	
m,p-Xylene	2050	25.0	50.0	ug/L	50	2000	---	103	80-120%	---	---	
o-Xylene	966	12.5	25.0	ug/L	50	1000	---	97	80-120%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 98 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>97 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>98 %</i>		<i>80-120 %</i>		<i>"</i>						

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Volatile Organic Compounds by EPA 1311/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090441 - EPA 1311/5030B TCLP Volatiles						Water						

Duplicate (0090441-DUP1) Prepared: 09/16/20 10:00 Analyzed: 09/16/20 11:52

QC Source Sample: Non-SDG (A010186-01)

Acetone	ND	500	1000	ug/L	50	---	ND	---	---	---	30%	
Benzene	ND	6.25	12.5	ug/L	50	---	ND	---	---	---	30%	
Bromobenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Bromochloromethane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Bromodichloromethane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Bromoform	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Bromomethane	ND	250	250	ug/L	50	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	250	500	ug/L	50	---	ND	---	---	---	30%	
n-Butylbenzene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Chlorobenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Chloroethane	ND	250	250	ug/L	50	---	ND	---	---	---	30%	
Chloroform	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Chloromethane	ND	125	250	ug/L	50	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	125	250	ug/L	50	---	ND	---	---	---	30%	
Dibromochloromethane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Dibromomethane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Volatile Organic Compounds by EPA 1311/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090441 - EPA 1311/5030B TCLP Volatiles						Water						
Duplicate (0090441-DUP1)			Prepared: 09/16/20 10:00 Analyzed: 09/16/20 11:52									
QC Source Sample: Non-SDG (A010186-01)												
1,3-Dichloropropane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	125	250	ug/L	50	---	ND	---	---	---	30%	
2-Hexanone	ND	250	500	ug/L	50	---	ND	---	---	---	30%	
Isopropylbenzene	ND	25.0	100	ug/L	50	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	50.0	100	ug/L	50	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	250	500	ug/L	50	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Methylene chloride	ND	250	500	ug/L	50	---	ND	---	---	---	30%	
n-Propylbenzene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Styrene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Naphthalene	ND	100	200	ug/L	50	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Toluene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	50.0	100	ug/L	50	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	50.0	100	ug/L	50	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
Vinyl chloride	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	
m,p-Xylene	ND	25.0	50.0	ug/L	50	---	ND	---	---	---	30%	
o-Xylene	ND	12.5	25.0	ug/L	50	---	ND	---	---	---	30%	

Surr: 1,4-Difluorobenzene (Surr) Recovery: 108 % Limits: 80-120 % Dilution: 1x

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Darwin Thomas, Business Development Director

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Volatile Organic Compounds by EPA 1311/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090441 - EPA 1311/5030B TCLP Volatiles						Water						
Duplicate (0090441-DUP1)						Prepared: 09/16/20 10:00 Analyzed: 09/16/20 11:52						
QC Source Sample: Non-SDG (A010186-01)												
<i>Surr: Toluene-d8 (Surr)</i>		<i>Recovery: 101 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>105 %</i>		<i>80-120 %</i>		<i>"</i>						

Matrix Spike (0090441-MS1)						Prepared: 09/16/20 10:00 Analyzed: 09/16/20 12:19						
QC Source Sample: Non-SDG (A010186-01)												
1311/8260D												
Acetone	1850	500	1000	ug/L	50	2000	ND	92	39-160%	---	---	
Benzene	1060	6.25	12.5	ug/L	50	1000	ND	106	79-120%	---	---	
Bromobenzene	999	12.5	25.0	ug/L	50	1000	ND	100	80-120%	---	---	
Bromochloromethane	967	25.0	50.0	ug/L	50	1000	ND	97	78-123%	---	---	
Bromodichloromethane	1080	25.0	50.0	ug/L	50	1000	ND	108	79-125%	---	---	
Bromoform	984	25.0	50.0	ug/L	50	1000	ND	98	66-130%	---	---	
Bromomethane	1110	250	250	ug/L	50	1000	ND	111	53-141%	---	---	
2-Butanone (MEK)	2060	250	500	ug/L	50	2000	ND	103	56-143%	---	---	
n-Butylbenzene	1020	25.0	50.0	ug/L	50	1000	ND	102	75-128%	---	---	
sec-Butylbenzene	1050	25.0	50.0	ug/L	50	1000	ND	105	77-126%	---	---	
tert-Butylbenzene	1120	25.0	50.0	ug/L	50	1000	ND	112	78-124%	---	---	
Carbon tetrachloride	1210	25.0	50.0	ug/L	50	1000	ND	121	72-136%	---	---	Q-54
Chlorobenzene	1030	12.5	25.0	ug/L	50	1000	ND	103	80-120%	---	---	
Chloroethane	886	250	250	ug/L	50	1000	ND	89	60-138%	---	---	
Chloroform	1030	25.0	50.0	ug/L	50	1000	ND	103	79-124%	---	---	
Chloromethane	854	125	250	ug/L	50	1000	ND	85	50-139%	---	---	
2-Chlorotoluene	1100	25.0	50.0	ug/L	50	1000	ND	110	79-122%	---	---	
4-Chlorotoluene	1120	25.0	50.0	ug/L	50	1000	ND	112	78-122%	---	---	
1,2-Dibromo-3-chloropropane	989	125	250	ug/L	50	1000	ND	99	62-128%	---	---	
Dibromochloromethane	1060	25.0	50.0	ug/L	50	1000	ND	106	74-126%	---	---	
1,2-Dibromoethane (EDB)	1090	12.5	25.0	ug/L	50	1000	ND	109	77-121%	---	---	
Dibromomethane	1090	25.0	50.0	ug/L	50	1000	ND	109	79-123%	---	---	
1,2-Dichlorobenzene	1110	12.5	25.0	ug/L	50	1000	ND	111	80-120%	---	---	
1,3-Dichlorobenzene	1110	12.5	25.0	ug/L	50	1000	ND	111	80-120%	---	---	
1,4-Dichlorobenzene	1030	12.5	25.0	ug/L	50	1000	ND	103	79-120%	---	---	
Dichlorodifluoromethane	1000	25.0	50.0	ug/L	50	1000	ND	100	32-152%	---	---	
1,1-Dichloroethane	978	12.5	25.0	ug/L	50	1000	ND	98	77-125%	---	---	

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Volatile Organic Compounds by EPA 1311/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090441 - EPA 1311/5030B TCLP Volatiles						Water						
Matrix Spike (0090441-MS1)						Prepared: 09/16/20 10:00 Analyzed: 09/16/20 12:19						
QC Source Sample: Non-SDG (A010186-01)												
1,1-Dichloroethene	1120	12.5	25.0	ug/L	50	1000	ND	112	71-131%	---	---	
1,2-Dichloroethane (EDC)	1030	12.5	25.0	ug/L	50	1000	ND	103	73-128%	---	---	
cis-1,2-Dichloroethene	1040	25.0	50.0	ug/L	50	1000	ND	104	78-123%	---	---	
trans-1,2-Dichloroethene	1020	12.5	25.0	ug/L	50	1000	ND	102	75-124%	---	---	
1,2-Dichloropropane	951	12.5	25.0	ug/L	50	1000	ND	95	78-122%	---	---	
1,3-Dichloropropane	1050	25.0	50.0	ug/L	50	1000	ND	105	80-120%	---	---	
2,2-Dichloropropane	1380	25.0	50.0	ug/L	50	1000	ND	138	60-139%	---	---	Q-54a
1,1-Dichloropropene	1140	25.0	50.0	ug/L	50	1000	ND	114	79-125%	---	---	
cis-1,3-Dichloropropene	985	25.0	50.0	ug/L	50	1000	ND	98	75-124%	---	---	
trans-1,3-Dichloropropene	996	25.0	50.0	ug/L	50	1000	ND	100	73-127%	---	---	
Ethylbenzene	1130	12.5	25.0	ug/L	50	1000	ND	113	79-121%	---	---	
Hexachlorobutadiene	1220	125	250	ug/L	50	1000	ND	122	66-134%	---	---	Q-54b
2-Hexanone	1920	250	500	ug/L	50	2000	ND	96	57-139%	---	---	
Isopropylbenzene	1030	25.0	100	ug/L	50	1000	ND	103	72-131%	---	---	
4-Isopropyltoluene	1020	50.0	100	ug/L	50	1000	ND	102	77-127%	---	---	
4-Methyl-2-pentanone (MIBK)	2030	250	500	ug/L	50	2000	ND	102	67-130%	---	---	
Methyl tert-butyl ether (MTBE)	1030	25.0	50.0	ug/L	50	1000	ND	103	71-124%	---	---	
Methylene chloride	982	250	500	ug/L	50	1000	ND	98	74-124%	---	---	
n-Propylbenzene	1070	12.5	25.0	ug/L	50	1000	ND	107	76-126%	---	---	
Styrene	1020	25.0	50.0	ug/L	50	1000	ND	102	78-123%	---	---	
1,1,1,2-Tetrachloroethane	1150	12.5	25.0	ug/L	50	1000	ND	115	78-124%	---	---	
1,1,2,2-Tetrachloroethane	1020	12.5	25.0	ug/L	50	1000	ND	102	71-121%	---	---	
Naphthalene	841	100	200	ug/L	50	1000	ND	84	61-128%	---	---	
Tetrachloroethene (PCE)	1120	12.5	25.0	ug/L	50	1000	ND	112	74-129%	---	---	
Toluene	1020	25.0	50.0	ug/L	50	1000	ND	102	80-121%	---	---	
1,2,3-Trichlorobenzene	980	25.0	50.0	ug/L	50	1000	ND	98	69-129%	---	---	
1,2,4-Trichlorobenzene	921	50.0	100	ug/L	50	1000	ND	92	69-130%	---	---	
1,1,1-Trichloroethane	1150	12.5	25.0	ug/L	50	1000	ND	115	74-131%	---	---	
1,1,2-Trichloroethane	1040	12.5	25.0	ug/L	50	1000	ND	104	80-120%	---	---	
Trichloroethene (TCE)	1060	12.5	25.0	ug/L	50	1000	ND	106	79-123%	---	---	
Trichlorofluoromethane	1110	50.0	100	ug/L	50	1000	ND	111	65-141%	---	---	
1,2,3-Trichloropropane	995	25.0	50.0	ug/L	50	1000	ND	99	73-122%	---	---	
1,2,4-Trimethylbenzene	1050	25.0	50.0	ug/L	50	1000	ND	105	76-124%	---	---	

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Volatile Organic Compounds by EPA 1311/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090441 - EPA 1311/5030B TCLP Volatiles						Water						
Matrix Spike (0090441-MS1)						Prepared: 09/16/20 10:00 Analyzed: 09/16/20 12:19						
QC Source Sample: Non-SDG (A010186-01)												
1,3,5-Trimethylbenzene	1160	25.0	50.0	ug/L	50	1000	ND	116	75-124%	---	---	
Vinyl chloride	941	12.5	25.0	ug/L	50	1000	ND	94	58-137%	---	---	
m,p-Xylene	2100	25.0	50.0	ug/L	50	2000	ND	105	80-121%	---	---	
o-Xylene	990	12.5	25.0	ug/L	50	1000	ND	99	78-122%	---	---	
<i>Surr: 1,4-Difluorobenzene (Surr)</i>		<i>Recovery: 98 %</i>		<i>Limits: 80-120 %</i>		<i>Dilution: 1x</i>						
<i>Toluene-d8 (Surr)</i>		<i>98 %</i>		<i>80-120 %</i>		<i>"</i>						
<i>4-Bromofluorobenzene (Surr)</i>		<i>97 %</i>		<i>80-120 %</i>		<i>"</i>						

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090453 - EPA 3546						Soil						
Blank (0090453-BLK1)			Prepared: 09/16/20 09:38 Analyzed: 09/16/20 13:50									
<u>EPA 8270E</u>												
Acenaphthene	10.0	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	B
Acenaphthylene	3.20	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	B
Anthracene	ND	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	1.87	3.75	ug/kg wet	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	1.87	3.75	ug/kg wet	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	1.87	3.75	ug/kg wet	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	
Chrysene	ND	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	
Fluoranthene	ND	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	
Fluorene	3.98	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	B
Indeno(1,2,3-cd)pyrene	ND	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	
1-Methylnaphthalene	30.8	2.50	5.00	ug/kg wet	1	---	---	---	---	---	---	B
2-Methylnaphthalene	47.8	2.50	5.00	ug/kg wet	1	---	---	---	---	---	---	B
Naphthalene	147	2.50	5.00	ug/kg wet	1	---	---	---	---	---	---	B
Phenanthrene	6.78	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	B
Pyrene	ND	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	
Carbazole	ND	1.87	3.75	ug/kg wet	1	---	---	---	---	---	---	
Dibenzofuran	1.90	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	J, B-02
2-Chlorophenol	ND	6.25	12.5	ug/kg wet	1	---	---	---	---	---	---	
4-Chloro-3-methylphenol	ND	12.5	25.0	ug/kg wet	1	---	---	---	---	---	---	
2,4-Dichlorophenol	ND	6.25	12.5	ug/kg wet	1	---	---	---	---	---	---	
2,4-Dimethylphenol	ND	6.25	12.5	ug/kg wet	1	---	---	---	---	---	---	
2,4-Dinitrophenol	ND	31.2	62.5	ug/kg wet	1	---	---	---	---	---	---	
4,6-Dinitro-2-methylphenol	ND	31.2	62.5	ug/kg wet	1	---	---	---	---	---	---	
2-Methylphenol	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
2-Nitrophenol	ND	12.5	25.0	ug/kg wet	1	---	---	---	---	---	---	
4-Nitrophenol	ND	12.5	25.0	ug/kg wet	1	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	12.5	25.0	ug/kg wet	1	---	---	---	---	---	---	
Phenol	ND	2.50	5.00	ug/kg wet	1	---	---	---	---	---	---	
2,3,4,6-Tetrachlorophenol	ND	6.25	12.5	ug/kg wet	1	---	---	---	---	---	---	

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090453 - EPA 3546						Soil						
Blank (0090453-BLK1)			Prepared: 09/16/20 09:38 Analyzed: 09/16/20 13:50									
2,3,5,6-Tetrachlorophenol	ND	6.25	12.5	ug/kg wet	1	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	6.25	12.5	ug/kg wet	1	---	---	---	---	---	---	
Nitrobenzene	ND	12.5	25.0	ug/kg wet	1	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	6.25	12.5	ug/kg wet	1	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	18.7	37.5	ug/kg wet	1	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	12.5	25.0	ug/kg wet	1	---	---	---	---	---	---	
Diethylphthalate	ND	12.5	25.0	ug/kg wet	1	---	---	---	---	---	---	
Dimethylphthalate	ND	12.5	25.0	ug/kg wet	1	---	---	---	---	---	---	
Di-n-butylphthalate	ND	12.5	25.0	ug/kg wet	1	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	12.5	25.0	ug/kg wet	1	---	---	---	---	---	---	
N-Nitrosodimethylamine	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
N-Nitroso-di-n-propylamine	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
N-Nitrosodiphenylamine	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
Bis(2-Chloroethoxy) methane	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
Bis(2-Chloroethyl) ether	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
2,2'-Oxybis(1-Chloropropane)	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
Hexachlorobenzene	ND	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
Hexachlorocyclopentadiene	ND	6.25	12.5	ug/kg wet	1	---	---	---	---	---	---	
Hexachloroethane	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
2-Chloronaphthalene	ND	1.25	2.50	ug/kg wet	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
4-Bromophenyl phenyl ether	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
4-Chlorophenyl phenyl ether	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
Aniline	ND	6.25	12.5	ug/kg wet	1	---	---	---	---	---	---	
4-Chloroaniline	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
2-Nitroaniline	ND	25.0	50.0	ug/kg wet	1	---	---	---	---	---	---	
3-Nitroaniline	ND	25.0	50.0	ug/kg wet	1	---	---	---	---	---	---	
4-Nitroaniline	ND	25.0	50.0	ug/kg wet	1	---	---	---	---	---	---	
2,4-Dinitrotoluene	ND	12.5	25.0	ug/kg wet	1	---	---	---	---	---	---	
2,6-Dinitrotoluene	ND	12.5	25.0	ug/kg wet	1	---	---	---	---	---	---	
Benzoic acid	ND	157	312	ug/kg wet	1	---	---	---	---	---	---	
Benzyl alcohol	ND	6.25	12.5	ug/kg wet	1	---	---	---	---	---	---	
Isophorone	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090453 - EPA 3546												
Soil												
Blank (0090453-BLK1)												
Prepared: 09/16/20 09:38 Analyzed: 09/16/20 13:50												
Azobenzene (1,2-DPH)	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
Bis(2-Ethylhexyl) adipate	ND	31.2	62.5	ug/kg wet	1	---	---	---	---	---	---	
3,3'-Dichlorobenzidine	ND	25.0	50.0	ug/kg wet	1	---	---	---	---	---	---	Q-52
1,2-Dinitrobenzene	ND	31.2	62.5	ug/kg wet	1	---	---	---	---	---	---	
1,3-Dinitrobenzene	ND	31.2	62.5	ug/kg wet	1	---	---	---	---	---	---	
1,4-Dinitrobenzene	ND	31.2	62.5	ug/kg wet	1	---	---	---	---	---	---	
Pyridine	ND	6.25	12.5	ug/kg wet	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	3.12	6.25	ug/kg wet	1	---	---	---	---	---	---	
<i>Surr: Nitrobenzene-d5 (Surr) Recovery: 74 % Limits: 37-122 % Dilution: 1x Q-41</i>												
<i>2-Fluorobiphenyl (Surr) 73 % 44-120 % "</i>												
<i>Phenol-d6 (Surr) 74 % 33-122 % "</i>												
<i>p-Terphenyl-d14 (Surr) 84 % 54-127 % "</i>												
<i>2-Fluorophenol (Surr) 72 % 35-120 % "</i>												
<i>2,4,6-Tribromophenol (Surr) 58 % 39-132 % "</i>												
LCS (0090453-BS1)												
Prepared: 09/16/20 09:38 Analyzed: 09/16/20 14:32												
EPA 8270E												
Acenaphthene	448	2.66	5.34	ug/kg wet	2	533	---	84	40-123%	---	---	B
Acenaphthylene	476	2.66	5.34	ug/kg wet	2	533	---	89	32-132%	---	---	B
Anthracene	432	2.66	5.34	ug/kg wet	2	533	---	81	47-123%	---	---	
Benz(a)anthracene	419	2.66	5.34	ug/kg wet	2	533	---	79	49-126%	---	---	
Benzo(a)pyrene	422	4.00	8.00	ug/kg wet	2	533	---	79	45-129%	---	---	
Benzo(b)fluoranthene	419	4.00	8.00	ug/kg wet	2	533	---	78	45-132%	---	---	
Benzo(k)fluoranthene	410	4.00	8.00	ug/kg wet	2	533	---	77	47-132%	---	---	
Benzo(g,h,i)perylene	475	2.66	5.34	ug/kg wet	2	533	---	89	43-134%	---	---	
Chrysene	428	2.66	5.34	ug/kg wet	2	533	---	80	50-124%	---	---	
Dibenz(a,h)anthracene	432	2.66	5.34	ug/kg wet	2	533	---	81	45-134%	---	---	
Fluoranthene	420	2.66	5.34	ug/kg wet	2	533	---	79	50-127%	---	---	
Fluorene	422	2.66	5.34	ug/kg wet	2	533	---	79	43-125%	---	---	B
Indeno(1,2,3-cd)pyrene	405	2.66	5.34	ug/kg wet	2	533	---	76	45-133%	---	---	
1-Methylnaphthalene	427	5.34	10.7	ug/kg wet	2	533	---	80	40-120%	---	---	B
2-Methylnaphthalene	460	5.34	10.7	ug/kg wet	2	533	---	86	38-122%	---	---	B

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090453 - EPA 3546						Soil						
LCS (0090453-BS1)						Prepared: 09/16/20 09:38 Analyzed: 09/16/20 14:32						Q-18
Naphthalene	638	5.34	10.7	ug/kg wet	2	533	---	120	35-123%	---	---	B
Phenanthrene	416	2.66	5.34	ug/kg wet	2	533	---	78	50-121%	---	---	B
Pyrene	432	2.66	5.34	ug/kg wet	2	533	---	81	47-127%	---	---	
Carbazole	536	4.00	8.00	ug/kg wet	2	533	---	101	50-123%	---	---	
Dibenzofuran	425	2.66	5.34	ug/kg wet	2	533	---	80	44-120%	---	---	B-02
2-Chlorophenol	423	13.3	26.6	ug/kg wet	2	533	---	79	34-121%	---	---	
4-Chloro-3-methylphenol	385	26.6	53.4	ug/kg wet	2	533	---	72	45-122%	---	---	
2,4-Dichlorophenol	425	13.3	26.6	ug/kg wet	2	533	---	80	40-122%	---	---	
2,4-Dimethylphenol	421	13.3	26.6	ug/kg wet	2	533	---	79	30-127%	---	---	
2,4-Dinitrophenol	452	66.6	133	ug/kg wet	2	533	---	85	10-137%	---	---	
4,6-Dinitro-2-methylphenol	387	66.6	133	ug/kg wet	2	533	---	73	29-132%	---	---	
2-Methylphenol	410	6.66	13.3	ug/kg wet	2	533	---	77	32-122%	---	---	
3+4-Methylphenol(s)	395	6.66	13.3	ug/kg wet	2	533	---	74	34-120%	---	---	
2-Nitrophenol	426	26.6	53.4	ug/kg wet	2	533	---	80	36-123%	---	---	
4-Nitrophenol	453	26.6	53.4	ug/kg wet	2	533	---	85	30-132%	---	---	
Pentachlorophenol (PCP)	376	26.6	53.4	ug/kg wet	2	533	---	71	25-133%	---	---	
Phenol	481	5.34	10.7	ug/kg wet	2	533	---	90	34-121%	---	---	Q-41
2,3,4,6-Tetrachlorophenol	387	13.3	26.6	ug/kg wet	2	533	---	73	44-125%	---	---	
2,3,5,6-Tetrachlorophenol	396	13.3	26.6	ug/kg wet	2	533	---	74	40-120%	---	---	
2,4,5-Trichlorophenol	418	13.3	26.6	ug/kg wet	2	533	---	78	41-124%	---	---	
Nitrobenzene	417	26.6	53.4	ug/kg wet	2	533	---	78	34-122%	---	---	Q-41
2,4,6-Trichlorophenol	424	13.3	26.6	ug/kg wet	2	533	---	79	39-126%	---	---	
Bis(2-ethylhexyl)phthalate	381	40.0	80.0	ug/kg wet	2	533	---	71	51-133%	---	---	Q-31
Butyl benzyl phthalate	383	26.6	53.4	ug/kg wet	2	533	---	72	48-132%	---	---	
Diethylphthalate	388	26.6	53.4	ug/kg wet	2	533	---	73	50-124%	---	---	
Dimethylphthalate	412	26.6	53.4	ug/kg wet	2	533	---	77	48-124%	---	---	
Di-n-butylphthalate	407	26.6	53.4	ug/kg wet	2	533	---	76	51-128%	---	---	
Di-n-octyl phthalate	350	26.6	53.4	ug/kg wet	2	533	---	66	45-140%	---	---	Q-31
N-Nitrosodimethylamine	403	6.66	13.3	ug/kg wet	2	533	---	76	23-120%	---	---	
N-Nitroso-di-n-propylamine	357	6.66	13.3	ug/kg wet	2	533	---	67	36-120%	---	---	
N-Nitrosodiphenylamine	431	6.66	13.3	ug/kg wet	2	533	---	81	38-127%	---	---	
Bis(2-Chloroethoxy) methane	401	6.66	13.3	ug/kg wet	2	533	---	75	36-121%	---	---	
Bis(2-Chloroethyl) ether	397	6.66	13.3	ug/kg wet	2	533	---	74	31-120%	---	---	
2,2'-Oxybis(1-Chloropropane)	387	6.66	13.3	ug/kg wet	2	533	---	73	33-131%	---	---	

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090453 - EPA 3546												
Soil												
LCS (0090453-BS1)	Prepared: 09/16/20 09:38 Analyzed: 09/16/20 14:32										Q-18	
Hexachlorobenzene	360	2.66	5.34	ug/kg wet	2	533	---	67	45-122%	---	---	
Hexachlorobutadiene	408	6.66	13.3	ug/kg wet	2	533	---	76	32-123%	---	---	
Hexachlorocyclopentadiene	540	13.3	26.6	ug/kg wet	2	533	---	101	10-140%	---	---	Q-41
Hexachloroethane	405	6.66	13.3	ug/kg wet	2	533	---	76	28-120%	---	---	
2-Chloronaphthalene	417	2.66	5.34	ug/kg wet	2	533	---	78	41-120%	---	---	
1,2,4-Trichlorobenzene	407	6.66	13.3	ug/kg wet	2	533	---	76	34-120%	---	---	
4-Bromophenyl phenyl ether	387	6.66	13.3	ug/kg wet	2	533	---	73	46-124%	---	---	
4-Chlorophenyl phenyl ether	386	6.66	13.3	ug/kg wet	2	533	---	72	45-121%	---	---	
Aniline	481	13.3	26.6	ug/kg wet	2	533	---	90	10-120%	---	---	Q-41
4-Chloroaniline	371	6.66	13.3	ug/kg wet	2	533	---	70	17-120%	---	---	
2-Nitroaniline	434	53.4	107	ug/kg wet	2	533	---	81	44-127%	---	---	
3-Nitroaniline	475	53.4	107	ug/kg wet	2	533	---	89	33-120%	---	---	
4-Nitroaniline	585	53.4	107	ug/kg wet	2	533	---	110	70-138%	---	---	Q-41
2,4-Dinitrotoluene	436	26.6	53.4	ug/kg wet	2	533	---	82	48-126%	---	---	
2,6-Dinitrotoluene	431	26.6	53.4	ug/kg wet	2	533	---	81	46-124%	---	---	
Benzoic acid	589	334	334	ug/kg wet	2	1070	---	55	10-140%	---	---	Q-31
Benzyl alcohol	397	13.3	26.6	ug/kg wet	2	533	---	74	29-122%	---	---	
Isophorone	430	6.66	13.3	ug/kg wet	2	533	---	81	30-122%	---	---	
Azobenzene (1,2-DPH)	450	6.66	13.3	ug/kg wet	2	533	---	84	39-125%	---	---	
Bis(2-Ethylhexyl) adipate	383	66.6	133	ug/kg wet	2	533	---	72	61-121%	---	---	Q-31
3,3'-Dichlorobenzidine	1460	53.4	107	ug/kg wet	2	1070	---	137	22-121%	---	---	Q-29
1,2-Dinitrobenzene	448	66.6	133	ug/kg wet	2	533	---	84	44-120%	---	---	
1,3-Dinitrobenzene	456	66.6	133	ug/kg wet	2	533	---	85	43-127%	---	---	
1,4-Dinitrobenzene	486	66.6	133	ug/kg wet	2	533	---	91	37-132%	---	---	Q-41
Pyridine	357	13.3	26.6	ug/kg wet	2	533	---	67	10-120%	---	---	
1,2-Dichlorobenzene	403	6.66	13.3	ug/kg wet	2	533	---	76	33-120%	---	---	
1,3-Dichlorobenzene	394	6.66	13.3	ug/kg wet	2	533	---	74	30-120%	---	---	
1,4-Dichlorobenzene	395	6.66	13.3	ug/kg wet	2	533	---	74	31-120%	---	---	
<i>Surr: Nitrobenzene-d5 (Surr)</i>		<i>Recovery: 76 %</i>		<i>Limits: 37-122 %</i>		<i>Dilution: 2x</i>						Q-41
<i>2-Fluorobiphenyl (Surr)</i>		<i>79 %</i>		<i>44-120 %</i>		<i>"</i>						
<i>Phenol-d6 (Surr)</i>		<i>81 %</i>		<i>33-122 %</i>		<i>"</i>						
<i>p-Terphenyl-d14 (Surr)</i>		<i>81 %</i>		<i>54-127 %</i>		<i>"</i>						
<i>2-Fluorophenol (Surr)</i>		<i>80 %</i>		<i>35-120 %</i>		<i>"</i>						
<i>2,4,6-Tribromophenol (Surr)</i>		<i>71 %</i>		<i>39-132 %</i>		<i>"</i>						

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Darwin Thomas, Business Development Director



AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090453 - EPA 3546							Soil					
Duplicate (0090453-DUP1)			Prepared: 09/16/20 09:38 Analyzed: 09/16/20 15:56									
QC Source Sample: T201-090820-2 (A010221-01)												
EPA 8270E												
Acenaphthene	260000	2030	4080	ug/kg dry	1000	---	440000	---	---	51	30%	B, Q-04
Acenaphthylene	98600	2030	4080	ug/kg dry	1000	---	172000	---	---	54	30%	B, Q-04
Anthracene	199000	2030	4080	ug/kg dry	1000	---	339000	---	---	52	30%	Q-04
Benz(a)anthracene	159000	2030	4080	ug/kg dry	1000	---	263000	---	---	49	30%	Q-04
Benzo(a)pyrene	188000	3060	6120	ug/kg dry	1000	---	310000	---	---	49	30%	Q-04
Benzo(b)fluoranthene	157000	3060	6120	ug/kg dry	1000	---	265000	---	---	51	30%	Q-04
Benzo(k)fluoranthene	49400	3060	6120	ug/kg dry	1000	---	91200	---	---	60	30%	M-05, Q-04
Benzo(g,h,i)perylene	139000	2030	4080	ug/kg dry	1000	---	249000	---	---	57	30%	Q-04
Chrysene	191000	2030	4080	ug/kg dry	1000	---	311000	---	---	48	30%	Q-04
Dibenz(a,h)anthracene	12300	2030	4080	ug/kg dry	1000	---	21800	---	---	55	30%	Q-04
Fluoranthene	582000	2030	4080	ug/kg dry	1000	---	901000	---	---	43	30%	Q-04
Fluorene	266000	2030	4080	ug/kg dry	1000	---	412000	---	---	43	30%	B, Q-04
Indeno(1,2,3-cd)pyrene	107000	2030	4080	ug/kg dry	1000	---	190000	---	---	55	30%	Q-04
1-Methylnaphthalene	313000	4080	8150	ug/kg dry	1000	---	520000	---	---	50	30%	B, Q-04
2-Methylnaphthalene	460000	4080	8150	ug/kg dry	1000	---	748000	---	---	48	30%	B, Q-04
Naphthalene	755000	4080	8150	ug/kg dry	1000	---	1120000	---	---	39	30%	B, Q-04
Phenanthrene	1080000	2030	4080	ug/kg dry	1000	---	1640000	---	---	41	30%	B, Q-04
Pyrene	711000	2030	4080	ug/kg dry	1000	---	1100000	---	---	43	30%	Q-04
Carbazole	13000	3060	6120	ug/kg dry	1000	---	23400	---	---	58	30%	Q-04
Dibenzofuran	63000	2030	4080	ug/kg dry	1000	---	107000	---	---	52	30%	B-02, Q-04
2-Chlorophenol	ND	10200	20300	ug/kg dry	1000	---	ND	---	---	---	30%	
4-Chloro-3-methylphenol	ND	20300	40800	ug/kg dry	1000	---	ND	---	---	---	30%	
2,4-Dichlorophenol	ND	10200	20300	ug/kg dry	1000	---	ND	---	---	---	30%	
2,4-Dimethylphenol	ND	10200	20300	ug/kg dry	1000	---	ND	---	---	---	30%	
2,4-Dinitrophenol	ND	50900	102000	ug/kg dry	1000	---	ND	---	---	---	30%	
4,6-Dinitro-2-methylphenol	ND	50900	102000	ug/kg dry	1000	---	ND	---	---	---	30%	
2-Methylphenol	ND	5090	10200	ug/kg dry	1000	---	ND	---	---	---	30%	
3+4-Methylphenol(s)	ND	5090	10200	ug/kg dry	1000	---	ND	---	---	---	30%	
2-Nitrophenol	ND	20300	40800	ug/kg dry	1000	---	ND	---	---	---	30%	
4-Nitrophenol	ND	40800	40800	ug/kg dry	1000	---	ND	---	---	---	30%	
Pentachlorophenol (PCP)	ND	20300	40800	ug/kg dry	1000	---	ND	---	---	---	30%	

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090453 - EPA 3546												
Soil												
Duplicate (0090453-DUP1)												
Prepared: 09/16/20 09:38 Analyzed: 09/16/20 15:56												
QC Source Sample: T201-090820-2 (A010221-01)												
Phenol	ND	4080	8150	ug/kg dry	1000	---	ND	---	---	---	30%	
2,3,4,6-Tetrachlorophenol	ND	10200	20300	ug/kg dry	1000	---	ND	---	---	---	30%	
2,3,5,6-Tetrachlorophenol	ND	10200	20300	ug/kg dry	1000	---	ND	---	---	---	30%	
2,4,5-Trichlorophenol	ND	10200	20300	ug/kg dry	1000	---	ND	---	---	---	30%	
Nitrobenzene	ND	20300	40800	ug/kg dry	1000	---	ND	---	---	---	30%	
2,4,6-Trichlorophenol	ND	10200	20300	ug/kg dry	1000	---	ND	---	---	---	30%	
Bis(2-ethylhexyl)phthalate	ND	30600	61200	ug/kg dry	1000	---	ND	---	---	---	30%	
Butyl benzyl phthalate	ND	20300	40800	ug/kg dry	1000	---	ND	---	---	---	30%	
Diethylphthalate	ND	20300	40800	ug/kg dry	1000	---	ND	---	---	---	30%	
Dimethylphthalate	ND	20300	40800	ug/kg dry	1000	---	ND	---	---	---	30%	
Di-n-butylphthalate	ND	20300	40800	ug/kg dry	1000	---	ND	---	---	---	30%	
Di-n-octyl phthalate	ND	20300	40800	ug/kg dry	1000	---	ND	---	---	---	30%	
N-Nitrosodimethylamine	ND	5090	10200	ug/kg dry	1000	---	ND	---	---	---	30%	
N-Nitroso-di-n-propylamine	ND	5090	10200	ug/kg dry	1000	---	ND	---	---	---	30%	
N-Nitrosodiphenylamine	ND	19900	19900	ug/kg dry	1000	---	ND	---	---	---	30%	R-02
Bis(2-Chloroethoxy) methane	ND	5090	10200	ug/kg dry	1000	---	ND	---	---	---	30%	
Bis(2-Chloroethyl) ether	ND	5090	10200	ug/kg dry	1000	---	ND	---	---	---	30%	
2,2'-Oxybis(1-Chloropropane)	ND	5090	10200	ug/kg dry	1000	---	ND	---	---	---	30%	
Hexachlorobenzene	ND	2030	4080	ug/kg dry	1000	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	5090	10200	ug/kg dry	1000	---	ND	---	---	---	30%	
Hexachlorocyclopentadiene	ND	10200	20300	ug/kg dry	1000	---	ND	---	---	---	30%	
Hexachloroethane	ND	5090	10200	ug/kg dry	1000	---	ND	---	---	---	30%	
2-Chloronaphthalene	ND	2030	4080	ug/kg dry	1000	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	5090	10200	ug/kg dry	1000	---	ND	---	---	---	30%	
4-Bromophenyl phenyl ether	ND	5090	10200	ug/kg dry	1000	---	ND	---	---	---	30%	
4-Chlorophenyl phenyl ether	ND	5090	10200	ug/kg dry	1000	---	ND	---	---	---	30%	
Aniline	ND	10200	20300	ug/kg dry	1000	---	ND	---	---	---	30%	
4-Chloroaniline	ND	5090	10200	ug/kg dry	1000	---	ND	---	---	---	30%	
2-Nitroaniline	ND	40800	81500	ug/kg dry	1000	---	ND	---	---	---	30%	
3-Nitroaniline	ND	40800	81500	ug/kg dry	1000	---	ND	---	---	---	30%	
4-Nitroaniline	ND	40800	81500	ug/kg dry	1000	---	ND	---	---	---	30%	
2,4-Dinitrotoluene	ND	20300	40800	ug/kg dry	1000	---	ND	---	---	---	30%	
2,6-Dinitrotoluene	ND	20300	40800	ug/kg dry	1000	---	ND	---	---	---	30%	

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090453 - EPA 3546												
Soil												
Duplicate (0090453-DUP1)												
Prepared: 09/16/20 09:38 Analyzed: 09/16/20 15:56												
QC Source Sample: T201-090820-2 (A010221-01)												
Benzoic acid	ND	255000	509000	ug/kg dry	1000	---	ND	---	---	---	30%	
Benzyl alcohol	ND	10200	20300	ug/kg dry	1000	---	ND	---	---	---	30%	
Isophorone	ND	5090	10200	ug/kg dry	1000	---	ND	---	---	---	30%	
Azobenzene (1,2-DPH)	ND	5090	10200	ug/kg dry	1000	---	ND	---	---	---	30%	
Bis(2-Ethylhexyl) adipate	ND	50900	102000	ug/kg dry	1000	---	ND	---	---	---	30%	
3,3'-Dichlorobenzidine	ND	40800	81500	ug/kg dry	1000	---	ND	---	---	---	30%	Q-52
1,2-Dinitrobenzene	ND	50900	102000	ug/kg dry	1000	---	ND	---	---	---	30%	
1,3-Dinitrobenzene	ND	50900	102000	ug/kg dry	1000	---	ND	---	---	---	30%	
1,4-Dinitrobenzene	ND	50900	102000	ug/kg dry	1000	---	ND	---	---	---	30%	
Pyridine	ND	10200	20300	ug/kg dry	1000	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	5090	10200	ug/kg dry	1000	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	5090	10200	ug/kg dry	1000	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	5090	10200	ug/kg dry	1000	---	ND	---	---	---	30%	
<i>Surr: Nitrobenzene-d5 (Surr)</i>		<i>Recovery: 108 %</i>	<i>Limits: 37-122 %</i>			<i>Dilution: 1000x</i>						S-05
<i>2-Fluorobiphenyl (Surr)</i>		<i>176 %</i>	<i>44-120 %</i>			<i>"</i>						S-05
<i>Phenol-d6 (Surr)</i>		<i>56 %</i>	<i>33-122 %</i>			<i>"</i>						S-05
<i>p-Terphenyl-d14 (Surr)</i>		<i>170 %</i>	<i>54-127 %</i>			<i>"</i>						S-05
<i>2-Fluorophenol (Surr)</i>		<i>24 %</i>	<i>35-120 %</i>			<i>"</i>						S-05
<i>2,4,6-Tribromophenol (Surr)</i>		<i>%</i>	<i>39-132 %</i>			<i>"</i>						S-01

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Darwin Thomas, Business Development Director



AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020A (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090386 - EPA 3051A												
Soil												
Blank (0090386-BLK1) Prepared: 09/14/20 15:15 Analyzed: 09/15/20 13:47												
<u>EPA 6020A</u>												
Arsenic	ND	481	962	ug/kg wet	10	---	---	---	---	---	---	
Barium	ND	481	962	ug/kg wet	10	---	---	---	---	---	---	
Cadmium	ND	96.2	192	ug/kg wet	10	---	---	---	---	---	---	
Chromium	ND	481	962	ug/kg wet	10	---	---	---	---	---	---	
Lead	ND	96.2	192	ug/kg wet	10	---	---	---	---	---	---	
Mercury	ND	38.5	76.9	ug/kg wet	10	---	---	---	---	---	---	
Selenium	ND	481	962	ug/kg wet	10	---	---	---	---	---	---	
Silver	ND	96.2	192	ug/kg wet	10	---	---	---	---	---	---	
LCS (0090386-BS1) Prepared: 09/14/20 15:15 Analyzed: 09/15/20 13:52												
<u>EPA 6020A</u>												
Arsenic	47300	500	1000	ug/kg wet	10	50000	---	95	80-120%	---	---	
Barium	47000	500	1000	ug/kg wet	10	50000	---	94	80-120%	---	---	
Cadmium	49600	100	200	ug/kg wet	10	50000	---	99	80-120%	---	---	
Chromium	46100	500	1000	ug/kg wet	10	50000	---	92	80-120%	---	---	
Lead	46700	100	200	ug/kg wet	10	50000	---	93	80-120%	---	---	
Mercury	894	40.0	80.0	ug/kg wet	10	1000	---	89	80-120%	---	---	
Selenium	24900	500	1000	ug/kg wet	10	25000	---	100	80-120%	---	---	
Silver	25400	100	200	ug/kg wet	10	25000	---	102	80-120%	---	---	
Duplicate (0090386-DUP1) Prepared: 09/14/20 15:15 Analyzed: 09/15/20 14:17												
<u>QC Source Sample: Non-SDG (A010092-04)</u>												
Arsenic	2660	587	1170	ug/kg dry	10	---	2740	---	---	3	20%	
Barium	76200	587	1170	ug/kg dry	10	---	74500	---	---	2	20%	
Cadmium	ND	117	235	ug/kg dry	10	---	ND	---	---	---	20%	
Chromium	18900	587	1170	ug/kg dry	10	---	26100	---	---	32	20%	Q-04
Lead	2740	117	235	ug/kg dry	10	---	3010	---	---	9	20%	
Mercury	ND	47.0	93.9	ug/kg dry	10	---	ND	---	---	---	20%	
Selenium	ND	587	1170	ug/kg dry	10	---	ND	---	---	---	20%	
Silver	ND	117	235	ug/kg dry	10	---	ND	---	---	---	20%	
Matrix Spike (0090386-MS1) Prepared: 09/14/20 15:15 Analyzed: 09/15/20 14:22												

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020A (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090386 - EPA 3051A						Soil						
Matrix Spike (0090386-MS1)						Prepared: 09/14/20 15:15 Analyzed: 09/15/20 14:22						
QC Source Sample: Non-SDG (A010092-04)												
EPA 6020A												
Arsenic	62500	600	1200	ug/kg dry	10	60000	2740	100	75-125%	---	---	
Barium	129000	600	1200	ug/kg dry	10	60000	74500	90	75-125%	---	---	
Cadmium	60400	120	240	ug/kg dry	10	60000	ND	101	75-125%	---	---	
Chromium	81800	600	1200	ug/kg dry	10	60000	26100	93	75-125%	---	---	
Lead	59400	120	240	ug/kg dry	10	60000	3010	94	75-125%	---	---	
Mercury	1080	48.0	96.0	ug/kg dry	10	1200	ND	90	75-125%	---	---	
Selenium	28700	600	1200	ug/kg dry	10	30000	ND	96	75-125%	---	---	
Silver	31100	120	240	ug/kg dry	10	30000	ND	104	75-125%	---	---	

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Metals by EPA 6020A (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090645 - EPA 1311/3015 Solid												
Blank (0090645-BLK1) Prepared: 09/23/20 10:22 Analyzed: 09/23/20 23:29												
<u>1311/6020A</u>												
Arsenic	ND	50.0	100	ug/L	10	---	---	---	---	---	---	TCLPa
Barium	ND	2500	5000	ug/L	10	---	---	---	---	---	---	Q-41, TCLPa
Cadmium	ND	50.0	100	ug/L	10	---	---	---	---	---	---	TCLPa
Chromium	ND	50.0	100	ug/L	10	---	---	---	---	---	---	TCLPa
Lead	ND	25.0	50.0	ug/L	10	---	---	---	---	---	---	TCLPa
Mercury	ND	3.50	7.00	ug/L	10	---	---	---	---	---	---	TCLPa
Selenium	ND	50.0	100	ug/L	10	---	---	---	---	---	---	TCLPa
Silver	ND	50.0	100	ug/L	10	---	---	---	---	---	---	TCLPa
LCS (0090645-BS1) Prepared: 09/23/20 10:22 Analyzed: 09/23/20 23:33												
<u>1311/6020A</u>												
Arsenic	5240	50.0	100	ug/L	10	5000	---	105	80-120%	---	---	TCLPa
Barium	11500	2500	5000	ug/L	10	10000	---	115	80-120%	---	---	Q-41, TCLPa
Cadmium	1020	50.0	100	ug/L	10	1000	---	102	80-120%	---	---	TCLPa
Chromium	5260	50.0	100	ug/L	10	5000	---	105	80-120%	---	---	TCLPa
Lead	4910	25.0	50.0	ug/L	10	5000	---	98	80-120%	---	---	TCLPa
Mercury	92.4	3.50	7.00	ug/L	10	100	---	92	80-120%	---	---	TCLPa
Selenium	1030	50.0	100	ug/L	10	1000	---	103	80-120%	---	---	TCLPa
Silver	1030	50.0	100	ug/L	10	1000	---	103	80-120%	---	---	TCLPa
Matrix Spike (0090645-MS1) Prepared: 09/23/20 10:22 Analyzed: 09/23/20 23:41												
<u>QC Source Sample: T201-090820-2-TCLP (A010221-02)</u>												
<u>1311/6020A</u>												
Arsenic	5220	50.0	100	ug/L	10	5000	ND	104	50-150%	---	---	
Barium	12400	2500	5000	ug/L	10	10000	ND	124	50-150%	---	---	Q-41
Cadmium	1030	50.0	100	ug/L	10	1000	ND	103	50-150%	---	---	
Chromium	5250	50.0	100	ug/L	10	5000	ND	105	50-150%	---	---	
Lead	4970	25.0	50.0	ug/L	10	5000	ND	99	50-150%	---	---	
Mercury	93.1	3.50	7.00	ug/L	10	100	ND	93	50-150%	---	---	
Selenium	1030	50.0	100	ug/L	10	1000	ND	103	50-150%	---	---	
Silver	1040	50.0	100	ug/L	10	1000	ND	104	50-150%	---	---	
Matrix Spike (0090645-MS2) Prepared: 09/23/20 10:22 Analyzed: 09/23/20 23:49												

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Darwin Thomas, Business Development Director



AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Metals by EPA 6020A (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090645 - EPA 1311/3015						Solid						
Matrix Spike (0090645-MS2)						Prepared: 09/23/20 10:22 Analyzed: 09/23/20 23:49						
QC Source Sample: Non-SDG (A010380-01)												
1311/6020A												
Arsenic	5060	50.0	100	ug/L	10	5000	ND	101	50-150%	---	---	
Barium	11200	2500	5000	ug/L	10	10000	ND	112	50-150%	---	---	Q-41
Cadmium	1010	50.0	100	ug/L	10	1000	ND	101	50-150%	---	---	
Chromium	5090	50.0	100	ug/L	10	5000	ND	102	50-150%	---	---	
Lead	4970	25.0	50.0	ug/L	10	5000	ND	99	50-150%	---	---	
Mercury	91.7	3.50	7.00	ug/L	10	100	ND	92	50-150%	---	---	
Selenium	1010	50.0	100	ug/L	10	1000	ND	101	50-150%	---	---	
Silver	1030	50.0	100	ug/L	10	1000	ND	103	50-150%	---	---	

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

Soluble Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090400 - ASTM D7511-12mod (S)						Soil						
Blank (0090400-BLK1)			Prepared: 09/15/20 08:09 Analyzed: 09/16/20 11:30									
<u>D7511-12</u>												
Total Cyanide	ND	50.0	100	ug/kg wet	1	---	---	---	---	---	---	
LCS (0090400-BS1)			Prepared: 09/15/20 08:09 Analyzed: 09/16/20 11:32									
<u>D7511-12</u>												
Total Cyanide	404	50.0	100	ug/kg wet	1	400	---	101	84-116%	---	---	
Matrix Spike (0090400-MS3)			Prepared: 09/15/20 08:09 Analyzed: 09/16/20 12:33									
<u>QC Source Sample: T201-090820-2 (A010221-01RE2)</u>												
<u>D7511-12</u>												
Total Cyanide	6110	784	1570	ug/kg dry	10	627	6010	17	64-136%	---	---	Q-04, Q-16
Matrix Spike Dup (0090400-MSD3)			Prepared: 09/15/20 08:09 Analyzed: 09/16/20 12:35									
<u>QC Source Sample: T201-090820-2 (A010221-01RE2)</u>												
<u>D7511-12</u>												
Total Cyanide	6280	791	1580	ug/kg dry	10	633	6010	43	64-136%	3	47%	Q-04, Q-16

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 0090286 - Total Solids (Dry Weight)							Soil					
Duplicate (0090286-DUP1)			Prepared: 09/10/20 09:19 Analyzed: 09/11/20 08:12									
<u>QC Source Sample: Non-SDG (A0H0758-01)</u>												
% Solids	85.0	1.00	1.00	%	1	---	83.6	---	---	2	10%	
Duplicate (0090286-DUP2)			Prepared: 09/10/20 09:19 Analyzed: 09/11/20 08:12									
<u>QC Source Sample: Non-SDG (A0I0173-01)</u>												
% Solids	90.6	1.00	1.00	%	1	---	90.2	---	---	0.4	10%	
Duplicate (0090286-DUP3)			Prepared: 09/10/20 19:09 Analyzed: 09/11/20 08:12									
<u>QC Source Sample: Non-SDG (A0H0793-02)</u>												
% Solids	81.2	1.00	1.00	%	1	---	81.5	---	---	0.3	10%	
Duplicate (0090286-DUP4)			Prepared: 09/10/20 19:09 Analyzed: 09/11/20 08:12									
<u>QC Source Sample: Non-SDG (A0I0284-02)</u>												
% Solids	74.8	1.00	1.00	%	1	---	75.4	---	---	0.9	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Soil Residuals Project Number: 111323 Project Manager: Chip Byrd	Report ID: A010221 - 09 25 20 0716
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SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3546 (Fuels)					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 0090433</u>							
A010221-01	Soil	NWTPH-Dx	09/08/20 12:00	09/15/20 13:16	10.58g/5mL	10g/5mL	0.95

Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx

Prep: EPA 5035A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 0090422</u>							
A010221-01	Soil	NWTPH-Gx (MS)	09/08/20 12:00	09/09/20 11:45	5.31g/5mL	5g/5mL	0.94

Volatile Organic Compounds by EPA 8260D

Prep: EPA 5035A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 0090422</u>							
A010221-01	Soil	5035A/8260D	09/08/20 12:00	09/09/20 11:45	5.31g/5mL	5g/5mL	0.94

TCLP Volatile Organic Compounds by EPA 1311/8260D

Prep: EPA 1311/5030B TCLP Volatiles					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 0090441</u>							
A010221-01	Soil	1311/8260D	09/08/20 12:00	09/16/20 10:00	5mL/5mL	5mL/5mL	1.00

Semivolatile Organic Compounds by EPA 8270E

Prep: EPA 3546					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 0090453</u>							
A010221-01	Soil	EPA 8270E	09/08/20 12:00	09/16/20 09:38	15.94g/2mL	15g/2mL	0.94
A010221-01RE1	Soil	EPA 8270E	09/08/20 12:00	09/16/20 09:38	15.94g/2mL	15g/2mL	0.94

Total Metals by EPA 6020A (ICPMS)

Prep: EPA 3051A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 0090386</u>							

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SAMPLE PREPARATION INFORMATION

Total Metals by EPA 6020A (ICPMS)

Prep: EPA 3051A					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
A010221-01	Soil	EPA 6020A	09/08/20 12:00	09/14/20 15:15	0.493g/50mL	0.5g/50mL	1.01

TCLP Metals by EPA 6020A (ICPMS)

Prep: EPA 1311/3015					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 0090645</u>							
A010221-02	Soil	1311/6020A	09/08/20 12:00	09/23/20 10:22	10mL/50mL	10mL/50mL	1.00

Soluble Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection

Prep: ASTM D7511-12mod (S)					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 0090400</u>							
A010221-01RE2	Soil	D7511-12	09/08/20 12:00	09/15/20 08:09	2.5136g/50mL	2.5g/50mL	1.00

Percent Dry Weight

Prep: Total Solids (Dry Weight)					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 0090286</u>							
A010221-01	Soil	EPA 8000D	09/08/20 12:00	09/10/20 09:19			NA

TCLP Extraction by EPA 1311

Prep: EPA 1311 (TCLP)					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 0090601</u>							
A010221-02	Soil	EPA 1311	09/08/20 12:00	09/22/20 15:30	100.1g/1988.5mL	100g/2000mL	NA

Prep: EPA 1311 TCLP/ZHE					Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
<u>Batch: 0090434</u>							
A010221-01	Soil	EPA 1311 ZHE	09/08/20 12:00	09/15/20 13:43	25g/500mL	25g/500mL	NA

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QUALIFIER DEFINITIONS

Client Sample and Quality Control (QC) Sample Qualifier Definitions:

Apex Laboratories

- A-01** Result for Mineral Oil is estimated due to overlap from the reported Oil result.
- A-02** Result for Oil is estimated due to overlap from the reported Mineral Oil result.
- B** Analyte detected in an associated blank at a level above the MRL. (See Notes and Conventions below.)
- B-02** Analyte detected in an associated blank at a level between one-half the MRL and the MRL. (See Notes and Conventions below.)
- F-09** Results in the Gasoline Range are primarily due to overlap from a heavier fuel hydrocarbon product.
- F-24** The chromatographic pattern does not resemble the fuel standard used for quantitation. The Diesel result represents carbon range C12 to C24, and the Oil result represents >C24 to C40.
- J** Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- M-05** Estimated results. Peak separation for structural isomers is insufficient for accurate quantification.
- Q-04** Spike recovery and/or RPD is outside control limits due to a non-homogeneous sample matrix.
- Q-16** Reanalysis of an original Batch QC sample.
- Q-18** Matrix Spike results for this extraction batch are not reported due to the high dilution necessary for analysis of the source sample.
- Q-29** Recovery for Lab Control Spike (LCS) is above the upper control limit. Data may be biased high.
- Q-31** Estimated Results. Recovery of Continuing Calibration Verification sample below lower control limit for this analyte. Results are likely biased low.
- Q-41** Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.
- Q-42** Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits. (Refer to the QC Section of Analytical Report.)
- Q-52** Due to known erratic recoveries, the result and reporting levels for this analyte are reported as Estimated Values. This analyte may not have passed all QC requirements for this method.
- Q-54** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +1%. The results are reported as Estimated Values.
- Q-54a** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +19%. The results are reported as Estimated Values.
- Q-54b** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +2%. The results are reported as Estimated Values.
- Q-54c** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +3%. The results are reported as Estimated Values.
- Q-54d** Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by -11%. The results are reported as Estimated Values.

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- Q-55** Daily CCV/LCS recovery for this analyte was below the +/-20% criteria listed in EPA 8260, however there is adequate sensitivity to ensure detection at the reporting level.
- Q-56** Daily CCV/LCS recovery for this analyte was above the +/-20% criteria listed in EPA 8260
- R-02** The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.
- S-01** Surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interference.
- S-05** Surrogate recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.
- TCLP** This batch QC sample was prepared with TCLP or SPLP fluid from preparation batch 0090434.
- TCLPa** This batch QC sample was prepared with TCLP or SPLP fluid from preparation batch 0090601.
- V-15** Sample aliquot was subsampled from the sample container. The subsampled aliquot was preserved in the laboratory within 48 hours of sampling.

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REPORTING NOTES AND CONVENTIONS:

Abbreviations:

- DET Analyte DETECTED at or above the detection or reporting limit.
- ND Analyte NOT DETECTED at or above the detection or reporting limit.
- NR Result Not Reported
- RPD Relative Percent Difference. RPDs for Matrix Spikes and Matrix Spike Duplicates are based on concentration, not recovery.

Detection Limits: Limit of Detection (LOD)

Limits of Detection (LODs) are normally set at a level of one half the validated Limit of Quantitation (LOQ).
If no value is listed ('-----'), then the data has not been evaluated below the Reporting Limit.

Reporting Limits: Limit of Quantitation (LOQ)

Validated Limits of Quantitation (LOQs) are reported as the Reporting Limits for all analyses where the LOQ, MRL, PQL or CRL are requested. The LOQ represents a level at or above the low point of the calibration curve, that has been validated according to Apex Laboratories' comprehensive LOQ policies and procedures.

Reporting Conventions:

- Basis: Results for soil samples are generally reported on a 100% dry weight basis.
The Result Basis is listed following the units as " dry", " wet", or " " (blank) designation.
 - " dry" Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry")
See Percent Solids section for details of dry weight analysis.
 - " wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.
 - " " Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

QC Source:

In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) may be analyzed to demonstrate accuracy and precision of the extraction batch.

Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

Miscellaneous Notes:

- " --- " QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.
- " *** " Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to 1/2 the Reporting Limit (RL).
-For Blank hits falling between 1/2 the RL and the RL (J flagged hits), the associated sample and QC data will receive a 'B-02' qualifier.
-For Blank hits above the RL, the associated sample and QC data will receive a 'B' qualifier, per Apex Laboratories' Blank Policy.
For further details, please request a copy of this document.

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REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks (Cont.):

Sample results flagged with a 'B' or 'B-02' qualifier are potentially biased high if the sample results are less than ten times the level found in the blank for inorganic analyses, or less than five times the level found in the blank for organic analyses.

'B' and 'B-02' qualifications are only applied to sample results detected above the Reporting Level.

Preparation Notes:

Mixed Matrix Samples:

Water Samples:

Water samples containing significant amounts of sediment are decanted or separated prior to extraction, and only the water portion analyzed, unless otherwise directed by the client.

Soil and Sediment Samples:

Soil and Sediment samples containing significant amounts of water are decanted prior to extraction, and only the solid portion analyzed, unless otherwise directed by the client.

Sampling and Preservation Notes:

Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) within a short time window. In addition, sample matrix spikes are required for some analyses, and sufficient volume must be provided, and billable site specific QC requested, if this is required. All regulatory permits should be reviewed to ensure that these requirements are being met.

Data users should be aware of which regulations pertain to the samples they submit for testing. If related sample collection activities are not approved for a particular regulatory program, results should be considered estimates. Apex Laboratories will qualify these analytes according to the most stringent requirements, however results for samples that are for non-regulatory purposes may be acceptable.

Samples that have been filtered and preserved at Apex Laboratories per client request are listed in the preparation section of the report with the date and time of filtration listed.

Apex Laboratories maintains detailed records on sample receipt, including client label verification, cooler temperature, sample preservation, hold time compliance and field filtration. Data is qualified as necessary, and the lack of qualification indicates compliance with required parameters.

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Apex Laboratories, LLC

6700 S.W. Sandburg Street
Tigard, OR 97223
503-718-2323
ORELAP ID: OR100062

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LABORATORY ACCREDITATION INFORMATION

ORELAP Certification ID: OR100062 (Primary Accreditation) -
EPA ID: OR01039

All methods and analytes reported from work performed at Apex Laboratories are included on Apex Laboratories' ORELAP Scope of Certification, with the exception of any analyte(s) listed below:

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Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation
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All reported analytes are included in Apex Laboratories' current ORELAP scope.

Secondary Accreditations

Apex Laboratories also maintains reciprocal accreditation with non-TNI states (Washington DOE), as well as other state specific accreditations not listed here.

Subcontract Laboratory Accreditations

Subcontracted data falls outside of Apex Laboratories' Scope of Accreditation. Please see the Subcontract Laboratory report for full details, or contact your Project Manager for more information.

Field Testing Parameters

Results for Field Tested data are provided by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

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Darwin Thomas, Business Development Director



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APEX LABS COOLER RECEIPT FORM

Client: Sevenson Environmental Services, Inc. Element WO#: A010221
Project/Project #: Gasco - Soil Residuals #111323

Delivery Info:
Date/time received: 9/9/20 @ 912 By: EJ
Delivered by: Apex Client ESS FedEx UPS Swift Senvoy SDS Other

Cooler Inspection Date/time inspected: 9/9/20 @ 952 By: EJ
Chain of Custody included? Yes No Custody seals? Yes No
Signed/dated by client? Yes No
Signed/dated by Apex? Yes No

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	<u>3.3</u>						
Received on ice? (Y/N)	<u>Y</u>						
Temp. blanks? (Y/N)	<u>Y</u>						
Ice type: (Gel/Real/Other)	<u>Gel</u>						
Condition:	<u>Good</u>						

Cooler out of temp? (Y/N) Possible reason why: NA
If some coolers are in temp and some out, were green dots applied to out of temperature samples? Yes/No NA
Out of temperature samples form initiated? Yes/No NA
Samples Inspection: Date/time inspected: 9-9-20 @ 11:25 By: TAC
All samples intact? Yes No Comments: _____
Bottle labels/COCs agree? Yes No Comments: _____
COC/container discrepancies form initiated? Yes No
Containers/volumes received appropriate for analysis? Yes No Comments: _____
Do VOA vials have visible headspace? Yes No NA
Comments: _____
Water samples: pH checked: Yes No NA pH appropriate? Yes No NA
Comments: _____
Additional information: _____
Labeled by: TAC Witness: AKK Cooler Inspected by: KRS See Project Contact Form: Y