Sevenson Environmental Services, Inc.

Sevenson Environmental Services
2749 Lockport Road
Niagara Falls, NY 14305
Phone 716.284.0431
Fax 716.284.1796

October 5, 2023

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

Re: NW Natural Source Control Groundwater Treatment Facility – Siltronic Pretreatment Plant Oil Water Separator Coalescing Media.

Dear Mr. Krening:

On behalf of NW Natural, Sevenson Environmental Services, Inc. (SES) has prepared the attached waste disposal package for Waste Management, Inc. review and acceptance. This profile package, inclusive of analytical testing results, is for the disposal of spent coalescing media from the Siltronic Pretreatment Plant located on the NW Natural Gasco Site. Coalescing media were removed from the Siltronic Oil Water Separator T-100 and crushed before being placed into four 1-cubic yard boxes for disposal before installing replacement media as part of routine maintenance.

The Siltronic Pre-Treatment Facility is designed to remove spent trichloroethene (TCE) and its degradation products from the contaminated groundwater before it is plumbed to the Main Groundwater Treatment Plant for the NW Natural Gasco site for processing. Spent TCE and its degradation products are considered by the Oregon DEQ to be RCRA F002 listed hazardous waste constituents. Other contamination within the water discharged to this tank includes Manufactured Gas Plant (MGP)-derived constituents (e.g., petroleum constituents).

Based on the treatment of the spent TCE and its degradation products within the Siltronic Pre-Treatment Facility, the solids within this Siltronic Oil Water Separator (T-100) are considered to be residuals from the treatment of an F002 RCRA listed waste at the time of tank cleanout.

NW Natural is presumptively managing the residual materials from the Siltronic Pretreatment Plant as RCRA F002-listed hazardous waste. NW Natural understands the "derived-from" rule to require presumptive management of these residuals as RCRA F002-listed hazardous waste.

Sample data are attached to the profile from testing of the solid materials and liquids accumulated within Siltronic Oil Water Separator (T-100) located at Siltronic pretreatment plant. The sample of material within this box was submitted to Apex Laboratories, LLC on July 17, 2023 for analysis of: free liquids, total metals, leachable metals (toxicity characteristic leaching procedure-TCLP), total petroleum hydrocarbons (TPH), total cyanide, total volatile organic

compounds (VOCs) and TCLP VOCs, semi-volatile organic compounds (SVOCs), and TCLP SVOCs, low level mercury, and heat of combustion.

Attached please find the profile for this waste stream (Profile OR356627). Also attached please find the Apex Laboratory analytical report (A3G1130) dated August 9, 2023 documenting the chemistry of the residual treatment materials, and Table 1, a summary of those testing results.

As indicated on the laboratory testing and as described in the attached profile (OR356627), it is requested that Waste Management Inc. approve disposal of the contaminated coalescing media residuals as F002 hazardous waste at the Chemical Waste Management (CWM) RCRA Subtitle C permitted landfill in Arlington, Oregon. NW Natural anticipates the generation of similar quantities of accumulated residuals on a frequency of approximately two times per year. Prior to arranging for disposal of future accumulations of residuals from the Oil Water Separator T-100 under Profile OR356627, sampling and characterization will be completed identical to that described herein in order to confirm the residuals match the profile in-place at that time. These data will be provided for Waste Management's information and use prior to disposal.

In response to the EZ Profile Addendum #D.7, requesting documentation regarding the State-mandated cleanup, NW Natural's Voluntary Agreement with DEQ, no. WMCVC-NWR-94-13, dated August 8, 1994, as amended July 19, 2006 has been previously provided to Waste Management.

Please contact me if you have any questions.

Thank You,

William Byrd
Sevenson Environmental Services

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

Enclosures:
Table 1—Charted APEX Analytical Results
Apex Laboratory Report #A3G1130
Table 2—Charted PACE Analytical Results

PACE Analytical Report #L1658716
Waste Management Disposal Profile # OR356627
OR356627 Constituents Form
OR356627 LDR Form
Oregon Profile Radiation Addendum Certification

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

ANALYTICAL REPORT

AMENDED REPORT

Thursday, September 21, 2023

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

RE: A3G1130 - Gasco - Oily Solids - 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 A3G1130, which was received by the laboratory on 7/17/2023 at 9:50:00AM.

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
Acceptable Receipt Temperature is less than, or equal to, 6 degC (not frozen), or received on ice the same day as sampling.
(See Cooler Receipt Form for details)
Default Cooler 2.8 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

Darwin Thomas, Business Development Director

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

ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: Gasco - Oily Solids	
2749 Lockport Road	Project Number: 111323	Report ID:
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3G1130 - 09 21 23 1330

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
T100-071723-4	A3G1130-01	Solid	07/17/23 08:00	07/17/23 09:50

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Darwin Thomas, Business Development Director

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: Gasco - Oily Solids	
2749 Lockport Road	Project Number: 111323	**Report ID:**
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3G1130 - 09 21 23 1330

ANALYTICAL CASE NARRATIVE

A3G1130 — **Apex Laboratories**

Amended Report Revision 1 -
Change to Reporting Units-
This report supersedes all previous reports. The final report has been amended to report TCLP metals data as ug/L (PPB).
Darwin Thomas
Business Development Director

Amended Report Revision 2
Sample results were reported in wet weight. The final report has been amended to report dry weight.
Darwin Thomas
Business Development Director
9/20/2023

Apex Laboratories

Darwin Thomas, Business Development Director

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

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
T100-071723-4 (A3G1130-01RE1)				**Matrix: Solid**		**Batch: 23G0472**		
Diesel	**10900000**	190000	379000	ug/kg	20	07/19/23 08:25	NWTPH-Dx	**F-11**
Oil	ND	379000	758000	ug/kg	20	07/19/23 08:25	NWTPH-Dx	
Surrogate: o-Terphenyl (Surr)			*Recovery: %*	*Limits: 50-150 %*	*20*	*07/19/23 08:25*	*NWTPH-Dx*	*S-01*

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Darwin Thomas, Business Development Director

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

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
T100-071723-4 (A3G1130-01)				**Matrix: Solid**		**Batch: 23G0494**		**V-15**
Gasoline Range Organics	**4950000**	487000	975000	ug/kg	10000	07/18/23 23 47	NWTPH-Gx (MS)	**F-03**
Surrogate: 4-Bromofluorobenzene (Sur)		*Recovery:*	*92 %*	*Limits:*	*50-150 %*	*1*	*07 18 23 23:47*	*NWTPH-Gx (MS)*	
1,4-Difluorobenzene (Sur)			*91 %*		*50-150 %*	*1*	*07 18 23 23:47*	*NWTPH-Gx (MS)*	

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T100-071723-4 (A3G1130-01)				**Matrix: Solid**		**Batch: 23G0494**		**V-16**
Acetone	ND	97500	195000	ug/kg	10000	07/18/23 23:47	5035A/8260D	
Benzene	ND	975	1950	ug/kg	10000	07/18/23 23:47	5035A/8260D	
Bromobenzene	ND	2440	4870	ug/kg	10000	07/18/23 23:47	5035A/8260D	
Bromochloromethane	ND	4870	9750	ug/kg	10000	07/18/23 23:47	5035A/8260D	
Bromodichloromethane	ND	4870	9750	ug/kg	10000	07/18/23 23:47	5035A/8260D	
Bromoform	ND	9750	19500	ug/kg	10000	07/18/23 23:47	5035A/8260D	
Bromomethane	ND	97500	97500	ug/kg	10000	07/18/23 23:47	5035A/8260D	
2-Butanone (MEK)	ND	48700	97500	ug/kg	10000	07/18/23 23:47	5035A/8260D	
n-Butylbenzene	ND	4870	9750	ug/kg	10000	07/18/23 23:47	5035A/8260D	
sec-Butylbenzene	ND	4870	9750	ug/kg	10000	07/18/23 23:47	5035A/8260D	
tert-Butylbenzene	ND	4870	9750	ug/kg	10000	07/18/23 23:47	5035A/8260D	
Carbon tetrachloride	ND	4870	9750	ug/kg	10000	07/18/23 23:47	5035A/8260D	
Chlorobenzene	ND	2440	4870	ug/kg	10000	07/18/23 23:47	5035A/8260D	
Chloroethane	ND	97500	97500	ug/kg	10000	07/18/23 23:47	5035A/8260D	
Chloroform	ND	4870	9750	ug/kg	10000	07/18/23 23:47	5035A/8260D	
Chloromethane	ND	24400	48700	ug/kg	10000	07/18/23 23:47	5035A/8260D	
2-Chlorotoluene	ND	4870	9750	ug/kg	10000	07/18/23 23:47	5035A/8260D	
4-Chlorotoluene	ND	4870	9750	ug/kg	10000	07/18/23 23:47	5035A/8260D	
Dibromochloromethane	ND	9750	19500	ug/kg	10000	07/18/23 23:47	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	48700	48700	ug/kg	10000	07/18/23 23:47	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	4870	9750	ug/kg	10000	07/18/23 23:47	5035A/8260D	
Dibromomethane	ND	4870	9750	ug/kg	10000	07/18/23 23:47	5035A/8260D	
1,2-Dichlorobenzene	ND	2440	4870	ug/kg	10000	07/18/23 23:47	5035A/8260D	
1,3-Dichlorobenzene	ND	2440	4870	ug/kg	10000	07/18/23 23:47	5035A/8260D	
1,4-Dichlorobenzene	ND	2440	4870	ug/kg	10000	07/18/23 23:47	5035A/8260D	
Dichlorodifluoromethane	ND	9750	19500	ug/kg	10000	07/18/23 23:47	5035A/8260D	
1,1-Dichloroethane	ND	2440	4870	ug/kg	10000	07/18/23 23:47	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	2440	4870	ug/kg	10000	07/18/23 23:47	5035A/8260D	
1,1-Dichloroethene	ND	2440	4870	ug/kg	10000	07/18/23 23:47	5035A/8260D	
cis-1,2-Dichloroethene	ND	2440	4870	ug/kg	10000	07/18/23 23:47	5035A/8260D	
trans-1,2-Dichloroethene	ND	2440	4870	ug/kg	10000	07/18/23 23:47	5035A/8260D	
1,2-Dichloropropane	ND	2440	4870	ug/kg	10000	07/18/23 23:47	5035A/8260D	
1,3-Dichloropropane	ND	4870	9750	ug/kg	10000	07/18/23 23:47	5035A/8260D	

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Darwin Thomas, Business Development Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T100-071723-4 (A3G1130-01)				**Matrix: Solid**		**Batch: 23G0494**		**V-15**
2,2-Dichloropropane	ND	4870	9750	ug/kg	10000	07/18/23 23:47	5035A/8260D	
1,1-Dichloropropene	ND	4870	9750	ug/kg	10000	07/18/23 23:47	5035A/8260D	
cis-1,3-Dichloropropene	ND	4870	9750	ug/kg	10000	07/18/23 23:47	5035A/8260D	
trans-1,3-Dichloropropene	ND	4870	9750	ug/kg	10000	07/18/23 23:47	5035A/8260D	
Ethylbenzene	**4290**	2440	4870	ug/kg	10000	07/18/23 23:47	5035A/8260D	J
Hexachlorobutadiene	ND	9750	19500	ug/kg	10000	07/18/23 23:47	5035A/8260D	
2-Hexanone	ND	48700	97500	ug/kg	10000	07/18/23 23:47	5035A/8260D	
Isopropylbenzene	ND	4870	9750	ug/kg	10000	07/18/23 23:47	5035A/8260D	
4-Isopropyltoluene	ND	4870	9750	ug/kg	10000	07/18/23 23:47	5035A/8260D	
Methylene chloride	ND	48700	97500	ug/kg	10000	07/18/23 23:47	5035A/8260D	
4-Methyl-2-pentanone (MiBK)	ND	48700	97500	ug/kg	10000	07/18/23 23:47	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	4870	9750	ug/kg	10000	07/18/23 23:47	5035A/8260D	
Naphthalene	**1610000**	9750	19500	ug/kg	10000	07/18/23 23:47	5035A/8260D	
n-Propylbenzene	ND	2440	4870	ug/kg	10000	07/18/23 23:47	5035A/8260D	
Styrene	ND	4870	9750	ug/kg	10000	07/18/23 23:47	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	2440	4870	ug/kg	10000	07/18/23 23:47	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	4870	9750	ug/kg	10000	07/18/23 23:47	5035A/8260D	
Tetrachloroethene (PCE)	ND	2440	4870	ug/kg	10000	07/18/23 23:47	5035A/8260D	
Toluene	ND	4870	9750	ug/kg	10000	07/18/23 23:47	5035A/8260D	
1,2,3-Trichlorobenzene	ND	24400	48700	ug/kg	10000	07/18/23 23:47	5035A/8260D	
1,2,4-Trichlorobenzene	ND	24400	48700	ug/kg	10000	07/18/23 23:47	5035A/8260D	
1,1,1-Trichloroethane	ND	2440	4870	ug/kg	10000	07/18/23 23:47	5035A/8260D	
1,1,2-Trichloroethane	ND	2440	4870	ug/kg	10000	07/18/23 23:47	5035A/8260D	
Trichloroethene (TCE)	ND	2440	4870	ug/kg	10000	07/18/23 23:47	5035A/8260D	
Trichlorofluoromethane	ND	9750	19500	ug/kg	10000	07/18/23 23:47	5035A/8260D	
1,2,3-Trichloropropane	ND	4870	9750	ug/kg	10000	07/18/23 23:47	5035A/8260D	
1,2,4-Trimethylbenzene	**9450**	4870	9750	ug/kg	10000	07/18/23 23:47	5035A/8260D	J
1,3,5-Trimethylbenzene	ND	4870	9750	ug/kg	10000	07/18/23 23:47	5035A/8260D	
Vinyl chloride	ND	2440	4870	ug/kg	10000	07/18/23 23:47	5035A/8260D	
m,p-Xylene	ND	4870	9750	ug/kg	10000	07/18/23 23:47	5035A/8260D	
o-Xylene	ND	2440	4870	ug/kg	10000	07/18/23 23:47	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*120 %*	*Limits:*	*80-120 %*	*1*	*07/18/23 23:47*	*5035A/8260D*
Toluene-d8 (Surr)			*96 %*		*80-120 %*	*1*	*07/18/23 23:47*	*5035A/8260D*

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T100-071723-4 (A3G1130-01)				**Matrix: Solid**		**Batch: 23G0494**		**V-15**
Surrogate: 4-Bromofluorobenzene (Surr)		*Recovery: 101 %*		*Limits: 79-120 %*	*1*	*07 18 23 23:47*	*5035A 8260D*	

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

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
T100-071723-4 (A3G1130-01RE1)				**Matrix: Solid**		**Batch: 23G0807**		
Acetone	ND	500	1000	ug/L	50	07/26/23 13:58	1311/8260D	
Benzene	ND	6.25	12.5	ug/L	50	07/26/23 13:58	1311/8260D	
Bromobenzene	ND	12.5	25.0	ug/L	50	07/26/23 13:58	1311/8260D	
Bromochloromethane	ND	25.0	50.0	ug/L	50	07/26/23 13:58	1311/8260D	
Bromodichloromethane	ND	25.0	50.0	ug/L	50	07/26/23 13:58	1311/8260D	
Bromoform	ND	25.0	50.0	ug/L	50	07/26/23 13:58	1311/8260D	
Bromomethane	ND	250	250	ug/L	50	07/26/23 13:58	1311/8260D	
2-Butanone (MEK)	ND	250	500	ug/L	50	07/26/23 13:58	1311/8260D	
n-Butylbenzene	ND	25.0	50.0	ug/L	50	07/26/23 13:58	1311/8260D	
sec-Butylbenzene	ND	25.0	50.0	ug/L	50	07/26/23 13:58	1311/8260D	
tert-Butylbenzene	ND	25.0	50.0	ug/L	50	07/26/23 13:58	1311/8260D	
Carbon tetrachloride	ND	25.0	50.0	ug/L	50	07/26/23 13:58	1311/8260D	
Chlorobenzene	ND	12.5	25.0	ug/L	50	07/26/23 13:58	1311/8260D	
Chloroethane	ND	250	250	ug/L	50	07/26/23 13:58	1311/8260D	
Chloroform	ND	25.0	50.0	ug/L	50	07/26/23 13:58	1311/8260D	
Chloromethane	ND	125	250	ug/L	50	07/26/23 13:58	1311/8260D	
2-Chlorotoluene	ND	25.0	50.0	ug/L	50	07/26/23 13:58	1311/8260D	
4-Chlorotoluene	ND	25.0	50.0	ug/L	50	07/26/23 13:58	1311/8260D	
1,2-Dibromo-3-chloropropane	ND	125	250	ug/L	50	07/26/23 13:58	1311/8260D	
Dibromochloromethane	ND	25.0	50.0	ug/L	50	07/26/23 13:58	1311/8260D	
1,2-Dibromoethane (EDB)	ND	12.5	25.0	ug/L	50	07/26/23 13:58	1311/8260D	
Dibromomethane	ND	25.0	50.0	ug/L	50	07/26/23 13:58	1311/8260D	
1,2-Dichlorobenzene	ND	12.5	25.0	ug/L	50	07/26/23 13:58	1311/8260D	
1,3-Dichlorobenzene	ND	12.5	25.0	ug/L	50	07/26/23 13:58	1311/8260D	
1,4-Dichlorobenzene	ND	12.5	25.0	ug/L	50	07/26/23 13:58	1311/8260D	
Dichlorodifluoromethane	ND	25.0	50.0	ug/L	50	07/26/23 13:58	1311/8260D	
1,1-Dichloroethane	ND	12.5	25.0	ug/L	50	07/26/23 13:58	1311/8260D	
1,1-Dichloroethene	ND	12.5	25.0	ug/L	50	07/26/23 13:58	1311/8260D	
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/L	50	07/26/23 13:58	1311/8260D	
cis-1,2-Dichloroethene	ND	25.0	50.0	ug/L	50	07/26/23 13:58	1311/8260D	
trans-1,2-Dichloroethene	ND	12.5	25.0	ug/L	50	07/26/23 13:58	1311/8260D	
1,2-Dichloropropane	ND	12.5	25.0	ug/L	50	07/26/23 13:58	1311/8260D	
1,3-Dichloropropane	ND	25.0	50.0	ug/L	50	07/26/23 13:58	1311/8260D	

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

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
T100-071723-4 (A3G1130-01RE1)				**Matrix: Solid**		**Batch: 23G0807**		
2,2-Dichloropropane	ND	25.0	50.0	ug/L	50	07/26/23 13:58	1311/8260D	
1,1-Dichloropropene	ND	25.0	50.0	ug/L	50	07/26/23 13:58	1311/8260D	
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/L	50	07/26/23 13:58	1311/8260D	
trans-1,3-Dichloropropene	ND	25.0	50.0	ug/L	50	07/26/23 13:58	1311/8260D	
Ethylbenzene	**19.5**	12.5	25.0	ug/L	50	07/26/23 13:58	1311/8260D	J
Hexachlorobutadiene	ND	125	250	ug/L	50	07/26/23 13:58	1311/8260D	
2-Hexanone	ND	250	500	ug/L	50	07/26/23 13:58	1311/8260D	
Isopropylbenzene	ND	25.0	50.0	ug/L	50	07/26/23 13:58	1311/8260D	
4-Isopropyltoluene	ND	25.0	50.0	ug/L	50	07/26/23 13:58	1311/8260D	
4-Methyl-2-pentanone (MiBK)	ND	250	500	ug/L	50	07/26/23 13:58	1311/8260D	
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	ug/L	50	07/26/23 13:58	1311/8260D	
Methylene chloride	ND	250	500	ug/L	50	07/26/23 13:58	1311/8260D	
n-Propylbenzene	ND	12.5	25.0	ug/L	50	07/26/23 13:58	1311/8260D	
Styrene	ND	25.0	50.0	ug/L	50	07/26/23 13:58	1311/8260D	
1,1,1,2-Tetrachloroethane	ND	12.5	25.0	ug/L	50	07/26/23 13:58	1311/8260D	
1,1,2,2-Tetrachloroethane	ND	12.5	25.0	ug/L	50	07/26/23 13:58	1311/8260D	
Naphthalene	**4520**	100	100	ug/L	50	07/26/23 13:58	1311/8260D	Q-54e
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/L	50	07/26/23 13:58	1311/8260D	
Toluene	ND	25.0	50.0	ug/L	50	07/26/23 13:58	1311/8260D	
1,2,3-Trichlorobenzene	ND	25.0	50.0	ug/L	50	07/26/23 13:58	1311/8260D	
1,2,4-Trichlorobenzene	ND	50.0	100	ug/L	50	07/26/23 13:58	1311/8260D	
1,1,1-Trichloroethane	ND	12.5	25.0	ug/L	50	07/26/23 13:58	1311/8260D	
1,1,2-Trichloroethane	ND	12.5	25.0	ug/L	50	07/26/23 13:58	1311/8260D	
Trichloroethene (TCE)	ND	12.5	25.0	ug/L	50	07/26/23 13:58	1311/8260D	
Trichlorofluoromethane	ND	50.0	100	ug/L	50	07/26/23 13:58	1311/8260D	
1,2,3-Trichloropropane	ND	25.0	50.0	ug/L	50	07/26/23 13:58	1311/8260D	
1,2,4-Trimethylbenzene	ND	25.0	50.0	ug/L	50	07/26/23 13:58	1311/8260D	
1,3,5-Trimethylbenzene	ND	25.0	50.0	ug/L	50	07/26/23 13:58	1311/8260D	
Vinyl chloride	ND	12.5	25.0	ug/L	50	07/26/23 13:58	1311/8260D	
m,p-Xylene	ND	25.0	50.0	ug/L	50	07/26/23 13:58	1311/8260D	
o-Xylene	ND	12.5	25.0	ug/L	50	07/26/23 13:58	1311/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		*Recovery:*	*106 %*	*Limits:*	*80-120 %*	*1*	*07/26/23 13:58*	*1311/8260D*
Toluene-d8 (Surr)			*103 %*		*80-120 %*	*1*	*07/26/23 13:58*	*1311/8260D*

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ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

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
T100-071723-4 (A3G1130-01RE1)				**Matrix: Solid**		**Batch: 23G0807**		
Surrogate: 4-Bromofluorobenzene (Surr)		*Recovery: 98 %*		*Limits: 80-120 %*	*1*	*07 26 23 13:58*	*1311 8260D*	

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T100-071723-4 (A3G1130-01)				**Matrix: Solid**		**Batch: 23G0614**		
Acenaphthene	**7020000**	48400	97200	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Acenaphthylene	ND	492000	492000	ug/kg	1000	07/21/23 22:34	EPA 8270E	R-02
Anthracene	**5850000**	48400	97200	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Benz(a)anthracene	**3010000**	48400	97200	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Benzo(a)pyrene	**3360000**	72800	146000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Benzo(b)fluoranthene	**2670000**	72800	146000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Benzo(k)fluoranthene	**902000**	72800	146000	ug/kg	1000	07/21/23 22:34	EPA 8270E	M-05
Benzo(g,h,i)perylene	**2440000**	48400	97200	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Chrysene	**3940000**	48400	97200	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Dibenz(a,h)anthracene	**287000**	48400	97200	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Fluoranthene	**12500000**	48400	97200	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Fluorene	**4890000**	48400	97200	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Indeno(1,2,3-cd)pyrene	**1910000**	48400	97200	ug/kg	1000	07/21/23 22:34	EPA 8270E	
1-Methylnaphthalene	**3430000**	97200	194000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
2-Methylnaphthalene	**5780000**	97200	194000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Naphthalene	**8210000**	97200	194000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Phenanthrene	**25600000**	48400	97200	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Pyrene	**14200000**	48400	97200	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Carbazole	**756000**	72800	146000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Dibenzofuran	**667000**	48400	97200	ug/kg	1000	07/21/23 22:34	EPA 8270E	
2-Chlorophenol	ND	243000	484000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
4-Chloro-3-methylphenol	ND	484000	972000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
2,4-Dichlorophenol	ND	243000	484000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
2,4-Dimethylphenol	ND	243000	484000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
2,4-Dinitrophenol	ND	1210000	2430000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	1210000	2430000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
2-Methylphenol	ND	121000	243000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
3+4-Methylphenol(s)	ND	121000	243000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
2-Nitrophenol	ND	484000	972000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
4-Nitrophenol	ND	972000	972000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Pentachlorophenol (PCP)	ND	484000	972000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Phenol	ND	97200	194000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	243000	484000	ug/kg	1000	07/21/23 22:34	EPA 8270E	

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref	Notes
T100-071723-4 (A3G1130-01)				**Matrix: Solid**		**Batch: 23G0614**		
2,3,5,6-Tetrachlorophenol	ND	243000	484000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
2,4,5-Trichlorophenol	ND	243000	484000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
2,4,6-Trichlorophenol	ND	243000	484000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	728000	1460000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Butyl benzyl phthalate	ND	484000	972000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Diethylphthalate	ND	484000	972000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Dimethylphthalate	ND	484000	972000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Di-n-butylphthalate	ND	484000	972000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Di-n-octyl phthalate	ND	484000	972000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
N-Nitrosodimethylamine	ND	121000	243000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	121000	243000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
N-Nitrosodiphenylamine	ND	335000	335000	ug/kg	1000	07/21/23 22:34	EPA 8270E	R-02
Bis(2-Chloroethoxy) methane	ND	121000	243000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	121000	243000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	121000	243000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Hexachlorobenzene	ND	48400	97200	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Hexachlorobutadiene	ND	121000	243000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Hexachlorocyclopentadiene	ND	243000	484000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Hexachloroethane	ND	121000	243000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
2-Chloronaphthalene	ND	48400	97200	ug/kg	1000	07/21/23 22:34	EPA 8270E	
1,2,4-Trichlorobenzene	ND	121000	243000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
4-Bromophenyl phenyl ether	ND	121000	243000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	121000	243000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Aniline	ND	243000	484000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
4-Chloroaniline	ND	121000	243000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
2-Nitroaniline	ND	972000	1940000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
3-Nitroaniline	ND	972000	1940000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
4-Nitroaniline	ND	972000	1940000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Nitrobenzene	ND	484000	972000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
2,4-Dinitrotoluene	ND	972000	972000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
2,6-Dinitrotoluene	ND	484000	972000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Benzoic acid	ND	6080000	12100000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Benzyl alcohol	ND	243000	484000	ug/kg	1000	07/21/23 22:34	EPA 8270E	

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc. **2749 Lockport Road** **Niagara Falls, NY 14305**	Project: **Gasco - Oily Solids** Project Number: **111323** Project Manager: **Chip Byrd**	**Report ID:** **A3G1130 - 09 21 23 1330**

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T100-071723-4 (A3G1130-01)				**Matrix: Solid**		**Batch: 23G0614**		
Isophorone	ND	121000	243000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Azobenzene (1,2-DPH)	ND	121000	243000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	1210000	2430000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
3,3'-Dichlorobenzidine	ND	972000	1940000	ug/kg	1000	07/21/23 22:34	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	1210000	2430000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
1,3-Dinitrobenzene	ND	1210000	2430000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
1,4-Dinitrobenzene	ND	1210000	2430000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Pyridine	ND	243000	484000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
1,2-Dichlorobenzene	ND	121000	243000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
1,3-Dichlorobenzene	ND	121000	243000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
1,4-Dichlorobenzene	ND	121000	243000	ug/kg	1000	07/21/23 22:34	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		*Recovery:*	*395 %*	*Limits:*	*37-122 %*	*1000*	*07/21/23 22:34*	*EPA 8270E*	*S-05*
2-Fluorobiphenyl (Surr)			*300 %*		*44-120 %*	*1000*	*07/21/23 22:34*	*EPA 8270E*	*S-05*
Phenol-d6 (Surr)			*%*		*33-122 %*	*1000*	*07/21/23 22:34*	*EPA 8270E*	*S-01*
p-Terphenyl-d14 (Surr)			*510 %*		*54-127 %*	*1000*	*07/21/23 22:34*	*EPA 8270E*	*S-05*
2-Fluorophenol (Surr)			*5120 %*		*35-120 %*	*1000*	*07/21/23 22:34*	*EPA 8270E*	*S-05*
2,4,6-Tribromophenol (Surr)			*%*		*39-132 %*	*1000*	*07/21/23 22:34*	*EPA 8270E*	*S-01*

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

ANALYTICAL SAMPLE RESULTS

TCLP Semivolatile Organic Compounds by EPA 1311/8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T100-071723-4 (A3G1130-01)				**Matrix: Solid**		**Batch: 23G0660**		
Naphthalene	**2170**	10.0	20.0	ug/L	50	07/24/23 16:24	1311/8270E-LL	**B**
Carbazole	**200**	7.50	15.0	ug/L	50	07/24/23 16:24	1311/8270E-LL	
T100-071723-4 (A3G1130-01RE1)				**Matrix: Solid**		**Batch: 23G0660**		
Acenaphthene	**271**	1.00	2.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Acenaphthylene	ND	80.0	80.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	R-02
Anthracene	**26.4**	1.00	2.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Benz(a)anthracene	ND	1.00	2.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Benzo(a)pyrene	ND	1.50	3.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Benzo(b)fluoranthene	ND	1.50	3.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Benzo(k)fluoranthene	ND	1.50	3.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Benzo(g,h,i)perylene	ND	1.00	2.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Chrysene	ND	1.00	2.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Dibenz(a,h)anthracene	ND	1.00	2.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Fluoranthene	**18.8**	1.00	2.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Fluorene	**109**	1.00	2.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Indeno(1,2,3-cd)pyrene	ND	1.00	2.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
1-Methylnaphthalene	**261**	2.00	4.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
2-Methylnaphthalene	**393**	2.00	4.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Phenanthrene	**200**	1.00	2.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Pyrene	**18.4**	1.00	2.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Dibenzofuran	**22.2**	1.00	2.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
2-Chlorophenol	ND	5.00	10.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	
4-Chloro-3-methylphenol	ND	10.0	20.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	
2,4-Dichlorophenol	ND	5.00	10.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	
2,4-Dimethylphenol	ND	5.00	10.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	
2,4-Dinitrophenol	ND	25.0	50.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	
4,6-Dinitro-2-methylphenol	ND	25.0	50.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	
2-Methylphenol	ND	2.50	5.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
3+4-Methylphenol(s)	ND	2.50	5.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
2-Nitrophenol	ND	10.0	20.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	
4-Nitrophenol	ND	10.0	20.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Pentachlorophenol (PCP)	ND	10.0	20.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	

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ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

ANALYTICAL SAMPLE RESULTS

TCLP Semivolatile Organic Compounds by EPA 1311/8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref	Notes
T100-071723-4 (A3G1130-01RE1)				**Matrix: Solid**		**Batch: 23G0660**		
Phenol	ND	20.0	40.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	
2,3,4,6-Tetrachlorophenol	ND	5.00	10.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	
2,3,5,6-Tetrachlorophenol	ND	5.00	10.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	
2,4,5-Trichlorophenol	ND	5.00	10.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	
2,4,6-Trichlorophenol	ND	5.00	10.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Bis(2-ethylhexyl)phthalate	ND	20.0	40.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Butyl benzyl phthalate	ND	20.0	40.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Diethylphthalate	ND	20.0	40.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Dimethylphthalate	ND	20.0	40.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Di-n-butylphthalate	ND	20.0	40.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Di-n-octyl phthalate	ND	20.0	40.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	
N-Nitrosodimethylamine	ND	2.50	5.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
N-Nitroso-di-n-propylamine	ND	2.50	5.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
N-Nitrosodiphenylamine	ND	5.00	5.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Bis(2-Chloroethoxy) methane	ND	2.50	5.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Bis(2-Chloroethyl) ether	ND	2.50	5.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
2,2'-Oxybis(1-Chloropropane)	ND	2.50	5.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Hexachlorobenzene	ND	1.00	2.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Hexachlorocyclopentadiene	ND	5.00	10.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Hexachloroethane	ND	2.50	5.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
2-Chloronaphthalene	ND	1.00	2.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
1,2,4-Trichlorobenzene	ND	0.500	5.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
4-Bromophenyl phenyl ether	ND	2.50	5.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
4-Chlorophenyl phenyl ether	ND	2.50	5.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Aniline	ND	5.00	10.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	
4-Chloroaniline	ND	2.50	5.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
2-Nitroaniline	ND	20.0	40.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	
3-Nitroaniline	ND	20.0	40.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	
4-Nitroaniline	ND	20.0	40.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Nitrobenzene	ND	10.0	20.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	
2,4-Dinitrotoluene	ND	10.0	20.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	
2,6-Dinitrotoluene	ND	10.0	20.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

ANALYTICAL SAMPLE RESULTS

TCLP Semivolatile Organic Compounds by EPA 1311/8270E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T100-071723-4 (A3G1130-01RE1)				**Matrix: Solid**		**Batch: 23G0660**		
Benzoic acid	ND	125	250	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Benzyl alcohol	ND	10.0	20.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Isophorone	ND	2.50	5.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Azobenzene (1,2-DPH)	ND	2.50	5.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Bis(2-Ethylhexyl) adipate	ND	25.0	50.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	
1,2-Dinitrobenzene	ND	25.0	50.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	
1,3-Dinitrobenzene	ND	25.0	50.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	
1,4-Dinitrobenzene	ND	25.0	50.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Pyridine	ND	10.0	20.0	ug/L	10	07/24/23 19:17	1311/8270E-LL	
1,2-Dichlorobenzene	ND	2.50	5.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	Q-30
1,3-Dichlorobenzene	ND	2.50	5.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
1,4-Dichlorobenzene	ND	2.50	5.00	ug/L	10	07/24/23 19:17	1311/8270E-LL	
Surrogate: Nitrobenzene-d5 (Surr)		*Recovery:*	*57 %*	*Limits:* *44-120 %*	*10*	*07/24/23 19:17*	*1311/8270E-LL*	
2-Fluorobiphenyl (Surr)			*56 %*	*44-120 %*	*10*	*07/24/23 19:17*	*1311/8270E-LL*	
Phenol-d6 (Surr)			*24 %*	*10-133 %*	*10*	*07/24/23 19:17*	*1311/8270E-LL*	
p-Terphenyl-d14 (Surr)			*83 %*	*50-134 %*	*10*	*07/24/23 19:17*	*1311/8270E-LL*	
2-Fluorophenol (Surr)			*32 %*	*19-120 %*	*10*	*07/24/23 19:17*	*1311/8270E-LL*	
2,4,6-Tribromophenol (Surr)			*115 %*	*43-140 %*	*10*	*07/24/23 19:17*	*1311/8270E-LL*	*Q-41*

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2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

ANALYTICAL SAMPLE RESULTS

Mercury by Cold Vapor Atomic Fluorescence (CVAF) by EPA 1631E

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T100-071723-4 (A3G1130-01RE4)				**Matrix: Solid**		**Batch: 23G0914**		
Mercury	**4.10**	1.66	3.31	ug/kg	1	07/28/23 14.13	EPA 1631E	

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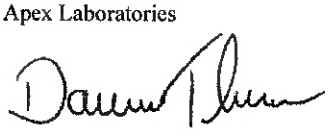

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ANALYTICAL REPORT

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Sevenson Environmental Services, Inc.	Project: Gasco - Oily Solids	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T100-071723-4 (A3G1130-01)				**Matrix: Solid**				
Batch: 23G0515								
Arsenic	**3100**	501	1000	ug/kg	10	07/19/23 11:04	EPA 6020B	
Barium	**49900**	501	1000	ug/kg	10	07/19/23 11:04	EPA 6020B	
Cadmium	ND	100	200	ug/kg	10	07/19/23 11:04	EPA 6020B	
Chromium	**10100**	501	1000	ug/kg	10	07/19/23 11:04	EPA 6020B	
Lead	**1060**	100	200	ug/kg	10	07/19/23 11:04	EPA 6020B	
Mercury	**112**	40.1	80.2	ug/kg	10	07/19/23 11:04	EPA 6020B	
Selenium	ND	501	1000	ug/kg	10	07/19/23 11:04	EPA 6020B	
Silver	ND	100	200	ug/kg	10	07/19/23 11:04	EPA 6020B	

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2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

ANALYTICAL SAMPLE RESULTS

TCLP Metals by EPA 6020B (ICPMS)

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T100-071723-4 (A3G1130-01)				**Matrix: Solid**				
Batch: 23G0635								
Arsenic	ND	50 0	100	ug/L	10	07/21/23 18.49	1311/6020B	
Barium	ND	2500	5000	ug/L	10	07/21/23 18 49	1311/6020B	
Cadmium	ND	50 0	100	ug/L	10	07/21/23 18:49	1311/6020B	
Chromium	ND	50 0	100	ug/L	10	07/21/23 18.49	1311/6020B	
Lead	ND	25 0	50.0	ug/L	10	07/21/23 18:49	1311/6020B	
Mercury	ND	3 75	7.00	ug/L	10	07/21/23 18:49	1311/6020B	
Selenium	ND	50.0	100	ug/L	10	07/21/23 18:49	1311/6020B	
Silver	ND	50 0	100	ug/L	10	07/21/23 18 49	1311/6020B	

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: Gasco - Oily Solids	
2749 Lockport Road	Project Number: 111323	**Report ID:**
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3G1130 - 09 21 23 1330

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
T100-071723-4 (A3G1130-01)				**Matrix: Solid**		**Batch: 23G0673**		
Total Cyanide	**2480**	499	998	ug/kg	10	07/24/23 14:52	D7511-12	

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: Gasco - Oily Solids	
2749 Lockport Road	Project Number: 111323	Report ID:
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3G1130 - 09 21 23 1330

ANALYTICAL SAMPLE RESULTS

TCLP Extraction by EPA 1311

Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T100-071723-4 (A3G1130-01)				**Matrix: Solid**		**Batch: 23G0584**		
TCLP Extraction	PREP	---		N/A	1	07/20/23 16:00	EPA 1311	
TCLP Extraction	PREP	---		N/A	1	07/20/23 16:00	EPA 1311	
TCLP ZHE Extraction	PREP	---		N/A	1	07/20/23 14:31	EPA 1311 ZHE	

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Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

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 23G0472 - EPA 3546 (Fuels)							**Solid**					
Blank (23G0472-BLK1)			Prepared: 07/18/23 05:14 Analyzed: 07/18/23 18:21									
NWTPH-Dx												
Diesel	ND	10000	20000	ug/kg	1	---	---	---	---	---	---	
Oil	ND	20000	40000	ug/kg	1	---	---	---	---	---	---	
Mineral Oil	ND	20000	40000	ug/kg	1	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 88 %*	*Limits: 50-150 %*		*Dilution: 1x*							
LCS (23G0472-BS1)			Prepared: 07/18/23 05:14 Analyzed: 07/18/23 18:42									
NWTPH-Dx												
Diesel	114000	10000	20000	ug/kg	1	125000	---	91	38-132%	---	---	
Surr: o-Terphenyl (Surr)		*Recovery: 92 %*	*Limits: 50-150 %*		*Dilution: 1x*							
Duplicate (23G0472-DUP1)			Prepared: 07/18/23 05:14 Analyzed: 07/18/23 23:47									
QC Source Sample: Non-SDG (A3G0920-01)												
Diesel	**4560000**	48200	96400	ug/kg	5	---	4810000	---	---	5	30%	
Oil	**602000**	96400	193000	ug/kg	5	---	614000	---	---	2	30%	
Mineral Oil	ND	96400	193000	ug/kg	5	---	ND	---	---	---	30%	
Surr: o-Terphenyl (Surr)		*Recovery: 114 %*	*Limits: 50-150 %*		*Dilution: 5x*							*S-05*
Duplicate (23G0472-DUP2)			Prepared: 07/18/23 11:43 Analyzed: 07/19/23 04:10									
QC Source Sample: Non-SDG (A3G1149-02)												
Diesel	ND	9510	19000	ug/kg	1	---	ND	---	---	---	30%	
Oil	ND	19000	38100	ug/kg	1	---	ND	---	---	---	30%	
Mineral Oil	ND	19000	38100	ug/kg	1	---	ND	---	---	---	30%	
Surr: o-Terphenyl (Surr)		*Recovery: 71 %*	*Limits: 50-150 %*		*Dilution: 1x*							

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2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

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 23G0494 - EPA 5035A							**Solid**					
Blank (23G0494-BLK1)			Prepared: 07/18/23 10:00 Analyzed: 07/18/23 12:47									
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	2500	5000	ug/kg	50	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 92 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*96 %*	*50-150 %*			*"*					
LCS (23G0494-BS2)			Prepared: 07/18/23 10:00 Analyzed: 07/18/23 12:17									
NWTPH-Gx (MS)												
Gasoline Range Organics	20900	2500	5000	ug/kg	50	25000	---	83	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 92 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*95 %*	*50-150 %*			*"*					
Duplicate (23G0494-DUP1)			Prepared: 07/14/23 12:00 Analyzed: 07/18/23 14:28									
QC Source Sample: Non-SDG (A3G1104-02)												
Gasoline Range Organics	**219000**	6680	13400	ug/kg	100	---	230000	---	---	5	30%	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 93 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*94 %*	*50-150 %*			*"*					
Duplicate (23G0494-DUP2)			Prepared: 07/17/23 11:30 Analyzed: 07/18/23 15:44									TEMP
QC Source Sample: Non-SDG (A3G1126-01)												
Gasoline Range Organics	ND	5100	10200	ug/kg	100	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 91 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*93 %*	*50-150 %*			*"*					

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ANALYTICAL REPORT

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2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0494 - EPA 5035A							**Solid**					
Blank (23G0494-BLK1)			Prepared: 07/18/23 10:00 Analyzed: 07/18/23 12:47									
5035A/8260D												
Acetone	ND	500	1000	ug/kg	50	---	---	---	---	---	---	
Acrylonitrile	ND	50.0	100	ug/kg	50	---	---	---	---	---	---	
Benzene	ND	5.00	10.0	ug/kg	50	---	---	---	---	---	---	
Bromobenzene	ND	12.5	25.0	ug/kg	50	---	---	---	---	---	---	
Bromochloromethane	ND	25.0	50.0	ug/kg	50	---	---	---	---	---	---	
Bromodichloromethane	ND	25.0	50.0	ug/kg	50	---	---	---	---	---	---	
Bromoform	ND	50.0	100	ug/kg	50	---	---	---	---	---	---	
Bromomethane	ND	500	500	ug/kg	50	---	---	---	---	---	---	
2-Butanone (MEK)	ND	250	500	ug/kg	50	---	---	---	---	---	---	
n-Butylbenzene	ND	25.0	50.0	ug/kg	50	---	---	---	---	---	---	
sec-Butylbenzene	ND	25.0	50.0	ug/kg	50	---	---	---	---	---	---	
tert-Butylbenzene	ND	25.0	50.0	ug/kg	50	---	---	---	---	---	---	
Carbon disulfide	ND	250	500	ug/kg	50	---	---	---	---	---	---	
Carbon tetrachloride	ND	25.0	50.0	ug/kg	50	---	---	---	---	---	---	
Chlorobenzene	ND	12.5	25.0	ug/kg	50	---	---	---	---	---	---	
Chloroethane	ND	500	500	ug/kg	50	---	---	---	---	---	---	
Chloroform	ND	25.0	50.0	ug/kg	50	---	---	---	---	---	---	
Chloromethane	ND	125	250	ug/kg	50	---	---	---	---	---	---	
2-Chlorotoluene	ND	25.0	50.0	ug/kg	50	---	---	---	---	---	---	
4-Chlorotoluene	ND	25.0	50.0	ug/kg	50	---	---	---	---	---	---	
Dibromochloromethane	ND	50.0	100	ug/kg	50	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	250	250	ug/kg	50	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	25.0	50.0	ug/kg	50	---	---	---	---	---	---	
Dibromomethane	ND	25.0	50.0	ug/kg	50	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	12.5	25.0	ug/kg	50	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	12.5	25.0	ug/kg	50	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	12.5	25.0	ug/kg	50	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	50.0	100	ug/kg	50	---	---	---	---	---	---	
1,1-Dichloroethane	ND	12.5	25.0	ug/kg	50	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/kg	50	---	---	---	---	---	---	
1,1-Dichloroethene	ND	12.5	25.0	ug/kg	50	---	---	---	---	---	---	
cis-1,2-Dichloroethene	ND	12.5	25.0	ug/kg	50	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	12.5	25.0	ug/kg	50	---	---	---	---	---	---	

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Darwin Thomas, Business Development Director

APEX LABORATORIES

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6700 S.W. Sandburg Street
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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0494 - EPA 5035A							**Solid**					
Blank (23G0494-BLK1)			Prepared: 07/18/23 10:00 Analyzed: 07/18/23 12:47									
1,2-Dichloropropane	ND	12.5	25.0	ug/kg	50	---	---	---	---	---	---	
1,3-Dichloropropane	ND	25.0	50.0	ug/kg	50	---	---	---	---	---	---	
2,2-Dichloropropane	ND	25.0	50.0	ug/kg	50	---	---	---	---	---	---	
1,1-Dichloropropene	ND	25.0	50.0	ug/kg	50	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/kg	50	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	25.0	50.0	ug/kg	50	---	---	---	---	---	---	
Ethylbenzene	ND	12.5	25.0	ug/kg	50	---	---	---	---	---	---	
Hexachlorobutadiene	ND	50.0	100	ug/kg	50	---	---	---	---	---	---	
2-Hexanone	ND	250	500	ug/kg	50	---	---	---	---	---	---	
Isopropylbenzene	ND	25.0	50.0	ug/kg	50	---	---	---	---	---	---	
4-Isopropyltoluene	ND	25.0	50.0	ug/kg	50	---	---	---	---	---	---	
Methylene chloride	ND	250	500	ug/kg	50	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	250	500	ug/kg	50	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	ug/kg	50	---	---	---	---	---	---	
Naphthalene	ND	50.0	100	ug/kg	50	---	---	---	---	---	---	
n-Propylbenzene	ND	12.5	25.0	ug/kg	50	---	---	---	---	---	---	
Styrene	ND	25.0	50.0	ug/kg	50	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	12.5	25.0	ug/kg	50	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	25.0	50.0	ug/kg	50	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/kg	50	---	---	---	---	---	---	
Toluene	ND	25.0	50.0	ug/kg	50	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	125	250	ug/kg	50	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	125	250	ug/kg	50	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	12.5	25.0	ug/kg	50	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	12.5	25.0	ug/kg	50	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	12.5	25.0	ug/kg	50	---	---	---	---	---	---	
Trichlorofluoromethane	ND	50.0	100	ug/kg	50	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	25.0	50.0	ug/kg	50	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	25.0	50.0	ug/kg	50	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	25.0	50.0	ug/kg	50	---	---	---	---	---	---	
Vinyl chloride	ND	12.5	25.0	ug/kg	50	---	---	---	---	---	---	
m,p-Xylene	ND	25.0	50.0	ug/kg	50	---	---	---	---	---	---	
o-Xylene	ND	12.5	25.0	ug/kg	50	---	---	---	---	---	---	

Surr: 1,4-Difluorobenzene (Surr) *Recovery: 113 %* *Limits: 80-120 %* *Dilution: 1x*

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Darwin Thomas, Business Development Director

APEX LABORATORIES

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ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0494 - EPA 5035A									Solid			
Blank (23G0494-BLK1)			Prepared: 07/18/23 10:00 Analyzed: 07/18/23 12:47									
Surr: Toluene-d8 (Surr)			*Recovery: 98 %*	*Limits: 80-120 %*			*Dilution: 1x*					
4-Bromofluorobenzene (Surr)			*100 %*	*79-120 %*			"					
LCS (23G0494-BS1)			Prepared: 07/18/23 10:00 Analyzed: 07/18/23 11:52									
5035A/8260D												
Acetone	1790	500	1000	ug/kg	50	2000	---	89	80-120%	---	---	
Acrylonitrile	1150	50.0	100	ug/kg	50	1000	---	115	80-120%	---	---	
Benzene	1170	5.00	10.0	ug/kg	50	1000	---	117	80-120%	---	---	
Bromobenzene	970	12.5	25.0	ug/kg	50	1000	---	97	80-120%	---	---	
Bromochloromethane	992	25.0	50.0	ug/kg	50	1000	---	99	80-120%	---	---	
Bromodichloromethane	846	25.0	50.0	ug/kg	50	1000	---	85	80-120%	---	---	
Bromoform	800	50.0	100	ug/kg	50	1000	---	80	80-120%	---	---	
Bromomethane	968	500	500	ug/kg	50	1000	---	97	80-120%	---	---	
2-Butanone (MEK)	1980	250	500	ug/kg	50	2000	---	99	80-120%	---	---	
n-Butylbenzene	907	25.0	50.0	ug/kg	50	1000	---	91	80-120%	---	---	
sec-Butylbenzene	960	25.0	50.0	ug/kg	50	1000	---	96	80-120%	---	---	
tert-Butylbenzene	838	25.0	50.0	ug/kg	50	1000	---	84	80-120%	---	---	
Carbon disulfide	1120	250	500	ug/kg	50	1000	---	112	80-120%	---	---	
Carbon tetrachloride	892	25.0	50.0	ug/kg	50	1000	---	89	80-120%	---	---	
Chlorobenzene	954	12.5	25.0	ug/kg	50	1000	---	95	80-120%	---	---	
Chloroethane	783	500	500	ug/kg	50	1000	---	**78**	**80-120%**	---	---	Q-55
Chloroform	938	25.0	50.0	ug/kg	50	1000	---	94	80-120%	---	---	
Chloromethane	982	125	250	ug/kg	50	1000	---	98	80-120%	---	---	
2-Chlorotoluene	924	25.0	50.0	ug/kg	50	1000	---	92	80-120%	---	---	
4-Chlorotoluene	870	25.0	50.0	ug/kg	50	1000	---	87	80-120%	---	---	
Dibromochloromethane	814	50.0	100	ug/kg	50	1000	---	81	80-120%	---	---	
1,2-Dibromo-3-chloropropane	766	250	250	ug/kg	50	1000	---	**77**	**80-120%**	---	---	Q-55
1,2-Dibromoethane (EDB)	933	25.0	50.0	ug/kg	50	1000	---	93	80-120%	---	---	
Dibromomethane	1000	25.0	50.0	ug/kg	50	1000	---	100	80-120%	---	---	
1,2-Dichlorobenzene	894	12.5	25.0	ug/kg	50	1000	---	89	80-120%	---	---	
1,3-Dichlorobenzene	892	12.5	25.0	ug/kg	50	1000	---	89	80-120%	---	---	
1,4-Dichlorobenzene	904	12.5	25.0	ug/kg	50	1000	---	90	80-120%	---	---	
Dichlorodifluoromethane	1050	50.0	100	ug/kg	50	1000	---	105	80-120%	---	---	
1,1-Dichloroethane	998	12.5	25.0	ug/kg	50	1000	---	100	80-120%	---	---	

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Darwin Thomas, Business Development Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0494 - EPA 5035A							**Solid**					
LCS (23G0494-BS1)			Prepared: 07/18/23 10:00 Analyzed: 07/18/23 11:52									
1,2-Dichloroethane (EDC)	843	12.5	25.0	ug/kg	50	1000	---	84	80-120%	---	---	
1,1-Dichloroethene	1050	12.5	25.0	ug/kg	50	1000	---	105	80-120%	---	---	
cis-1,2-Dichloroethene	947	12.5	25.0	ug/kg	50	1000	---	95	80-120%	---	---	
trans-1,2-Dichloroethene	1010	12.5	25.0	ug/kg	50	1000	---	101	80-120%	---	---	
1,2-Dichloropropane	1070	12.5	25.0	ug/kg	50	1000	---	107	80-120%	---	---	
1,3-Dichloropropane	908	25.0	50.0	ug/kg	50	1000	---	91	80-120%	---	---	
2,2-Dichloropropane	880	25.0	50.0	ug/kg	50	1000	---	88	80-120%	---	---	
1,1-Dichloropropene	1060	25.0	50.0	ug/kg	50	1000	---	106	80-120%	---	---	
cis-1,3-Dichloropropene	890	25.0	50.0	ug/kg	50	1000	---	89	80-120%	---	---	
trans-1,3-Dichloropropene	838	25.0	50.0	ug/kg	50	1000	---	84	80-120%	---	---	
Ethylbenzene	911	12.5	25.0	ug/kg	50	1000	---	91	80-120%	---	---	
Hexachlorobutadiene	848	50.0	100	ug/kg	50	1000	---	85	80-120%	---	---	
2-Hexanone	1600	250	500	ug/kg	50	2000	---	80	80-120%	---	---	
Isopropylbenzene	933	25.0	50.0	ug/kg	50	1000	---	93	80-120%	---	---	
4-Isopropyltoluene	933	25.0	50.0	ug/kg	50	1000	---	93	80-120%	---	---	
Methylene chloride	1210	250	500	ug/kg	50	1000	---	**121**	**80-120%**	---	---	Q-56
4-Methyl-2-pentanone (MiBK)	1700	250	500	ug/kg	50	2000	---	85	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	959	25.0	50.0	ug/kg	50	1000	---	96	80-120%	---	---	
Naphthalene	886	50.0	100	ug/kg	50	1000	---	89	80-120%	---	---	
n-Propylbenzene	928	12.5	25.0	ug/kg	50	1000	---	93	80-120%	---	---	
Styrene	942	25.0	50.0	ug/kg	50	1000	---	94	80-120%	---	---	
1,1,1,2-Tetrachloroethane	812	12.5	25.0	ug/kg	50	1000	---	81	80-120%	---	---	
1,1,2,2-Tetrachloroethane	890	25.0	50.0	ug/kg	50	1000	---	89	80-120%	---	---	
Tetrachloroethene (PCE)	999	12.5	25.0	ug/kg	50	1000	---	100	80-120%	---	---	
Toluene	940	25.0	50.0	ug/kg	50	1000	---	94	80-120%	---	---	
1,2,3-Trichlorobenzene	874	125	250	ug/kg	50	1000	---	87	80-120%	---	---	
1,2,4-Trichlorobenzene	848	125	250	ug/kg	50	1000	---	85	80-120%	---	---	
1,1,1-Trichloroethane	924	12.5	25.0	ug/kg	50	1000	---	92	80-120%	---	---	
1,1,2-Trichloroethane	970	12.5	25.0	ug/kg	50	1000	---	97	80-120%	---	---	
Trichloroethene (TCE)	1110	12.5	25.0	ug/kg	50	1000	---	111	80-120%	---	---	
Trichlorofluoromethane	808	50.0	100	ug/kg	50	1000	---	81	80-120%	---	---	
1,2,3-Trichloropropane	819	25.0	50.0	ug/kg	50	1000	---	82	80-120%	---	---	
1,2,4-Trimethylbenzene	946	25.0	50.0	ug/kg	50	1000	---	95	80-120%	---	---	
1,3,5-Trimethylbenzene	918	25.0	50.0	ug/kg	50	1000	---	92	80-120%	---	---	

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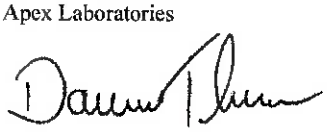

Darwin Thomas, Business Development Director

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ANALYTICAL REPORT

AMENDED REPORT

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

Project: Gasco - Oily Solids
Project Number: 111323
Project Manager: Chip Byrd

Report ID:
A3G1130 - 09 21 23 1330

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0494 - EPA 5035A									Solid			
LCS (23G0494-BS1)			Prepared: 07/18/23 10:00 Analyzed: 07/18/23 11:52									
Vinyl chloride	1200	12.5	25.0	ug/kg	50	1000	---	120	80-120%	---	---	
m,p-Xylene	1810	25.0	50.0	ug/kg	50	2000	---	90	80-120%	---	---	
o-Xylene	879	12.5	25.0	ug/kg	50	1000	---	88	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 113 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*100 %*		*80-120 %*				"			
4-Bromofluorobenzene (Surr)			*100 %*		*79-120 %*				"			
Duplicate (23G0494-DUP1)			Prepared: 07/14/23 12:00 Analyzed: 07/18/23 14:28									
QC Source Sample: Non-SDG (A3G1104-02)												
Acetone	ND	1340	2670	ug/kg	100	---	ND	---	---	---	30%	
Acrylonitrile	ND	134	267	ug/kg	100	---	ND	---	---	---	30%	
Benzene	ND	13.4	26.7	ug/kg	100	---	ND	---	---	---	30%	
Bromobenzene	ND	33.4	66.8	ug/kg	100	---	ND	---	---	---	30%	
Bromochloromethane	ND	66.8	134	ug/kg	100	---	ND	---	---	---	30%	
Bromodichloromethane	ND	66.8	134	ug/kg	100	---	ND	---	---	---	30%	
Bromoform	ND	134	267	ug/kg	100	---	ND	---	---	---	30%	
Bromomethane	ND	1340	1340	ug/kg	100	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	668	1340	ug/kg	100	---	ND	---	---	---	30%	
n-Butylbenzene	**756**	66.8	134	ug/kg	100	---	798	---	---	5	30%	M-02
sec-Butylbenzene	**513**	66.8	134	ug/kg	100	---	532	---	---	4	30%	
tert-Butylbenzene	ND	66.8	134	ug/kg	100	---	ND	---	---	---	30%	
Carbon disulfide	ND	668	1340	ug/kg	100	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	66.8	134	ug/kg	100	---	ND	---	---	---	30%	
Chlorobenzene	ND	33.4	66.8	ug/kg	100	---	ND	---	---	---	30%	
Chloroethane	ND	1340	1340	ug/kg	100	---	ND	---	---	---	30%	
Chloroform	ND	66.8	134	ug/kg	100	---	ND	---	---	---	30%	
Chloromethane	ND	334	668	ug/kg	100	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	66.8	134	ug/kg	100	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	66.8	134	ug/kg	100	---	ND	---	---	---	30%	
Dibromochloromethane	ND	134	267	ug/kg	100	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	668	668	ug/kg	100	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	66.8	134	ug/kg	100	---	ND	---	---	---	30%	
Dibromomethane	ND	66.8	134	ug/kg	100	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	33.4	66.8	ug/kg	100	---	ND	---	---	---	30%	

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Darwin Thomas, Business Development Director

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0494 - EPA 5035A							**Solid**					
Duplicate (23G0494-DUP1)			Prepared: 07/14/23 12:00 Analyzed: 07/18/23 14:28									
QC Source Sample: Non-SDG (A3G1104-02)												
1,3-Dichlorobenzene	ND	33.4	66.8	ug/kg	100	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	33.4	66.8	ug/kg	100	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	134	267	ug/kg	100	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	33.4	66.8	ug/kg	100	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	33.4	66.8	ug/kg	100	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	33.4	66.8	ug/kg	100	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	33.4	66.8	ug/kg	100	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	33.4	66.8	ug/kg	100	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	33.4	66.8	ug/kg	100	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	66.8	134	ug/kg	100	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	66.8	134	ug/kg	100	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	66.8	134	ug/kg	100	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	66.8	134	ug/kg	100	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	66.8	134	ug/kg	100	---	ND	---	---	---	30%	
Ethylbenzene	**168**	33.4	66.8	ug/kg	100	---	184	---	---	9	30%	
Hexachlorobutadiene	ND	134	267	ug/kg	100	---	ND	---	---	---	30%	
2-Hexanone	ND	668	1340	ug/kg	100	---	ND	---	---	---	30%	
Isopropylbenzene	**200**	66.8	134	ug/kg	100	---	218	---	---	8	30%	
4-Isopropyltoluene	**617**	66.8	134	ug/kg	100	---	651	---	---	5	30%	M-02
Methylene chloride	ND	668	1340	ug/kg	100	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	668	1340	ug/kg	100	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	66.8	134	ug/kg	100	---	ND	---	---	---	30%	
Naphthalene	**2230**	134	267	ug/kg	100	---	2280	---	---	2	30%	
n-Propylbenzene	**504**	33.4	66.8	ug/kg	100	---	541	---	---	7	30%	
Styrene	ND	66.8	134	ug/kg	100	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	33.4	66.8	ug/kg	100	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	134	134	ug/kg	100	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	33.4	66.8	ug/kg	100	---	ND	---	---	---	30%	
Toluene	ND	66.8	134	ug/kg	100	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	334	668	ug/kg	100	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	334	668	ug/kg	100	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	33.4	66.8	ug/kg	100	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	33.4	66.8	ug/kg	100	---	ND	---	---	---	30%	

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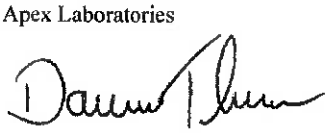

Darwin Thomas, Business Development Director

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Apex Laboratories, LLC
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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0494 - EPA 5035A							**Solid**					
Duplicate (23G0494-DUP1)			Prepared: 07/14/23 12:00 Analyzed: 07/18/23 14:28									
QC Source Sample: Non-SDG (A3G1104-02)												
Trichloroethene (TCE)	ND	33.4	66.8	ug/kg	100	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	134	267	ug/kg	100	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	66.8	134	ug/kg	100	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	**3540**	66.8	134	ug/kg	100	---	3710	---	---	5	30%	
1,3,5-Trimethylbenzene	**253**	66.8	134	ug/kg	100	---	269	---	---	6	30%	
Vinyl chloride	ND	33.4	66.8	ug/kg	100	---	ND	---	---	---	30%	
m,p-Xylene	**305**	66.8	134	ug/kg	100	---	325	---	---	6	30%	
o-Xylene	**48.1**	33.4	66.8	ug/kg	100	---	49.4	---	---	3	30%	J
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 117 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*97 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*102 %*		*79-120 %*				*"*			
Duplicate (23G0494-DUP2)			Prepared: 07/17/23 11:30 Analyzed: 07/18/23 15:44									TEMP
QC Source Sample: Non-SDG (A3G1126-01)												
Acetone	ND	1020	2040	ug/kg	100	---	ND	---	---	---	30%	
Acrylonitrile	ND	102	204	ug/kg	100	---	ND	---	---	---	30%	
Benzene	ND	10.2	20.4	ug/kg	100	---	ND	---	---	---	30%	
Bromobenzene	ND	25.5	51.0	ug/kg	100	---	ND	---	---	---	30%	
Bromochloromethane	ND	51.0	102	ug/kg	100	---	ND	---	---	---	30%	
Bromodichloromethane	ND	51.0	102	ug/kg	100	---	ND	---	---	---	30%	
Bromoform	ND	102	204	ug/kg	100	---	ND	---	---	---	30%	
Bromomethane	ND	1020	1020	ug/kg	100	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	510	1020	ug/kg	100	---	ND	---	---	---	30%	
n-Butylbenzene	ND	51.0	102	ug/kg	100	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	51.0	102	ug/kg	100	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	51.0	102	ug/kg	100	---	ND	---	---	---	30%	
Carbon disulfide	ND	510	1020	ug/kg	100	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	51.0	102	ug/kg	100	---	ND	---	---	---	30%	
Chlorobenzene	ND	25.5	51.0	ug/kg	100	---	ND	---	---	---	30%	
Chloroethane	ND	1020	1020	ug/kg	100	---	ND	---	---	---	30%	
Chloroform	ND	51.0	102	ug/kg	100	---	ND	---	---	---	30%	
Chloromethane	ND	255	510	ug/kg	100	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	51.0	102	ug/kg	100	---	ND	---	---	---	30%	

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Darwin Thomas, Business Development Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0494 - EPA 5035A							**Solid**					
Duplicate (23G0494-DUP2)			Prepared: 07/17/23 11:30 Analyzed: 07/18/23 15:44									TEMP
QC Source Sample: Non-SDG (A3G1126-01)												
4-Chlorotoluene	ND	51.0	102	ug/kg	100	---	ND	---	---	---	30%	
Dibromochloromethane	ND	102	204	ug/kg	100	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	510	510	ug/kg	100	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	51.0	102	ug/kg	100	---	ND	---	---	---	30%	
Dibromomethane	ND	51.0	102	ug/kg	100	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	25.5	51.0	ug/kg	100	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	25.5	51.0	ug/kg	100	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	25.5	51.0	ug/kg	100	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	102	204	ug/kg	100	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	25.5	51.0	ug/kg	100	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	25.5	51.0	ug/kg	100	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	25.5	51.0	ug/kg	100	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	25.5	51.0	ug/kg	100	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	25.5	51.0	ug/kg	100	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	25.5	51.0	ug/kg	100	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	51.0	102	ug/kg	100	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	51.0	102	ug/kg	100	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	51.0	102	ug/kg	100	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	51.0	102	ug/kg	100	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	51.0	102	ug/kg	100	---	ND	---	---	---	30%	
Ethylbenzene	ND	25.5	51.0	ug/kg	100	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	102	204	ug/kg	100	---	ND	---	---	---	30%	
2-Hexanone	ND	510	1020	ug/kg	100	---	ND	---	---	---	30%	
Isopropylbenzene	ND	51.0	102	ug/kg	100	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	51.0	102	ug/kg	100	---	ND	---	---	---	30%	
Methylene chloride	ND	510	1020	ug/kg	100	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	510	1020	ug/kg	100	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	51.0	102	ug/kg	100	---	ND	---	---	---	30%	
Naphthalene	ND	102	204	ug/kg	100	---	ND	---	---	---	30%	
n-Propylbenzene	ND	25.5	51.0	ug/kg	100	---	ND	---	---	---	30%	
Styrene	ND	51.0	102	ug/kg	100	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	25.5	51.0	ug/kg	100	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	51.0	102	ug/kg	100	---	ND	---	---	---	30%	

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0494 - EPA 5035A							**Solid**					
Duplicate (23G0494-DUP2)			Prepared: 07/17/23 11:30 Analyzed: 07/18/23 15:44									TEMP
QC Source Sample: Non-SDG (A3G1126-01)												
Tetrachloroethene (PCE)	**170**	25.5	51.0	ug/kg	100	---	181	---	---	6	30%	
Toluene	ND	51.0	102	ug/kg	100	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	255	510	ug/kg	100	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	255	510	ug/kg	100	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	25.5	51.0	ug/kg	100	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	25.5	51.0	ug/kg	100	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	25.5	51.0	ug/kg	100	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	102	204	ug/kg	100	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	51.0	102	ug/kg	100	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	51.0	102	ug/kg	100	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	51.0	102	ug/kg	100	---	ND	---	---	---	30%	
Vinyl chloride	ND	25.5	51.0	ug/kg	100	---	ND	---	---	---	30%	
m,p-Xylene	ND	51.0	102	ug/kg	100	---	ND	---	---	---	30%	
o-Xylene	ND	25.5	51.0	ug/kg	100	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery:*	*117 %*	*Limits:*	*80-120 %*		*Dilution:*	*1x*				
Toluene-d8 (Surr)			*97 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*100 %*		*79-120 %*			*"*				
Matrix Spike (23G0494-MS1)			Prepared: 07/14/23 17:35 Analyzed: 07/18/23 19:07									
QC Source Sample: Non-SDG (A3G1119-05)												
5035A/8260D												
Acetone	2200	581	1160	ug/kg	50	2320	ND	94	36-164%	---	---	
Acrylonitrile	1440	58.1	116	ug/kg	50	1160	ND	124	65-134%	---	---	
Benzene	1540	5.81	11.6	ug/kg	50	1160	ND	**132**	**77-121%**	---	---	Q-01
Bromobenzene	1260	14.5	29.0	ug/kg	50	1160	ND	108	78-121%	---	---	
Bromochloromethane	1260	29.0	58.1	ug/kg	50	1160	ND	108	78-125%	---	---	
Bromodichloromethane	1090	29.0	58.1	ug/kg	50	1160	ND	93	75-127%	---	---	
Bromoform	1010	58.1	116	ug/kg	50	1160	ND	87	67-132%	---	---	
Bromomethane	1110	581	581	ug/kg	50	1160	ND	96	53-143%	---	---	
2-Butanone (MEK)	2530	290	581	ug/kg	50	2320	ND	109	51-148%	---	---	
n-Butylbenzene	1180	29.0	58.1	ug/kg	50	1160	ND	101	70-128%	---	---	
sec-Butylbenzene	1260	29.0	58.1	ug/kg	50	1160	ND	108	73-126%	---	---	
tert-Butylbenzene	1090	29.0	58.1	ug/kg	50	1160	ND	93	73-125%	---	---	

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0494 - EPA 5035A							**Solid**					
Matrix Spike (23G0494-MS1)			Prepared: 07/14/23 17:35 Analyzed: 07/18/23 19:07									
QC Source Sample: Non-SDG (A3G1119-05)												
Carbon disulfide	1430	290	581	ug/kg	50	1160	ND	123	63-132%	---	---	
Carbon tetrachloride	1120	29.0	58.1	ug/kg	50	1160	ND	96	70-135%	---	---	
Chlorobenzene	1200	14.5	29.0	ug/kg	50	1160	ND	103	79-120%	---	---	
Chloroethane	820	581	581	ug/kg	50	1160	ND	71	59-139%	---	---	Q-54d
Chloroform	1190	29.0	58.1	ug/kg	50	1160	ND	103	78-123%	---	---	
Chloromethane	937	145	290	ug/kg	50	1160	ND	81	50-136%	---	---	
2-Chlorotoluene	1210	29.0	58.1	ug/kg	50	1160	ND	104	75-122%	---	---	
4-Chlorotoluene	1110	29.0	58.1	ug/kg	50	1160	ND	95	72-124%	---	---	
Dibromochloromethane	1010	58.1	116	ug/kg	50	1160	ND	87	74-126%	---	---	
1,2-Dibromo-3-chloropropane	971	290	290	ug/kg	50	1160	ND	84	61-132%	---	---	Q-54e
1,2-Dibromoethane (EDB)	1120	29.0	58.1	ug/kg	50	1160	ND	97	78-122%	---	---	
Dibromomethane	1270	29.0	58.1	ug/kg	50	1160	ND	109	78-125%	---	---	
1,2-Dichlorobenzene	1170	14.5	29.0	ug/kg	50	1160	ND	100	78-121%	---	---	
1,3-Dichlorobenzene	1170	14.5	29.0	ug/kg	50	1160	ND	100	77-121%	---	---	
1,4-Dichlorobenzene	1160	14.5	29.0	ug/kg	50	1160	ND	100	75-120%	---	---	
Dichlorodifluoromethane	738	58.1	116	ug/kg	50	1160	ND	64	29-149%	---	---	
1,1-Dichloroethane	1270	14.5	29.0	ug/kg	50	1160	ND	110	76-125%	---	---	
1,2-Dichloroethane (EDC)	1030	14.5	29.0	ug/kg	50	1160	ND	89	73-128%	---	---	
1,1-Dichloroethene	1360	14.5	29.0	ug/kg	50	1160	ND	117	70-131%	---	---	
cis-1,2-Dichloroethene	1220	14.5	29.0	ug/kg	50	1160	ND	105	77-123%	---	---	
trans-1,2-Dichloroethene	1290	14.5	29.0	ug/kg	50	1160	ND	111	74-125%	---	---	
1,2-Dichloropropane	1360	14.5	29.0	ug/kg	50	1160	ND	117	76-123%	---	---	
1,3-Dichloropropane	1120	29.0	58.1	ug/kg	50	1160	ND	96	77-121%	---	---	
2,2-Dichloropropane	1100	29.0	58.1	ug/kg	50	1160	ND	95	67-133%	---	---	
1,1-Dichloropropene	1360	29.0	58.1	ug/kg	50	1160	ND	117	76-125%	---	---	
cis-1,3-Dichloropropene	1090	29.0	58.1	ug/kg	50	1160	ND	94	74-126%	---	---	
trans-1,3-Dichloropropene	1030	29.0	58.1	ug/kg	50	1160	ND	89	71-130%	---	---	
Ethylbenzene	1150	14.5	29.0	ug/kg	50	1160	ND	99	76-122%	---	---	
Hexachlorobutadiene	1160	58.1	116	ug/kg	50	1160	ND	100	61-135%	---	---	
2-Hexanone	2040	290	581	ug/kg	50	2320	ND	88	53-145%	---	---	
Isopropylbenzene	1200	29.0	58.1	ug/kg	50	1160	ND	103	68-134%	---	---	
4-Isopropyltoluene	1210	29.0	58.1	ug/kg	50	1160	ND	104	73-127%	---	---	
Methylene chloride	1520	290	581	ug/kg	50	1160	ND	**131**	**70-128%**	---	---	Q-54

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Darwin Thomas, Business Development Director

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 5035A/8260D

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0494 - EPA 5035A							**Solid**					
Matrix Spike (23G0494-MS1)			Prepared: 07/14/23 17:35 Analyzed: 07/18/23 19:07									
QC Source Sample: Non-SDG (A3G1119-05)												
4-Methyl-2-pentanone (MiBK)	2100	290	581	ug/kg	50	2320	ND	90	65-135%	---	---	
Methyl tert-butyl ether (MTBE)	1210	29.0	58.1	ug/kg	50	1160	ND	104	73-125%	---	---	
Naphthalene	1170	58.1	116	ug/kg	50	1160	ND	100	62-129%	---	---	
n-Propylbenzene	1210	14.5	29.0	ug/kg	50	1160	ND	104	73-125%	---	---	
Styrene	1200	29.0	58.1	ug/kg	50	1160	ND	103	76-124%	---	---	
1,1,1,2-Tetrachloroethane	1060	14.5	29.0	ug/kg	50	1160	ND	91	78-125%	---	---	
1,1,2,2-Tetrachloroethane	1130	29.0	58.1	ug/kg	50	1160	ND	98	70-124%	---	---	
Tetrachloroethene (PCE)	1290	14.5	29.0	ug/kg	50	1160	ND	111	73-128%	---	---	
Toluene	1180	29.0	58.1	ug/kg	50	1160	ND	101	77-121%	---	---	
1,2,3-Trichlorobenzene	1170	145	290	ug/kg	50	1160	ND	101	66-130%	---	---	
1,2,4-Trichlorobenzene	1130	145	290	ug/kg	50	1160	ND	98	67-129%	---	---	
1,1,1-Trichloroethane	1180	14.5	29.0	ug/kg	50	1160	ND	101	73-130%	---	---	
1,1,2-Trichloroethane	1210	14.5	29.0	ug/kg	50	1160	ND	104	78-121%	---	---	
Trichloroethene (TCE)	1490	14.5	29.0	ug/kg	50	1160	ND	**128**	**77-123%**	---	---	Q-01
Trichlorofluoromethane	2070	58.1	116	ug/kg	50	1160	ND	**178**	**62-140%**	---	---	Q-01
1,2,3-Trichloropropane	1000	29.0	58.1	ug/kg	50	1160	ND	86	73-125%	---	---	
1,2,4-Trimethylbenzene	1220	29.0	58.1	ug/kg	50	1160	ND	105	75-123%	---	---	
1,3,5-Trimethylbenzene	1180	29.0	58.1	ug/kg	50	1160	ND	101	73-124%	---	---	
Vinyl chloride	1310	14.5	29.0	ug/kg	50	1160	ND	113	56-135%	---	---	
m,p-Xylene	2260	29.0	58.1	ug/kg	50	2320	ND	97	77-124%	---	---	
o-Xylene	1100	14.5	29.0	ug/kg	50	1160	ND	95	77-123%	---	---	
Surr: 1,4-Difluorobenzene (Surr)		*Recovery: 119 %*		*Limits: 80-120 %*			*Dilution: 1x*					
Toluene-d8 (Surr)		*99 %*		*80-120 %*			*"*					
4-Bromofluorobenzene (Surr)		*102 %*		*79-120 %*			*"*					

Apex Laboratories

Darwin Thomas, Business Development Director

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APEX LABORATORIES

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

ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

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 23G0807 - EPA 1311/5030C TCLP Volatiles							**Water**					
Blank (23G0807-BLK1)			Prepared: 07/26/23 08:59 Analyzed: 07/26/23 13:13									TCLPa
1311/8260D												
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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Darwin Thomas, Business Development Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

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 23G0807 - EPA 1311/5030C TCLP Volatiles							**Water**					
Blank (23G0807-BLK1)			Prepared: 07/26/23 08:59 Analyzed: 07/26/23 13:13									**TCLPa**
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	25.0	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	100	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	---	---	---	---	---	---	

Surr: 1,4-Difluorobenzene (Surr) Recovery: 104 % Limits: 80-120 % Dilution: 1x
Toluene-d8 (Surr) 103 % 80-120 % "
4-Bromofluorobenzene (Surr) 100 % 80-120 % "

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Darwin Thomas, Business Development Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

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 23G0807 - EPA 1311/5030C TCLP Volatiles							**Water**					
Blank (23G0807-BLK2)			Prepared: 07/26/23 08:59 Analyzed: 07/26/23 13:36									**TCLPa**
1311/8260D												
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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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

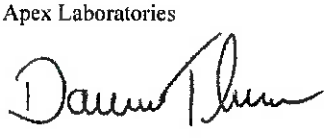
QUALITY CONTROL (QC) SAMPLE RESULTS

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 23G0807 - EPA 1311/5030C TCLP Volatiles							**Water**					
Blank (23G0807-BLK2)			Prepared: 07/26/23 08:59 Analyzed: 07/26/23 13:36									**TCLPa**
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	25.0	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	100	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	---	---	---	---	---	---	

Surr: 1,4-Difluorobenzene (Surr)	*Recovery: 105 %*	*Limits: 80-120 %*	*Dilution: 1x*	
Toluene-d8 (Surr)	*103 %*	*80-120 %*	*"*	
4-Bromofluorobenzene (Surr)	*100 %*	*80-120 %*	*"*	

Apex Laboratories



Darwin Thomas, Business Development Director

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AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

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 23G0807 - EPA 1311/5030C TCLP Volatiles							**Water**					
LCS (23G0807-BS1)			Prepared: 07/26/23 08:59 Analyzed: 07/26/23 12:29									**TCLPa**
1311/8260D												
Acetone	1990	500	1000	ug/L	50	2000	---	100	80-120%	---	---	
Benzene	1050	6.25	12.5	ug/L	50	1000	---	105	80-120%	---	---	
Bromobenzene	933	12.5	25.0	ug/L	50	1000	---	93	80-120%	---	---	
Bromochloromethane	1210	25.0	50.0	ug/L	50	1000	---	**121**	**80-120%**	---	---	Q-56
Bromodichloromethane	1070	25.0	50.0	ug/L	50	1000	---	107	80-120%	---	---	
Bromoform	1120	25.0	50.0	ug/L	50	1000	---	112	80-120%	---	---	
Bromomethane	1530	250	250	ug/L	50	1000	---	**153**	**80-120%**	---	---	Q-56
2-Butanone (MEK)	2110	250	500	ug/L	50	2000	---	106	80-120%	---	---	
n-Butylbenzene	1040	25.0	50.0	ug/L	50	1000	---	104	80-120%	---	---	
sec-Butylbenzene	1070	25.0	50.0	ug/L	50	1000	---	107	80-120%	---	---	
tert-Butylbenzene	1010	25.0	50.0	ug/L	50	1000	---	101	80-120%	---	---	
Carbon tetrachloride	1160	25.0	50.0	ug/L	50	1000	---	116	80-120%	---	---	
Chlorobenzene	1030	12.5	25.0	ug/L	50	1000	---	103	80-120%	---	---	
Chloroethane	1270	250	250	ug/L	50	1000	---	**127**	**80-120%**	---	---	Q-56
Chloroform	1070	25.0	50.0	ug/L	50	1000	---	107	80-120%	---	---	
Chloromethane	1090	125	250	ug/L	50	1000	---	109	80-120%	---	---	
2-Chlorotoluene	1070	25.0	50.0	ug/L	50	1000	---	107	80-120%	---	---	
4-Chlorotoluene	1160	25.0	50.0	ug/L	50	1000	---	116	80-120%	---	---	
1,2-Dibromo-3-chloropropane	958	125	250	ug/L	50	1000	---	96	80-120%	---	---	
Dibromochloromethane	1060	25.0	50.0	ug/L	50	1000	---	106	80-120%	---	---	
1,2-Dibromoethane (EDB)	1040	12.5	25.0	ug/L	50	1000	---	104	80-120%	---	---	
Dibromomethane	1060	25.0	50.0	ug/L	50	1000	---	106	80-120%	---	---	
1,2-Dichlorobenzene	1010	12.5	25.0	ug/L	50	1000	---	101	80-120%	---	---	
1,3-Dichlorobenzene	1090	12.5	25.0	ug/L	50	1000	---	109	80-120%	---	---	
1,4-Dichlorobenzene	976	12.5	25.0	ug/L	50	1000	---	98	80-120%	---	---	
Dichlorodifluoromethane	1220	25.0	50.0	ug/L	50	1000	---	**122**	**80-120%**	---	---	Q-56
1,1-Dichloroethane	1090	12.5	25.0	ug/L	50	1000	---	109	80-120%	---	---	
1,1-Dichloroethene	1180	12.5	25.0	ug/L	50	1000	---	118	80-120%	---	---	
1,2-Dichloroethane (EDC)	1070	12.5	25.0	ug/L	50	1000	---	107	80-120%	---	---	
cis-1,2-Dichloroethene	1060	25.0	50.0	ug/L	50	1000	---	106	80-120%	---	---	
trans-1,2-Dichloroethene	1030	12.5	25.0	ug/L	50	1000	---	103	80-120%	---	---	
1,2-Dichloropropane	1030	12.5	25.0	ug/L	50	1000	---	103	80-120%	---	---	
1,3-Dichloropropane	1020	25.0	50.0	ug/L	50	1000	---	102	80-120%	---	---	

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Darwin Thomas, Business Development Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

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 23G0807 - EPA 1311/5030C TCLP Volatiles							**Water**					
LCS (23G0807-BS1)			Prepared: 07/26/23 08:59 Analyzed: 07/26/23 12:29									**TCLPa**
2,2-Dichloropropane	1190	25.0	50.0	ug/L	50	1000	---	119	80-120%	---	---	
1,1-Dichloropropene	1130	25.0	50.0	ug/L	50	1000	---	113	80-120%	---	---	
cis-1,3-Dichloropropene	1120	25.0	50.0	ug/L	50	1000	---	112	80-120%	---	---	
trans-1,3-Dichloropropene	1170	25.0	50.0	ug/L	50	1000	---	117	80-120%	---	---	
Ethylbenzene	1130	12.5	25.0	ug/L	50	1000	---	113	80-120%	---	---	
Hexachlorobutadiene	1030	125	250	ug/L	50	1000	---	103	80-120%	---	---	
2-Hexanone	1820	250	500	ug/L	50	2000	---	91	80-120%	---	---	
Isopropylbenzene	970	25.0	50.0	ug/L	50	1000	---	97	80-120%	---	---	
4-Isopropyltoluene	1000	25.0	50.0	ug/L	50	1000	---	100	80-120%	---	---	
4-Methyl-2-pentanone (MiBK)	2090	250	500	ug/L	50	2000	---	104	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	1090	25.0	50.0	ug/L	50	1000	---	109	80-120%	---	---	
Methylene chloride	1100	250	500	ug/L	50	1000	---	110	80-120%	---	---	
n-Propylbenzene	1140	12.5	25.0	ug/L	50	1000	---	114	80-120%	---	---	
Styrene	1010	25.0	50.0	ug/L	50	1000	---	101	80-120%	---	---	
1,1,1,2-Tetrachloroethane	1140	12.5	25.0	ug/L	50	1000	---	114	80-120%	---	---	
1,1,2,2-Tetrachloroethane	1140	12.5	25.0	ug/L	50	1000	---	114	80-120%	---	---	
Naphthalene	767	100	100	ug/L	50	1000	---	**77**	**80-120%**	---	---	Q-55
Tetrachloroethene (PCE)	1050	12.5	25.0	ug/L	50	1000	---	105	80-120%	---	---	
Toluene	1040	25.0	50.0	ug/L	50	1000	---	104	80-120%	---	---	
1,2,3-Trichlorobenzene	969	25.0	50.0	ug/L	50	1000	---	97	80-120%	---	---	
1,2,4-Trichlorobenzene	899	50.0	100	ug/L	50	1000	---	90	80-120%	---	---	
1,1,1-Trichloroethane	1110	12.5	25.0	ug/L	50	1000	---	111	80-120%	---	---	
1,1,2-Trichloroethane	1020	12.5	25.0	ug/L	50	1000	---	102	80-120%	---	---	
Trichloroethene (TCE)	981	12.5	25.0	ug/L	50	1000	---	98	80-120%	---	---	
Trichlorofluoromethane	1220	50.0	100	ug/L	50	1000	---	**122**	**80-120%**	---	---	Q-56
1,2,3-Trichloropropane	1100	25.0	50.0	ug/L	50	1000	---	110	80-120%	---	---	
1,2,4-Trimethylbenzene	1040	25.0	50.0	ug/L	50	1000	---	104	80-120%	---	---	
1,3,5-Trimethylbenzene	1050	25.0	50.0	ug/L	50	1000	---	105	80-120%	---	---	
Vinyl chloride	1160	12.5	25.0	ug/L	50	1000	---	116	80-120%	---	---	
m,p-Xylene	2140	25.0	50.0	ug/L	50	2000	---	107	80-120%	---	---	
o-Xylene	912	12.5	25.0	ug/L	50	1000	---	91	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 101 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*91 %*		*80-120 %*			*"*				

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

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 23G0807 - EPA 1311/5030C TCLP Volatiles							**Water**					
Duplicate (23G0807-DUP1)			Prepared: 07/26/23 08:59 Analyzed: 07/26/23 14:43									H-10
QC Source Sample: Non-SDG (A3D1719-02)												
Acetone	**975000**	5000	10000	ug/L	500	---	981000	---	---	0.6	30%	E
Benzene	**170**	62.5	125	ug/L	500	---	165	---	---	3	30%	
Bromobenzene	ND	125	250	ug/L	500	---	ND	---	---	---	30%	
Bromochloromethane	ND	250	500	ug/L	500	---	ND	---	---	---	30%	
Bromodichloromethane	ND	250	500	ug/L	500	---	ND	---	---	---	30%	
Bromoform	ND	250	500	ug/L	500	---	ND	---	---	---	30%	
Bromomethane	ND	2500	2500	ug/L	500	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	2500	5000	ug/L	500	---	ND	---	---	---	30%	
n-Butylbenzene	ND	250	500	ug/L	500	---	ND	---	---	---	30%	
sec-Butylbenzene	ND	250	500	ug/L	500	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	250	500	ug/L	500	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	250	500	ug/L	500	---	ND	---	---	---	30%	
Chlorobenzene	ND	125	250	ug/L	500	---	ND	---	---	---	30%	
Chloroethane	ND	2500	2500	ug/L	500	---	ND	---	---	---	30%	
Chloroform	ND	250	500	ug/L	500	---	ND	---	---	---	30%	
Chloromethane	ND	1250	2500	ug/L	500	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	250	500	ug/L	500	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	250	500	ug/L	500	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	1250	2500	ug/L	500	---	ND	---	---	---	30%	
Dibromochloromethane	ND	250	500	ug/L	500	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	125	250	ug/L	500	---	ND	---	---	---	30%	
Dibromomethane	ND	250	500	ug/L	500	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	125	250	ug/L	500	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	125	250	ug/L	500	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	125	250	ug/L	500	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	250	500	ug/L	500	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	125	250	ug/L	500	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	125	250	ug/L	500	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	125	250	ug/L	500	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	250	500	ug/L	500	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	125	250	ug/L	500	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	125	250	ug/L	500	---	ND	---	---	---	30%	

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Darwin Thomas, Business Development Director

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

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 23G0807 - EPA 1311/5030C TCLP Volatiles							**Water**					
Duplicate (23G0807-DUP1)			Prepared: 07/26/23 08:59 Analyzed: 07/26/23 14:43									H-10
QC Source Sample: Non-SDG (A3D1719-02)												
1,3-Dichloropropane	ND	250	500	ug/L	500	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	250	500	ug/L	500	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	250	500	ug/L	500	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	250	500	ug/L	500	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	250	500	ug/L	500	---	ND	---	---	---	30%	
Ethylbenzene	**160**	125	250	ug/L	500	---	155	---	---	3	30%	J
Hexachlorobutadiene	ND	1250	2500	ug/L	500	---	ND	---	---	---	30%	
2-Hexanone	ND	2500	5000	ug/L	500	---	ND	---	---	---	30%	
Isopropylbenzene	ND	250	500	ug/L	500	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	250	500	ug/L	500	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	2500	5000	ug/L	500	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	250	500	ug/L	500	---	ND	---	---	---	30%	
Methylene chloride	ND	2500	5000	ug/L	500	---	ND	---	---	---	30%	
n-Propylbenzene	ND	125	250	ug/L	500	---	ND	---	---	---	30%	
Styrene	ND	250	500	ug/L	500	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	125	250	ug/L	500	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	125	250	ug/L	500	---	ND	---	---	---	30%	
Naphthalene	ND	1000	1000	ug/L	500	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	125	250	ug/L	500	---	ND	---	---	---	30%	
Toluene	**29200**	250	500	ug/L	500	---	28800	---	---	1	30%	
1,2,3-Trichlorobenzene	ND	250	500	ug/L	500	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	500	1000	ug/L	500	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	125	250	ug/L	500	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	125	250	ug/L	500	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	125	250	ug/L	500	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	500	1000	ug/L	500	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	250	500	ug/L	500	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	**290**	250	500	ug/L	500	---	300	---	---	3	30%	J
1,3,5-Trimethylbenzene	ND	250	500	ug/L	500	---	ND	---	---	---	30%	
Vinyl chloride	ND	125	250	ug/L	500	---	ND	---	---	---	30%	
m,p-Xylene	**530**	250	500	ug/L	500	---	530	---	---	0	30%	
o-Xylene	**245**	125	250	ug/L	500	---	245	---	---	0	30%	J

Surr: 1,4-Difluorobenzene (Surr) *Recovery: 104 %* *Limits: 80-120 %* *Dilution: 1x*

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

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 23G0807 - EPA 1311/5030C TCLP Volatiles							**Water**					
Duplicate (23G0807-DUP1)			Prepared: 07/26/23 08:59 Analyzed: 07/26/23 14:43									H-10
QC Source Sample: Non-SDG (A3D1719-02)												
Surr: Toluene-d8 (Surr)	*Recovery: 103 %*		*Limits: 80-120 %*		*Dilution: 1x*							
4-Bromofluorobenzene (Surr)	*100 %*		*80-120 %*		*"*							
Matrix Spike (23G0807-MS1)			Prepared: 07/26/23 08:59 Analyzed: 07/26/23 15:28									
QC Source Sample: Non-SDG (A3G1341-01)												
1311/8260D												
Acetone	2280	500	1000	ug/L	50	2000	ND	88	39-160%	---	---	
Benzene	1080	6.25	12.5	ug/L	50	1000	25.5	105	79-120%	---	---	
Bromobenzene	917	12.5	25.0	ug/L	50	1000	ND	92	80-120%	---	---	
Bromochloromethane	1180	25.0	50.0	ug/L	50	1000	ND	118	78-123%	---	---	Q-54
Bromodichloromethane	1040	25.0	50.0	ug/L	50	1000	ND	104	79-125%	---	---	
Bromoform	1060	25.0	50.0	ug/L	50	1000	ND	106	66-130%	---	---	
Bromomethane	1440	250	250	ug/L	50	1000	ND	**144**	**53-141%**	---	---	Q-54b
2-Butanone (MEK)	2000	250	500	ug/L	50	2000	ND	100	56-143%	---	---	
n-Butylbenzene	1130	25.0	50.0	ug/L	50	1000	ND	113	75-128%	---	---	
sec-Butylbenzene	1110	25.0	50.0	ug/L	50	1000	ND	111	77-126%	---	---	
tert-Butylbenzene	1070	25.0	50.0	ug/L	50	1000	ND	107	78-124%	---	---	
Carbon tetrachloride	1180	25.0	50.0	ug/L	50	1000	ND	118	72-136%	---	---	
Chlorobenzene	1020	12.5	25.0	ug/L	50	1000	ND	102	80-120%	---	---	
Chloroethane	1260	250	250	ug/L	50	1000	ND	126	60-138%	---	---	Q-54c
Chloroform	1050	25.0	50.0	ug/L	50	1000	ND	105	79-124%	---	---	
Chloromethane	1110	125	250	ug/L	50	1000	ND	111	50-139%	---	---	
2-Chlorotoluene	1140	25.0	50.0	ug/L	50	1000	ND	114	79-122%	---	---	
4-Chlorotoluene	1120	25.0	50.0	ug/L	50	1000	ND	112	78-122%	---	---	
1,2-Dibromo-3-chloropropane	924	125	250	ug/L	50	1000	ND	92	62-128%	---	---	
Dibromochloromethane	1020	25.0	50.0	ug/L	50	1000	ND	102	74-126%	---	---	
1,2-Dibromoethane (EDB)	1010	12.5	25.0	ug/L	50	1000	ND	101	77-121%	---	---	
Dibromomethane	1030	25.0	50.0	ug/L	50	1000	ND	103	79-123%	---	---	
1,2-Dichlorobenzene	981	12.5	25.0	ug/L	50	1000	ND	98	80-120%	---	---	
1,3-Dichlorobenzene	1060	12.5	25.0	ug/L	50	1000	ND	106	80-120%	---	---	
1,4-Dichlorobenzene	936	12.5	25.0	ug/L	50	1000	ND	94	79-120%	---	---	
Dichlorodifluoromethane	1240	25.0	50.0	ug/L	50	1000	ND	124	32-152%	---	---	Q-54a
1,1-Dichloroethane	1080	12.5	25.0	ug/L	50	1000	ND	108	77-125%	---	---	

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

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 23G0807 - EPA 1311/5030C TCLP Volatiles							**Water**					
Matrix Spike (23G0807-MS1)			Prepared: 07/26/23 08:59		Analyzed: 07/26/23 15:28							
QC Source Sample: Non-SDG (A3G1341-01)												
1,1-Dichloroethene	1200	12.5	25.0	ug/L	50	1000	ND	120	71-131%	---	---	
1,2-Dichloroethane (EDC)	1040	12.5	25.0	ug/L	50	1000	ND	104	73-128%	---	---	
cis-1,2-Dichloroethene	1060	25.0	50.0	ug/L	50	1000	ND	106	78-123%	---	---	
trans-1,2-Dichloroethene	1060	12.5	25.0	ug/L	50	1000	ND	106	75-124%	---	---	
1,2-Dichloropropane	1020	12.5	25.0	ug/L	50	1000	ND	102	78-122%	---	---	
1,3-Dichloropropane	1000	25.0	50.0	ug/L	50	1000	ND	100	80-120%	---	---	
2,2-Dichloropropane	1110	25.0	50.0	ug/L	50	1000	ND	111	60-139%	---	---	
1,1-Dichloropropene	1160	25.0	50.0	ug/L	50	1000	ND	116	79-125%	---	---	
cis-1,3-Dichloropropene	1090	25.0	50.0	ug/L	50	1000	ND	109	75-124%	---	---	
trans-1,3-Dichloropropene	1120	25.0	50.0	ug/L	50	1000	ND	112	73-127%	---	---	
Ethylbenzene	1690	12.5	25.0	ug/L	50	1000	455	**123**	**79-121%**	---	---	Q-01
Hexachlorobutadiene	1040	125	250	ug/L	50	1000	ND	104	66-134%	---	---	
2-Hexanone	1740	250	500	ug/L	50	2000	ND	87	57-139%	---	---	
Isopropylbenzene	1040	25.0	50.0	ug/L	50	1000	34.0	101	72-131%	---	---	
4-Isopropyltoluene	1050	25.0	50.0	ug/L	50	1000	ND	105	77-127%	---	---	
4-Methyl-2-pentanone (MiBK)	2030	250	500	ug/L	50	2000	ND	102	67-130%	---	---	
Methyl tert-butyl ether (MTBE)	1080	25.0	50.0	ug/L	50	1000	ND	108	71-124%	---	---	
Methylene chloride	1070	250	500	ug/L	50	1000	ND	107	74-124%	---	---	
n-Propylbenzene	1220	12.5	25.0	ug/L	50	1000	61.5	116	76-126%	---	---	
Styrene	1270	25.0	50.0	ug/L	50	1000	181	109	78-123%	---	---	
1,1,1,2-Tetrachloroethane	1080	12.5	25.0	ug/L	50	1000	ND	108	78-124%	---	---	
1,1,2,2-Tetrachloroethane	1070	12.5	25.0	ug/L	50	1000	ND	107	71-121%	---	---	
Naphthalene	958	100	100	ug/L	50	1000	104	85	61-128%	---	---	Q-54e
Tetrachloroethene (PCE)	1060	12.5	25.0	ug/L	50	1000	ND	106	74-129%	---	---	
Toluene	2970	25.0	50.0	ug/L	50	1000	2120	85	80-121%	---	---	
1,2,3-Trichlorobenzene	966	25.0	50.0	ug/L	50	1000	ND	97	69-129%	---	---	
1,2,4-Trichlorobenzene	928	50.0	100	ug/L	50	1000	ND	93	69-130%	---	---	
1,1,1-Trichloroethane	1110	12.5	25.0	ug/L	50	1000	ND	111	74-131%	---	---	
1,1,2-Trichloroethane	983	12.5	25.0	ug/L	50	1000	ND	98	80-120%	---	---	
Trichloroethene (TCE)	981	12.5	25.0	ug/L	50	1000	ND	98	79-123%	---	---	
Trichlorofluoromethane	1220	50.0	100	ug/L	50	1000	ND	122	65-141%	---	---	Q-54a
1,2,3-Trichloropropane	1040	25.0	50.0	ug/L	50	1000	ND	104	73-122%	---	---	
1,2,4-Trimethylbenzene	1750	25.0	50.0	ug/L	50	1000	472	**128**	**76-124%**	---	---	Q-01

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Darwin Thomas, Business Development Director

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

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 23G0807 - EPA 1311/5030C TCLP Volatiles							Water					
Matrix Spike (23G0807-MS1)			Prepared: 07/26/23 08:59 Analyzed: 07/26/23 15:28									
QC Source Sample: Non-SDG (A3G1341-01)												
1,3,5-Trimethylbenzene	1250	25.0	50.0	ug/L	50	1000	136	111	75-124%	---	---	
Vinyl chloride	1210	12.5	25.0	ug/L	50	1000	ND	121	58-137%	---	---	
m,p-Xylene	4360	25.0	50.0	ug/L	50	2000	2030	117	80-121%	---	---	
o-Xylene	1910	12.5	25.0	ug/L	50	1000	738	117	78-122%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 100 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*100 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*92 %*		*80-120 %*			*"*				

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ORELAP ID: **OR100062**

ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	**Report ID:**
2749 Lockport Road	Project Number: **111323**	**A3G1130 - 09 21 23 1330**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	

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 23G0614 - EPA 3546							**Solid**					
Blank (23G0614-BLK1)			Prepared: 07/21/23 08:30 Analyzed: 07/21/23 17:30									
EPA 8270E												
Acenaphthene	ND	1.33	2.67	ug/kg	1	---	---	---	---	---	---	
Acenaphthylene	ND	1.33	2.67	ug/kg	1	---	---	---	---	---	---	
Anthracene	ND	1.33	2.67	ug/kg	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	1.33	2.67	ug/kg	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	2.00	4.00	ug/kg	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	2.00	4.00	ug/kg	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	2.00	4.00	ug/kg	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	1.33	2.67	ug/kg	1	---	---	---	---	---	---	
Chrysene	ND	1.33	2.67	ug/kg	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	1.33	2.67	ug/kg	1	---	---	---	---	---	---	
Fluoranthene	ND	1.33	2.67	ug/kg	1	---	---	---	---	---	---	
Fluorene	ND	1.33	2.67	ug/kg	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	1.33	2.67	ug/kg	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	2.67	5.33	ug/kg	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	2.67	5.33	ug/kg	1	---	---	---	---	---	---	
Naphthalene	ND	2.67	5.33	ug/kg	1	---	---	---	---	---	---	
Phenanthrene	ND	1.33	2.67	ug/kg	1	---	---	---	---	---	---	
Pyrene	ND	1.33	2.67	ug/kg	1	---	---	---	---	---	---	
Carbazole	ND	2.00	4.00	ug/kg	1	---	---	---	---	---	---	
Dibenzofuran	ND	1.33	2.67	ug/kg	1	---	---	---	---	---	---	
2-Chlorophenol	ND	6.67	13.3	ug/kg	1	---	---	---	---	---	---	
4-Chloro-3-methylphenol	ND	13.3	26.7	ug/kg	1	---	---	---	---	---	---	
2,4-Dichlorophenol	ND	6.67	13.3	ug/kg	1	---	---	---	---	---	---	
2,4-Dimethylphenol	ND	6.67	13.3	ug/kg	1	---	---	---	---	---	---	
2,4-Dinitrophenol	ND	33.3	66.7	ug/kg	1	---	---	---	---	---	---	
4,6-Dinitro-2-methylphenol	ND	33.3	66.7	ug/kg	1	---	---	---	---	---	---	
2-Methylphenol	ND	3.33	6.67	ug/kg	1	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	3.33	6.67	ug/kg	1	---	---	---	---	---	---	
2-Nitrophenol	ND	13.3	26.7	ug/kg	1	---	---	---	---	---	---	
4-Nitrophenol	ND	13.3	26.7	ug/kg	1	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	13.3	26.7	ug/kg	1	---	---	---	---	---	---	
Phenol	ND	2.67	5.33	ug/kg	1	---	---	---	---	---	---	
2,3,4,6-Tetrachlorophenol	ND	6.67	13.3	ug/kg	1	---	---	---	---	---	---	

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

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 23G0614 - EPA 3546							**Solid**					
Blank (23G0614-BLK1)			Prepared: 07/21/23 08:30 Analyzed: 07/21/23 17:30									
2,3,5,6-Tetrachlorophenol	ND	6.67	13.3	ug/kg	1	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	6.67	13.3	ug/kg	1	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	6.67	13.3	ug/kg	1	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	20.0	40.0	ug/kg	1	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	13.3	26.7	ug/kg	1	---	---	---	---	---	---	
Diethylphthalate	ND	13.3	26.7	ug/kg	1	---	---	---	---	---	---	
Dimethylphthalate	ND	13.3	26.7	ug/kg	1	---	---	---	---	---	---	
Di-n-butylphthalate	ND	13.3	26.7	ug/kg	1	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	13.3	26.7	ug/kg	1	---	---	---	---	---	---	
N-Nitrosodimethylamine	ND	3.33	6.67	ug/kg	1	---	---	---	---	---	---	
N-Nitroso-di-n-propylamine	ND	3.33	6.67	ug/kg	1	---	---	---	---	---	---	
N-Nitrosodiphenylamine	ND	3.33	6.67	ug/kg	1	---	---	---	---	---	---	
Bis(2-Chloroethoxy) methane	ND	3.33	6.67	ug/kg	1	---	---	---	---	---	---	
Bis(2-Chloroethyl) ether	ND	3.33	6.67	ug/kg	1	---	---	---	---	---	---	
2,2'-Oxybis(1-Chloropropane)	ND	3.33	6.67	ug/kg	1	---	---	---	---	---	---	
Hexachlorobenzene	ND	1.33	2.67	ug/kg	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	3.33	6.67	ug/kg	1	---	---	---	---	---	---	
Hexachlorocyclopentadiene	ND	6.67	13.3	ug/kg	1	---	---	---	---	---	---	
Hexachloroethane	ND	3.33	6.67	ug/kg	1	---	---	---	---	---	---	
2-Chloronaphthalene	ND	1.33	2.67	ug/kg	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	3.33	6.67	ug/kg	1	---	---	---	---	---	---	
4-Bromophenyl phenyl ether	ND	3.33	6.67	ug/kg	1	---	---	---	---	---	---	
4-Chlorophenyl phenyl ether	ND	3.33	6.67	ug/kg	1	---	---	---	---	---	---	
Aniline	ND	6.67	13.3	ug/kg	1	---	---	---	---	---	---	
4-Chloroaniline	ND	3.33	6.67	ug/kg	1	---	---	---	---	---	---	
2-Nitroaniline	ND	26.7	53.3	ug/kg	1	---	---	---	---	---	---	
3-Nitroaniline	ND	26.7	53.3	ug/kg	1	---	---	---	---	---	---	
4-Nitroaniline	ND	26.7	53.3	ug/kg	1	---	---	---	---	---	---	
Nitrobenzene	ND	13.3	26.7	ug/kg	1	---	---	---	---	---	---	
2,4-Dinitrotoluene	ND	13.3	26.7	ug/kg	1	---	---	---	---	---	---	
2,6-Dinitrotoluene	ND	13.3	26.7	ug/kg	1	---	---	---	---	---	---	
Benzoic acid	ND	167	333	ug/kg	1	---	---	---	---	---	---	
Benzyl alcohol	ND	6.67	13.3	ug/kg	1	---	---	---	---	---	---	
Isophorone	ND	3.33	6.67	ug/kg	1	---	---	---	---	---	---	

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ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

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 23G0614 - EPA 3546							**Solid**					
Blank (23G0614-BLK1)			Prepared: 07/21/23 08:30 Analyzed: 07/21/23 17:30									
Azobenzene (1,2-DPH)	ND	3.33	6.67	ug/kg	1	---	---	---	---	---	---	
Bis(2-Ethylhexyl) adipate	ND	33.3	66.7	ug/kg	1	---	---	---	---	---	---	
3,3'-Dichlorobenzidine	ND	26.7	53.3	ug/kg	1	---	---	---	---	---	---	Q-52
1,2-Dinitrobenzene	ND	33.3	66.7	ug/kg	1	---	---	---	---	---	---	
1,3-Dinitrobenzene	ND	33.3	66.7	ug/kg	1	---	---	---	---	---	---	
1,4-Dinitrobenzene	ND	33.3	66.7	ug/kg	1	---	---	---	---	---	---	
Pyridine	ND	6.67	13.3	ug/kg	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	3.33	6.67	ug/kg	1	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	3.33	6.67	ug/kg	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	3.33	6.67	ug/kg	1	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)		*Recovery:*	*77 %*	*Limits:*	*37-122 %*		*Dilution:*	*1x*				
2-Fluorobiphenyl (Surr)			*81 %*		*44-120 %*			*"*				
Phenol-d6 (Surr)			*83 %*		*33-122 %*			*"*				
p-Terphenyl-d14 (Surr)			*89 %*		*54-127 %*			*"*				
2-Fluorophenol (Surr)			*82 %*		*35-120 %*			*"*				
2,4,6-Tribromophenol (Surr)			*87 %*		*39-132 %*			*"*				*Q-41*
LCS (23G0614-BS1)			Prepared: 07/21/23 08:30 Analyzed: 07/21/23 18:04									
EPA 8270E												
Acenaphthene	426	5.32	10.7	ug/kg	4	533	---	80	40-123%	---	---	
Acenaphthylene	445	5.32	10.7	ug/kg	4	533	---	84	32-132%	---	---	
Anthracene	442	5.32	10.7	ug/kg	4	533	---	83	47-123%	---	---	
Benz(a)anthracene	433	5.32	10.7	ug/kg	4	533	---	81	49-126%	---	---	
Benzo(a)pyrene	445	8.00	16.0	ug/kg	4	533	---	84	45-129%	---	---	
Benzo(b)fluoranthene	396	8.00	16.0	ug/kg	4	533	---	74	45-132%	---	---	
Benzo(k)fluoranthene	402	8.00	16.0	ug/kg	4	533	---	75	47-132%	---	---	
Benzo(g,h,i)perylene	437	5.32	10.7	ug/kg	4	533	---	82	43-134%	---	---	
Chrysene	450	5.32	10.7	ug/kg	4	533	---	84	50-124%	---	---	
Dibenz(a,h)anthracene	436	5.32	10.7	ug/kg	4	533	---	82	45-134%	---	---	
Fluoranthene	468	5.32	10.7	ug/kg	4	533	---	88	50-127%	---	---	
Fluorene	466	5.32	10.7	ug/kg	4	533	---	87	43-125%	---	---	
Indeno(1,2,3-cd)pyrene	403	5.32	10.7	ug/kg	4	533	---	76	45-133%	---	---	
1-Methylnaphthalene	441	10.7	21.3	ug/kg	4	533	---	83	40-120%	---	---	
2-Methylnaphthalene	461	10.7	21.3	ug/kg	4	533	---	86	38-122%	---	---	

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

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 23G0614 - EPA 3546							**Solid**					
LCS (23G0614-BS1)			Prepared: 07/21/23 08:30		Analyzed: 07/21/23 18:04							
Naphthalene	419	10.7	21.3	ug/kg	4	533	---	79	35-123%	---	---	
Phenanthrene	420	5.32	10.7	ug/kg	4	533	---	79	50-121%	---	---	
Pyrene	459	5.32	10.7	ug/kg	4	533	---	86	47-127%	---	---	
Carbazole	474	8.00	16.0	ug/kg	4	533	---	89	50-123%	---	---	
Dibenzofuran	459	5.32	10.7	ug/kg	4	533	---	86	44-120%	---	---	
2-Chlorophenol	444	26.7	53.2	ug/kg	4	533	---	83	34-121%	---	---	
4-Chloro-3-methylphenol	459	53.2	107	ug/kg	4	533	---	86	45-122%	---	---	
2,4-Dichlorophenol	487	26.7	53.2	ug/kg	4	533	---	91	40-122%	---	---	
2,4-Dimethylphenol	477	26.7	53.2	ug/kg	4	533	---	89	30-127%	---	---	
2,4-Dinitrophenol	484	133	267	ug/kg	4	533	---	91	10-137%	---	---	Q-41
4,6-Dinitro-2-methylphenol	662	133	267	ug/kg	4	533	---	124	29-132%	---	---	Q-41
2-Methylphenol	458	13.3	26.7	ug/kg	4	533	---	86	32-122%	---	---	
3+4-Methylphenol(s)	462	13.3	26.7	ug/kg	4	533	---	87	34-120%	---	---	
2-Nitrophenol	476	53.2	107	ug/kg	4	533	---	89	36-123%	---	---	
4-Nitrophenol	372	53.2	107	ug/kg	4	533	---	70	30-132%	---	---	
Pentachlorophenol (PCP)	344	53.2	107	ug/kg	4	533	---	64	25-133%	---	---	
Phenol	461	10.7	21.3	ug/kg	4	533	---	86	34-121%	---	---	
2,3,4,6-Tetrachlorophenol	472	26.7	53.2	ug/kg	4	533	---	89	44-125%	---	---	
2,3,5,6-Tetrachlorophenol	469	26.7	53.2	ug/kg	4	533	---	88	40-120%	---	---	
2,4,5-Trichlorophenol	489	26.7	53.2	ug/kg	4	533	---	92	41-124%	---	---	
2,4,6-Trichlorophenol	436	26.7	53.2	ug/kg	4	533	---	82	39-126%	---	---	
Bis(2-ethylhexyl)phthalate	404	80.0	160	ug/kg	4	533	---	76	51-133%	---	---	
Butyl benzyl phthalate	414	53.2	107	ug/kg	4	533	---	78	48-132%	---	---	
Diethylphthalate	456	53.2	107	ug/kg	4	533	---	86	50-124%	---	---	
Dimethylphthalate	460	53.2	107	ug/kg	4	533	---	86	48-124%	---	---	
Di-n-butylphthalate	452	53.2	107	ug/kg	4	533	---	85	51-128%	---	---	
Di-n-octyl phthalate	363	53.2	107	ug/kg	4	533	---	68	45-140%	---	---	
N-Nitrosodimethylamine	326	13.3	26.7	ug/kg	4	533	---	61	23-120%	---	---	
N-Nitroso-di-n-propylamine	415	13.3	26.7	ug/kg	4	533	---	78	36-120%	---	---	
N-Nitrosodiphenylamine	441	13.3	26.7	ug/kg	4	533	---	83	38-127%	---	---	
Bis(2-Chloroethoxy) methane	416	13.3	26.7	ug/kg	4	533	---	78	36-121%	---	---	
Bis(2-Chloroethyl) ether	383	13.3	26.7	ug/kg	4	533	---	72	31-120%	---	---	
2,2'-Oxybis(1-Chloropropane)	392	13.3	26.7	ug/kg	4	533	---	73	39-120%	---	---	
Hexachlorobenzene	451	5.32	10.7	ug/kg	4	533	---	85	45-122%	---	---	

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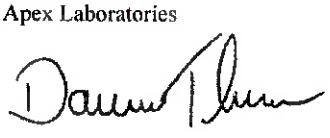

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

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 23G0614 - EPA 3546							**Solid**					
LCS (23G0614-BS1)			Prepared: 07/21/23 08:30		Analyzed: 07/21/23 18:04							
Hexachlorobutadiene	445	13.3	26.7	ug/kg	4	533	---	84	32-123%	---	---	
Hexachlorocyclopentadiene	233	26.7	53.2	ug/kg	4	533	---	44	10-140%	---	---	Q-31
Hexachloroethane	392	13.3	26.7	ug/kg	4	533	---	74	28-120%	---	---	
2-Chloronaphthalene	439	5.32	10.7	ug/kg	4	533	---	82	41-120%	---	---	
1,2,4-Trichlorobenzene	441	13.3	26.7	ug/kg	4	533	---	83	34-120%	---	---	
4-Bromophenyl phenyl ether	466	13.3	26.7	ug/kg	4	533	---	87	46-124%	---	---	
4-Chlorophenyl phenyl ether	490	13.3	26.7	ug/kg	4	533	---	92	45-121%	---	---	
Aniline	278	26.7	53.2	ug/kg	4	533	---	52	10-120%	---	---	Q-31
4-Chloroaniline	398	13.3	26.7	ug/kg	4	533	---	75	17-120%	---	---	
2-Nitroaniline	498	107	213	ug/kg	4	533	---	93	44-127%	---	---	
3-Nitroaniline	507	107	213	ug/kg	4	533	---	95	33-120%	---	---	Q-41
4-Nitroaniline	468	107	213	ug/kg	4	533	---	88	51-125%	---	---	
Nitrobenzene	415	53.2	107	ug/kg	4	533	---	78	34-122%	---	---	
2,4-Dinitrotoluene	510	53.2	107	ug/kg	4	533	---	96	48-126%	---	---	
2,6-Dinitrotoluene	459	53.2	107	ug/kg	4	533	---	86	46-124%	---	---	
Benzoic acid	624	400	400	ug/kg	4	1070	---	58	10-140%	---	---	Q-31
Benzyl alcohol	415	26.7	53.2	ug/kg	4	533	---	78	29-122%	---	---	
Isophorone	408	13.3	26.7	ug/kg	4	533	---	76	30-122%	---	---	
Azobenzene (1,2-DPH)	395	13.3	26.7	ug/kg	4	533	---	74	39-125%	---	---	
Bis(2-Ethylhexyl) adipate	405	133	267	ug/kg	4	533	---	76	61-121%	---	---	
3,3'-Dichlorobenzidine	1860	107	213	ug/kg	4	1070	---	**175**	**22-121%**	---	---	Q-29, Q-41, Q-52
1,2-Dinitrobenzene	430	133	267	ug/kg	4	533	---	81	44-120%	---	---	
1,3-Dinitrobenzene	534	133	267	ug/kg	4	533	---	100	43-127%	---	---	Q-41
1,4-Dinitrobenzene	548	133	267	ug/kg	4	533	---	103	37-132%	---	---	Q-41
Pyridine	337	26.7	53.2	ug/kg	4	533	---	63	10-120%	---	---	
1,2-Dichlorobenzene	406	13.3	26.7	ug/kg	4	533	---	76	33-120%	---	---	
1,3-Dichlorobenzene	401	13.3	26.7	ug/kg	4	533	---	75	30-120%	---	---	
1,4-Dichlorobenzene	401	13.3	26.7	ug/kg	4	533	---	75	31-120%	---	---	
Surr: Nitrobenzene-d5 (Surr)		*Recovery:*	*80 %*	*Limits*	*37-122 %*	*Dilution*	*1x*					
2-Fluorobiphenyl (Surr)			*81 %*		*44-120 %*		*"*					
Phenol-d6 (Surr)			*85 %*		*33-122 %*		*"*					
p-Terphenyl-d14 (Surr)			*87 %*		*54-127 %*		*"*					
2-Fluorophenol (Surr)			*84 %*		*35-120 %*		*"*					
2,4,6-Tribromophenol (Surr)			*106 %*		*39-132 %*		*"*					*Q-41*

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

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 23G0614 - EPA 3546							**Solid**					
Duplicate (23G0614-DUP2)			Prepared: 07/21/23 08:30		Analyzed: 07/24/23 17:33							
QC Source Sample: Non-SDG (A3G1118-01RE2)												
Acenaphthene	ND	3.95	7.93	ug/kg	1	---	ND	---	---	---	30%	
Acenaphthylene	ND	3.95	7.93	ug/kg	1	---	ND	---	---	---	30%	
Anthracene	ND	3.95	7.93	ug/kg	1	---	ND	---	---	---	30%	
Benz(a)anthracene	ND	3.95	7.93	ug/kg	1	---	ND	---	---	---	30%	
Benzo(a)pyrene	ND	5.94	11.9	ug/kg	1	---	ND	---	---	---	30%	
Benzo(b)fluoranthene	ND	5.94	11.9	ug/kg	1	---	ND	---	---	---	30%	
Benzo(k)fluoranthene	ND	5.94	11.9	ug/kg	1	---	ND	---	---	---	30%	
Benzo(g,h,i)perylene	ND	3.95	7.93	ug/kg	1	---	ND	---	---	---	30%	
Chrysene	ND	3.95	7.93	ug/kg	1	---	ND	---	---	---	30%	
Dibenz(a,h)anthracene	ND	3.95	7.93	ug/kg	1	---	ND	---	---	---	30%	
Fluoranthene	ND	3.95	7.93	ug/kg	1	---	ND	---	---	---	30%	
Fluorene	ND	3.95	7.93	ug/kg	1	---	ND	---	---	---	30%	
Indeno(1,2,3-cd)pyrene	ND	3.95	7.93	ug/kg	1	---	ND	---	---	---	30%	
1-Methylnaphthalene	ND	7.93	15.8	ug/kg	1	---	ND	---	---	---	30%	
2-Methylnaphthalene	ND	7.93	15.8	ug/kg	1	---	ND	---	---	---	30%	
Naphthalene	**12.8**	7.93	15.8	ug/kg	1	---	31.4	---	---	**84**	**30%**	J, Q-05
Phenanthrene	ND	3.95	7.93	ug/kg	1	---	ND	---	---	---	30%	
Pyrene	ND	3.95	7.93	ug/kg	1	---	ND	---	---	---	30%	
Carbazole	ND	5.94	11.9	ug/kg	1	---	ND	---	---	---	30%	
Dibenzofuran	ND	3.95	7.93	ug/kg	1	---	ND	---	---	---	30%	
2-Chlorophenol	ND	19.8	39.5	ug/kg	1	---	ND	---	---	---	30%	
4-Chloro-3-methylphenol	ND	39.5	79.3	ug/kg	1	---	ND	---	---	---	30%	
2,4-Dichlorophenol	ND	19.8	39.5	ug/kg	1	---	ND	---	---	---	30%	
2,4-Dimethylphenol	ND	19.8	39.5	ug/kg	1	---	ND	---	---	---	30%	
2,4-Dinitrophenol	ND	98.9	198	ug/kg	1	---	ND	---	---	---	30%	
4,6-Dinitro-2-methylphenol	ND	98.9	198	ug/kg	1	---	ND	---	---	---	30%	
2-Methylphenol	ND	9.89	19.8	ug/kg	1	---	ND	---	---	---	30%	
3+4-Methylphenol(s)	ND	9.89	19.8	ug/kg	1	---	ND	---	---	---	30%	
2-Nitrophenol	ND	39.5	79.3	ug/kg	1	---	ND	---	---	---	30%	
4-Nitrophenol	ND	39.5	79.3	ug/kg	1	---	ND	---	---	---	30%	
Pentachlorophenol (PCP)	ND	39.5	79.3	ug/kg	1	---	ND	---	---	---	30%	
Phenol	ND	7.93	15.8	ug/kg	1	---	ND	---	---	---	30%	

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

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 23G0614 - EPA 3546							**Solid**					
Duplicate (23G0614-DUP2)			Prepared: 07/21/23 08:30		Analyzed: 07/24/23 17:33							
QC Source Sample: Non-SDG (A3G1118-01RE2)												
2,3,4,6-Tetrachlorophenol	ND	19.8	39.5	ug/kg	1	---	ND	---	---	---	30%	
2,3,5,6-Tetrachlorophenol	ND	19.8	39.5	ug/kg	1	---	ND	---	---	---	30%	
2,4,5-Trichlorophenol	ND	19.8	39.5	ug/kg	1	---	ND	---	---	---	30%	
2,4,6-Trichlorophenol	ND	19.8	39.5	ug/kg	1	---	ND	---	---	---	30%	
Bis(2-ethylhexyl)phthalate	ND	59.4	119	ug/kg	1	---	ND	---	---	---	30%	
Butyl benzyl phthalate	ND	39.5	79.3	ug/kg	1	---	ND	---	---	---	30%	
Diethylphthalate	ND	39.5	79.3	ug/kg	1	---	ND	---	---	---	30%	
Dimethylphthalate	ND	39.5	79.3	ug/kg	1	---	ND	---	---	---	30%	
Di-n-butylphthalate	ND	39.5	79.3	ug/kg	1	---	ND	---	---	---	30%	
Di-n-octyl phthalate	ND	39.5	79.3	ug/kg	1	---	ND	---	---	---	30%	
N-Nitrosodimethylamine	ND	9.89	19.8	ug/kg	1	---	ND	---	---	---	30%	
N-Nitroso-di-n-propylamine	ND	9.89	19.8	ug/kg	1	---	ND	---	---	---	30%	
N-Nitrosodiphenylamine	ND	9.89	19.8	ug/kg	1	---	ND	---	---	---	30%	
Bis(2-Chloroethoxy) methane	ND	9.89	19.8	ug/kg	1	---	ND	---	---	---	30%	
Bis(2-Chloroethyl) ether	ND	9.89	19.8	ug/kg	1	---	ND	---	---	---	30%	
2,2'-Oxybis(1-Chloropropane)	ND	9.89	19.8	ug/kg	1	---	ND	---	---	---	30%	
Hexachlorobenzene	ND	3.95	7.93	ug/kg	1	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	9.89	19.8	ug/kg	1	---	ND	---	---	---	30%	
Hexachlorocyclopentadiene	ND	19.8	39.5	ug/kg	1	---	ND	---	---	---	30%	
Hexachloroethane	ND	9.89	19.8	ug/kg	1	---	ND	---	---	---	30%	
2-Chloronaphthalene	ND	3.95	7.93	ug/kg	1	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	**46.0**	9.89	19.8	ug/kg	1	---	46.7	---	---	2	30%	
4-Bromophenyl phenyl ether	ND	9.89	19.8	ug/kg	1	---	ND	---	---	---	30%	
4-Chlorophenyl phenyl ether	ND	9.89	19.8	ug/kg	1	---	ND	---	---	---	30%	
Aniline	ND	19.8	39.5	ug/kg	1	---	ND	---	---	---	30%	
4-Chloroaniline	ND	9.89	19.8	ug/kg	1	---	ND	---	---	---	30%	
2-Nitroaniline	ND	79.3	158	ug/kg	1	---	ND	---	---	---	30%	
3-Nitroaniline	ND	79.3	158	ug/kg	1	---	ND	---	---	---	30%	
4-Nitroaniline	ND	79.3	158	ug/kg	1	---	ND	---	---	---	30%	
Nitrobenzene	ND	39.5	79.3	ug/kg	1	---	ND	---	---	---	30%	
2,4-Dinitrotoluene	ND	39.5	79.3	ug/kg	1	---	ND	---	---	---	30%	
2,6-Dinitrotoluene	ND	39.5	79.3	ug/kg	1	---	ND	---	---	---	30%	
Benzoic acid	ND	496	989	ug/kg	1	---	ND	---	---	---	30%	

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

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 23G0614 - EPA 3546							**Solid**					
Duplicate (23G0614-DUP2)			Prepared: 07/21/23 08.30		Analyzed: 07/24/23 17:33							
QC Source Sample: Non-SDG (A3G1118-01RE2)												
Benzyl alcohol	ND	19 8	39.5	ug/kg	1	---	ND	---	---	---	30%	
Isophorone	ND	9.89	19.8	ug/kg	1	---	ND	---	---	---	30%	
Azobenzene (1,2-DPH)	ND	9 89	19.8	ug/kg	1	---	ND	---	---	---	30%	
Bis(2-Ethylhexyl) adipate	ND	98 9	198	ug/kg	1	---	ND	---	---	---	30%	
3,3'-Dichlorobenzidine	ND	79 3	158	ug/kg	1	---	ND	---	---	---	30%	Q-52
1,2-Dinitrobenzene	ND	98 9	198	ug/kg	1	---	ND	---	---	---	30%	
1,3-Dinitrobenzene	ND	98 9	198	ug/kg	1	---	ND	---	---	---	30%	
1,4-Dinitrobenzene	ND	98 9	198	ug/kg	1	---	ND	---	---	---	30%	
Pyridine	ND	19.8	39.5	ug/kg	1	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	**46.9**	9 89	19.8	ug/kg	1	---	48.6	---	---	4	30%	
1,3-Dichlorobenzene	**61.1**	9 89	19 8	ug/kg	1	---	64 0	---	---	5	30%	
1,4-Dichlorobenzene	**27.7**	9 89	19 8	ug/kg	1	---	27.7	---	---	0.2	30%	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 20 %*		*Limits 37-122 %*		*Dilution 1x*					*S-03*
2-Fluorobiphenyl (Surr)			*13 %*		*44-120 %*		*"*					*S-03*
Phenol-d6 (Surr)			*0.9 %*		*33-122 %*		*"*					*S-03*
p-Terphenyl-d14 (Surr)			*0.4 %*		*54-127 %*		*"*					*S-03*
2-Fluorophenol (Surr)			*1 %*		*35-120 %*		*"*					*S-03*
2,4,6-Tribromophenol (Surr)			*3 %*		*39-132 %*		*"*					*Q-41, S-03*

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Semivolatile Organic Compounds by EPA 1311/8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0660 - EPA 1311/3510C (BNA Extraction)							**Soil**					
Blank (23G0660-BLK1)			Prepared: 07/24/23 07:07 Analyzed: 07/24/23 14:09									TCLP
1311/8270E-LL												
Acenaphthene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Anthracene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Benz(a)anthracene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Benzo(a)pyrene	ND	0.150	0.300	ug/L	1	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	0.150	0.300	ug/L	1	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	0.150	0.300	ug/L	1	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Chrysene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Fluoranthene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Fluorene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
1-Methylnaphthalene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
2-Methylnaphthalene	ND	0.200	0.400	ug/L	1	---	---	---	---	---	---	
Naphthalene	**1.01**	0.200	0.400	ug/L	1	---	---	---	---	---	---	B
Phenanthrene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Pyrene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Carbazole	ND	0.150	0.300	ug/L	1	---	---	---	---	---	---	
Dibenzofuran	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
2-Chlorophenol	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Chloro-3-methylphenol	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
2,4-Dichlorophenol	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
2,4-Dimethylphenol	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
2,4-Dinitrophenol	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
4,6-Dinitro-2-methylphenol	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
2-Methylphenol	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
2-Nitrophenol	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
4-Nitrophenol	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Phenol	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	
2,3,4,6-Tetrachlorophenol	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	

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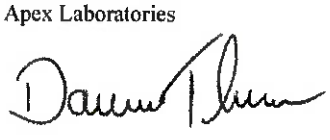

Darwin Thomas, Business Development Director

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APEX LABORATORIES

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

ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Semivolatile Organic Compounds by EPA 1311/8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0660 - EPA 1311/3510C (BNA Extraction)							**Soil**					
Blank (23G0660-BLK1)			Prepared: 07/24/23 07:07 Analyzed: 07/24/23 14:09									TCLP
2,3,5,6-Tetrachlorophenol	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	
Diethylphthalate	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	
Dimethylphthalate	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	
Di-n-butylphthalate	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	
N-Nitrosodimethylamine	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
N-Nitroso-di-n-propylamine	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
N-Nitrosodiphenylamine	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Bis(2-Chloroethoxy) methane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Bis(2-Chloroethyl) ether	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
2,2'-Oxybis(1-Chloropropane)	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Hexachlorobenzene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
Hexachlorobutadiene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Hexachlorocyclopentadiene	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
Hexachloroethane	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
2-Chloronaphthalene	ND	0.100	0.200	ug/L	1	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	0.0500	0.500	ug/L	1	---	---	---	---	---	---	
4-Bromophenyl phenyl ether	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
4-Chlorophenyl phenyl ether	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Aniline	ND	0.500	1.00	ug/L	1	---	---	---	---	---	---	
4-Chloroaniline	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
2-Nitroaniline	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	
3-Nitroaniline	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	
4-Nitroaniline	ND	2.00	4.00	ug/L	1	---	---	---	---	---	---	
Nitrobenzene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
2,4-Dinitrotoluene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
2,6-Dinitrotoluene	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Benzoic acid	ND	12.5	25.0	ug/L	1	---	---	---	---	---	---	
Benzyl alcohol	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
Isophorone	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	

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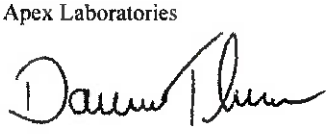

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Darwin Thomas, Business Development Director

APEX LABORATORIES

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503-718-2323
ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Semivolatile Organic Compounds by EPA 1311/8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0660 - EPA 1311/3510C (BNA Extraction)							**Soil**					
Blank (23G0660-BLK1)			Prepared: 07/24/23 07:07 Analyzed: 07/24/23 14:09									**TCLP**
Azobenzene (1,2-DPH)	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Bis(2-Ethylhexyl) adipate	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
1,2-Dinitrobenzene	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
1,3-Dinitrobenzene	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
1,4-Dinitrobenzene	ND	2.50	5.00	ug/L	1	---	---	---	---	---	---	
Pyridine	ND	1.00	2.00	ug/L	1	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	Q-30
1,3-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	0.250	0.500	ug/L	1	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)		*Recovery:*	*68 %*	*Limits:*	*44-120 %*		*Dilution:*	*1x*				
2-Fluorobiphenyl (Surr)			*63 %*		*44-120 %*			*"*				
Phenol-d6 (Surr)			*30 %*		*10-133 %*			*"*				
p-Terphenyl-d14 (Surr)			*87 %*		*50-134 %*			*"*				
2-Fluorophenol (Surr)			*43 %*		*19-120 %*			*"*				
2,4,6-Tribromophenol (Surr)			*99 %*		*43-140 %*			*"*				*Q-41*
LCS (23G0660-BS1)			Prepared: 07/24/23 07:07 Analyzed: 07/24/23 14:43									
1311/8270E-LL												
Acenaphthene	22.5	0.400	0.800	ug/L	4	40.0	---	56	47-122%	---	---	
Acenaphthylene	24.4	0.400	0.800	ug/L	4	40.0	---	61	41-130%	---	---	
Anthracene	30.8	0.400	0.800	ug/L	4	40.0	---	77	57-123%	---	---	
Benz(a)anthracene	32.1	0.400	0.800	ug/L	4	40.0	---	80	58-125%	---	---	
Benzo(a)pyrene	32.7	0.600	1.20	ug/L	4	40.0	---	82	54-128%	---	---	
Benzo(b)fluoranthene	29.3	0.600	1.20	ug/L	4	40.0	---	73	53-131%	---	---	
Benzo(k)fluoranthene	29.9	0.600	1.20	ug/L	4	40.0	---	75	57-129%	---	---	
Benzo(g,h,i)perylene	32.9	0.400	0.800	ug/L	4	40.0	---	82	50-134%	---	---	
Chrysene	34.3	0.400	0.800	ug/L	4	40.0	---	86	59-123%	---	---	
Dibenz(a,h)anthracene	33.3	0.400	0.800	ug/L	4	40.0	---	83	51-134%	---	---	
Fluoranthene	33.4	0.400	0.800	ug/L	4	40.0	---	84	57-128%	---	---	
Fluorene	28.1	0.400	0.800	ug/L	4	40.0	---	70	52-124%	---	---	
Indeno(1,2,3-cd)pyrene	30.9	0.400	0.800	ug/L	4	40.0	---	77	52-134%	---	---	
1-Methylnaphthalene	18.3	0.800	1.60	ug/L	4	40.0	---	46	41-120%	---	---	
2-Methylnaphthalene	18.9	0.800	1.60	ug/L	4	40.0	---	47	40-121%	---	---	
Naphthalene	18.4	0.800	1.60	ug/L	4	40.0	---	46	40-121%	---	---	B

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Darwin Thomas, Business Development Director

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ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Semivolatile Organic Compounds by EPA 1311/8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0660 - EPA 1311/3510C (BNA Extraction)							**Soil**					
LCS (23G0660-BS1)			Prepared: 07/24/23 07:07 Analyzed: 07/24/23 14:43									
Phenanthrene	29.1	0.400	0.800	ug/L	4	40.0	---	73	59-120%	---	---	
Pyrene	32.9	0.400	0.800	ug/L	4	40.0	---	82	57-126%	---	---	
Carbazole	36.0	0.600	1.20	ug/L	4	40.0	---	90	60-122%	---	---	
Dibenzofuran	26.3	0.400	0.800	ug/L	4	40.0	---	66	53-120%	---	---	
2-Chlorophenol	24.6	2.00	4.00	ug/L	4	40.0	---	62	38-120%	---	---	
4-Chloro-3-methylphenol	32.4	4.00	8.00	ug/L	4	40.0	---	81	52-120%	---	---	
2,4-Dichlorophenol	32.9	2.00	4.00	ug/L	4	40.0	---	82	47-121%	---	---	
2,4-Dimethylphenol	30.1	2.00	4.00	ug/L	4	40.0	---	75	31-124%	---	---	
2,4-Dinitrophenol	44.8	10.0	20.0	ug/L	4	40.0	---	112	23-143%	---	---	
4,6-Dinitro-2-methylphenol	49.1	10.0	20.0	ug/L	4	40.0	---	123	44-137%	---	---	Q-41
2-Methylphenol	24.6	1.00	2.00	ug/L	4	40.0	---	61	30-120%	---	---	
3+4-Methylphenol(s)	24.6	1.00	2.00	ug/L	4	40.0	---	62	29-120%	---	---	
2-Nitrophenol	31.7	4.00	8.00	ug/L	4	40.0	---	79	47-123%	---	---	
4-Nitrophenol	14.4	4.00	8.00	ug/L	4	40.0	---	36	10-120%	---	---	
Pentachlorophenol (PCP)	30.7	4.00	8.00	ug/L	4	40.0	---	77	35-138%	---	---	
Phenol	11.8	8.00	8.00	ug/L	4	40.0	---	30	10-120%	---	---	
2,3,4,6-Tetrachlorophenol	35.0	2.00	4.00	ug/L	4	40.0	---	87	50-128%	---	---	
2,3,5,6-Tetrachlorophenol	36.1	2.00	4.00	ug/L	4	40.0	---	90	50-121%	---	---	
2,4,5-Trichlorophenol	36.7	2.00	4.00	ug/L	4	40.0	---	92	53-123%	---	---	
2,4,6-Trichlorophenol	32.4	2.00	4.00	ug/L	4	40.0	---	81	50-125%	---	---	
Bis(2-ethylhexyl)phthalate	29.8	8.00	16.0	ug/L	4	40.0	---	74	55-135%	---	---	
Butyl benzyl phthalate	31.1	8.00	16.0	ug/L	4	40.0	---	78	53-134%	---	---	
Diethylphthalate	32.5	8.00	16.0	ug/L	4	40.0	---	81	56-125%	---	---	
Dimethylphthalate	32.9	8.00	16.0	ug/L	4	40.0	---	82	45-127%	---	---	
Di-n-butylphthalate	32.8	8.00	16.0	ug/L	4	40.0	---	82	59-127%	---	---	
Di-n-octyl phthalate	26.0	8.00	16.0	ug/L	4	40.0	---	65	51-140%	---	---	Q-31
N-Nitrosodimethylamine	14.9	1.00	2.00	ug/L	4	40.0	---	37	19-120%	---	---	
N-Nitroso-di-n-propylamine	27.1	1.00	2.00	ug/L	4	40.0	---	68	49-120%	---	---	
N-Nitrosodiphenylamine	30.6	1.00	2.00	ug/L	4	40.0	---	77	51-123%	---	---	
Bis(2-Chloroethoxy) methane	27.7	1.00	2.00	ug/L	4	40.0	---	69	48-120%	---	---	
Bis(2-Chloroethyl) ether	24.5	1.00	2.00	ug/L	4	40.0	---	61	43-120%	---	---	
2,2'-Oxybis(1-Chloropropane)	21.6	1.00	2.00	ug/L	4	40.0	---	54	41-120%	---	---	
Hexachlorobenzene	30.8	0.400	0.800	ug/L	4	40.0	---	77	53-125%	---	---	
Hexachlorobutadiene	10.7	1.00	2.00	ug/L	4	40.0	---	27	22-124%	---	---	

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Semivolatile Organic Compounds by EPA 1311/8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0660 - EPA 1311/3510C (BNA Extraction)							**Soil**					
LCS (23G0660-BS1)			Prepared: 07/24/23 07:07 Analyzed: 07/24/23 14:43									
Hexachlorocyclopentadiene	5.60	2.00	4.00	ug/L	4	40.0	---	14	10-127%	---	---	Q-31
Hexachloroethane	9.46	1.00	2.00	ug/L	4	40.0	---	24	21-120%	---	---	
2-Chloronaphthalene	20.0	0.400	0.800	ug/L	4	40.0	---	50	40-120%	---	---	
1,2,4-Trichlorobenzene	13.2	0.200	2.00	ug/L	4	40.0	---	33	29-120%	---	---	
4-Bromophenyl phenyl ether	30.5	1.00	2.00	ug/L	4	40.0	---	76	55-124%	---	---	
4-Chlorophenyl phenyl ether	28.2	1.00	2.00	ug/L	4	40.0	---	71	53-121%	---	---	
Aniline	13.5	2.00	4.00	ug/L	4	40.0	---	34	10-120%	---	---	Q-31
4-Chloroaniline	20.2	1.00	2.00	ug/L	4	40.0	---	51	33-120%	---	---	Q-31
2-Nitroaniline	36.5	8.00	16.0	ug/L	4	40.0	---	91	55-127%	---	---	
3-Nitroaniline	29.3	8.00	16.0	ug/L	4	40.0	---	73	41-128%	---	---	
4-Nitroaniline	31.9	8.00	16.0	ug/L	4	40.0	---	80	25-120%	---	---	
Nitrobenzene	25.6	4.00	8.00	ug/L	4	40.0	---	64	45-121%	---	---	
2,4-Dinitrotoluene	36.5	4.00	8.00	ug/L	4	40.0	---	91	57-128%	---	---	
2,6-Dinitrotoluene	32.2	4.00	8.00	ug/L	4	40.0	---	81	57-124%	---	---	
Benzoic acid	39.4	4.00	4.00	ug/L	4	80.0	---	49	10-120%	---	---	
Benzyl alcohol	24.6	4.00	8.00	ug/L	4	40.0	---	62	31-120%	---	---	
Isophorone	26.4	1.00	2.00	ug/L	4	40.0	---	66	42-124%	---	---	
Azobenzene (1,2-DPH)	27.3	1.00	2.00	ug/L	4	40.0	---	68	61-120%	---	---	
Bis(2-Ethylhexyl) adipate	30.0	10.0	20.0	ug/L	4	40.0	---	75	63-121%	---	---	
1,2-Dinitrobenzene	31.7	10.0	20.0	ug/L	4	40.0	---	79	59-120%	---	---	
1,3-Dinitrobenzene	39.0	10.0	20.0	ug/L	4	40.0	---	97	49-128%	---	---	
1,4-Dinitrobenzene	40.5	10.0	20.0	ug/L	4	40.0	---	101	54-120%	---	---	Q-41
Pyridine	13.3	4.00	8.00	ug/L	4	40.0	---	33	10-120%	---	---	
1,2-Dichlorobenzene	12.2	1.00	2.00	ug/L	4	40.0	---	**30**	**32-120%**	---	---	Q-30
1,3-Dichlorobenzene	11.2	1.00	2.00	ug/L	4	40.0	---	28	28-120%	---	---	
1,4-Dichlorobenzene	11.6	1.00	2.00	ug/L	4	40.0	---	29	29-120%	---	---	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 62 %*		*Limits 44-120 %*			*Dilution 4x*				
2-Fluorobiphenyl (Surr)			*56 %*		*44-120 %*			*"*				
Phenol-d6 (Surr)			*24 %*		*10-133 %*			*"*				
p-Terphenyl-d14 (Surr)			*81 %*		*50-134 %*			*"*				
2-Fluorophenol (Surr)			*34 %*		*19-120 %*			*"*				
2,4,6-Tribromophenol (Surr)			*99 %*		*43-140 %*			*"*				*Q-41*
LCS Dup (23G0660-BSD1)			Prepared: 07/24/23 07:07 Analyzed: 07/24/23 15:18									**Q-19**

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: Gasco - Oily Solids	
2749 Lockport Road	Project Number: 111323	Report ID:
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3G1130 - 09 21 23 1330

QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Semivolatile Organic Compounds by EPA 1311/8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0660 - EPA 1311/3510C (BNA Extraction)							**Soil**					
LCS Dup (23G0660-BSD1)			Prepared: 07/24/23 07:07 Analyzed: 07/24/23 15:18									Q-19
1311/8270E-LL												
Acenaphthene	27.2	0.400	0.800	ug/L	4	40.0	---	68	47-122%	19	30%	
Acenaphthylene	28.0	0.400	0.800	ug/L	4	40.0	---	70	41-130%	14	30%	
Anthracene	31.6	0.400	0.800	ug/L	4	40.0	---	79	57-123%	3	30%	
Benz(a)anthracene	32.4	0.400	0.800	ug/L	4	40.0	---	81	58-125%	0.7	30%	
Benzo(a)pyrene	32.5	0.600	1.20	ug/L	4	40.0	---	81	54-128%	0.5	30%	
Benzo(b)fluoranthene	29.9	0.600	1.20	ug/L	4	40.0	---	75	53-131%	2	30%	
Benzo(k)fluoranthene	29.7	0.600	1.20	ug/L	4	40.0	---	74	57-129%	0.7	30%	
Benzo(g,h,i)perylene	33.6	0.400	0.800	ug/L	4	40.0	---	84	50-134%	2	30%	
Chrysene	34.3	0.400	0.800	ug/L	4	40.0	---	86	59-123%	0.2	30%	
Dibenz(a,h)anthracene	33.1	0.400	0.800	ug/L	4	40.0	---	83	51-134%	0.7	30%	
Fluoranthene	34.4	0.400	0.800	ug/L	4	40.0	---	86	57-128%	3	30%	
Fluorene	30.5	0.400	0.800	ug/L	4	40.0	---	76	52-124%	8	30%	
Indeno(1,2,3-cd)pyrene	30.9	0.400	0.800	ug/L	4	40.0	---	77	52-134%	0.3	30%	
1-Methylnaphthalene	24.9	0.800	1.60	ug/L	4	40.0	---	62	41-120%	**31**	**30%**	Q-24
2-Methylnaphthalene	26.1	0.800	1.60	ug/L	4	40.0	---	65	40-121%	**32**	**30%**	Q-24
Naphthalene	24.0	0.800	1.60	ug/L	4	40.0	---	60	40-121%	27	30%	B
Phenanthrene	30.1	0.400	0.800	ug/L	4	40.0	---	75	59-120%	3	30%	
Pyrene	33.9	0.400	0.800	ug/L	4	40.0	---	85	57-126%	3	30%	
Carbazole	35.7	0.600	1.20	ug/L	4	40.0	---	89	60-122%	0.8	30%	
Dibenzofuran	30.1	0.400	0.800	ug/L	4	40.0	---	75	53-120%	13	30%	
2-Chlorophenol	25.6	2.00	4.00	ug/L	4	40.0	---	64	38-120%	4	30%	
4-Chloro-3-methylphenol	33.1	4.00	8.00	ug/L	4	40.0	---	83	52-120%	2	30%	
2,4-Dichlorophenol	32.8	2.00	4.00	ug/L	4	40.0	---	82	47-121%	0.4	30%	
2,4-Dimethylphenol	30.0	2.00	4.00	ug/L	4	40.0	---	75	31-124%	0.3	30%	
2,4-Dinitrophenol	44.5	10.0	20.0	ug/L	4	40.0	---	111	23-143%	0.6	30%	
4,6-Dinitro-2-methylphenol	48.9	10.0	20.0	ug/L	4	40.0	---	122	44-137%	0.3	30%	Q-41
2-Methylphenol	25.2	1.00	2.00	ug/L	4	40.0	---	63	30-120%	3	30%	
3+4-Methylphenol(s)	25.5	1.00	2.00	ug/L	4	40.0	---	64	29-120%	4	30%	
2-Nitrophenol	31.3	4.00	8.00	ug/L	4	40.0	---	78	47-123%	2	30%	
4-Nitrophenol	15.8	4.00	8.00	ug/L	4	40.0	---	40	10-120%	9	30%	
Pentachlorophenol (PCP)	30.9	4.00	8.00	ug/L	4	40.0	---	77	35-138%	0.8	30%	
Phenol	13.4	8.00	8.00	ug/L	4	40.0	---	34	10-120%	13	30%	
2,3,4,6-Tetrachlorophenol	34.5	2.00	4.00	ug/L	4	40.0	---	86	50-128%	2	30%	

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ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Semivolatile Organic Compounds by EPA 1311/8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0660 - EPA 1311/3510C (BNA Extraction)							**Soil**					
LCS Dup (23G0660-BSD1)			Prepared: 07/24/23 07.07		Analyzed: 07/24/23 15:18							Q-19
2,3,5,6-Tetrachlorophenol	35 2	2 00	4.00	ug/L	4	40 0	---	88	50-121%	3	30%	
2,4,5-Trichlorophenol	37.6	2 00	4 00	ug/L	4	40.0	---	94	53-123%	2	30%	
2,4,6-Trichlorophenol	32 8	2 00	4.00	ug/L	4	40 0	---	82	50-125%	1	30%	
Bis(2-ethylhexyl)phthalate	30.0	8 00	16.0	ug/L	4	40.0	---	75	55-135%	0 6	30%	
Butyl benzyl phthalate	30 2	8 00	16 0	ug/L	4	40 0	---	75	53-134%	3	30%	
Diethylphthalate	32 0	8.00	16.0	ug/L	4	40 0	---	80	56-125%	2	30%	
Dimethylphthalate	32.6	8.00	16.0	ug/L	4	40.0	---	82	45-127%	1	30%	
Di-n-butylphthalate	32.6	8 00	16.0	ug/L	4	40.0	---	82	59-127%	0.5	30%	
Di-n-octyl phthalate	25 6	8 00	16.0	ug/L	4	40 0	---	64	51-140%	2	30%	Q-31
N-Nitrosodimethylamine	15.5	1 00	2.00	ug/L	4	40.0	---	39	19-120%	4	30%	
N-Nitroso-di-n-propylamine	27 2	1 00	2 00	ug/L	4	40.0	---	68	49-120%	0 4	30%	
N-Nitrosodiphenylamine	31 1	1 00	2 00	ug/L	4	40 0	---	78	51-123%	1	30%	
Bis(2-Chloroethoxy) methane	27 9	1 00	2 00	ug/L	4	40 0	---	70	48-120%	0 7	30%	
Bis(2-Chloroethyl) ether	25 0	1 00	2.00	ug/L	4	40 0	---	63	43-120%	2	30%	
2,2'-Oxybis(1-Chloropropane)	23 7	1 00	2.00	ug/L	4	40.0	---	59	41-120%	9	30%	
Hexachlorobenzene	32 1	0 400	0 800	ug/L	4	40 0	---	80	53-125%	4	30%	
Hexachlorobutadiene	19 9	1 00	2.00	ug/L	4	40.0	---	50	22-124%	**60**	**30%**	Q-24
Hexachlorocyclopentadiene	12 9	2 00	4 00	ug/L	4	40.0	---	32	10-127%	**79**	**30%**	Q-24, Q-31
Hexachloroethane	17 4	1 00	2 00	ug/L	4	40 0	---	44	21-120%	**59**	**30%**	Q-24
2-Chloronaphthalene	26 8	0 400	0 800	ug/L	4	40.0	---	67	40-120%	29	30%	
1,2,4-Trichlorobenzene	21.6	0 200	2.00	ug/L	4	40.0	---	54	29-120%	**48**	**30%**	Q-24
4-Bromophenyl phenyl ether	32 9	1 00	2.00	ug/L	4	40 0	---	82	55-124%	7	30%	
4-Chlorophenyl phenyl ether	32 0	1 00	2 00	ug/L	4	40 0	---	80	53-121%	12	30%	
Aniline	17.2	2 00	4 00	ug/L	4	40.0	---	43	10-120%	24	30%	Q-31
4-Chloroaniline	27 4	1 00	2 00	ug/L	4	40.0	---	68	33-120%	30	30%	Q-31
2-Nitroaniline	36.5	8 00	16 0	ug/L	4	40 0	---	91	55-127%	0.2	30%	
3-Nitroaniline	26.1	8 00	16 0	ug/L	4	40.0	---	65	41-128%	12	30%	
4-Nitroaniline	26 9	8 00	16.0	ug/L	4	40 0	---	67	25-120%	17	30%	
Nitrobenzene	26 5	4 00	8 00	ug/L	4	40 0	---	66	45-121%	3	30%	
2,4-Dinitrotoluene	35 9	4 00	8 00	ug/L	4	40 0	---	90	57-128%	2	30%	
2,6-Dinitrotoluene	32 0	4 00	8 00	ug/L	4	40.0	---	80	57-124%	0 7	30%	
Benzoic acid	45 6	4 00	4.00	ug/L	4	80.0	---	57	10-120%	15	30%	
Benzyl alcohol	26.1	4 00	8 00	ug/L	4	40 0	---	65	31-120%	6	30%	
Isophorone	27 2	1 00	2 00	ug/L	4	40 0	---	68	42-124%	3	30%	

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Semivolatile Organic Compounds by EPA 1311/8270E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0660 - EPA 1311/3510C (BNA Extraction)							**Soil**					
LCS Dup (23G0660-BSD1)			Prepared: 07/24/23 07:07 Analyzed: 07/24/23 15:18									Q-19
Azobenzene (1,2-DPH)	28.6	1.00	2.00	ug/L	4	40.0	---	71	61-120%	5	30%	
Bis(2-Ethylhexyl) adipate	29.0	10.0	20.0	ug/L	4	40.0	---	73	63-121%	3	30%	
1,2-Dinitrobenzene	31.1	10.0	20.0	ug/L	4	40.0	---	78	59-120%	2	30%	
1,3-Dinitrobenzene	38.2	10.0	20.0	ug/L	4	40.0	---	96	49-128%	2	30%	
1,4-Dinitrobenzene	40.5	10.0	20.0	ug/L	4	40.0	---	101	54-120%	0.1	30%	Q-41
Pyridine	**14.4**	4.00	8.00	ug/L	4	40.0	---	36	10-120%	8	30%	
1,2-Dichlorobenzene	19.4	1.00	2.00	ug/L	4	40.0	---	48	32-120%	**46**	**30%**	Q-01
1,3-Dichlorobenzene	18.7	1.00	2.00	ug/L	4	40.0	---	47	28-120%	**50**	**30%**	Q-24
1,4-Dichlorobenzene	18.8	1.00	2.00	ug/L	4	40.0	---	47	29-120%	**47**	**30%**	Q-24
Surr: Nitrobenzene-d5 (Surr)		*Recovery: 64 %*	*Limits: 44-120 %*		*Dilution: 4x*							
2-Fluorobiphenyl (Surr)		*62 %*	*44-120 %*		*"*							
Phenol-d6 (Surr)		*28 %*	*10-133 %*		*"*							
p-Terphenyl-d14 (Surr)		*81 %*	*50-134 %*		*"*							
2-Fluorophenol (Surr)		*38 %*	*19-120 %*		*"*							
2,4,6-Tribromophenol (Surr)		*103 %*	*43-140 %*		*"*							*Q-41*

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: Gasco - Oily Solids	
2749 Lockport Road	Project Number: 111323	Report ID:
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3G1130 - 09 21 23 1330

QUALITY CONTROL (QC) SAMPLE RESULTS

Mercury by Cold Vapor Atomic Fluorescence (CVAF) by EPA 1631E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0792 - 1631E Mercury (Soil)							**Solid**					
Blank (23G0792-BLK1)			Prepared: 07/25/23 16:56 Analyzed: 07/26/23 13:39									
EPA 1631E												
Mercury	ND	1.50	3.00	ug/kg	1	---	---	---	---	---	---	
Blank (23G0792-BLK2)			Prepared: 07/25/23 16:56 Analyzed: 07/26/23 13:44									
EPA 1631E												
Mercury	ND	1.50	3.00	ug/kg	1	---	---	---	---	---	---	
Blank (23G0792-BLK3)			Prepared: 07/25/23 16:56 Analyzed: 07/26/23 13:49									
EPA 1631E												
Mercury	ND	1.50	3.00	ug/kg	1	---	---	---	---	---	---	
LCS (23G0792-BS1)			Prepared: 07/25/23 16:56 Analyzed: 07/26/23 13:54									
EPA 1631E												
Mercury	8.98	1.50	3.00	ug/kg	1	7.00	---	**128**	**80-120%**	---	---	Q-29
Matrix Spike (23G0792-MS1)			Prepared: 07/25/23 16:56 Analyzed: 07/26/23 14:04									
QC Source Sample: Non-SDG (A3G1118-01RE1)												
EPA 1631E												
Mercury	9.49	1.61	3.22	ug/kg	1	7.51	ND	**126**	**75-125%**	---	---	Q-01, Q-29
Matrix Spike Dup (23G0792-MSD1)			Prepared: 07/25/23 16:56 Analyzed: 07/26/23 14:09									
QC Source Sample: Non-SDG (A3G1118-01RE1)												
Mercury	9.26	1.61	3.22	ug/kg	1	7.51	ND	123	75-125%	2	24%	Q-29

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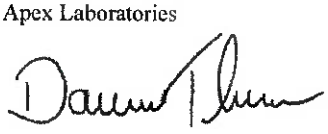

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc. **2749 Lockport Road** **Niagara Falls, NY 14305**	Project: **Gasco - Oily Solids** Project Number: **111323** Project Manager: **Chip Byrd**	**Report ID:** **A3G1130 - 09 21 23 1330**

QUALITY CONTROL (QC) SAMPLE RESULTS

Mercury by Cold Vapor Atomic Fluorescence (CVAF) by EPA 1631E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0850 - 1631E Mercury (Soil)							**Solid**					
Blank (23G0850-BLK1)			Prepared: 07/26/23 18:27 Analyzed: 07/27/23 14:05									
EPA 1631E												
Mercury	ND	1.50	3.00	ug/kg	1	---	---	---	---	---	---	
Blank (23G0850-BLK2)			Prepared: 07/26/23 18:27 Analyzed: 07/27/23 14:10									
EPA 1631E												
Mercury	ND	1.50	3.00	ug/kg	1	---	---	---	---	---	---	
Blank (23G0850-BLK3)			Prepared: 07/26/23 18:27 Analyzed: 07/27/23 14:15									
EPA 1631E												
Mercury	ND	1.50	3.00	ug/kg	1	---	---	---	---	---	---	
LCS (23G0850-BS1)			Prepared: 07/26/23 18:27 Analyzed: 07/27/23 14:20									
EPA 1631E												
Mercury	9.39	1.50	3.00	ug/kg	1	7.00	---	**134**	**80-120%**	---	---	Q-29
LCS Dup (23G0850-BSD1)			Prepared: 07/26/23 18:27 Analyzed: 07/27/23 14:25									
EPA 1631E												
Mercury	8.50	1.50	3.00	ug/kg	1	7.00	---	**121**	**80-120%**	10	20%	Q-29

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: Gasco - Oily Solids	
2749 Lockport Road	Project Number: 111323	Report ID:
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3G1130 - 09 21 23 1330

QUALITY CONTROL (QC) SAMPLE RESULTS

Mercury by Cold Vapor Atomic Fluorescence (CVAF) by EPA 1631E

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0914 - 1631E Mercury (Soil)							**Solid**					
Blank (23G0914-BLK1)			Prepared: 07/27/23 17:14 Analyzed: 07/28/23 13:53									
EPA 1631E												
Mercury	ND	1.50	3.00	ug/kg	1	---	---	---	---	---	---	
Blank (23G0914-BLK2)			Prepared: 07/27/23 17:14 Analyzed: 07/28/23 13:58									
EPA 1631E												
Mercury	ND	1.50	3.00	ug/kg	1	---	---	---	---	---	---	
Blank (23G0914-BLK3)			Prepared: 07/27/23 17:14 Analyzed: 07/28/23 14:03									
EPA 1631E												
Mercury	ND	1.50	3.00	ug/kg	1	---	---	---	---	---	---	
LCS (23G0914-BS1)			Prepared: 07/27/23 17:14 Analyzed: 07/28/23 14:08									
EPA 1631E												
Mercury	6.45	1.50	3.00	ug/kg	1	7.00	---	92	80-120%	---	---	
Matrix Spike (23G0914-MS1)			Prepared: 07/27/23 17:14 Analyzed: 07/28/23 14:18									
QC Source Sample: T100-071723-4 (A3G1130-01RE4)												
EPA 1631E												
Mercury	9.49	1.62	3.25	ug/kg	1	7.58	4.10	71	75-125%	---	---	Q-02
Matrix Spike Dup (23G0914-MSD1)			Prepared: 07/27/23 17:14 Analyzed: 07/28/23 14:23									
QC Source Sample: T100-071723-4 (A3G1130-01RE4)												
EPA 1631E												
Mercury	10.5	1.58	3.16	ug/kg	1	7.37	4.10	87	75-125%	10	24%	

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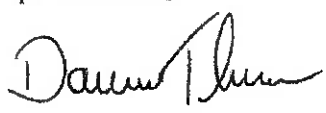

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ANALYTICAL REPORT

AMENDED REPORT

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

Project: Gasco - Oily Solids
Project Number: 111323
Project Manager: Chip Byrd

Report ID:
A3G1130 - 09 21 23 1330

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0515 - EPA 3051A							**Solid**					
Blank (23G0515-BLK1)			Prepared: 07/19/23 07:05 Analyzed: 07/19/23 10:38									
EPA 6020B												
Arsenic	ND	500	1000	ug/kg	10	---	---	---	---	---	---	
Barium	ND	500	1000	ug/kg	10	---	---	---	---	---	---	
Cadmium	ND	100	200	ug/kg	10	---	---	---	---	---	---	
Chromium	ND	500	1000	ug/kg	10	---	---	---	---	---	---	
Lead	ND	100	200	ug/kg	10	---	---	---	---	---	---	
Mercury	ND	40.0	80.0	ug/kg	10	---	---	---	---	---	---	
Selenium	ND	500	1000	ug/kg	10	---	---	---	---	---	---	
Silver	ND	100	200	ug/kg	10	---	---	---	---	---	---	
LCS (23G0515-BS1)			Prepared: 07/19/23 07:05 Analyzed: 07/19/23 10:43									
EPA 6020B												
Arsenic	47800	500	1000	ug/kg	10	50000	---	96	80-120%	---	---	
Barium	49200	500	1000	ug/kg	10	50000	---	98	80-120%	---	---	
Cadmium	47200	100	200	ug/kg	10	50000	---	94	80-120%	---	---	
Chromium	47400	500	1000	ug/kg	10	50000	---	95	80-120%	---	---	
Lead	53400	100	200	ug/kg	10	50000	---	107	80-120%	---	---	
Mercury	1000	40.0	80.0	ug/kg	10	1000	---	100	80-120%	---	---	
Selenium	24700	500	1000	ug/kg	10	25000	---	99	80-120%	---	---	
Silver	24800	100	200	ug/kg	10	25000	---	99	80-120%	---	---	
Duplicate (23G0515-DUP1)			Prepared: 07/19/23 07:05 Analyzed: 07/19/23 10:54									
QC Source Sample: Non-SDG (A3G1118-01)												
Arsenic	**1980**	529	1060	ug/kg	10	---	2090	---	---	6	20%	
Barium	**50500**	529	1060	ug/kg	10	---	65300	---	---	**26**	**20%**	Q-17
Cadmium	ND	106	211	ug/kg	10	---	ND	---	---	---	20%	
Chromium	**14000**	529	1060	ug/kg	10	---	13100	---	---	7	20%	
Lead	**1850**	106	211	ug/kg	10	---	2070	---	---	11	20%	
Mercury	ND	42.3	84.6	ug/kg	10	---	ND	---	---	---	20%	
Selenium	ND	529	1060	ug/kg	10	---	ND	---	---	---	20%	
Silver	ND	106	211	ug/kg	10	---	ND	---	---	---	20%	
Matrix Spike (23G0515-MS1)			Prepared: 07/19/23 07:05 Analyzed: 07/19/23 10:59									

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ORELAP ID: OR100062

ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0515 - EPA 3051A							**Solid**					
Matrix Spike (23G0515-MS1)			Prepared: 07/19/23 07.05		Analyzed: 07/19/23 10.59							
QC Source Sample: Non-SDG (A3G1118-01)												
EPA 6020B												
Arsenic	51500	515	1030	ug/kg	10	51500	2090	96	75-125%	---	---	
Barium	119000	515	1030	ug/kg	10	51500	65300	104	75-125%	---	---	
Cadmium	49200	103	206	ug/kg	10	51500	ND	96	75-125%	---	---	
Chromium	64200	515	1030	ug/kg	10	51500	13100	99	75-125%	---	---	
Lead	53200	103	206	ug/kg	10	51500	2070	99	75-125%	---	---	
Mercury	980	41.2	82.5	ug/kg	10	1030	ND	95	75-125%	---	---	
Selenium	26000	515	1030	ug/kg	10	25800	ND	101	75-125%	---	---	
Silver	24700	103	206	ug/kg	10	25800	ND	96	75-125%	---	---	

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ANALYTICAL REPORT

AMENDED REPORT

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

Project: Gasco - Oily Solids
Project Number: 111323
Project Manager: Chip Byrd

Report ID:
A3G1130 - 09 21 23 1330

QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0635 - EPA 1311/3015A							**Solid**					
Blank (23G0635-BLK1)			Prepared: 07/21/23 11:28 Analyzed: 07/21/23 18:33									
1311/6020B												
Arsenic	ND	50.0	100	ug/L	10	---	---	---	---	---	---	TCLP
Barium	ND	2500	5000	ug/L	10	---	---	---	---	---	---	TCLP
Cadmium	ND	50.0	100	ug/L	10	---	---	---	---	---	---	TCLP
Chromium	ND	50.0	100	ug/L	10	---	---	---	---	---	---	TCLP
Lead	ND	25.0	50.0	ug/L	10	---	---	---	---	---	---	TCLP
Mercury	ND	3.75	7.00	ug/L	10	---	---	---	---	---	---	TCLP
Selenium	ND	50.0	100	ug/L	10	---	---	---	---	---	---	TCLP
Silver	ND	50.0	100	ug/L	10	---	---	---	---	---	---	TCLP
LCS (23G0635-BS1)			Prepared: 07/21/23 11:28 Analyzed: 07/21/23 18:38									
1311/6020B												
Arsenic	5090	50.0	100	ug/L	10	5000	---	102	80-120%	---	---	TCLP
Barium	9940	2500	5000	ug/L	10	10000	---	99	80-120%	---	---	TCLP
Cadmium	1000	50.0	100	ug/L	10	1000	---	100	80-120%	---	---	TCLP
Chromium	4820	50.0	100	ug/L	10	5000	---	96	80-120%	---	---	TCLP
Lead	5260	25.0	50.0	ug/L	10	5000	---	105	80-120%	---	---	TCLP
Mercury	103	3.75	7.00	ug/L	10	100	---	103	80-120%	---	---	TCLP
Selenium	1040	50.0	100	ug/L	10	1000	---	104	80-120%	---	---	TCLP
Silver	955	50.0	100	ug/L	10	1000	---	96	80-120%	---	---	TCLP
Duplicate (23G0635-DUP1)			Prepared: 07/21/23 11:28 Analyzed: 07/21/23 18:54									
QC Source Sample: T100-071723-4 (A3G1130-01)												
1311/6020B												
Arsenic	ND	50.0	100	ug/L	10	---	ND	---	---	---	20%	
Barium	ND	2500	5000	ug/L	10	---	ND	---	---	---	20%	
Cadmium	ND	50.0	100	ug/L	10	---	ND	---	---	---	20%	
Chromium	ND	50.0	100	ug/L	10	---	ND	---	---	---	20%	
Lead	ND	25.0	50.0	ug/L	10	---	ND	---	---	---	20%	
Mercury	ND	3.75	7.00	ug/L	10	---	ND	---	---	---	20%	
Selenium	ND	50.0	100	ug/L	10	---	ND	---	---	---	20%	
Silver	ND	50.0	100	ug/L	10	---	ND	---	---	---	20%	
Matrix Spike (23G0635-MS1)			Prepared: 07/21/23 11:28 Analyzed: 07/21/23 18:59									

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	A3G1130 - 09 21 23 1330

QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Metals by EPA 6020B (ICPMS)

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23G0635 - EPA 1311/3015A							**Solid**					
Matrix Spike (23G0635-MS1)			Prepared: 07/21/23 11:28 Analyzed: 07/21/23 18:59									
QC Source Sample: T100-071723-4 (A3G1130-01)												
1311/6020B												
Arsenic	5100	50.0	100	ug/L	10	5000	ND	102	50-150%	---	---	
Barium	10400	2500	5000	ug/L	10	10000	ND	104	50-150%	---	---	
Cadmium	1040	50.0	100	ug/L	10	1000	ND	104	50-150%	---	---	
Chromium	4800	50.0	100	ug/L	10	5000	ND	96	50-150%	---	---	
Lead	5140	25.0	50.0	ug/L	10	5000	ND	103	50-150%	---	---	
Mercury	99.2	3.75	7.00	ug/L	10	100	ND	99	50-150%	---	---	
Selenium	1040	50.0	100	ug/L	10	1000	ND	104	50-150%	---	---	
Silver	965	50.0	100	ug/L	10	1000	ND	96	50-150%	---	---	

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Sevenson Environmental Services, Inc.	Project: Gasco - Oily Solids	
2749 Lockport Road	Project Number: 111323	Report ID:
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3G1130 - 09 21 23 1330

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 23G0673 - ASTM D7511-12mod (S)							Solid					
Blank (23G0673-BLK1)			Prepared: 07/24/23 08:34		Analyzed: 07/24/23 14:32							
D7511-12												
Total Cyanide	ND	50.0	100	ug/kg	1	---	---	---	---	---	---	
LCS (23G0673-BS1)			Prepared: 07/24/23 08:34		Analyzed: 07/24/23 14:34							
D7511-12												
Total Cyanide	448	50.0	100	ug/kg	1	400	---	112	84-116%	---	---	
Matrix Spike (23G0673-MS1)			Prepared: 07/24/23 08:34		Analyzed: 07/24/23 14:42							
QC Source Sample: Non-SDG (A3G1118-01)												
D7511-12												
Total Cyanide	697	49.9	99.9	ug/kg	1	399	309	97	64-136%	---	---	
Matrix Spike Dup (23G0673-MSD1)			Prepared: 07/24/23 08:34		Analyzed: 07/24/23 14:46							
QC Source Sample: Non-SDG (A3G1118-01)												
Total Cyanide	694	49.8	99.7	ug/kg	1	399	309	97	64-136%	0.5	47%	

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ANALYTICAL REPORT

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

Project: **Gasco - Oily Solids**
Project Number: **111323**
Project Manager: **Chip Byrd**

Report ID:
A3G1130 - 09 21 23 1330

SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3546 (Fuels)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23G0472							
A3G1130-01RE1	Solid	NWTPH-Dx	07/17/23 08:00	07/18/23 11:43	10.55g/5mL	10g/5mL	0.95

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

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23G0494							
A3G1130-01	Solid	NWTPH-Gx (MS)	07/17/23 08 00	07/17/23 15 36	5 13g/5mL	5g/5mL	0 98

Volatile Organic Compounds by EPA 5035A/8260D

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23G0494							
A3G1130-01	Solid	5035A/8260D	07/17/23 08 00	07/17/23 15 36	5 13g/5mL	5g/5mL	0 98

TCLP Volatile Organic Compounds by EPA 1311/8260D

Prep: EPA 1311/5030C TCLP Volatiles

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23G0807							
A3G1130-01RE1	Solid	1311/8260D	07/17/23 08 00	07/26/23 08 59	5mL/5mL	5mL/5mL	1.00

Semivolatile Organic Compounds by EPA 8270E

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23G0614							
A3G1130-01	Solid	EPA 8270E	07/17/23 08 00	07/21/23 08 30	5 15g/25mL	15g/2mL	36.40

TCLP Semivolatile Organic Compounds by EPA 1311/8270E

Prep: EPA 1311/3510C (BNA Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23G0660							
A3G1130-01	Solid	1311/8270E-LL	07/17/23 08 00	07/24/23 07 07	200mL/2mL	200mL/2mL	1 00

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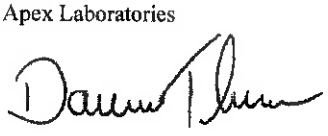

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ANALYTICAL REPORT

AMENDED REPORT

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2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

SAMPLE PREPARATION INFORMATION

TCLP Semivolatile Organic Compounds by EPA 1311/8270E

Prep: EPA 1311/3510C (BNA Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A3G1130-01RE1	Solid	1311/8270E-LL	07/17/23 08 00	07/24/23 07 07	200mL/2mL	200mL/2mL	1.00

Mercury by Cold Vapor Atomic Fluorescence (CVAF) by EPA 1631E

Prep: 1631E Mercury (Soil)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23G0914							
A3G1130-01RE4	Solid	EPA 1631E	07/17/23 08 00	07/26/23 18 27	0 453g/500mL	0 5g/50mL	11.00

Total Metals by EPA 6020B (ICPMS)

Prep: EPA 3051A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23G0515							
A3G1130-01	Solid	EPA 6020B	07/17/23 08.00	07/19/23 07 05	0 499g/50mL	0.5g/50mL	1.00

TCLP Metals by EPA 6020B (ICPMS)

Prep: EPA 1311/3015A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23G0635							
A3G1130-01	Solid	1311/6020B	07/17/23 08 00	07/21/23 11 28	10mL/50mL	10mL/50mL	1.00

Soluble Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection

Prep: ASTM D7511-12mod (S)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23G0673							
A3G1130-01	Solid	D7511-12	07/17/23 08 00	07/24/23 08 34	2 5055g/50mL	2 5g/50mL	1.00

TCLP Extraction by EPA 1311

Prep: EPA 1311 (TCLP)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23G0584							
A3G1130-01	Solid	EPA 1311	07/17/23 08 00	07/20/23 16 00	100g/2000 1g	100g/2000g	NA

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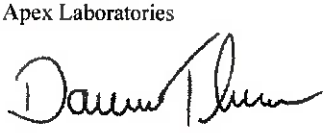

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: **Gasco - Oily Solids**	
2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

SAMPLE PREPARATION INFORMATION

TCLP Extraction by EPA 1311 (ZHE)

Prep: EPA 1311 TCLP/ZHE

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 23G0594							
A3G1130-01	Solid	EPA 1311 ZHE	07/17/23 08 00	07/20/23 14 31	25 1g/500.5g	25g/500g	NA

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QUALIFIER DEFINITIONS

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

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B	Analyte detected in an associated blank at a level above the MRL. (See Notes and Conventions below.)
E	Estimated Value. The result is above the calibration range of the instrument.
F-03	The result for this hydrocarbon range is elevated due to the presence of individual analyte peaks in the quantitation range that are not representative of the fuel pattern reported
F-11	The hydrocarbon pattern indicates possible weathered diesel, mineral oil, or a contribution from a related component.
H-10	This sample was TCLP extracted (leached) outside of the recommended holding time.
J	Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
M-02	Due to matrix interference, this analyte cannot be accurately quantified. The reported result is estimated.
M-05	Estimated results. Peak separation for structural isomers is insufficient for accurate quantification.
Q-01	Spike recovery and/or RPD is outside acceptance limits.
Q-02	Spike recovery is outside of established control limits due to matrix interference.
Q-05	Analyses are not controlled on RPD values from sample and duplicate concentrations that are below 5 times the reporting level.
Q-17	RPD between original and duplicate sample, or spike duplicates, is outside of established control limits.
Q-19	Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
Q-24	The RPD for this spike and spike duplicate is above established control limits. Recoveries for both the spike and spike duplicate are within control limits.
Q-29	Recovery for Lab Control Spike (LCS) is above the upper control limit. Data may be biased high.
Q-30	Recovery for Lab Control Spike (LCS) is below the lower control limit. Data may be biased low.
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-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 +2%. 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 +33%. The results are reported as Estimated Values.

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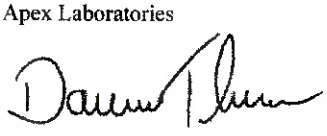

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ANALYTICAL REPORT

AMENDED REPORT

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2749 Lockport Road	Project Number: **111323**	**Report ID:**
Niagara Falls, NY 14305	Project Manager: **Chip Byrd**	**A3G1130 - 09 21 23 1330**

Q-54c	Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +7%. 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 -2%. The results are reported as Estimated Values.
Q-54e	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-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-03	Sample re-extract, or the analysis of an associated Batch QC sample, confirms surrogate failure due to sample matrix effect
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 23G0584.
TCLPa	This batch QC sample was prepared with TCLP or SPLP fluid from preparation batch 23G0594/23G0774.
TEMP	Sample was received outside of recommended temperature
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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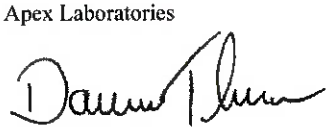

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REPORTING NOTES AND CONVENTIONS:

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'.

Results for Volatiles analyses on soils and sediments that are reported on a "dry weight" basis include the water miscible solvent (WMS) correction referenced in the EPA 8000 Method guidance documents. Solid and Liquid samples reported on an "As Received" basis do not have the WMS correction applied, as dry weight was not performed.

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.

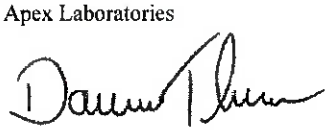
Non-Client Batch QC Samples (Duplicates and Matrix Spike/Duplicates) may not be included in this report. Please request a Full QC report if this data is required.

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).

Apex Laboratories



The results in this report apply to the samples analyzed in accordance with the chain of custody document(s) and updated by any subsequent written communications. This analytical report must be reproduced in its entirety.

Darwin Thomas, Business Development Director

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

ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project: Gasco - Oily Solids	
2749 Lockport Road	Project Number: 111323	Report ID:
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3G1130 - 09 21 23 1330

REPORTING NOTES AND CONVENTIONS (Cont.):

Blanks:

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to ½ the Reporting Limit (RL)

-For Blank hits falling between ½ 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.

-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, if results are not reported to the MDL.

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:

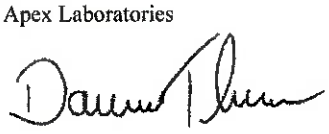
Certain regulatory programs, such as National Pollutant Discharge Elimination System (NPDES), require that activities such as sample filtration (for dissolved metals, orthophosphate, hexavalent chromium, etc.) and testing of short hold analytes (pH, Dissolved Oxygen, etc.) be performed in the field (on-site) 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.

Apex Laboratories



Darwin Thomas, Business Development Director

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ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: Gasco - Oily Solids Project Number: 111323 Project Manager: Chip Byrd	Report ID: A3G1130 - 09 21 23 1330

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:

Apex Laboratories

Matrix	Analysis	TNI_ID	Analyte	TNI_ID	Accreditation

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 provded by the client or sampler, and fall outside of Apex Laboratories' Scope of Accreditation.

APEX LABORATORIES

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

ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305	Project: **Gasco - Oily Solids** Project Number: **111323** Project Manager: **Chip Byrd**	**Report ID:** A3G1130 - 09 21 23 1330

APEX LABS — CHAIN OF CUSTODY

Lab # A3G1130 COC ___ of ___

6700 SW Sandburg St, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

Company: Sevenson Environmental Services, Inc. | Project Mgr: Chip Byrd | Gasco -- Oily Solids | Project # 111323

Address: 2749 Lockport Road, Niagara Falls, NY 14305 | Phone: (716) 583-2754 | Fax: | Email: wbyrd@sevenson.com

Sampled by:

ANALYSIS REQUEST

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	1311/8270 TCLP - Full List -SVOCs	BTU D-240 (Subcontract)	1311/8260 TCLP ZHE - Full List -VOCs	8260D VOCs	8270D LL Full List	Dry Weight	Metals, RCRA 8	1311/6020 TCLP RCRA 8 Metals	Total Cyanide, D7511, OIA	NW TPH Dx	NW TPH Gx	Hg (Mercury) - 1631-I
T100-071723-4		7-17-23	0800	S	1	X	X	X	X	X	X	X	X	X	X	X	X

SPECIAL INSTRUCTIONS:

TAT Requested (circle): 1 DAY 2 DAY 3 DAY 4 DAY 5 DAY Other: __ STD

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: Alice Byrd Date: 7-17-23	Signature: [signature] Date: 7/17/23	Signature: Date:	Signature: Date:
Printed Name: Alice Byrd Time: 950	Printed Name: Eli Joyner Time: 950	Printed Name: Time:	Printed Name: Time:
Company: SES	Company: APEX LABS	Company:	Company:

Apex Laboratories

[signature]

Darwin Thomas, Business Development Director

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

APEX LABORATORIES

ANALYTICAL REPORT

AMENDED REPORT

Sevenson Environmental Services, Inc.	Project **Gasco - Oily Solids**	**Report ID:**
2749 Lockport Road	Project Number **111323**	**A3G1130 - 09 21 23 1330**
Niagara Falls, NY 14305	Project Manager **Chip Byrd**	

APEX LABS COOLER RECEIPT FORM

Client: Sevenson Environmental Services, Inc. Element WO#: A3G1130

Project/Project #: Gasco - Oily Solids 111323

Delivery Info:
Date/time received: 7/7/23 @ 950 By: EST
Delivered by: Apex X Client ESS FedEx UPS Radio Morgan SDS Evergreen Other

Cooler Inspection Date/time inspected: 7/7/23 @ 1040 By: EST

Chain of Custody included? Yes X No
Signed/dated by client? Yes X No

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (°C)	2.8						
Custody seals? (Y/N)	N						
Received on ice? (Y/N)	Y						
Temp. blanks? (Y/N)	Y						
Ice type: (Gel/Real/Other)	Gel						
Condition (In/Out):	In						

Cooler out of temp? (Y/N) Possible reason why:
Green dots applied to out of temperature samples? Yes/No
Out of temperature samples form initiated? Yes/No

Sample Inspection: Date/time inspected: 7.12.23 @ 1522 By: DJS

All samples intact? Yes X No Comments:

Bottle labels/COCs agree? Yes X No Comments:

COC/container discrepancies form initiated? Yes No X
Containers/volumes received appropriate for analysis? Yes X No Comments: Matrix is a Solid. Strong ODOR.
Do VOA vials have visible headspace? Yes No NA X
Comments
Water samples: pH checked: Yes No NA X pH appropriate? Yes No NA X
Comments:

Additional information:

Labeled by: DJS Witness: RAN Cooler Inspected by: AAW

Form Y-003 R-00

Apex Laboratories

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Darwin Thomas, Business Development Director

PRECISION PETROLEUM LABS, INC.

CERTIFICATE OF ANALYSIS

LABORATORY ADDRESS
5915 Star Lane, Houston, TX 77057
Ph. 713-680-9425 Fax: 713-680-9564
Website: precisionlabs.org

Client Name: Apex Laboratories
Street Address: 6700 SW Sandburg St
City, State, Zip: Tigard, OR 97223

INVOICE No:.	99124	DATE/TIME COLLECTED:	07/17/2023 @8:00
LAB REFERENCE No:.	2023-07-353	MATRIX TYPE:	Solid
AUTHORIZED BY:	Darwin Thomas	SAMPLE TYPE:	Bulk
PRODUCT ID:	(A3G1130-01) T100-071723-4		
DATE RECEIVED:	07/20/2023		

PARAMETER	TEST METHOD	REPORTING LIMIT	TEST RESULT
Heat of combustion, BTU/Lb.	D-240	2,150	10,694

Daniel Zabihi
QA Manager

Date: 07/21/2023

PRIMARY ACCREDITATION TCEQ, #T104704203-22-16
ARIZONA LICENSE # AZ0630

QUALIFIERS & ABBREVIATIONS: BRL - Below Reporting Limit; SCL - Test performed by an approved subcontract laboratory; B - Analyte was detected in the associated method blank; Matrix spike/matrix spike duplicate (M), Laboratory control sample (L), Calibration criteria (C), and Surrogate (S) recoveries were outside acceptance limits. Test deviation applied to Method 8260 (VOCS). Sample date analyzed for each test is available upon request. *Not on laboratory's field of accreditation.

COMMENTS: This certificate is Confidential Business Information and will only be provided to designated customer point-of-contact(s). Other production of this report requires prior authorization from the customer. There were no quality assurance anomalies associated with these tests.

SUBCONTRACT ORDER EST

Apex Laboratories

APL 7/17/23 **A3G1130**

SENDING LABORATORY:	RECEIVING LABORATORY:
Apex Laboratories	Precision Petroleum Labs
6700 S.W. Sandburg Street	5915 Star Lane
Tigard, OR 97223	Houston, TX 77057
Phone: (503) 718-2323	Phone :(713) 680-9425
Fax: (503) 336-0745	Fax: (713) 680-9564
Project Manager: Darwin Thomas	

Sample Name: T100-071723-4 **Solid** **Sampled: 07/17/23 08:00** (A3G1130-01)

Analysis	Due	Expires	Comments
Subcontract Outside *Containers Supplied:* (B)2 oz Glass Jar	07/28/23 17:00	01/13/24 08:00	ASTM D-240 -- Precision Petro

Standard TAT

JUL 20 2023

10:15 am

7-18-23

Released By	Date	Received By	Date
UPS (Shipper)		UPS (Shipper)	
Released By	Date	Received By	Date

Table 1 - Charted APEX Analytical Results

Sample: (Number)			**4**	
Sample ID			**T100-071723-4**	
LAB ID			**A3G1130-01**	
	EPA Toxicity Characteristic (TC) Regulatory Threshold Values		**Results**	**Qualifier**
	20x EPA TC values in ug/kg*	**Actual EPA TC values in ug/L**		
Diesel (ug/kg dry)			**10,900,000**	**F-11**
Oil (ug/kg dry)			<379000	
Gasoline Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-Gx (ug/kg dry)			**4,950,000**	**F-03**
Volatile Organic Compounds by EPA 8260D			**ug/kg dry**	
Acetone			<97500	
Acrylonitrile				
Benzene	10,000	500	<975	
Bromobenzene			<2440	
Bromochloromethane			<4870	
Bromodichloromethane			<4870	
Bromoform			<9750	
Bromomethane			<97500	
2-Butanone (MEK)	4,000,000	200,000	<48700	
n-Butylbenzene			<4870	
sec-Butylbenzene			<4870	
tert-Butylbenzene			<4870	
Carbon disulfide				
Carbon tetrachloride	10,000	500	<4870	
Chlorobenzene	2,000,000	100,000	<2440	
Chloroethane			<97500	
Chloroform	120,000	6,000	<4870	
Chloromethane			<24400	
2-Chlorotoluene			<4870	
4-Chlorotoluene			<4870	
Dibromochloromethane			<9750	
1,2-Dibromo-3-chloropropane			<48700	
1,2-Dibromoethane (EDB)			<4870	
Dibromomethane			<4870	
1,2-Dichlorobenzene			<2440	
1,3-Dichlorobenzene			<2440	
1,4-Dichlorobenzene	150,000	7,500	<2440	
Dichlorodifluoromethane			<9750	
1,1-Dichloroethane			<2440	
1,2-Dichloroethane (EDC)	10,000	500	<2440	
1,1-Dichloroethene	14,000	700	<2440	
cis-1,2-Dichloroethene			<2440	
trans-1,2-Dichloroethene			<2440	
1,2-Dichloropropane			<2440	
1,3-Dichloropropane			<4870	
2,2-Dichloropropane			<4870	
1,1-Dichloropropene			<4870	
cis-1,3-Dichloropropene			<4870	
trans-1,3-Dichloropropene			<4870	
Ethylbenzene			**4290**	**J**
Hexachlorobutadiene	10,000	500	<9750	
2-Hexanone			<48700	
Isopropylbenzene			<4870	
4-Isopropyltoluene			<4870	
Methylene chloride			<48700	

Table 1 - Charted APEX Analytical Results

4-Methyl-2-pentanone (MiBK)			<48700	
Methyl tert-butyl ether (MTBE)			<4870	
Naphthalene			**1,610,000**	
n-Propylbenzene			<2440	
Styrene			<4870	
1,1,1,2-Tetrachloroethane			<2440	
1,1,2,2-Tetrachloroethane			<4870	
Tetrachloroethene (PCE)	14,000	700	<2440	
Toluene			<4870	
1,2,3-Trichlorobenzene			<24400	
1,2,4-Trichlorobenzene			<24400	
1,1,1-Trichloroethane			<2440	
1,1,2-Trichloroethane			<2440	
Trichloroethene (TCE)	10,000	500	<2440	
Trichlorofluromethane			<9750	
1,2,3-Trichloropropane			<4870	
1,2,4-Trimethylbenzene			**9450**	**J**
1,3,5-Trimethylbenzene			<4870	
Vinyl chloride	4,000	200	<2440	
m,p-Xylene			<4870	
o-Xylene			<2440	
TCLP Volatile Organic Compounds by EPA1311/8260D			**ug/L**	
Acetone			<500	
Benzene	10,000	500	<6.25	
Bromobenzene			<12.5	
Bromochloromethane			<25.0	
Bromodichloromethane			<25.0	
Bromoform			<25.0	
Bromomethane			<250	
2-Butanone (MEK)	4,000,000	200,000	<250	
n-Butylbenzene			<25.0	
sec-Butylbenzene			<25.0	
tert-Butylbenzene			<25.0	
Carbon tetrachloride	10,000	500	<25.0	
Chlorobenzene	2,000,000	100,000	<12.5	
Chloroethane			<250	
Chloroform	120,000	6,000	<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	<12.5	
Dichlorodifluoromethane			<25.0	
1,1-Dichloroethane			<12.5	
1,1-Dichloroethene	14,000	700	<12.5	
1,2-Dichloroethane (EDC)	10,000	500	<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	

Table 1 - Charted APEX Analytical Results

cis-1,3-Dichloropropene			<25.0	
trans-1,3-Dichloropropene			<25.0	
Ethylbenzene			**19.5**	**J**
Hexachlorobutaldiene	10,000	500	<125	
2-Hexanone			<250	
Isopropylbenzene			<25.0	
4-Isopropyltoluene			<25.0	
4-Methyl-2-pentanone (MiBK)			<250	
Methyl tert-butyl ether (MTBE)			<25.0	
Methylene chloride			<250	
n-Propylbenzene			<12.5	
Stryrene			<25.0	
1,1,1,2-Tetrachloroethane			<12.5	
1,1,2,2-Tetrachloroethane			<12.5	
Naphthalene			**4520**	**Q-54e**
Tetrachloroethene (PCE)	14,000	700	<12.5	
Toluene			<25.0	
1,2,3-Trichlorobenzene			<25.0	
1,2,4-Trichlorobenzene			<50.0	
1,1,1-Trichloroethane			<12.5	
1,1,2-Trichloroethane			<12.5	
Trichloroethene (TCE)	10,000	500	<12.5	
Trichlorofluromethane			<50.0	
1,2,3-Trichloropropane			<25.0	
1,2,4-Trimethylbenzene			<25.0	
1,3,5-Trimethylbenzene			<25.0	
Vinyl chloride	4,000	200	<12.5	
m,p-Xylene			<25.0	
o-Xylene			<12.5	
Semivolatile Organic Compounds by EPA 8270E			**ug/kg dry**	
Acenaphthene			**7,020,000**	
Acenaphthylene			<492000	R-02
Anthracene			**5,850,000**	
Benz(a)anthracene			**3,010,000**	
Benzo(a)pyrene			**3,360,000**	
Benzo(b)fluoranthene			**2,670,000**	
Benzo(k)fluoranthene			**902,000**	**M-05**
Benzo(g,h,i)perylene			**2,440,000**	
Chrysene			**3,940,000**	
Dibenz(a,h)anthracene			**287,000**	
Fluoranthene			**12,500,000**	
Fluorene			**4,890,000**	
Indeno(1,2,3-cd)pyrene			**1,910,000**	
1-Methlnaphthalene			**3,430,000**	
2-Methlnaphthalene			**5,780,000**	
Naphthalene			**8,210,000**	
Phenanthrene			**25,600,000**	
Pyrene			**14,200,000**	
Carbazole			**756,000**	
Dibenzofuran			**667,000**	
2-Chlorophenol			<243000	
4-Chloro-3-methyplenol			<484000	
2,4-Dichlorophenol			<243000	
2,4-Dimethyphenol			<243000	
2,4-Dinitrophenol			<1210000	
4,6-Dinitro-2-methylphenol			<1210000	
2-Methylphenol	4,000,000	200,000	<121000	

Table 1 - Charted APEX Analytical Results

3+4-Methyphenol(s)			<121000	
2-Niptrophenol			<484000	
4-Nitrophenol			<972000	
Pentachlorophenol(PCP)	2,000,000	100,000	<484000	
Phenol			<97200	
2,3,4,6-Tetrachlorophenol			<243000	
2,3,5,6-Tetrachlorophenol			<243000	
2,4,5-Trichlorophenol	8,000,000	400,000	<243000	
2,4,6-Trichlorophenol	40,000	2,000	<243000	
Bis(2-ethylhexyl)phthalate			<728000	
Butyl benzyl phtalate			<484000	
Diethyphthalate			<484000	
Dimethylphthalate			<484000	
Di-n-butylphthalate			<484000	
Di-n-octyl phthalate			<484000	
N-Nitrosodimethylamine			<121000	
N-Nitroso-di-n-propylamine			<121000	
N-Nitrosodiphenylamine			<335000	R-02
Bis(2-Chloroethoxy) methane			<121000	
Bis(2-Chloroethyl) ether			<121000	
2,2'- Oxybis (1-Chloropropane)			<121000	
Hexachlorobenzene	2,600	130	<48400	
Hexachlorobutadiene	10,000	500	<121000	
Hexachlorocyclopentadiene			<243000	
Hexachloroethane	60,000	3,000	<121000	
2-Chloronaphthalene			<48400	
1,2,4-Trichlorobenzene			<121000	
4-Bromophenyl phenyl ether			<121000	
4-Chlorophenyl phenyl ether			<121000	
Aniline			<243000	
4-Chloroaniline			<121000	
2-Nitroaniline			<972000	
3-Nitroaniline			<972000	
4-Nitroaniline			<972000	
Nitrobenzene	40,000	2,000	<484000	
2,4-Dinitrotoluene	2,600	130	<972000	
2,6-Dinitrotoluene			<484000	
Benzoic acid			<6080000	
Benzyl alchohol			<243000	
Isophorone			<121000	
Azobenzene (1,2-DPH)			<121000	
Bis(2-Ethylhexyl)adipate			<1210000	
3,3'-Dichlorobenzidine			<972000	Q-52
1,2-Dinitrobenzene			<1210000	
1,3-Dinitrobenzene			<1210000	
1,4-Dinitrobenzene			<1210000	
Pyridine	100,000	5,000	<243000	
1,2-Dichlorobenzene			<121000	
1,3-Dichlorobenzene			<121000	
1,4-Dichlorobenzene	150,000	7,500	<121000	
TCLP Semivolatile Organic Compounds by EPA 8270D (ug/L)			**ug/L**	
Acenaphthene			**271**	
Acenaphthylene			<80.0	R-02
Anthracene			**26.4**	
Benz(a)anthracene			<1.00	
Benzo(a)pyrene			<1.50	
Benzo(b)fluoranthene			<1.50	

Table 1 - Charted APEX Analytical Results

Benzo(k)fluoranthene			<1.50	
Benzo(g,h,i)perylene			<1.00	
Chrysene			<1.00	
Dibenz(a,h)anthracene			<1.00	
Fluoranthene			**18.8**	
Fluorene			**109**	
Indeno(1,2,3-cd)pyrene			<1.00	
1-Methlnaphthalene			**261**	
2-Methlnaphthalene			**393**	
Naphthalene			**2170**	**B**
Phenanthrene			**200**	
Pyrene			**18.4**	
Carbazole			**200**	
Dibenzofuran			**22.2**	
2-Chlorophenol			<5.00	
4-Chloro-3-methylplenol			<10.0	
2,4-Dichlorophenol			<5.00	
2,4-Dimethyphenol			<5.00	
2,4-Dinitrophenol			<25.0	
4,6-Dinitro-2-methylphenol			<25.0	
2-Methylphenol	4,000,000	200,000	<2.50	
3+4-Methyphenol(s)			<2.50	
2-Niptrophenol			<10.0	
4-Nitrophenol			<10.0	
Pentachlorophenol(PCP)	2,000,000	100,000	<10.0	
Phenol			<20.0	
2,3,4,6-Tetrachlorophenol			<5.00	
2,3,5,6-Tetrachlorophenol			<5.00	
2,4,5-Trichlorophenol	8,000,000	400,000	<5.00	
2,4,6-Trichlorophenol	40,000	2,000	<5.00	
Bis(2-ethylhexyl)phthalate			<20.0	
Butyl benzyl phtalate			<20.0	
Diethyphthalate			<20.0	
Dimethylphthalate			<20.0	
Di-n-butylphthalate			<20.0	
Di-n-octyl phthalate			<20.0	
N-Nitrosodimethylamine			<2.50	
N-Nitroso-di-n-propylamine			<2.50	
N-Nitrosodiphenylamine			<5.00	
Bis(2-Chloroethoxy) methane			<2.50	
Bis(2-Chloroethyl) ether			<2.50	
2,2'- Oxybis (1-Chloropropane)			<2.50	
Hexachlorobenzene	2,600	130	<1.00	
Hexachlorobutadiene	10,000	500	<2.50	
Hexachlorocyclopentadiene			<5.00	
Hexachloroethane	60,000	3,000	<2.50	
2-Chloronaphthalene			<1.00	
1,2,4-Trichlorobenzene			<0.500	
4-Bromophenyl phenyl ether			<2.50	
4-Chlorophenyl phenyl ether			<2.50	
Aniline			<5.00	
4-Chloroaniline			<2.50	
2-Nitroaniline			<20.0	
3-Nitroaniline			<20.0	
4-Nitroaniline			<20.0	
Nitrobenzene	40,000	2,000	<10.0	
2,4-Dinitrotoluene	2,600	130	<10.0	
2,6-Dinitrotoluene			<10.0	

Table 1 - Charted APEX Analytical Results

Benzoic acid			<125	
Benzyl alchohol			<10.0	
Isophorone			<2.50	
Azobenzene (1,2-DPH)			<2.50	
Bis(2-Ethylhexyl)adipate			<25.0	
3,3'-Dichlorobenzidine				
1,2-Dinitrobenzene			<25.0	
1,3-Dinitrobenzene			<25.0	
1,4-Dinitrobenzene			<25.0	
Pyridine	100,000	5,000	<10.0	
1,2-Dichlorobenzene			<2.50	Q-30
1,3-Dichlorobenzene			<2.50	
1,4-Dichlorobenzene	150,000	7,500	<2.50	
Mercury by Cold Vapor Atomic Fluorescence			**4.10**	
Total Metals by EPA 6020B(ICPMS)			**ug/kg dry**	
Arsenic	100,000	5,000	**3100**	
Barium	2,000,000	100,000	**49900**	
Cadmium	20,000	1,000	<100	
Chromium	100,000	5,000	**10100**	
Lead	100,000	5,000	**1060**	
Mercury	4,000	200	**112**	
Selenium	20,000	1,000	<501	
Silver	100,000	5,000	<100	
TCLP Metals by EPA 6020B (ICPMS)			**ug/kg dry**	
Arsenic	100,000	5,000	<50.0	
Barium	2,000,000	100,000	<2500	
Cadmium	20,000	1,000	<50.0	
Chromium	100,000	5,000	<50.0	
Lead	100,000	5,000	<25.0	
Mercury	4,000	200	<3.75	
Selenium	20,000	1,000	<50.0	
Silver	100,000	5,000	<50.0	
Conventionals				
Cyanide - Total (Non-Aqueous Water Leach) by EPA 9013M/9014 (ug/kg dry)				
Total Cyanide (ug/kg dry)			**2480**	
Percent Dry Weight by EPA 8000C or Free Liquid (mL)				
%Solids				
Heat of Combustion BTU/LB (D-240)				
			10,694	

NOTES:

***If laboratory results from the totals test reported in ug/kg exceed the "20x TC Threshold" value, then see results of the TCLP test for direct comparison to actual TC regulatory levels reported in ug/L for regulatory status determination.**

B = Analyte detected in an associated blank at a level above the MRL. (See Notes and Conventions below.)

F-03 = The result for this hydrocarbon range is elevated due to the presence of individual analyte peaks in the quantitation range that are not representative of the fuel pattern reported.

F-11 = The hydrocarbon pattern indicates possible weathered diesel, or a contribution from a related component.

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-30 = Recovery for Lab Control Spike (LCS) is below the lower control limit. Data may be biased low.

Q-52 = Due to erratic or low blank spike recoveries, results for this analyte are considered Estimated Values.

Q-54e = Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260C/8270D by [-3%]. The results are reported as Estimated Values.

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

Table 2 - Charted Pace Anaytical Results

Sample Indentification	**T100-071723-4**				
Report Date	**26-Sep-23**				
Pace Analytical Report	**L1658716**				
PaceSample Indentification	**L1658716-01**				
Radiochemistry by Method DOE Ga-01-R/901.1					
Analyte (*1)	**WM Limits (*2)**	**Results**	**Qualifier**	**Uncertainty (+/-)**	**MDA**
	pCi/g	**pCi/g**			**pCi/g**
Potassium-40		0.637		0.310	0.490
Thallium-208		0.0386		0.0202	0.0309
Lead-210	**10**	1.11	**U**	1.45	2.57
Lead-212		0.0986		0.331	0.0470
Lead-214		0.0763		0.0351	0.0675
Bismuth-212		0.0322	**U**	0.239	0.522
Bismuth-214 (Ra-226)	**5**	0.0792		0.0447	0.0785
Radium-226 (186 KeV)	**5**	0.0580	**U**	0.184	0.333
Actinium-228 (Ra-228)	**20**	0.0842	**J**	0.0573	0.104
Thorium-234 (U-238)	**10**	0.0673	**U**	0.235	0.585
Protactinium-234m		-0.698	**U**	2.16	13.9
Uranium-235	**10**	-0.0222	**U**	0.0184	0.0339

NOTES:

J= The identification of the analyte is acceptable; the reported value is an estimate

U= Below Detectable Limits: Indicates that the analyte was not detected.

Waste Management (WM) uses a custom gamma spec isotope list agreed upon with Oregon Department of Energy (*1).
The main isotopes of concern are Radium226, Radium228, Uranium, Thorium, and Lead210 (and all their daughter products).
For a material to not require a pathway exemption to be disposed of in Oregon it needs to be below the limits
provided in OAR 345-050's table 1 which WM has simplified (*2).
Please keep in mind that factors such as uncertainty effect the final value.

Identification of Constituents of Concern for Waste Codes F001-F005, F039 and Underlying Hazardous Constituents (UHCs)

Generator Name: NW Natural Manifest Number: _____

Profile Number OR356627

If D001-D043 requires treatment to 268.48 standards, then each underlying hazardous constituent present in the waste at the point of generation, and at a level above the UTS constituent specific treatment standard, must be listed. Write the letter (A, B.1, B.3, B.4, B.6, C or D which corresponds to the letter on form CWM-LC-2005C) beside each constituent present, to properly describe how the constituent(s) must be managed under 40 CFR 268.7. If contaminated soil requires treatment to the 268.49 standards, then each UHC in the waste at the point of generation, and at a level above 10 x the UTS must be listed. Write the letter (A.1 or B.5) which corresponds to the letter on form CWM-LC-2005-E beside each constituent present.

CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	WW Mg/l	NWW Mg/kg	CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	WW Mg/l	NWW Mg/kg
Acenaphthene		0.059	3.4	n- Butanol (butly alcohol)		5.6	2.6
Acenaphthylene		0.059	3.4	Butyl benzyl phthalate		0.017	28
Acetone		0.28	160	Butylate[2]		0.042	1.4
Acetonitrile		5.6	38[2]	2-sec-Butyl-4,6-dinitrophenol *(Dinoseb)*		0.066	2.5
Acetophenone		0.010	9.7	Carbaryl[2]		0.006	0.14
2-Acetylaminofluorene		0.059	140	Carbenzadim[2]		0.056	1.4
Acrolein		0.29	NA	Carbofuran[2]		0.006	0.14
Acrylamide[2]		19	23	Carbofuran phenol[2]		0.056	1.4
Acrylonitrile		0.24	84	Carbon disulfide (TCLP)		3.8	4.8[1,2]
Aldicarb sulfone[2]		0.056	0.28	Carbon tetrachloride		0.057	6.0
Aldrin		0.021	0.066	Carbosulfan[2]		0.028	1.4
4-Aminobiphenyl		0.13	NA	Chlordane (alpha & gamma)		0.0033	0.26
Aniline		0.81	14	p-Chloroaniline		0.46	16
o-Ansidine		0.010	0.66	Chlorobenzene		0.057	6.0
Anthracene		0.059	3.4	Chlorobenzilate		0.10	NA
Aramite		0.36	NA	2-chloro-1,3-butadiene		0.057	0.28[2]
Barban[2]		0.056	1.4	Chlorodibromomethane		0.057	15
Bendiocarb[2]		0.056	1.4	Chloroethane		0.27	6.0
Benomyl[2]		0.056	1.4	bis-(2-Chloroethoxy) methane		0.036	7.2
Benz (a) anthracene		0.059	3.4	bis-(2-Chloroethyl) ether		0.033	6.0
Benzal chloride[2]		0.055	6.0	2-Chloroethyl vinyl ether[2]		0.062	NA
Benzene		0.14	10	Chloroform		0.046	6.0
Benzo (b) flouranthene[4]		0.11	6.8	bis-(2-Chloroisopropyl) ether		0.055	7.2
Benzo (k) flouranthene[4]		0.11	6.8	p-Chloro-m-cresol		0.018	14
Benzo (g,h,i) perylene		0.0055	1.8	Chloromethane (methyl chloride)		0.19	30
Benzo (a) pyrene		0.061	3.4	2-Chloronaphthalene		0.055	5.6
alpha-BHC		0.00014	0.066	2-Chlorophenol		0.044	5.7
beta-BHC		0.00014	0.066	3-Chloropropylene		0.036	30
delta-BHC		0.023	0.066	Chrysene		0.059	3.4
gamma-BHC (Lindane)		0.0017	0.066	p- Cresidine		0.010	0.66
Bromodichloromethane		0.35	15	o-Cresol		0.11	5.6
Bromomethane (methyl bromide)		0.11	15	m-Cresol		0.77	5.6
4-Bromophenyl phenyl ether		0.055	15	p-Cresol		0.77	5.6

Identification of Constituents of Concern for Waste Codes F001-F005, F039 and Underlying Hazardous Constituents (UHCs)

CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	WW Mg/l	NWW Mg/kg	CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	WW Mg/l	NWW Mg/kg
m-Cumeyl methylcarbamate[2]		0.056	1.4	1,4-Dioxane		12	170
Cyclohexanone (TCLP)		0.36	0.75[1,2]	Diphenyl amine[4]		0.92	13[2]
o,p'-DDD		0.023	0.087	Diphenylnitrosoamine[4]		0.92	13[2]
p,p'-DDD		0.023	0.087	1,2-Diphenylhydrazine		0.087	NA
o,p'-DDE		0.031	0.087	Disulfoton		0.017	6.2
p,p'-DDE		0.031	0.087	Dithiocarbamates (total)[2,4]		0.028	28
o,p'-DDT		0.0039	0.087	Endosulfan I		0.023	0.066
p,p'-DDT		0.0039	0.087	Endosulfan II		0.029	0.13
Dibenz (a,h) anthracene		0.055	8.2	Endosulfan Sulfate		0.029	0.13
Dibenz (a,e) pyrene		0.061	NA	Endrin		0.0028	0.13
1,2-Dibromo-3-Chloropropane		0.11	15	Endrin aldehyde		0.025	0.13
1,2-Dibromoethane *(Ethylene dibromide)*		0.028	15	EPTC[2]		0.042	1.4
Dibromomethane		0.11	15	Ethyl acetate		0.34	33
m-Dichlorobenzene		0.036	6.0	Ethyl benzene		0.057	10
o-Dichlorobenzene		0.088	6.0	Ethyl cyanide (Propanenitrile)		0.24	360
p-Dichlorobenzene		0.090	6.0	Ethyl ether		0.12	160
Dichlorodifluoromethane		0.23	7.2	Ethyl methacrylate		0.14	160
1,1-Dichloroethane		0.059	6.0	Ethylene oxide		0.12	NA
1,2-Dichloroethane	D	0.21	6.0	bis-(2-Ethylyhexyl) phthalate		0.28	28
1,1-Dichloroethylene	D	0.025	6.0	Famphur		0.017	15
trans-1,2-Dichloroethylene	D	0.054	30	Fluoranthene		0.068	3.4
2,4-Dichlorophenol		0.044	14	Fluorene		0.059	3.4
2,6-Dichlorophenol		0.044	14	Formetanate hydrochloride[2]		0.056	1.4
2,4-Dichlorophenoxyacetic acid *(2,4-D)*		0.72	10	Heptachlor		0.0012	0.066
1,2-Dichloropropane		0.85	18	1,2,3,4,6,7,8-HpCDD		0.000035	0.0025
cis-1,3-Dichloropropylene		0.036	18	1,2,3,4,6,7,8-HpCDF		0.000035	0.0025
trans-1,3-Dichloropropylene		0.036	18	1,2,3,4,7,8,9-HpCDF		0.000035	0.0025
Dieldrin		0.017	0.13	Heptachlor epoxide		0.016	0.066
Diethyl phthalate		0.20	28	Hexachlorobenzene		0.055	10
p-Dimethylaminoazobenzene[2]		0.13[2]	NA	Hexachlorobutadiene		0.055	5.6
2,4-Dimethyleneaniline		0.010	0.66	Hexachlorocyclopentadiene		0.057	2.4
2,4-Dimethyl phenol		0.036	14	Hexachloroethane		0.055	30
Dimethyl phthalate		0.047	28	Hexachloropropylene		0.035	30
Di-n-butyl phthalate		0.057	28	Hexachlorodibenzo-p-dioxins		0.000063	0.001
1,4-Dinitrobenzene		0.32	2.3	Hexachlorodibenzo-furans		0.000063	0.001
4,6-Dinitro-o-cresol		0.28	160	Indeno (1,2,3-c,d) pyrene		0.0055	3.4
2,4-Dinitrophenol		0.12	160	Iodomethane		0.19	65
2,4-Dinitrotoluene		0.32	140	Isobutanol (Isobutyl Alcohol)		5.6	170
2,6-Dinitrotoluene		0.55	28	Isodrin		0.021	0.066
Di-n-octyl phthalate		0.017	28				
Di-n-propylnitrosoamine		0.40	14				

Identification of Constituents of Concern for Waste Codes F001-F005, F039 and Underlying Hazardous Constituents (UHCs)

CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	WW Mg/l	NWW Mg/kg	CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	WW Mg/l	NWW Mg/kg
Isosafrole		0.081	2.6	1,2,3,4,6,7,8,9-OCDD		.000063	0.005
Kepone		0.0011	0.13	1,2,3,4,6,7,8,9-OCDF		.000063	0.005
Methacrylonitrile		0.24	84	Oxamyl[2]		0.056	0.28
Methanol (TCLP)		5.6	0.75[1,2]	Parathion		0.014	4.6
Methapyrilene		0.081	1.5	PCBs (Total) all isomers or Aroclors		0.10	10
Methiocarb[2]		0.056	1.4	Pebulate[2]		0.042	1.4
Methomyl[2]		0.028	0.14	Pentachlorobenzene		0.055	10
Methoxychlor		0.25	0.18	Pentachlorodibenzo-p-dioxins		.000063	0.001
Methyl ethyl ketone		0.28	36	Pentachlorodibenzo-furans		.000035	0.001
Methyl isobutyl ketone		0.14	33	Pentachloroethane[2]		0.055	6.0
Methyl methacrylate		0.14	160	Pentachloronitrobenzene		0.055	4.8
Methyl methanesulfonate		0.018	NA	Pentachlorophenol		0.089	7.4
Methyl parathion		0.014	4.6	Phenacetin		0.081	16
3-Methylcholanthrene		0.0055	15	Phenathrene		0.059	5.6
4,4-Methylene-bis-(2-chloroaniline)		0.50	30	Phenol		0.039	6.2
Methylene chloride		0.089	30	1,2-Phenylenediamine[2,3]		CMBST	CMBST
Metolcarb[2]		0.056	1.4	1,3-Phenylenediamine		0.010	0.66
Mexacarbate[2]		0.056	1.4	Phorate		0.021	4.6
Molinate[2]		0.042	1.4	Phthalic acid[2]		0.055	28
Naphthalene		0.059	5.6	Phthalic anhydride		0.055	28
2-Naphthylamine		0.52	NA	Physostigmine[2]		0.056	1.4
o-Nitroaniline[2]		0.27	14	Physostigmine salicylate[2]		0.056	1.4
p-Nitroaniline		0.028	28	Promecarb[2]		0.056	1.4
Nitrobenzene		0.068	14	Pronamide		0.093	1.5
5-Nitro-o-toluidine		0.32	28	Propham[2]		0.056	1.4
o-Nitrophenol[2]		0.028	13	Propoxur[2]		0.056	1.4
p-Nitrophenol		0.12	29	Prosulfocarb[2]		0.042	1.4
N-Nitrosodiethylamine		0.40	28	Pyrene		0.067	8.2
N-Nitrosodimethylamine		0.40	2.3[2]	Pyridine		0.014	16
N-Nitroso-di-n-butylamine		0.40	17	Safrole		0.081	22
N-Nitrosomethylethylamine		0.40	2.3	Silvex (2,4,5-TP)		0.72	7.9
N-Nitrosomorpholine		0.40	2.3	1,2,4,5-Tetrachlorobenzene		0.055	14
N-Nitrosopiperidine		0.013	35	Tetrachlorodibenzo-dioxins		.000063	0.001
N-Nitrosopyrrolidine		0.013	35	Tetrachlorodibenzo-furans		.000063	0.001
				1,1,1,2-Tetrachloroethane		0.057	6.0
				1,1,2,2-Tetrachloroethane		0.057	6.0
				Tetrachloroethylene		0.056	6.0
				2,3,4,6-Tetrachlorophenol		0.030	7.4
				Thiodicarb[2]		0.019	1.4

Identification of Constituents of Concern for Waste Codes F001-F005, F039 and Underlying Hazardous Constituents (UHCs)

CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	WW Mg/l	NWW Mg/kg	CONSTITUENT	HOW MUST THIS CONSTITUENT BE MANAGED?	WW Mg/l	NWW Mg/kg
Thiophanate-methyl[2]		0.056	1.4	Antimony		1.9	1.15[1]
Toluene		0.080	10	Arsenic		1.4	5.0[1]
Toxaphene		0.0095	2.6	Barium		1.2	21.0[1]
Triallate[2]		0.042	1.4	Beryllium		0.82	1.22[1,6]
Bromoform (Tribromomethane)		0.63	15	Cadmium		0.69	0.11[1]
1,2,4-Trichlorobenzene		0.055	19	Chromium (Total)		2.77	0.60[1]
1,1,1-Trichloroethane		0.054	6.0	Cyanides (Total)		1.2	590
1,1,2-Trichloroethane		0.054	6.0	Cyanides (Amenable)		0.86	30[6]
Trichloroethylene	D	0.054	6.0	Fluoride[3]		35	NA
Trichloromonofluoromethane		0.020	30	Lead		0.69	0.75[1]
2,4,5-Trichlorophenol		0.18	7.4	Mercury (non-waste water from retort)		NA	0.20[1,2]
2,4,6-Trichlorophenol		0.035	7.4	Mercury (All others)		0.15	0.025[1]
2,4,5-T		0.72	7.9	Nickel		3.98	11.0[1]
1,2,3-Trichloropropane		0.85	30	Selenium		0.82	5.7[1,5]
1,1,2-Trichloro-1,2,2-trifluoroethane		0.057	30	Silver		0.43	0.14[1]
Triethylamine[2]		0.081	1.5	Sulfide[3]		14	NA
Tris(2,3-dibromopropyl)phosphate		0.11	0.10[2]	Thallium		1.4	0.20[1]
Vernolate[2]		0.042	1.4	Vanadium[3]		4.3	NA | 1.6[1]
Vinyl chloride	D	0.27	6.0	Zinc[3]		2.61	NA | 4.3[1]
Xylene(sum of o-,m-,and p- isomers)[4]		0.32	30	2-Ethoxyethanol (F005)[7]		INCIN or BIODG	INCIN
				2-Nitropropane (F005)[7]		INCIN or CHOXD	INCIN

❑ No UHC's apply

1. These concentrations are expressed in mg/l and are measured through an analysis of TCLP extract; all others measured through a total waste analysis.
2. These constituents are only applicable as Underlying Hazardous Constituents. They are not constituents requiring treatment in F039 wastes.
3. Not an underlying hazardous constituent requiring treatment in D001-D043 wastes, per 268.2(i). F039 WW standard only.
4. These compounds are regulated by the sum of their concentration instead of as individual constituents.
5. Effective August 24, 1998 in unauthorized states or states with no LDR program, Selenium at 5.7 Mg/L is not considered an underlying hazardous constituent in D001-D043 waste as it is above the characteristic level. This becomes effective in authorized states once that state adopts.
6. These constituents are applicable as Underlying Hazardous Constituents. F039 WW standard applicable.
7. Waste contains this compound as the only listed F001-F005 solvent.

I hereby certify that all information submitted in this and all associated documents is complete and accurate to the best of my knowledge and information.

Name: (Print) William Byrd Title: WWTP Superintendent

Signature: _____ Date: 09/25/2023

LAND DISPOSAL RESTRICTION (LDR) NOTIFICATION AND CERTIFICATION FORM (PHASE IV)

WASTE MANAGEMENT

Generator Name: NW Natural

Profile Number: OR356627 Manifest Number: _____

Ref. #	2. US EPA HAZARDOUS WASTE CODE(s)	3. SUBCATEGORY ENTER THE SUBCATEGORY DESCRIPTION (If not applicable, simply check NONE)		4. HOW MUST THE WASTE BE MANAGED? ENTER LETTER FROM BELOW
		DESCRIPTION	NONE	
1.	F002	N/A	☑	D
2.			☐	
3.			☐	
4.			☐	

1. Is this waste a non-wastewater or wastewater? (See 40 CFR 268.2) Check ONE: ☑ Non-Wastewater ☐ Wastewater
   For hazardous debris meeting the definition of debris and subject to the alternate treatment standards in 268.45, check here: ☐
2. In **column 2**, identify ALL USEPA hazardous waste codes that apply to this waste shipment, as defined by 40 CFR 261.
   - To list additional waste code(s) use Land Disposal Notification/Certification Supplemental Form (CWM-2005-D) and check here: ☐
3. In **column 3**, for each waste code, identify the subcategory if one applies, or check NONE if the waste code has no subcategory.
4. In **column 4**, enter the letter from the list below (A. – D.) that describes how the waste must be managed to comply with the land disposal restriction regulations in 40 CFR 268. Please note that if you enter B.1, B.3, B.6 or D, you are certifying that the waste meets all the Land Disposal Restrictions and may be landfilled without further treatment. If you enter B.4, you are certifying that the waste has been decharacterized, but still requires treatment for UHCs. (States authorized by EPA to manage the LDR program may have regulatory citations different from the 40 CFR citations listed on this form. Where these regulatory citations differ, your form will be deemed to refer to those state citations as well as 40 CFR.)
5. Constituents of concern for waste codes F001-F005 and F039 and underlying hazardous constituents (UHCs) for D001-D043, must be identified unless the treatment facility will monitor for all constituents. **If any of these codes apply, check appropriate box below**:
   - To identify constituents of concern for F001-F005, F039 and UHCs, use the Identification of Constituents of Concern Form (CWM-2007) and check here: ☑
   - If UHCs are applicable, but none are present at the point of generation, check here: ☐
   - If incineration facility will monitor for all constituents of concern (except dioxins), check here: ☐

MANAGEMENT METHODS

A RESTRICTED WASTE REQUIRES TREATMENT
This waste must be treated to the applicable treatment standards set forth in 40 CFR 268.40.

B.1 RESTRICTED WASTE TREATED TO PERFORMANCE STANDARDS
"I certify under penalty of law that I personally have examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process had been operated and maintained properly so as to comply with the treatment standards specified in 40 CFR 268.40 without impermissible dilution of the prohibited waste. I am aware there are significant penalties for submitting a false certification including the possibility of fine and imprisonment."

B.3 GOOD FAITH ANALYTICAL CERTIFICATION FOR INCINERATED ORGANICS
"I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the non-wastewater organic constituents have been treated by combustion units as specified in 268.42 Table 1. I have been unable to detect the non-wastewater organic constituents despite having used best faith efforts to analyze for such constituents. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

B.4 DECHARACTERIZED WASTE REQUIRES TREATMENT FOR UNDERLYING HAZARDOUS CONSTITUENTS
"I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 or 268.49, to remove the hazardous characteristic. This de-characterized waste contains underlying hazardous constituents that require further treatment to meet treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

B.6 RESTRICTED DEBRIS TREATED TO ALTERNATE PERFORMANCE STANDARDS
"I certify under penalty of law that the debris has been treated in accordance with the requirements of 40CFR 268.45. I am aware that there are significant penalties for making a false certification, including the possibility of fine and imprisonment."

C. RESTRICTED WASTE SUBJECT TO A VARIANCE
This waste is subject to a national capacity variance, a treatability variance, or a case-by-case extension. Enter the effective date of prohibition in column (4) above.

D. RESTRICTED WASTE CAN BE LAND DISPOSED WITHOUT FURTHER TREATMENT
"I certify under penalty of law I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Part 268 Subpart D and LAC 33: V. 2223-2233. I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment."

I hereby certify that all information submitted in this and all associated documents is complete and accurate to the best of my knowledge and information.

Name: (Print) William Byrd Title: WWTP Superintendent

Signature: _____ Date: 09/25/2023

EZ Profile™

Requested Facility: CWM Arlington ☐ Unsure Profile Number: OR356627

☐ Multiple Generator Locations (Attach Locations) ☐ Request Certificate of Disposal ☐ Renewal? Original Profile Number: _____

A. GENERATOR INFORMATION (MATERIAL ORIGIN)

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

B. BILLING INFORMATION ☐ SAME AS GENERATOR

1. Billing Name: Sevenson Environmental Services
2. Billing Address: 2749 Lockport Road
   (City, State, ZIP) Niagara Falls NY 14305
3. Contact Name: William Byrd
4. Email: wbyrd@sevenson.com
5. Phone: (503) 286-1785 6. Fax: (503) 286-0298
7. P.O. Number: _____
8. Payment Method: ☑ Credit Account ☐ Cash ☐ Credit Card at Gate

C. MATERIAL INFORMATION

1. Common Name: Coalescing Filter Media

   Describe Process(es) Generating Material: ☐ See Attached

   The influent contaminated groundwater flows through oil-water separator coalescing media to remove free oil droplets and heavy oily solids.

2. Material Composition and Contaminants: ☐ See Attached

1. Polypropylene Plastic	80-95 %
2. Miscellaneous PPE and plastic	5-15 %
3.	
4. Diesel	1-5 %
Total comp. must be equal to or greater than 100%	≥100%

3. State Waste Codes: _____ ☑ N/A
4. Color: White to Black
5. Physical State at 70˚F: ☑ Solid ☐ Liquid ☐ Other: _____
6. Free Liquid Range Percentage: _____ to _____ ☑ N/A
7. pH: 4 to 7 ☐ N/A
8. Strong Odor: ☑ Yes ☐ No Describe: petroleum
9. Flash Point: ☐ <140˚F ☐ 140˚–199˚F ☐ ≥200˚ ☑ N/A

D. REGULATORY INFORMATION

1. EPA Hazardous Waste? ☑ Yes* ☐ No
   Code: F002
2. State Hazardous Waste? ☐ Yes ☑ No
   Code: _____
3. Is this material non-hazardous due to Treatment, Delisting, or an Exclusion? ☐ Yes* ☑ No
4. Contains Underlying Hazardous Constituents? ☐ Yes* ☑ No
5. Does the material contain benzene? ☐ Yes* ☑ No
6. Facility remediation subject to 40 CFR 63 GGGGG? ☐ Yes* ☑ No
7. CERCLA or State-mandated clean-up? ☑ Yes* ☐ No
8. NRC, State-regulated, NORM or TENORM waste? ☐ Yes* ☑ No

***If Yes, see Addendum (page 2) for additional questions and space.**

9. Contains PCBs? → If Yes, answer a, b and c. ☐ Yes ☑ No
   a. Regulated by 40 CFR 761? ☐ Yes ☐ No
   b. Remediation under 40 CFR 761.61? ☐ Yes ☐ No
   c. Were PCBs imported into the US? ☐ Yes ☐ No
10. Regulated and/or Untreated Medical/Infectious Waste? ☐ Yes ☑ No
11. Contains Asbestos? ☐ Yes ☑ No
    → If Yes: ☐ Non-Friable ☐ Non-Friable - Regulated ☐ Friable
12. Contains Dioxins? (If Yes, please attach analysis) ☐ Yes ☑ No

E. ANALYTICAL AND OTHER REPRESENTATIVE INFORMATION

1. Analytical attached ☑ Yes

   Please identify Lab Report(s) and list specific representative Sample ID#s:

   Apex lab report #A3G1130, Lab ID# A3G1130-01; SES ID T100-071723 Charted Lab Results in Table 1 Coalescing Media T-100

2. Other information attached (such as SDS)? ☑ Yes

F. SHIPPING AND DOT INFORMATION

1. ☐ One-Time Event ☑ Repeat Event/Ongoing Business
2. Estimated Annual Quantity/Unit of Measure: 6
   ☐ Tons ☑ Yards ☐ Drums ☐ Gallons ☐ Other _____
3. Container Type and Size: cubic yard box
4. USDOT Proper Shipping Name ☑ N/A
   _____
5. Estimated Start Date _____
6. Transportation Needed? ☐ Yes* ☑ No

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

By signing this Waste Management ("WM") Profile, 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 WM prior to providing the material to WM. I am aware that there are significant penalties for knowingly submitting false information.

☐ I am authorized to sign 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.

☐ I am a duly authorized employee of Generator holding a position of technical responsibility with direct knowledge of the waste stream and the information contained in this profile, and I confirm that information contained in this profile, as well as supporting documents are accurate and complete.

Name (Print): Robert J. Wyatt
Title: Director, Legacy Environmental Program
Company: NW Natural
Date: 9/25/2023

Certification Signature

QUESTIONS? CALL 800 963 4776 FOR ASSISTANCE

EZ Profile™ Addendum

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: OR356627

C. MATERIAL INFORMATION

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

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

5. Oil, fuel	1-5 %
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.
   e. Form Code: W603 f. Source Code: G23
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. a. Are you an industry regulated under Benzene NESHAP? (Petroleum refineries, chemical manufacturing plants, coke by-product, and TSDFs.) ❑ Yes ❑ No
   b. Are you a TSDF? → If yes, please complete Benzene NESHAP questionnaire. If not, continue. ❑ Yes ❑ No
   c. What is the flow weighted average benzene concentration? _____ ppmw
   d. What is your facility's current total annual benzene quantity in Megagrams? ❑ <1 Mg ❑ 1–9.99 Mg ❑ ≥10 Mg
   e. Is this waste soil from a remediation? ❑ Yes ❑No
      1. If yes, what is the benzene concentration in remediation waste? _____ ppmw
   f. Does the waste contain >10% water/moisture? ❑ Yes ❑No
   g. Has material been treated to remove 99% of the benzene or to achieve <10 ppmw? ❑ Yes ❑No
   h. Is material exempt from controls in accordance with 40 CFR 61.342? ❑ Yes ❑No
      → If yes, specify exemption:
   i. 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, State-regulated radioactive, NORM or TENORM? →
   a. Please select all that apply:
   ❑ Nuclear Regulatory Commission (NRC) Radioactive ❑ Technologically Enhanced Naturally Occurring Radioactive Material (TENORM)
   ❑ State-Regulated Radioactive ❑ Naturally Occurring Radioactive Material
   b. Testing, per individual waste stream, for applicable isotopes and/or other supporting information attached? ❑ Yes ❑ No

Additional Profile Information

Profile Number: OR356627

C. MATERIAL INFORMATION

Material Composition and Contaminants (Continued from page 2): If more space is needed, please attach additional pages.

10.	
11.	
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34.	
35.	
36.	
37.	
38.	
39.	
40.	
Total composition must be equal to or greater than 100%	≥100%

D. REGULATORY INFORMATION

1. EPA Hazardous Waste
   a. Please list all USEPA listed and characteristic waste code numbers (Continued from page 2):

Generator Name NW Natural Profile Number OR356627

Waste Name Coalescing Filter Media

Generator's NAICS Code 486210 Code Two;

Does the Generator's Facility manage, store, use, process, or discard any of the following materials in or from your production processes;

Yes[1]	No	Waste Classifications
○	◉	**Nuclear Materials**
○	◉	**Mineral Ore mining/overburden processing or extraction** *Uranium, Radium, Thorium, Plutonium, Cobalt, Strontium, Zirconium, Polonium, Beryllium*
○	◉	**Phosphate Fertilizer Production** *Phosphogypsum, Scale, Residuals, Slag*
○	◉	**Coal and Coal Burning Wastes** *Coal Fly/Bottom Ash*
○	◉	**Petroleum Refining/Production** *Filter Socks, Pipe Scale, Stratum Water, Refinery Process Sediments, Tank Bottoms*
◉	○	**Drinking Water and Wastewater Treatment Wastes** *Filter Socks, Pipe Scale, Stratum Water, Tank Bottoms, Bio-solids, Grit and Screenings, septic*
○	◉	**Other Processing Wastes** *Ceramic, Refractory, Zircon sand, Bauxite to Alumina processing, Titanium, Zirconium, Baghouse Dusts with refractory, "Mag-Thor" metals, Ceramic Insulators, Sand Blasting waste*
○	◉	**Geothermal Wastes** *Filter Socks, Pipe Scale, Stratum Water, Tank Bottoms*
○	◉	**Does the generator perform Metals Casting**
○	◉	**Are any of the Generator's wastes subject to an oil and gas exploration and production (E&P) exemption pursuant to section 3001(b)(2)(A)?**
◉	○	**Have any of the Generator's wastes been tested using isotopic testing, or known to contain radioactivity**
○	◉	**Does the Generator's facility have a Federal or State license to store, dispose or transport radioactive materials? Federal License No:** ☐ **State License No:** ☐

1- Any YES answers may require additional information, please contact your TSC representative at wmpnw2@wm.com

GENERATOR CERTIFICATION (PLEASE READ AND CERTIFY BY SIGNATURE)

By signing this form, I hereby certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

☐ 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

Title Director, Legacy Environmental Program

Company NW Natural

Date 9-19-2023

Certification Signature

ANALYTICAL REPORT

September 26, 2023

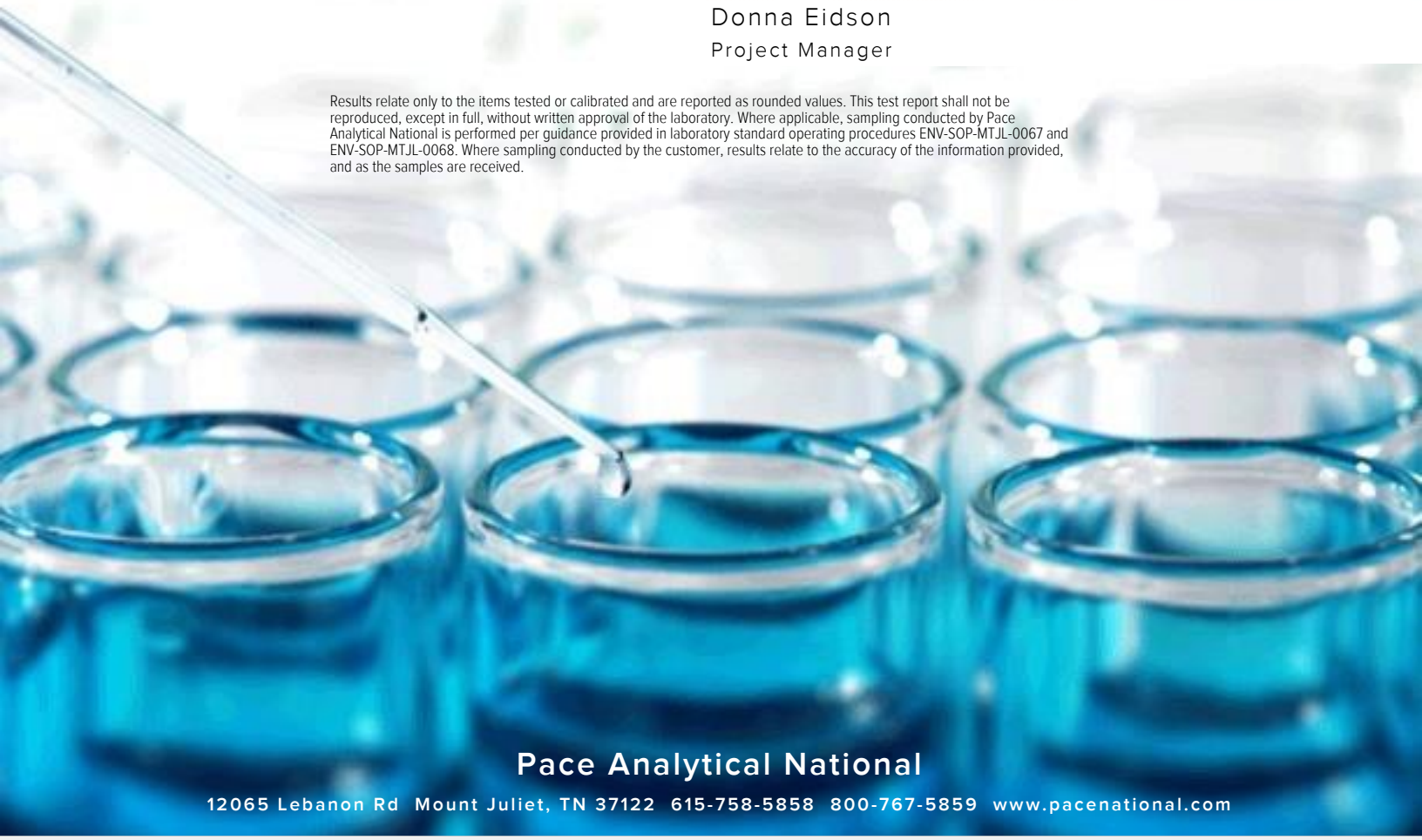
Sevenson Environmental - ORL

Sample Delivery Group:	L1658716
Samples Received:	09/22/2023
Project Number:	1113
Description:	
Report To:	William Byrd

Entire Report Reviewed By:

Donna Eidson
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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SAMPLE SUMMARY

T100-071723-4 L1658716-01 Solids and Chemical Materials

Collected by: JS/JL
Collected date/time: 09/20/23 08:00
Received date/time: 09/22/23 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Radiochemistry by Method DOE Ga-01-R/901.1	WG2130833	1	09/25/23 10:23	09/25/23 10:46	ZRG	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All radiochemical sample results for solids are reported on a dry weight basis with the exception of tritium, carbon-14 and radon, unless wet weight was requested by the client. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Donna Eidson
Project Manager

Project Narrative

Analyzed as-is

Radiochemistry by Method DOE Ga-01-R/901.1

Analyte	Result pCi/g	Qualifier	Uncertainty + / -	MDA pCi/g	Analysis Date date / time	Batch
Potassium-40	0.637		0.310	0.490	09/25/2023 10:46	WG2130833
Thallium-208	0.0386		0.0202	0.0309	09/25/2023 10:46	WG2130833
Lead-210	1.11	U	1.45	2.57	09/25/2023 10:46	WG2130833
Lead-212	0.0986		0.0331	0.0470	09/25/2023 10:46	WG2130833
Lead-214	0.0763		0.0351	0.0675	09/25/2023 10:46	WG2130833
Bismuth-212	0.0322	U	0.239	0.522	09/25/2023 10:46	WG2130833
Bismuth-214 (Ra-226)	0.0792		0.0447	0.0785	09/25/2023 10:46	WG2130833
Radium-226 (186 KeV)	0.0580	U	0.184	0.333	09/25/2023 10:46	WG2130833
Actinium-228 (Ra-228)	0.0842	J	0.0573	0.104	09/25/2023 10:46	WG2130833
Thorium-234 (U-238)	0.0673	U	0.235	0.585	09/25/2023 10:46	WG2130833
Protactinium-234m	-0.698	U	2.16	13.9	09/25/2023 10:46	WG2130833
Uranium-235	-0.0222	U	0.0184	0.0339	09/25/2023 10:46	WG2130833

Method Blank (MB)

(MB) R3976320-3 09/21/23 17:13

Analyte	MB Result pCi/g	MB Qualifier	MB Uncertainty + / -	MB MDA pCi/g
Actinium-228 (Ra-228)	-0.0213	U	0.0893	0.232
Americium-241	0.0699	U	0.127	0.232
Bismuth-212	0.0640	U	0.440	0.988
Bismuth-214 (Ra-226)	0.00542	U	0.0577	0.132
Cesium-137	-0.0349	U	0.0338	0.0848
Cobalt-60	0.00790	U	0.0211	0.112
Lead-210	-0.105	U	2.51	4.76
Lead-212	0.0285	U	0.0493	0.0906
Lead-214	-0.0302	U	0.0479	0.118
Potassium-40	-0.173	U	0.387	1.01
Protactinium-234m	4.55	U	5.36	19.5
Radium-226 (186 KeV)	0.108	U	0.396	0.716
Thallium-208	-0.0116	U	0.0346	0.0757
Thorium-234 (U-238)	-0.0294	U	0.464	1.29
Uranium-235	0.0257	U	0.0411	0.0737

L1653531-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1653531-01 09/21/23 17:30 • (DUP) R3976320-2 09/21/23 17:12

Analyte	Original Result pCi/g	Original Uncertainty + / -	Original MDA pCi/g	DUP Result pCi/g	DUP Uncertainty + / -	DUP MDA pCi/g	Dilution	DUP RPD %	DUP RER	DUP Qualifier	DUP RPD Limits %	DUP RER Limit
Actinium-228 (Ra-228)	0.103	0.0999	0.343	0.0771	0.134	0.656	1	28.9	0.156	U	20	3
Bismuth-212	0.0333	0.470	1.25	0.858	0.734	2.73	1	185	0.946	U	20	3
Bismuth-214 (Ra-226)	0.106	0.0829	0.159	0.0562	0.155	0.338	1	61.5	0.284	U	20	3
Lead-210	0.710	319	812	-349	319	812	1	200	1.10	U	20	3
Lead-212	0.0776	0.0800	0.141	0.0835	0.116	0.213	1	7.28	0.0416	U	20	3
Lead-214	0.0922	0.0944	0.199	0.243	0.132	0.240	1	89.9	0.928		20	3
Potassium-40	0.507	0.522	1.87	0.356	0.621	2.54	1	35.0	0.186	U	20	3
Radium-226 (186 KeV)	0.525	0.535	0.921	0.756	0.663	1.11	1	36.1	0.271	J	20	3
Thallium-208	0.0645	0.0413	0.0814	0.0500	0.0713	0.148	1	25.3	0.176	U	20	3
Thorium-234 (U-238)	0.158	0.361	0.932	-0.353	0.733	2.06	1	200	0.625	U	20	3
Uranium-235	0.0385	0.0521	0.442	0.0615	0.0639	0.732	1	46.0	0.279	U	20	3
Protactinium-234m	1.01	8.15	75.0	-3.70	8.15	75.0	1	200	0.522	U	20	3

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3976320-1 09/21/23 17:10 • (LCSD) R3976320-4 09/21/23 17:29

Analyte	Spike Amount pCi/g	LCS Result pCi/g	LCSD Result pCi/g	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Americium-241	47.3	43.2	45.1	91.3	95.4	60.0-140			4.39	20
Cesium-137	72.4	79.9	74.9	110	103	80.0-120			6.43	20
Cobalt-60	86.9	89.3	79.1	103	91.0	80.0-120			12.1	20

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDA	Minimum Detectable Activity.
Rec.	Recovery.
RER	Replicate Error Ratio.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Below Detectable Limits: Indicates that the analyte was not detected.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Sevenson Environmental

Billing Information:

Pres Chk

Analysis / Container / Preservative

<5000 cpm

GSPEC-FULL - 16 oz or gal zip bag 1/2 full

Chain of Custody Page ___ of ___

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1655716
D178

Report to: **William Byrd**

Email To: **wbyrd@sevenson.com**

Project Description: **T-100 coalescing media residuals**

City/State Collected: **Portland, Oregan**

Phone: **716-583-2754**
Fax:

Client Project # **1113**

Lab Project #

Collected by (print): JS / JL

Site/Facility ID #

P.O. # **111301**

Collected by (signature):

Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)

Rush

Quote #

Date Results Needed **Sep 26, 2023**

Acctnum: **SEVENENVORL**

Template:

Prelogin:

TSR: **Donna Eidson**

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Remarks	Sample # (lab only)
T100-071723-4	Grab	SS		9-20-2023	08:00	1	WM LIST	-01

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other **scm**

Remarks: **No ice**

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking # 7734 9760 3107

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
William Byrd	9-21-2023	12:00		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: amb °C Bottles Received: 1
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 9/22/23 Time: 900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK