

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

May 23, 2023

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

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

Dear Mark:

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

Table 1 includes sample data from NW Natural Pretreatment NAPL Recovery Tank T-201 oily solids residuals. The testing results are from a three-part composite sample of the oily solids from the 18 cubic yard roll-off covered container, then composited by Apex into a single sample for analysis. The sample of material within this box was submitted to Apex Laboratories, LLC on March 17, 2023 for analysis of: dry weight, total metals, leachable metals (toxicity characteristic leaching procedure-TCLP), total petroleum hydrocarbons (TPH), total cyanide, total volatile organic compounds (VOCs) and TCLP VOCs, and semi-volatile organic compounds (SVOCs).

APEX provided the testing results for the above analyses in laboratory report number A3C0674 (enclosed) and SES has summarized the results in Table 1 (enclosed). Table 1 includes method detection limits (MDLs) for "non-detect" constituents, as well as Resource Conservation and Recovery Act (RCRA) Toxicity Characteristic (TC) threshold values. As summarized in Table 1, no detected analytes exceed the TC threshold levels.

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

Please contact me if you have any questions.

Thank You,

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William Byrd WWTP Superintendent 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 (1): Table 1 - T-201 NAPL Recovery Tank #3 Waste Management Disposal Profile 134215OR 134215OR Approval APEX Lab Report #A3C0674

		Sample: (Number)		
Sample ID			T-201	-031723-3
LAB ID			A3C0674-01	
	EPA Toxicity Ch	aracteristic (TC)		
	Regulatory Th	reshold Values	Results	Oualifier
	20x FPA_TC	Actual FPA TC		<b>4</b>
	values in ug/kg*	values in ug/L		
Diesel (ug/kg drv)			1.650.000	F-17
Oil (ug/kg drv)			718.000	J. F-17
			-,	- /
Gasoline Range Hydrocarbons (Benzen	e through Naphtha	ene) bv NWTPH-G	323.000	
Volatile Organic Compounds by EPA 82	60D		u	z/kg drv
Acetone			<1680	
Acrvlonitrile				
Benzene	10,000	500	225	
Bromobenzene	,		<41.9	
Bromochloromethane			<83.9	
Bromodichloromethane			<83.9	
Bromoform			<168	
Bromomethane			<1680	
2-Butanone (MEK)	4,000,000	200,000	<839	
n-Butylbenzene			85.6	J
sec-Butylbenzene			111	J
tert-Butylbenzene			<83.9	
Carbon disulfide				
Carbon tetrachloride	10,000	500	<83.9	
Chlorobenzene	2,000,000	100,000	<41.9	
Chloroethane			<839	
Chloroform	120,000	6,000	<83.9	
Chloromethane			<419	
2-Chlorotoluene			<83.9	
4-Chlorotoluene			<83.9	
Dibromochloromethane			<168	
1,2-Dibromo-3-chloropropane			<419	
1,2-Dibromoethane (EDB)			<83.9	
Dibromomethane			<83.9	
1,2-Dichlorobenzene			<41.9	
1,3-Dichlorobenzene			<41.9	
1,4-Dichlorobenzene	150,000	7,500	<41.9	
Dichlorodifluoromethane			<168	
1,1-Dichloroethane			<41.9	
1,2-Dichloroethane (EDC)	10,000	500	<41.9	
1,1-Dichloroethene	14,000	700	<41.9	
cis-1,2-Dichloroethene			<41.9	
trans-1,2-Dichloroethene			<41.9	
1,2-Dichloropropane			<41.9	
1,3-Dichloropropane			<83.9	
2,2-Dichloropropane			<83.9	
1,1-Dichloropropene			<83.9	
cis-1,3-Dichloropropene			<83.9	
trans-1,3-Dichloropropene			<83.9	
Ethylbenzene			535	

Hexachlorobutadiene	10,000	500	<168	
2-Hexanone			<839	
Isopropylbenzene			141	J
4-Isopropyltoluene			213	M-02
Methylene chloride			<839	
4-Methyl-2-pentanone (MiBK)			<839	
Methyl tert-butyl ether (MTBE)			<83.9	
Naphthalene			64,600	
n-Propylbenzene			82.2	J
Styrene			<83.9	
1,1,1,2-Tetrachloroethane			<41.9	
1,1,2,2-Tetrachloroethane			<83.9	
Tetrachloroethene (PCE)	14,000	700	<41.9	
Toluene			<83.9	
1,2,3-Trichlorobenzene			<419	
1,2,4-Trichlorobenzene			<419	
1,1,1-Trichloroethane			<41.9	
1,1,2-Trichloroethane			<41.9	
Trichloroethene (TCE)	10,000	500	<41.9	
Trichlorofluromethane			<168	
1,2,3-Trichloropropane			<83.9	
1,2,4-Trimethylbenzene			1510	
1,3,5-Trimethylbenzene			562	
Vinyl chloride	4,000	200	<41.9	
m,p-Xylene			297	
o-Xylene			356	
TCLP Volatile Organic Compounds b	y EPA1311/8260I	)		ug/L
TCLP Volatile Organic Compounds b Acetone	y EPA1311/8260I	)	<500	ug/L
TCLP Volatile Organic Compounds b Acetone Benzene	<b>y EPA1311/8260</b> 10,000	<b>)</b> 500	<500 <6.25	ug/L
TCLP Volatile Organic Compounds b Acetone Benzene Bromobenzene	<b>y EPA1311/8260I</b> 10,000	<b>D</b> 500	<500 <6.25 <12.5	ug/L
TCLP Volatile Organic Compounds b Acetone Benzene Bromobenzene Bromochloromethane	<b>y EPA1311/8260I</b> 10,000	<b>)</b> 500	<500 <6.25 <12.5 <25.0	ug/L
TCLP Volatile Organic Compounds b Acetone Benzene Bromobenzene Bromochloromethane Bromodichloromethane	<b>y EPA1311/8260I</b> 10,000	<b>5</b> 00	<500 <6.25 <12.5 <25.0 <25.0	ug/L
TCLP Volatile Organic Compounds b Acetone Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform	y EPA1311/8260I	<b>5</b> 00	<500 <6.25 <12.5 <25.0 <25.0 <25.0	ug/L
TCLP Volatile Organic Compounds b Acetone Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform Bromoform	<b>y EPA1311/8260I</b> 10,000	<b>5</b> 00	<500 <6.25 <12.5 <25.0 <25.0 <25.0 <25.0 <250	ug/L
TCLP Volatile Organic Compounds b Acetone Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform Bromomethane 2-Butanone (MEK)	y EPA1311/82600 10,000 4,000,000	<b>5</b> 00	<500 <6.25 <12.5 <25.0 <25.0 <25.0 <250 <250	ug/L
TCLP Volatile Organic Compounds b Acetone Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform Bromomethane 2-Butanone (MEK) n-Butylbenzene	y EPA1311/82601	200,000	<500 <6.25 <12.5 <25.0 <25.0 <25.0 <250 <250 <250 <25.0	ug/L
TCLP Volatile Organic Compounds b Acetone Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform Bromomethane 2-Butanone (MEK) n-Butylbenzene sec-Butylbenzene	y EPA1311/82601	200,000	<500 <6.25 <12.5 <25.0 <25.0 <25.0 <250 <250 <250 <25.0 <25.0	ug/L
TCLP Volatile Organic Compounds b Acetone Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform Bromomethane 2-Butanone (MEK) n-Butylbenzene sec-Butylbenzene tert-Butylbenzene	y EPA1311/82600 10,000 4,000,000	200,000	<500 <6.25 <12.5 <25.0 <25.0 <25.0 <250 <250 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0	ug/L
TCLP Volatile Organic Compounds b Acetone Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform Bromomethane 2-Butanone (MEK) n-Butylbenzene sec-Butylbenzene tert-Butylbenzene Carbon tetrachloride	y EPA1311/82600 10,000 4,000,000 10,000	500 500 200,000 500	<500 <6.25 <12.5 <25.0 <25.0 <25.0 <250 <250 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0	ug/L
TCLP Volatile Organic Compounds b Acetone Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform Bromomethane 2-Butanone (MEK) n-Butylbenzene sec-Butylbenzene tert-Butylbenzene Carbon tetrachloride Chlorobenzene	y EPA1311/82600 10,000 4,000,000 10,000 10,000 2,000,000	500 500 200,000 500 100,000	<500 <6.25 <12.5 <25.0 <25.0 <25.0 <250 <250 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0	ug/L
TCLP Volatile Organic Compounds b Acetone Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform Bromoform Bromomethane 2-Butanone (MEK) n-Butylbenzene sec-Butylbenzene tert-Butylbenzene Carbon tetrachloride Chlorobenzene Chloroethane	y EPA1311/82600 10,000 4,000,000 10,000 2,000,000	500 500 200,000 500 100,000	<pre>&lt;500 &lt;6.25 &lt;12.5 &lt;25.0 &lt;25.0 &lt;25.0 &lt;250 &lt;250 &lt;250 &lt;250 &lt;25.0 &lt;25.0</pre>	ug/L
TCLP Volatile Organic Compounds b Acetone Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform Bromomethane 2-Butanone (MEK) n-Butylbenzene Sec-Butylbenzene tert-Butylbenzene Carbon tetrachloride Chlorobenzene Chloroethane	y EPA1311/82600 10,000 4,000,000 10,000 2,000,000 120,000	500 500 200,000 500 100,000 6,000	<pre>&lt;500 &lt;6.25 &lt;12.5 &lt;25.0 &lt;2</pre>	ug/L
TCLP Volatile Organic Compounds b Acetone Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform Bromomethane 2-Butanone (MEK) n-Butylbenzene sec-Butylbenzene tert-Butylbenzene Carbon tetrachloride Chlorobenzene Chloroethane	y EPA1311/82601 10,000 4,000,000 10,000 2,000,000 120,000	500 500 200,000 500 100,000 6,000	<pre>&lt;500 &lt;6.25 &lt;12.5 &lt;25.0 &lt;25.0 &lt;25.0 &lt;250 &lt;250 &lt;250 &lt;25.0 &lt;25.0</pre>	ug/L
TCLP Volatile Organic Compounds b Acetone Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform Bromomethane 2-Butanone (MEK) n-Butylbenzene sec-Butylbenzene tert-Butylbenzene Carbon tetrachloride Chlorobenzene Chlorotoluene	y EPA1311/82600 10,000 4,000,000 10,000 2,000,000 120,000	500 500 200,000 500 100,000 6,000	<pre>&lt;500 &lt;6.25 &lt;12.5 &lt;25.0 &lt;12.5 &lt;250 &lt;25.0 &lt;125 &lt;25.0 &lt;25.</pre>	ug/L
TCLP Volatile Organic Compounds b Acetone Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform Bromomethane 2-Butanone (MEK) n-Butylbenzene Sec-Butylbenzene tert-Butylbenzene Carbon tetrachloride Chlorobenzene Chlorobenaene Chloroform Chloroform	y EPA1311/82601	500 200,000 500 500 100,000 6,000	<pre>&lt;500 &lt;500 &lt;6.25 &lt;12.5 &lt;25.0 &lt;25.0 &lt;25.0 &lt;250 &lt;250 &lt;25.0 &lt;25.0</pre>	ug/L
TCLP Volatile Organic Compounds b Acetone Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform Bromomethane 2-Butanone (MEK) n-Butylbenzene Sec-Butylbenzene tert-Butylbenzene Carbon tetrachloride Chlorobenzene Chlorobenzene Chlorotoluene 2-Chlorotoluene 4-Chlorotoluene	y EPA1311/82600 10,000 4,000,000 10,000 2,000,000 120,000	500 500 200,000 500 100,000 6,000	<pre>&lt;500 &lt;6.25 &lt;12.5 &lt;25.0 &lt;2</pre>	ug/L
TCLP Volatile Organic Compounds b Acetone Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform Bromomethane 2-Butanone (MEK) n-Butylbenzene Sec-Butylbenzene tert-Butylbenzene tert-Butylbenzene Carbon tetrachloride Chlorobenzene Chlorobenzene Chloroform Chloroform Chloroform 1,2-Dibromo-3-chloropropane Dibromochloromethane	y EPA1311/82600	500 200,000 500 100,000 6,000	<pre>&lt;500 &lt;500 &lt;6.25 &lt;12.5 &lt;25.0 &lt;25.0 &lt;25.0 &lt;250 &lt;250 &lt;25.0 &lt;25.0</pre>	ug/L
TCLP Volatile Organic Compounds b Acetone Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform Bromomethane 2-Butanone (MEK) n-Butylbenzene Sec-Butylbenzene sec-Butylbenzene tert-Butylbenzene Carbon tetrachloride Chlorobenzene Chlorobenzene Chloroform Chloroform Chloroform 1,2-Dibromo-3-chloropropane Dibromochloromethane (EDB)	y EPA1311/82600 10,000 4,000,000 10,000 2,000,000 120,000 120,000	500 200,000 200,000 500 100,000 6,000	<pre>           &lt;500</pre>	ug/L
TCLP Volatile Organic Compounds b Acetone Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform Bromomethane 2-Butanone (MEK) n-Butylbenzene 2-Butylbenzene tert-Butylbenzene tert-Butylbenzene Carbon tetrachloride Chlorobenzene Chlorobenzene Chloroform Chloroform Chloroform 1,2-Dibromo-3-chloropropane 1,2-Dibromoethane (EDB) Dibromomethane	y EPA1311/82600	500 200,000 200,000 500 100,000 6,000	<pre>           &lt;500</pre>	ug/L
TCLP Volatile Organic Compounds b Acetone Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform Bromomethane 2-Butanone (MEK) n-Butylbenzene Sec-Butylbenzene sec-Butylbenzene tert-Butylbenzene Carbon tetrachloride Chlorobenzene Chlorobenzene Chloroform Chloroform Chloroform 1,2-Dibromo-3-chloropropane 1,2-Dibromoethane (EDB) Dibromoethane (EDB)	y EPA1311/82601	500 200,000 200,000 500 100,000 6,000	<pre>           &lt;500</pre>	ug/L
TCLP Volatile Organic Compounds b Acetone Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromoform Bromomethane 2-Butanone (MEK) n-Butylbenzene Carbon tetrachloride Carbon tetrachloride Chlorobenzene Chlorobenzene Chloroform Chloroform Chloroform 1,2-Dibromo-3-chloropropane 1,2-Dibromoethane (EDB) Dibromomethane 1,2-Dichlorobenzene	y EPA1311/82601	500 500 200,000 500 100,000 6,000	<500 <6.25 <12.5 <25.0 <25.0 <25.0 <250 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <25.0 <12.5 <25.0 <12.5 <25.0 <12.5 <25.0	ug/L

Dichlorodifluoromothana			<25.0	
			<23.0	
1,1-Dichloroethane	14.000	700	<12.5	
1,1-Dichloroethene (FDC)	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	
cis-1,3-Dichloropropene			<25.0	
trans-1,3-Dichloropropene			<25.0	
Ethylbenzene			<12.5	
Hexachlorobutaldiene	10,000	500	<125	
2-Hexanone			<250	
lsopropylbenzene			<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			804	Q-54n
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		u	g/kg dry
Acenaphthene			42,700	
Acenaphthylene			<4970	R-02
Anthracene			28,600	
Benz(a)anthracene			18,000	
Benzo(a)pyrene			24,100	
Benzo(b)fluoranthene			17,500	B-02
Benzo(k)fluoranthene			7,970	M-05
Benzo(g,h,i)pervlene			14,200	
Chrysene			22,200	
, Dibenz(a,h)anthracene			<1890	
Fluoranthene			77,800	
Fluorene			29,500	

Indeno(1,2,3-cd)pyrene			12,400	
1-Methlnaphthalene			36,700	
2-Methlnaphthalene			53,600	
Naphthalene			47,700	В
Phenanthrene			164,000	
Pyrene			96,400	
Carbazole			3,390	J
Dibenzofuran			5,110	
2-Chlorophenol			<9470	
4-Chloro-3-methyplenol			<18900	
2,4-Dichlorophenol			<9470	
2,4-Dimethyphenol			<9470	
2,4-Dinitrophenol			<47300	
4,6-Dinitro-2-methylphenol			<47300	
2-Methylphenol	4,000,000	200,000	<4730	
3+4-Methyphenol(s)			<4730	
2-Niptrophenol			<18900	
4-Nitrophenol			<18900	
Pentachlorophenol(PCP)	2,000,000	100,000	<18900	
Phenol			<3790	
2,3,4,6-Tetrachlorophenol			<9470	
2,3,5,6-Tetrachlorophenol			<9470	
2,4,5-Trichlorophenol	8,000,000	400,000	<9470	
2,4,6-Trichlorophenol	40,000	2,000	<9470	
Bis(2-ethylhexyl)phthalate			<28400	
Butyl benzyl phtalate			<18900	
Diethyphthalate			<18900	
Dimethylphthalate			<18900	
Di-n-butylphthalate			<18900	
Di-n-octyl phthalate			<18900	
N-Nitrosodimethylamine			<4730	
N-Nitroso-di-n-propylamine			<4730	
N-Nitrosodiphenylamine			<4730	
Bis(2-Chloroethoxy) methane			<4730	
Bis(2-Chloroethyl) ether			<4730	
2,2'- Oxybis (1-Chloropropane)			<4730	
Hexachlorobenzene	2,600	130	<1890	
Hexachlorobutadiene	10,000	500	<4730	
Hexachlorocyclopentadiene			<9470	
Hexachloroethane	60,000	3,000	<4730	
2-Chloronaphthalene			<1890	
1,2,4-Trichlorobenzene			<4730	
4-Bromophenyl phenyl ether			<4730	
4-Chlorophenyl phenyl ether			<4730	
Aniline			<9470	
4-Chloroaniline			<4730	
2-Nitroaniline			<37900	
3-Nitroaniline			<37900	
4-Nitroaniline			<37900	
Nitrobenzene	40,000	2,000	<18900	
2,4-Dinitrotoluene	2,600	130	<18900	
2,6-Dinitrotoluene	-		<18900	
Benzoic acid			<237000	

Benzyl alchohol			<9470	
Isophorone			<4730	
Azobenzene (1,2-DPH)			<4730	
Bis(2-Ethylhexyl)adipate			<47300	
3,3'-Dichlorobenzidine			<37900	Q-52
1,2-Dinitrobenzene			<47300	
1,3-Dinitrobenzene			<47300	
1,4-Dinitrobenzene			<47300	
Pyridine	100,000	5,000	<9470	
1,2-Dichlorobenzene			<4730	
1,3-Dichlorobenzene			<4730	
1,4-Dichlorobenzene	150,000	7,500	<4730	
	·			<b>.</b>
TCLP Semivolatile Organic Compour	nds by EPA 8270D	(ug/L)		ug/L
Acenaphthene			162	B-02
Acenanhthylene			< 9.00	B-02
Anthracene			19.6	11.02
Benz(a)anthracene			<1.00	
Benzo(a)pyrene			<1.00	
Benzo(b)fluoranthono			<1.50	
Benzo(b)Huoranthene			<1.50	
			<1.50	
Benzo(g,n,i)perviene			<1.00	
			<1.00	
Dibenz(a,n)anthracene			<1.00	
Fluoranthene			14.1	
Fluorene			/5.0	
Indeno(1,2,3-cd)pyrene			<1.00	
1-Methinaphthalene			257	B-02
2-Methinaphthalene			328	В
Naphthalene			616	В
Phenanthrene			143	
Pyrene			14.0	
Carbazole			26.4	
Dibenzofuran			16.7	
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			<20.0	
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			<2.50	
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	
2,4 Dinitrotoluene	2,000	100	<10.0	
Benzoic acid			<125	
Benzyl alchohol			<12.5	
Isophorope			<2 50	
Azobenzene (1.2-DPH)			<2.50	
Bis(2-Ethylbeyyl)adinate			<25.0	
3 3'-Dichlorobenzidine			\$25.0	
1 2-Dinitrobenzene			<25.0	
1,2-Dinitrobenzene			<25.0	
			<25.0	
	100.000	F 000	<25.0	
	100,000	5,000	<10.0	
			<2.50	
	150,000	7 5 0 0	<2.50	
1,4-Dichlorobenzene	130,000	7,500	<2.50	
Tatal Matala by EDA (0200/ICDNAC)				a /lea due
	100.000	F 000	u 5010	g/ kg ury
Arsenic	100,000	5,000	5910	
Barium	2,000,000	100,000	155,000	
Cadmium	20,000	1,000	<151	
Chromium	100,000	5,000	34,000	
Lead	100,000	5,000	5,330	
Mercury	4,000	200	<60.3	
Selenium	20,000	1,000	<754	
Silver	100,000	5,000	<151	
TOLD Matala by EDA COROR (IODAC)				
I CLP IVIETAIS BY EPA 6020B (ICPMS)	400.000	5 000	50.0	ug/L
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	
Total Cyanide (ug/kg dry)			2010	M-02
Free Liquid (mL)				
%Solids			70.4	

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.

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

F-17 = No fuel pattern detected. The Diesel result represents carbon range C12 to C24, and the Oil result represents >C24 to C40.

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

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

Q-54 = 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.



# Non-Hazardous WAM Approval

Requested Management Facility: Hillsboro Landfill

Profile Number: 1342150R		Waste Acceptance Expiration Date	Waste Acceptance Expiration Date: <u>12/08/2023</u>						
Common Name: LF01 Oily Solids		WM Regulatory Volume Limit:	WM Regulatory Volume Limit:						
APPROVAL DETAILS									
Approval Decision: 🗹 Approved 🛛 Not Approved	d		Profile Renewal:	🛛 Yes	🗹 No				
Management Method: <u>Direct Landfill</u>									
Generator Name: <u>NW Natural</u>									
Profile Expiration Date: <u>12/08/2023</u>	-								
Periodic Testing Due Date:	. 🗹 NA								
Other Due Date:	MA 🗹	(Specify)							
Management Facility Precautions, Special Handling F	Procedures or Li	imitation on approval:							
Generator Conditions									
- Shall not contain free liquids.									
- Waste manifest or applicable shippi	ng document	must accompany load.							

- The waste profile number must appear on the shipping papers.

WM Authorization Name: Donald Lavrinc	Title: Waste Approval Mana	ger
WM Authorization Signature:		Date: <u>12/08/2020</u>
Agency Authorization (if Required):		Date:

# **THINK GREEN**?

### QUESTIONS? CALL 800 963 4776 FOR ASSISTANCE

Last Revised January 25, 2018 ©2018 Waste Management



Apex Laboratories, LLC

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

Tuesday, April 4, 2023 Chip Byrd Sevenson Environmental Services, Inc. 2749 Lockport Road Niagara Falls, NY 14305

RE: A3C0674 - Gasco -- OWS - 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 A3C0674, which was received by the laboratory on 3/17/2023 at 12:40:00PM.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: <u>dthomas@apex-labs.com</u>, 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

Default Cooler

(See Cooler Receipt Form for details) 2.0 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



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

Sevenson Environmental Services, Inc.	Project: <u>Gasco OWS</u>	
2749 Lockport Road	Project Number: 111323	Report ID:
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3C0674 - 04 04 23 1317

# ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION					
Client Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	
T-201-031723-3	A3C0674-01	Solid	03/17/23 08:00	03/17/23 12:40	

Apex Laboratories

Darwin Thomas, Business Development Director



## Apex Laboratories, LLC

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

## <u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road

Niagara Falls, NY 14305

Project Number: 111323 Project Manager: Chip Byrd

Project:

<u>Report ID:</u> A3C0674 - 04 04 23 1317

# ANALYTICAL SAMPLE RESULTS

Gasco -- OWS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx								
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analvzed	Method Ref.	Notes
T-201-031723-3 (A3C0674-01)				Matrix: Solid	d	Batch:	23C0876	
Diesel	1650000	283000	565000	ug/kg dry	20	03/23/23 02:57	NWTPH-Dx	F-17
Oil	718000	565000	1130000	ug/kg dry	20	03/23/23 02:57	NWTPH-Dx	J, F-17
Surrogate: o-Terphenyl (Surr)		Rec	covery: %	Limits: 50-150 %	5 20	03/23/23 02:57	NWTPH-Dx	S-01

Apex Laboratories

Darwin Thomas, Business Development Director



### Apex Laboratories, LLC

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

# Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- OWS Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

# ANALYTICAL SAMPLE RESULTS

Gasol	ine Range Hy	drocarbons (	(Benzene th	nrough Naphtha	alene) by	NWTPH-Gx		
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T-201-031723-3 (A3C0674-01)				Matrix: Solid	ł	Batch:	23C0784	V-15
Gasoline Range Organics	323000	8390	16800	ug/kg dry	100	03/21/23 12:47	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur) 1,4-Difluorobenzene (Sur)		Recove	ry: 107 % 103 %	Limits: 50-150 % 50-150 %	1 1	03/21/23 12:47 03/21/23 12:47	NWTPH-Gx (MS) NWTPH-Gx (MS)	

Apex Laboratories



## Apex Laboratories, LLC

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

Sevenson Environmental Services,	Inc.
2749 Lockport Road	

Niagara Falls, NY 14305

Project:Gasco -- OWSProject Number:111323Project Manager:Chip Byrd

	Re	poi	rt I	D:	
A3C067	74 -	04	04	23	1317

# ANALYTICAL SAMPLE RESULTS

	V	olatile Organ	ic Compoun	ds by EPA 82	60D			
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
T-201-031723-3 (A3C0674-01)				Matrix: Sol	id	Batch:	23C0784	V-15
Acetone	ND	1680	3360	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
Benzene	225	16.8	33.6	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
Bromobenzene	ND	41.9	83.9	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
Bromochloromethane	ND	83.9	168	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
Bromodichloromethane	ND	83.9	168	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
Bromoform	ND	168	336	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
Bromomethane	ND	1680	1680	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
2-Butanone (MEK)	ND	839	1680	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
n-Butylbenzene	85.6	83.9	168	ug/kg dry	100	03/21/23 12:47	5035A/8260D	J
sec-Butylbenzene	111	83.9	168	ug/kg dry	100	03/21/23 12:47	5035A/8260D	J
tert-Butylbenzene	ND	83.9	168	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
Carbon tetrachloride	ND	83.9	168	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
Chlorobenzene	ND	41.9	83.9	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
Chloroethane	ND	839	1680	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
Chloroform	ND	83.9	168	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
Chloromethane	ND	419	839	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
2-Chlorotoluene	ND	83.9	168	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
4-Chlorotoluene	ND	83.9	168	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
Dibromochloromethane	ND	168	336	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
1,2-Dibromo-3-chloropropane	ND	419	839	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
1,2-Dibromoethane (EDB)	ND	83.9	168	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
Dibromomethane	ND	83.9	168	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
1,2-Dichlorobenzene	ND	41.9	83.9	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
1,3-Dichlorobenzene	ND	41.9	83.9	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
1,4-Dichlorobenzene	ND	41.9	83.9	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
Dichlorodifluoromethane	ND	168	336	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
1,1-Dichloroethane	ND	41.9	83.9	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
1,2-Dichloroethane (EDC)	ND	41.9	83.9	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
1,1-Dichloroethene	ND	41.9	83.9	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
cis-1,2-Dichloroethene	ND	41.9	83.9	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
trans-1,2-Dichloroethene	ND	41.9	83.9	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
1,2-Dichloropropane	ND	41.9	83.9	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
1,3-Dichloropropane	ND	83.9	168	ug/kg dry	100	03/21/23 12:47	5035A/8260D	

Apex Laboratories



## Apex Laboratories, LLC

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

<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road

Niagara Falls, NY 14305

Project:Gasco -- OWSProject Number:111323Project Manager:Chip Byrd

<u>Repo</u>	rt I	D:	
A3C0674 - 04	04	23	1317

# ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260D								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
T-201-031723-3 (A3C0674-01)				Matrix: Solic	ł	Batch:	23C0784	V-15
2,2-Dichloropropane	ND	83.9	168	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
1,1-Dichloropropene	ND	83.9	168	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
cis-1,3-Dichloropropene	ND	83.9	168	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
trans-1,3-Dichloropropene	ND	83.9	168	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
Ethylbenzene	535	41.9	83.9	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
Hexachlorobutadiene	ND	168	336	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
2-Hexanone	ND	839	1680	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
Isopropylbenzene	141	83.9	168	ug/kg dry	100	03/21/23 12:47	5035A/8260D	J
4-Isopropyltoluene	213	83.9	168	ug/kg dry	100	03/21/23 12:47	5035A/8260D	M-02
Methylene chloride	ND	839	1680	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
4-Methyl-2-pentanone (MiBK)	ND	839	1680	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
Methyl tert-butyl ether (MTBE)	ND	83.9	168	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
n-Propylbenzene	82.2	41.9	83.9	ug/kg dry	100	03/21/23 12:47	5035A/8260D	J
Styrene	ND	83.9	168	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
1,1,1,2-Tetrachloroethane	ND	41.9	83.9	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
1,1,2,2-Tetrachloroethane	ND	83.9	168	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
Tetrachloroethene (PCE)	ND	41.9	83.9	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
Toluene	ND	83.9	168	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
1,2,3-Trichlorobenzene	ND	419	839	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
1,2,4-Trichlorobenzene	ND	419	839	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
1,1,1-Trichloroethane	ND	41.9	83.9	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
1,1,2-Trichloroethane	ND	41.9	83.9	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
Trichloroethene (TCE)	ND	41.9	83.9	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
Trichlorofluoromethane	ND	168	336	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
1,2,3-Trichloropropane	ND	83.9	168	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
1,2,4-Trimethylbenzene	1510	83.9	168	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
1,3,5-Trimethylbenzene	562	83.9	168	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
Vinyl chloride	ND	41.9	83.9	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
m,p-Xylene	297	83.9	168	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
o-Xylene	356	41.9	83.9	ug/kg dry	100	03/21/23 12:47	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recove	ery: 107 %	Limits: 80-120 %	1	03/21/23 12:47	5035A/8260D	
Toluene-d8 (Surr)			97 %	80-120 %	1	03/21/23 12:47	5035A/8260D	
4-Bromofluorobenzene (Surr)			96 %	79-120 %	1	03/21/23 12:47	5035A/8260D	

Apex Laboratories



### Apex Laboratories, LLC

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

# Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project Number: 111323 Project Manager: Chip Byrd

Project:

<u>Report ID:</u> A3C0674 - 04 04 23 1317

# ANALYTICAL SAMPLE RESULTS

Gasco -- OWS

Volatile Organic Compounds by EPA 8260D								
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T-201-031723-3 (A3C0674-01RE1)				Matrix: Solid		Batch:	23C0846	V-15
Naphthalene	64600	1680	3360	ug/kg dry	1000	03/22/23 14:14	5035A/8260D	
Surrogate: 1,4-Difluorobenzene (Surr)		Recover	ry: 106 %	Limits: 80-120 %	1	03/22/23 14:14	5035A/8260D	
Toluene-d8 (Surr)			98 %	80-120 %	1	03/22/23 14:14	5035A/8260D	
4-Bromofluorobenzene (Surr)			97 %	79-120 %	1	03/22/23 14:14	5035A/8260D	

Apex Laboratories

Darwin Thomas, Business Development Director



## Apex Laboratories, LLC

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

<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road

Niagara Falls, NY 14305

Project:Gasco -- OWSProject Number:111323Project Manager:Chip Byrd

<b>Report ID:</b>	
A3C0674 - 04 04 23 131	7

# ANALYTICAL SAMPLE RESULTS

	TCLP \	/olatile Orgar	nic Compoun	ds by EPA 1	1311/8260D			
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
T-201-031723-3 (A3C0674-01)				Matrix: So	olid	Batch:	23C1160	
Acetone	ND	500	1000	ug/L	50	03/29/23 18:00	1311/8260D	
Benzene	ND	6.25	12.5	ug/L	50	03/29/23 18:00	1311/8260D	
Bromobenzene	ND	12.5	25.0	ug/L	50	03/29/23 18:00	1311/8260D	
Bromochloromethane	ND	25.0	50.0	ug/L	50	03/29/23 18:00	1311/8260D	
Bromodichloromethane	ND	25.0	50.0	ug/L	50	03/29/23 18:00	1311/8260D	
Bromoform	ND	25.0	50.0	ug/L	50	03/29/23 18:00	1311/8260D	
Bromomethane	ND	250	250	ug/L	50	03/29/23 18:00	1311/8260D	
2-Butanone (MEK)	ND	250	500	ug/L	50	03/29/23 18:00	1311/8260D	
n-Butylbenzene	ND	25.0	50.0	ug/L	50	03/29/23 18:00	1311/8260D	
sec-Butylbenzene	ND	25.0	50.0	ug/L	50	03/29/23 18:00	1311/8260D	
tert-Butylbenzene	ND	25.0	50.0	ug/L	50	03/29/23 18:00	1311/8260D	
Carbon tetrachloride	ND	25.0	50.0	ug/L	50	03/29/23 18:00	1311/8260D	
Chlorobenzene	ND	12.5	25.0	ug/L	50	03/29/23 18:00	1311/8260D	
Chloroethane	ND	250	250	ug/L	50	03/29/23 18:00	1311/8260D	
Chloroform	ND	25.0	50.0	ug/L	50	03/29/23 18:00	1311/8260D	
Chloromethane	ND	125	250	ug/L	50	03/29/23 18:00	1311/8260D	
2-Chlorotoluene	ND	25.0	50.0	ug/L	50	03/29/23 18:00	1311/8260D	
4-Chlorotoluene	ND	25.0	50.0	ug/L	50	03/29/23 18:00	1311/8260D	
1,2-Dibromo-3-chloropropane	ND	125	250	ug/L	50	03/29/23 18:00	1311/8260D	
Dibromochloromethane	ND	25.0	50.0	ug/L	50	03/29/23 18:00	1311/8260D	
1,2-Dibromoethane (EDB)	ND	12.5	25.0	ug/L	50	03/29/23 18:00	1311/8260D	
Dibromomethane	ND	25.0	50.0	ug/L	50	03/29/23 18:00	1311/8260D	
1,2-Dichlorobenzene	ND	12.5	25.0	ug/L	50	03/29/23 18:00	1311/8260D	
1,3-Dichlorobenzene	ND	12.5	25.0	ug/L	50	03/29/23 18:00	1311/8260D	
1,4-Dichlorobenzene	ND	12.5	25.0	ug/L	50	03/29/23 18:00	1311/8260D	
Dichlorodifluoromethane	ND	25.0	50.0	ug/L	50	03/29/23 18:00	1311/8260D	
1,1-Dichloroethane	ND	12.5	25.0	ug/L	50	03/29/23 18:00	1311/8260D	
1,1-Dichloroethene	ND	12.5	25.0	ug/L	50	03/29/23 18:00	1311/8260D	
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/L	50	03/29/23 18:00	1311/8260D	
cis-1,2-Dichloroethene	ND	25.0	50.0	ug/L	50	03/29/23 18:00	1311/8260D	
trans-1,2-Dichloroethene	ND	12.5	25.0	ug/L	50	03/29/23 18:00	1311/8260D	
1,2-Dichloropropane	ND	12.5	25.0	ug/L	50	03/29/23 18:00	1311/8260D	
1,3-Dichloropropane	ND	25.0	50.0	ug/L	50	03/29/23 18:00	1311/8260D	

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## Apex Laboratories, LLC

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

<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road

Niagara Falls, NY 14305

Project:Gasco -- OWSProject Number:111323Project Manager:Chip Byrd

<b>Report ID:</b>	
A3C0674 - 04 04 23 131	7

# ANALYTICAL SAMPLE RESULTS

TCLP Volatile Organic Compounds by EPA 1311/8260D								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
T-201-031723-3 (A3C0674-01)				Matrix: Solic	I	Batch: 2	23C1160	
2,2-Dichloropropane	ND	25.0	50.0	ug/L	50	03/29/23 18:00	1311/8260D	
1,1-Dichloropropene	ND	25.0	50.0	ug/L	50	03/29/23 18:00	1311/8260D	
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/L	50	03/29/23 18:00	1311/8260D	
trans-1,3-Dichloropropene	ND	25.0	50.0	ug/L	50	03/29/23 18:00	1311/8260D	
Ethylbenzene	ND	12.5	25.0	ug/L	50	03/29/23 18:00	1311/8260D	
Hexachlorobutadiene	ND	125	250	ug/L	50	03/29/23 18:00	1311/8260D	
2-Hexanone	ND	250	500	ug/L	50	03/29/23 18:00	1311/8260D	
Isopropylbenzene	ND	25.0	50.0	ug/L	50	03/29/23 18:00	1311/8260D	
4-Isopropyltoluene	ND	25.0	50.0	ug/L	50	03/29/23 18:00	1311/8260D	
4-Methyl-2-pentanone (MiBK)	ND	250	500	ug/L	50	03/29/23 18:00	1311/8260D	
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	ug/L	50	03/29/23 18:00	1311/8260D	
Methylene chloride	ND	250	500	ug/L	50	03/29/23 18:00	1311/8260D	
n-Propylbenzene	ND	12.5	25.0	ug/L	50	03/29/23 18:00	1311/8260D	
Styrene	ND	25.0	50.0	ug/L	50	03/29/23 18:00	1311/8260D	
1,1,1,2-Tetrachloroethane	ND	12.5	25.0	ug/L	50	03/29/23 18:00	1311/8260D	
1,1,2,2-Tetrachloroethane	ND	12.5	25.0	ug/L	50	03/29/23 18:00	1311/8260D	
Naphthalene	804	100	100	ug/L	50	03/29/23 18:00	1311/8260D	Q-54n
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/L	50	03/29/23 18:00	1311/8260D	
Toluene	ND	25.0	50.0	ug/L	50	03/29/23 18:00	1311/8260D	
1,2,3-Trichlorobenzene	ND	25.0	50.0	ug/L	50	03/29/23 18:00	1311/8260D	
1,2,4-Trichlorobenzene	ND	50.0	100	ug/L	50	03/29/23 18:00	1311/8260D	
1,1,1-Trichloroethane	ND	12.5	25.0	ug/L	50	03/29/23 18:00	1311/8260D	
1,1,2-Trichloroethane	ND	12.5	25.0	ug/L	50	03/29/23 18:00	1311/8260D	
Trichloroethene (TCE)	ND	12.5	25.0	ug/L	50	03/29/23 18:00	1311/8260D	
Trichlorofluoromethane	ND	50.0	100	ug/L	50	03/29/23 18:00	1311/8260D	
1,2,3-Trichloropropane	ND	25.0	50.0	ug/L	50	03/29/23 18:00	1311/8260D	
1,2,4-Trimethylbenzene	ND	25.0	50.0	ug/L	50	03/29/23 18:00	1311/8260D	
1,3,5-Trimethylbenzene	ND	25.0	50.0	ug/L	50	03/29/23 18:00	1311/8260D	
Vinyl chloride	ND	12.5	25.0	ug/L	50	03/29/23 18:00	1311/8260D	
m,p-Xylene	ND	25.0	50.0	ug/L	50	03/29/23 18:00	1311/8260D	
o-Xylene	ND	12.5	25.0	ug/L	50	03/29/23 18:00	1311/8260D	
Surrogate: 1,4-Difluorobenzene (Surr) Toluene-d8 (Surr)		Reco	very: 97 % 103 %	Limits: 80-120 % 80-120 %	1 1	03/29/23 18:00 03/29/23 18:00	1311/8260D 1311/8260D	

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

Sevenson Environmental Services, Inc.	Project:	Gasco OWS	
2749 Lockport Road	Project Number:	111323	Report ID:
Niagara Falls, NY 14305	Project Manager:	Chip Byrd	A3C0674 - 04 04 23 1317

## 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
T-201-031723-3 (A3C0674-01)				Matrix: So	olid	Batch:	23C1160	
Surrogate: 4-Bromofluorobenzene (Surr)		Reco	very: 98 %	Limits: 80-120	% 1	03/29/23 18:00	1311/8260D	

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Darwin Thomas, Business Development Director



## Apex Laboratories, LLC

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

<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road

Niagara Falls, NY 14305

Project:Gasco -- OWSProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u>	
A3C0674 - 04 04 23 1	1317

# ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
T-201-031723-3 (A3C0674-01)				Matrix: Sol	id	Batch:	23C1019	
Acenaphthene	42700	1890	3790	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Acenaphthylene	ND	4970	4970	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	R-02
Anthracene	28600	1890	3790	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Benz(a)anthracene	18000	1890	3790	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Benzo(a)pyrene	24100	2840	5680	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Benzo(b)fluoranthene	17500	2840	5680	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	B-02
Benzo(k)fluoranthene	7970	2840	5680	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	M-05
Benzo(g,h,i)perylene	14200	1890	3790	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Chrysene	22200	1890	3790	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Dibenz(a,h)anthracene	ND	1890	3790	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Fluoranthene	77800	1890	3790	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Fluorene	29500	1890	3790	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Indeno(1,2,3-cd)pyrene	12400	1890	3790	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
1-Methylnaphthalene	36700	3790	7570	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
2-Methylnaphthalene	53600	3790	7570	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Naphthalene	47700	3790	7570	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	В
Phenanthrene	164000	1890	3790	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Pyrene	96400	1890	3790	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Carbazole	3390	2840	5680	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	J
Dibenzofuran	5110	1890	3790	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
2-Chlorophenol	ND	9470	18900	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
4-Chloro-3-methylphenol	ND	18900	37900	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
2,4-Dichlorophenol	ND	9470	18900	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
2,4-Dimethylphenol	ND	9470	18900	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
2,4-Dinitrophenol	ND	47300	94700	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
4,6-Dinitro-2-methylphenol	ND	47300	94700	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
2-Methylphenol	ND	4730	9470	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
3+4-Methylphenol(s)	ND	4730	9470	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
2-Nitrophenol	ND	18900	37900	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
4-Nitrophenol	ND	18900	37900	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Pentachlorophenol (PCP)	ND	18900	37900	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Phenol	ND	3790	7570	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
2,3,4,6-Tetrachlorophenol	ND	9470	18900	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	

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## Apex Laboratories, LLC

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

Sevenson Environmental Services	, Inc.
2749 Lockport Road	

Niagara Falls, NY 14305

Project:Gasco -- OWSProject Number:111323Project Manager:Chip Byrd

<b>Report ID:</b>	
A3C0674 - 04 04 23 13	17

# ANALYTICAL SAMPLE RESULTS

	Sem	ivolatile Org	anic Compou	unds by EPA	8270E			
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
T-201-031723-3 (A3C0674-01)				Matrix: Sol	id	Batch:	23C1019	
2,3,5,6-Tetrachlorophenol	ND	9470	18900	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
2,4,5-Trichlorophenol	ND	9470	18900	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
2,4,6-Trichlorophenol	ND	9470	18900	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Bis(2-ethylhexyl)phthalate	ND	28400	56800	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Butyl benzyl phthalate	ND	18900	37900	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Diethylphthalate	ND	18900	37900	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Dimethylphthalate	ND	18900	37900	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Di-n-butylphthalate	ND	18900	37900	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Di-n-octyl phthalate	ND	18900	37900	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
N-Nitrosodimethylamine	ND	4730	9470	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
N-Nitroso-di-n-propylamine	ND	4730	9470	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
N-Nitrosodiphenylamine	ND	4730	9470	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Bis(2-Chloroethoxy) methane	ND	4730	9470	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Bis(2-Chloroethyl) ether	ND	4730	9470	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
2,2'-Oxybis(1-Chloropropane)	ND	4730	9470	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Hexachlorobenzene	ND	1890	3790	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Hexachlorobutadiene	ND	4730	9470	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Hexachlorocyclopentadiene	ND	9470	18900	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Hexachloroethane	ND	4730	9470	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
2-Chloronaphthalene	ND	1890	3790	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
1,2,4-Trichlorobenzene	ND	4730	9470	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
4-Bromophenyl phenyl ether	ND	4730	9470	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
4-Chlorophenyl phenyl ether	ND	4730	9470	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Aniline	ND	9470	18900	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
4-Chloroaniline	ND	4730	9470	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
2-Nitroaniline	ND	37900	75700	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
3-Nitroaniline	ND	37900	75700	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
4-Nitroaniline	ND	37900	75700	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Nitrobenzene	ND	18900	37900	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
2,4-Dinitrotoluene	ND	18900	37900	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
2,6-Dinitrotoluene	ND	18900	37900	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Benzoic acid	ND	237000	473000	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Benzyl alcohol	ND	9470	18900	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	

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## Apex Laboratories, LLC

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

Sevenson Environmental Services, I	Inc.
2749 Lockport Road	

Niagara Falls, NY 14305

Project:Gasco -- OWSProject Number:111323Project Manager:Chip Byrd

<b>Report ID:</b>	
A3C0674 - 04 04 23 13	817

# ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270E								
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T-201-031723-3 (A3C0674-01)				Matrix: Solid	d	Batch:	23C1019	
Isophorone	ND	4730	9470	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Azobenzene (1,2-DPH)	ND	4730	9470	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Bis(2-Ethylhexyl) adipate	ND	47300	94700	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
3,3'-Dichlorobenzidine	ND	37900	75700	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	Q-52
1,2-Dinitrobenzene	ND	47300	94700	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
1,3-Dinitrobenzene	ND	47300	94700	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
1,4-Dinitrobenzene	ND	47300	94700	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Pyridine	ND	9470	18900	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
1,2-Dichlorobenzene	ND	4730	9470	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
1,3-Dichlorobenzene	ND	4730	9470	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
1,4-Dichlorobenzene	ND	4730	9470	ug/kg dry	1000	03/27/23 17:34	EPA 8270E	
Surrogate: Nitrobenzene-d5 (Surr)		Recon	very: 54 %	Limits: 37-122 %	5 1000	03/27/23 17:34	EPA 8270E	S-05
2-Fluorobiphenyl (Surr)			109 %	44-120 %	1000	03/27/23 17:34	EPA 8270E	S-05
Phenol-d6 (Surr)			36 %	33-122 %	1000	03/27/23 17:34	EPA 8270E	S-05
p-Terphenyl-d14 (Surr)			118 %	54-127 %	1000	03/27/23 17:34	EPA 8270E	S-05
2-Fluorophenol (Surr)			52 %	35-120 %	1000	03/27/23 17:34	EPA 8270E	S-05
2,4,6-Tribromophenol (Surr)			%	39-132 %	5 1000	03/27/23 17:34	EPA 8270E	S-01

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## Apex Laboratories, LLC

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

Sevenson Environmental Se	rvices, Inc.
2749 Lockport Road	

Niagara Falls, NY 14305

Project:	Gasco OWS
Project Number:	111323
Project Manager:	Chip Byrd

<b>Report ID:</b>	
A3C0674 - 04 04 23 131	7

# ANALYTICAL SAMPLE RESULTS

TCLP Semivolatile Organic Compounds by EPA 1311/8270E								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
T-201-031723-3 (A3C0674-01RE1)				Matrix: So	olid	Batch:	23C0864	
Acenaphthene	162	1.00	2.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	B-02
Acenaphthylene	ND	9.00	9.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	R-02
Anthracene	19.6	1.00	2.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Benz(a)anthracene	ND	1.00	2.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Benzo(a)pyrene	ND	1.50	3.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Benzo(b)fluoranthene	ND	1.50	3.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Benzo(k)fluoranthene	ND	1.50	3.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Benzo(g,h,i)perylene	ND	1.00	2.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Chrysene	ND	1.00	2.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Dibenz(a,h)anthracene	ND	1.00	2.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Fluoranthene	14.1	1.00	2.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Fluorene	75.0	1.00	2.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Indeno(1,2,3-cd)pyrene	ND	1.00	2.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
1-Methylnaphthalene	257	2.00	4.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	B-02
2-Methylnaphthalene	328	2.00	4.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	В
Naphthalene	616	2.00	4.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	В
Phenanthrene	143	1.00	2.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Pyrene	14.0	1.00	2.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Carbazole	26.4	1.50	3.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Dibenzofuran	16.7	1.00	2.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
2-Chlorophenol	ND	5.00	10.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	
4-Chloro-3-methylphenol	ND	10.0	20.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	
2,4-Dichlorophenol	ND	5.00	10.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	
2,4-Dimethylphenol	ND	5.00	10.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	
2,4-Dinitrophenol	ND	25.0	50.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	
4,6-Dinitro-2-methylphenol	ND	25.0	50.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	
2-Methylphenol	ND	2.50	5.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
3+4-Methylphenol(s)	ND	2.50	5.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
2-Nitrophenol	ND	10.0	20.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	
4-Nitrophenol	ND	20.0	20.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Pentachlorophenol (PCP)	ND	10.0	20.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Phenol	ND	20.0	40.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	
2,3,4,6-Tetrachlorophenol	ND	5.00	10.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	

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## Apex Laboratories, LLC

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

Sevenson Environmental Services, In	nc.
2749 Lockport Road	

Niagara Falls, NY 14305

Project:	Gasco OWS
Project Number:	111323
Project Manager:	Chip Byrd

Re	pol	rt I	D:	
A3C0674 -	04	04	23	1317

# ANALYTICAL SAMPLE RESULTS

TCLP Semivolatile Organic Compounds by EPA 1311/8270E								
	Sample	Detection	Reporting			Date		
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes
T-201-031723-3 (A3C0674-01RE1)				Matrix: So	olid	Batch:	23C0864	
2,3,5,6-Tetrachlorophenol	ND	5.00	10.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	
2,4,5-Trichlorophenol	ND	5.00	10.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	
2,4,6-Trichlorophenol	ND	5.00	10.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Bis(2-ethylhexyl)phthalate	ND	20.0	40.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Butyl benzyl phthalate	ND	20.0	40.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Diethylphthalate	ND	20.0	40.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Dimethylphthalate	ND	20.0	40.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Di-n-butylphthalate	ND	20.0	40.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Di-n-octyl phthalate	ND	20.0	40.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	
N-Nitrosodimethylamine	ND	2.50	5.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
N-Nitroso-di-n-propylamine	ND	2.50	5.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
N-Nitrosodiphenylamine	ND	2.50	5.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Bis(2-Chloroethoxy) methane	ND	2.50	5.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Bis(2-Chloroethyl) ether	ND	2.50	5.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
2,2'-Oxybis(1-Chloropropane)	ND	2.50	5.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Hexachlorobenzene	ND	1.00	2.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Hexachlorobutadiene	ND	2.50	5.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Hexachlorocyclopentadiene	ND	5.00	10.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Hexachloroethane	ND	2.50	5.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
2-Chloronaphthalene	ND	1.00	2.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
1,2,4-Trichlorobenzene	ND	0.500	5.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
4-Bromophenyl phenyl ether	ND	2.50	5.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
4-Chlorophenyl phenyl ether	ND	2.50	5.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Aniline	ND	5.00	10.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	
4-Chloroaniline	ND	2.50	5.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
2-Nitroaniline	ND	20.0	40.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	
3-Nitroaniline	ND	20.0	40.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	
4-Nitroaniline	ND	20.0	40.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Nitrobenzene	ND	10.0	20.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	
2,4-Dinitrotoluene	ND	10.0	20.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	
2,6-Dinitrotoluene	ND	10.0	20.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Benzoic acid	ND	125	250	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Benzyl alcohol	ND	10.0	20.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	

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## Apex Laboratories, LLC

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

Sevens	on Environ	nental Ser	vices, Inc.
2749 L	ockport Roa	ad	

Niagara Falls, NY 14305

Project:Gasco -- OWSProject Number:111323Project Manager:Chip Byrd

<b>Report</b>	(D:	
A3C0674 - 04 04	23	1317

# 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
T-201-031723-3 (A3C0674-01RE1)				Matrix: Solid		Batch:	23C0864	
Isophorone	ND	2.50	5.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Azobenzene (1,2-DPH)	ND	2.50	5.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Bis(2-Ethylhexyl) adipate	ND	25.0	50.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	
1,2-Dinitrobenzene	ND	25.0	50.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	
1,3-Dinitrobenzene	ND	25.0	50.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	
1,4-Dinitrobenzene	ND	25.0	50.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Pyridine	ND	10.0	20.0	ug/L	10	03/23/23 17:26	1311/8270E-LL	
1,2-Dichlorobenzene	ND	2.50	5.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
1,3-Dichlorobenzene	ND	2.50	5.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
1,4-Dichlorobenzene	ND	2.50	5.00	ug/L	10	03/23/23 17:26	1311/8270E-LL	
Surrogate: Nitrobenzene-d5 (Surr)		Recov	very: 66 %	Limits: 44-120 %	10	03/23/23 17:26	1311/8270E-LL	
2-Fluorobiphenyl (Surr)			67 %	44-120 %	10	03/23/23 17:26	1311/8270E-LL	
Phenol-d6 (Surr)			18 %	10-133 %	10	03/23/23 17:26	1311/8270E-LL	
p-Terphenyl-d14 (Surr)			95 %	50-134 %	10	03/23/23 17:26	1311/8270E-LL	
2-Fluorophenol (Surr)			33 %	19-120 %	10	03/23/23 17:26	1311/8270E-LL	
2,4,6-Tribromophenol (Surr)			88 %	43-140 %	10	03/23/23 17:26	1311/8270E-LL	

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

Sevenson Environmental Services, Inc.	Project: Gas	isco OWS	
2749 Lockport Road	Project Number: 111	1323	Report ID:
Niagara Falls, NY 14305	Project Manager: Chi	ıip Byrd	A3C0674 - 04 04 23 1317

## ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020B (ICPMS)								
Analyte	Sample Result	Detection	Reporting	Units	Dilution	Date Analyzed	Method Ref	Notes
T-201-031723-3 (A3C0674-01)				Matrix: Sol	id			
Batch: 23C0713								
Arsenic	5910	754	1510	ug/kg dry	10	03/21/23 19:38	EPA 6020B	
Barium	155000	754	1510	ug/kg dry	10	03/21/23 19:38	EPA 6020B	
Cadmium	ND	151	302	ug/kg dry	10	03/21/23 19:38	EPA 6020B	
Chromium	34000	754	1510	ug/kg dry	10	03/21/23 19:38	EPA 6020B	
Lead	5330	151	302	ug/kg dry	10	03/21/23 19:38	EPA 6020B	
Mercury	ND	60.3	121	ug/kg dry	10	03/21/23 19:38	EPA 6020B	
Selenium	ND	754	1510	ug/kg dry	10	03/21/23 19:38	EPA 6020B	
Silver	ND	151	302	ug/kg dry	10	03/21/23 19:38	EPA 6020B	

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## Apex Laboratories, LLC

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

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

Project:Gasco -- OWSProject Number:111323Project Manager:Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

# ANALYTICAL SAMPLE RESULTS

TCLP Metals by EPA 6020B (ICPMS)								
Analyte	Sample Result	Detection Limit	Reporting Limit	Units	Dilution	Date Analyzed	Method Ref.	Notes
T-201-031723-3 (A3C0674-01)				Matrix: So	olid			
Batch: 23C0830								
Arsenic	ND	50.0	100	ug/L	10	03/21/23 21:44	1311/6020B	
Barium	ND	2500	5000	ug/L	10	03/21/23 21:44	1311/6020B	
Cadmium	ND	50.0	100	ug/L	10	03/21/23 21:44	1311/6020B	
Chromium	ND	50.0	100	ug/L	10	03/21/23 21:44	1311/6020B	
Selenium	ND	50.0	100	ug/L	10	03/21/23 21:44	1311/6020B	
T-201-031723-3 (A3C0674-01RE1)				Matrix: So	olid			
Batch: 23C0830								
Lead	ND	25.0	50.0	ug/L	10	03/22/23 16:38	1311/6020B	
Mercury	ND	3.75	7.00	ug/L	10	03/22/23 16:38	1311/6020B	
Silver	ND	50.0	100	ug/L	10	03/22/23 16:38	1311/6020B	

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

Sevenson Environmental Services, Inc.	Project: Gasco	<u>OWS</u>
2749 Lockport Road	Project Number: 111323	Report ID:
Niagara Falls, NY 14305	Project Manager: Chip By	rd A3C0674 - 04 04 23 1317

## ANALYTICAL SAMPLE RESULTS

So	Soluble Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection												
SampleDetectionReportingDateAnalyteResultLimitLimitUnitsDilutionAnalyzedMethod Ref.Notes													
T-201-031723-3 (A3C0674-01RE1)				Matrix: Sol	id	Batch:	23C0850						
Total Cyanide	2010	347	695	ug/kg dry	5	03/23/23 11:27	D7511-12	M-02					

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

Sevenson Environmental Services, Inc.	Project: <u>Gasco OWS</u>	
2749 Lockport Road	Project Number: 111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3C0674 - 04 04 23 1317

## ANALYTICAL SAMPLE RESULTS

	Percent Dry Weight												
SampleDetectionReportingDateAnalyteResultLimitLimitUnitsDilutionAnalyzedMethod Ref.Not													
T-201-031723-3 (A3C0674-01)				Matrix: So	lid	Batch: 23C0750							
% Solids	70.4	1.00	1.00	%	1	03/21/23 06:34	EPA 8000D						

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Darwin Thomas, Business Development Director



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

Sevenson Environmental Services, Inc.	Project:	Gasco OWS	
2749 Lockport Road	Project Number:	111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager:	Chip Byrd	A3C0674 - 04 04 23 1317

# ANALYTICAL SAMPLE RESULTS

		TCLP E	xtraction by	EPA 1311									
	Sample Detection Reporting Date												
Analyte	Result	Limit	Limit	Units	Dilution	Analyzed	Method Ref.	Notes					
T-201-031723-3 (A3C0674-01)	Matrix: So	lid	Batch:	23C0744									
TCLP Extraction	PREP			N/A	1	03/20/23 17:37	EPA 1311						
TCLP Extraction	PREP			N/A	1	03/20/23 17:37	EPA 1311						
TCLP ZHE Extraction	0.00			N/A	1	03/28/23 16:16	EPA 1311 ZHE						

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

# Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- OWS Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

# **QUALITY CONTROL (QC) SAMPLE RESULTS**

		Di	esel and/o	or Oil Hyd	rocarbor	ns by NW	FPH-Dx					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0876 - EPA 3546 (F	uels)						Sol	id				
Blank (23C0876-BLK1)			Prepared	: 03/22/23	3:46 Ana	lyzed: 03/23	/23 02:09					
NWTPH-Dx												
Diesel	ND	10000	20000	ug/kg we	et 1							
Oil	ND	20000	40000	ug/kg we	et 1							
Surr: o-Terphenyl (Surr)		Recov	ery: 105 %	Limits: 50	-150 %	Dili	ution: 1x					
LCS (23C0876-BS1)			Prepared	: 03/22/23	13:46 Ana	lyzed: 03/23	/23 02:33					
NWTPH-Dx												
Diesel	115000	10000	20000	ug/kg we	et 1	125000		92	38-132%			
Surr: o-Terphenyl (Surr)		Recov	very: 111 %	Limits: 50	-150 %	Dili	ution: 1x					
Duplicate (23C0876-DUP1)			Prepared	: 03/22/23	3:46 Ana	lyzed: 03/23	/23 03:20					
QC Source Sample: T-201-031723	-3 (A3C0674	<u>I-01)</u>										
<u>NWTPH-Dx</u>												
Diesel	1750000	282000	564000	ug/kg dr	y 20		1650000			6	30%	F
Oil	773000	564000	1130000	ug/kg dr	y 20		718000			7	30%	J, F
Surr: o-Terphenyl (Surr)		Re	covery: %	Limits: 50	-150 %	Dili	ution: 20x					S-01

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

# Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- OWS Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

# QUALITY CONTROL (QC) SAMPLE RESULTS

	Gasolin	ne Range H	lydrocarbo	ons (Ben	zene throu	ugh Naph	thalene)	by NWTP	'H-Gx			
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0784 - EPA 5035A							Soi	1				
Blank (23C0784-BLK1)			Preparec	1: 03/21/23	08:12 Anal	lyzed: 03/21	/23 10:40					
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	2500	5000	ug/kg w	ret 50							
Surr: 4-Bromofluorobenzene (Sur)		Recov	very: 101 %	Limits: 5	0-150 %	Dilı	ution: 1x					
1,4-Difluorobenzene (Sur)			103 %	5	0-150 %		"					
LCS (23C0784-BS2)			Preparec	1: 03/21/23	08:12 Anal	lyzed: 03/21/	/23 10:10					
NWTPH-Gx (MS)												
Gasoline Range Organics	25000	2500	5000	ug/kg w	vet 50	25000		100	80-120%			
Surr: 4-Bromofluorobenzene (Sur)		Reco	wery: 99%	Limits: 5	0-150 %	Dilı	ution: 1x					
1,4-Difluorobenzene (Sur)			103 %	5	0-150 %		"					
Duplicate (23C0784-DUP1)			Preparec	1: 03/17/23	17:20 Anal	lyzed: 03/21	/23 13:13					V-15
QC Source Sample: T-201-031723-3	3 (A3C0674	<u>1-01)</u>										
<u>NWTPH-Gx (MS)</u>												
Gasoline Range Organics	331000	8390	16800	ug/kg d	ry 100		323000			2	30%	
Surr: 4-Bromofluorobenzene (Sur)		Recov	very: 107 %	Limits: 5	0-150 %	Dilı	tion: 1x					
1,4-Difluorobenzene (Sur)			103 %	5	0-150 %		"					

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project Number: 111323 Project Manager: Chip Byrd

Project:

<u>Report ID:</u> A3C0674 - 04 04 23 1317

## **QUALITY CONTROL (QC) SAMPLE RESULTS**

Gasco -- OWS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0784 - EPA 5035A							Soi	I				
Blank (23C0784-BLK1)			Prepared	: 03/21/23 08	8:12 Ana	yzed: 03/21/	/23 10:40					
5035A/8260D												
Acetone	ND	500	1000	ug/kg wet	50							
Acrylonitrile	ND	50.0	100	ug/kg wet	50							
Benzene	ND	5.00	10.0	ug/kg wet	50							
Bromobenzene	ND	12.5	25.0	ug/kg wet	50							
Bromochloromethane	ND	25.0	50.0	ug/kg wet	50							
Bromodichloromethane	ND	25.0	50.0	ug/kg wet	50							
Bromoform	ND	50.0	100	ug/kg wet	50							
Bromomethane	ND	500	500	ug/kg wet	50							
2-Butanone (MEK)	ND	250	500	ug/kg wet	50							
n-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
sec-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
tert-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
Carbon disulfide	ND	250	500	ug/kg wet	50							
Carbon tetrachloride	ND	25.0	50.0	ug/kg wet	50							
Chlorobenzene	ND	12.5	25.0	ug/kg wet	50							
Chloroethane	ND	250	500	ug/kg wet	50							
Chloroform	ND	25.0	50.0	ug/kg wet	50							
Chloromethane	ND	125	250	ug/kg wet	50							
2-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50							
4-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50							
Dibromochloromethane	ND	50.0	100	ug/kg wet	50							
1,2-Dibromo-3-chloropropane	ND	125	250	ug/kg wet	50							
1,2-Dibromoethane (EDB)	ND	25.0	50.0	ug/kg wet	50							
Dibromomethane	ND	25.0	50.0	ug/kg wet	50							
1,2-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
1,3-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
1,4-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
Dichlorodifluoromethane	ND	50.0	100	ug/kg wet	50							
1,1-Dichloroethane	ND	12.5	25.0	ug/kg wet	50							
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/kg wet	50							
1,1-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							
cis-1,2-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							
trans-1.2-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							

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## Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project Number: 111323 Project Manager: Chip Byrd

Project:

<u>Report ID:</u> A3C0674 - 04 04 23 1317

## **QUALITY CONTROL (QC) SAMPLE RESULTS**

Gasco -- OWS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0784 - EPA 5035A							Soi					
Blank (23C0784-BLK1)			Prepared	: 03/21/23 08	:12 Anal	yzed: 03/21/	/23 10:40					
1,2-Dichloropropane	ND	12.5	25.0	ug/kg wet	50							
1,3-Dichloropropane	ND	25.0	50.0	ug/kg wet	50							
2,2-Dichloropropane	ND	25.0	50.0	ug/kg wet	50							
1,1-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
trans-1,3-Dichloropropene	ND	25.0	50.0	ug/kg wet	50							
Ethylbenzene	ND	12.5	25.0	ug/kg wet	50							
Hexachlorobutadiene	ND	50.0	100	ug/kg wet	50							
2-Hexanone	ND	250	500	ug/kg wet	50							
Isopropylbenzene	ND	25.0	50.0	ug/kg wet	50							
4-Isopropyltoluene	ND	25.0	50.0	ug/kg wet	50							
Methylene chloride	ND	250	500	ug/kg wet	50							
4-Methyl-2-pentanone (MiBK)	ND	250	500	ug/kg wet	50							
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	ug/kg wet	50							
Naphthalene	ND	50.0	100	ug/kg wet	50							
n-Propylbenzene	ND	12.5	25.0	ug/kg wet	50							
Styrene	ND	25.0	50.0	ug/kg wet	50							
1,1,1,2-Tetrachloroethane	ND	12.5	25.0	ug/kg wet	50							
1,1,2,2-Tetrachloroethane	ND	25.0	50.0	ug/kg wet	50							
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/kg wet	50							
Toluene	ND	25.0	50.0	ug/kg wet	50							
1,2,3-Trichlorobenzene	ND	125	250	ug/kg wet	50							
1,2,4-Trichlorobenzene	ND	125	250	ug/kg wet	50							
1,1,1-Trichloroethane	ND	12.5	25.0	ug/kg wet	50							
1,1,2-Trichloroethane	ND	12.5	25.0	ug/kg wet	50							
Trichloroethene (TCE)	ND	12.5	25.0	ug/kg wet	50							
Trichlorofluoromethane	ND	50.0	100	ug/kg wet	50							
1,2,3-Trichloropropane	ND	25.0	50.0	ug/kg wet	50							
1,2,4-Trimethylbenzene	ND	25.0	50.0	ug/kg wet	50							
1,3,5-Trimethylbenzene	ND	25.0	50.0	ug/kg wet	50							
Vinyl chloride	ND	12.5	25.0	ug/kg wet	50							
m.p-Xylene	ND	25.0	50.0	ug/kg wet	50							
v Vylono	ND	12.5	25.0	ug/kg wat	50							

Apex Laboratories



Sevenson Environmental Services, Inc.

#### ANALYTICAL REPORT

Gasco -- OWS

Project:

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

Notes

Q-56

Q-56

Q-56

Q-56

2749 Lockport Road Niagara Falls, NY 14305			<u>Report ID:</u> A3C0674 - 04 04 23 1317									
		QU	ALITY CO	ONTROL	(QC) SA	MPLE R	RESULT	S				
			Volatile Or	ganic Cor	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	No
Batch 23C0784 - EPA 5035A							So	il				
Blank (23C0784-BLK1)			Prepared	1: 03/21/23 0	)8:12 Anal	lyzed: 03/21	/23 10:40					
Surr: Toluene-d8 (Surr) 4-Bromofluorobenzene (Surr)		Rec	overy: 98 % 98 %	Limits: 80- 79-	-120 % -120 %	Dili	ution: 1x "					
LCS (23C0784-BS1)			Prepared	l: 03/21/23 0	)8:12 Anal	lyzed: 03/21	/23 09:44					
5035A/8260D												
Acetone	1820	500	1000	ug/kg we	et 50	2000		91	80-120%			
Acrylonitrile	1000	50.0	100	ug/kg we	et 50	1000		100	80-120%			
Benzene	1060	5.00	10.0	ug/kg we	et 50	1000		106	80-120%			
Bromobenzene	966	12.5	25.0	ug/kg we	et 50	1000		97	80-120%			
Bromochloromethane	1080	25.0	50.0	ug/kg we	et 50	1000		108	80-120%			
Bromodichloromethane	1140	25.0	50.0	ug/kg we	et 50	1000		114	80-120%			
Bromoform	1280	50.0	100	ug/kg we	et 50	1000		128	80-120%			
Bromomethane	1630	500	500	ug/kg we	et 50	1000		163	80-120%			
2-Butanone (MEK)	2020	250	500	ug/kg we	et 50	2000		101	80-120%			
n-Butylbenzene	900	25.0	50.0	ug/kg we	et 50	1000		90	80-120%			
sec-Butylbenzene	943	25.0	50.0	ug/kg we	et 50	1000		94	80-120%			
tert-Butylbenzene	852	25.0	50.0	ug/kg we	et 50	1000		85	80-120%			
Carbon disulfide	1000	250	500	ug/kg we	et 50	1000		100	80-120%			
Carbon tetrachloride	1240	25.0	50.0	ug/kg we	et 50	1000		124	80-120%			
Chlorobenzene	992	12.5	25.0	ug/kg we	et 50	1000		99	80-120%			
Chloroethane	1610	250	500	ug/kg we	et 50	1000		161	80-120%			
Chloroform	1110	25.0	50.0	ug/kg we	et 50	1000		111	80-120%			
Chloromethane	952	125	250	ug/kg we	et 50	1000		95	80-120%			
2-Chlorotoluene	932	25.0	50.0	ug/kg we	et 50	1000		93	80-120%			
4-Chlorotoluene	920	25.0	50.0	ug/kg we	et 50	1000		92	80-120%			
Dibromochloromethane	1130	50.0	100	ug/kg we	et 50	1000		113	80-120%			
1,2-Dibromo-3-chloropropane	855	125	250	ug/kg we	et 50	1000		86	80-120%			
1,2-Dibromoethane (EDB)	980	25.0	50.0	ug/kg we	et 50	1000		98	80-120%			
Dibromomethane	1080	25.0	50.0	ug/kg we	et 50	1000		108	80-120%			
1,2-Dichlorobenzene	972	12.5	25.0	ug/kg we	et 50	1000		97	80-120%			
1,3-Dichlorobenzene	972	12.5	25.0	ug/kg we	et 50	1000		97	80-120%			
1,4-Dichlorobenzene	976	12.5	25.0	ug/kg we	et 50	1000		98	80-120%			
Dichlorodifluoromethane	1080	50.0	100	ug/kg we	et 50	1000		108	80-120%			
1,1-Dichloroethane	1080	12.5	25.0	ug/kg we	et 50	1000		108	80-120%			
Apex Laboratories	~				The results a custody doc	in this report o ument. This a	apply to the nalytical rep	samples analy port must be re	vzed in accor produced in	rdance wi its entire	th the chain ty.	ı of


## Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- OWS</u> Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

## **QUALITY CONTROL (QC) SAMPLE RESULTS**

			volatile Org	ganic Com	pounds	DY EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0784 - EPA 5035A							Soi	il				
LCS (23C0784-BS1)			Prepared	: 03/21/23 08	8:12 Ana	lyzed: 03/21/	/23 09:44					
1,2-Dichloroethane (EDC)	1080	12.5	25.0	ug/kg wet	50	1000		108	80-120%			
1,1-Dichloroethene	1110	12.5	25.0	ug/kg wet	50	1000		111	80-120%			
cis-1,2-Dichloroethene	1060	12.5	25.0	ug/kg wet	50	1000		106	80-120%			
rans-1,2-Dichloroethene	1050	12.5	25.0	ug/kg wet	50	1000		105	80-120%			
1,2-Dichloropropane	1060	12.5	25.0	ug/kg wet	50	1000		106	80-120%			
1,3-Dichloropropane	994	25.0	50.0	ug/kg wet	50	1000		99	80-120%			
2,2-Dichloropropane	1080	25.0	50.0	ug/kg wet	50	1000		108	80-120%			
1,1-Dichloropropene	1080	25.0	50.0	ug/kg wet	50	1000		108	80-120%			
cis-1,3-Dichloropropene	986	25.0	50.0	ug/kg wet	50	1000		99	80-120%			
rans-1,3-Dichloropropene	1030	25.0	50.0	ug/kg wet	50	1000		103	80-120%			
Ethylbenzene	962	12.5	25.0	ug/kg wet	50	1000		96	80-120%			
Hexachlorobutadiene	956	50.0	100	ug/kg wet	50	1000		96	80-120%			
2-Hexanone	1610	250	500	ug/kg wet	50	2000		81	80-120%			
lsopropylbenzene	932	25.0	50.0	ug/kg wet	50	1000		93	80-120%			
4-Isopropyltoluene	914	25.0	50.0	ug/kg wet	50	1000		91	80-120%			
Methylene chloride	1100	250	500	ug/kg wet	50	1000		110	80-120%			
4-Methyl-2-pentanone (MiBK)	1630	250	500	ug/kg wet	50	2000		82	80-120%			
Methyl tert-butyl ether (MTBE)	952	25.0	50.0	ug/kg wet	50	1000		95	80-120%			
Naphthalene	851	50.0	100	ug/kg wet	50	1000		85	80-120%			
n-Propylbenzene	960	12.5	25.0	ug/kg wet	50	1000		96	80-120%			
Styrene	859	25.0	50.0	ug/kg wet	50	1000		86	80-120%			
1,1,2-Tetrachloroethane	1080	12.5	25.0	ug/kg wet	50	1000		108	80-120%			
1,1,2,2-Tetrachloroethane	911	25.0	50.0	ug/kg wet	50	1000		91	80-120%			
Tetrachloroethene (PCE)	1050	12.5	25.0	ug/kg wet	50	1000		105	80-120%			
Toluene	960	25.0	50.0	ug/kg wet	50	1000		96	80-120%			
1,2,3-Trichlorobenzene	922	125	250	ug/kg wet	50	1000		92	80-120%			
1,2,4-Trichlorobenzene	901	125	250	ug/kg wet	50	1000		90	80-120%			
1,1,1-Trichloroethane	1110	12.5	25.0	ug/kg wet	50	1000		111	80-120%			
1,1,2-Trichloroethane	1000	12.5	25.0	ug/kg wet	50	1000		100	80-120%			
Trichloroethene (TCE)	1160	12.5	25.0	ug/kg wet	50	1000		116	80-120%			
Trichlorofluoromethane	1920	50.0	100	ug/kg wet	50	1000		192	80-120%			(
1.2.3-Trichloropropane	940	25.0	50.0	ug/kg wet	50	1000		94	80-120%			
1.2.4-Trimethylbenzene	929	25.0	50.0	ug/kg wet	50	1000		93	80-120%			
3 5-Trimethylbenzene	947	25.0	50.0	110/ko wet	50	1000		95	80-120%			

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- OWS</u> Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

## **QUALITY CONTROL (QC) SAMPLE RESULTS**

			Volatile Or	ganic Con	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0784 - EPA 5035A							So	il				
LCS (23C0784-BS1)			Prepared	1: 03/21/23 0	8:12 Ana	lyzed: 03/21	/23 09:44					
Vinyl chloride	1190	12.5	25.0	ug/kg wet	t 50	1000		119	80-120%			
m,p-Xylene	1950	25.0	50.0	ug/kg wet	t 50	2000		98	80-120%			
o-Xylene	900	12.5	25.0	ug/kg wet	t 50	1000		90	80-120%			
Surr: 1,4-Difluorobenzene (Surr)		Recov	very: 108 %	Limits: 80-	120 %	Dilı	ution: 1x					
Toluene-d8 (Surr)			98 %	80	120 %		"					
4-Bromofluorobenzene (Surr)			94 %	79	120 %		"					
Duplicate (23C0784-DUP1)			Prepared	l: 03/17/23 1	7:20 Ana	lyzed: 03/21	/23 13:13					V-15
OC Source Sample: T-201-031723-	3 (A3C067	<u>4-01)</u>										
5035A/8260D												
Acetone	ND	1680	3360	ug/kg dry	100		ND				30%	
Acrylonitrile	ND	168	336	ug/kg dry	100		ND				30%	
Benzene	240	16.8	33.6	ug/kg dry	100		225			6	30%	
Bromobenzene	ND	41.9	83.9	ug/kg dry	100		ND				30%	
Bromochloromethane	ND	83.9	168	ug/kg dry	100		ND				30%	
Bromodichloromethane	ND	83.9	168	ug/kg dry	100		ND				30%	
Bromoform	ND	168	336	ug/kg dry	100		ND				30%	
Bromomethane	ND	1680	1680	ug/kg dry	100		ND				30%	
2-Butanone (MEK)	ND	839	1680	ug/kg dry	100		ND				30%	
n-Butylbenzene	95.6	83.9	168	ug/kg dry	100		85.6			11	30%	
sec-Butylbenzene	126	83.9	168	ug/kg dry	100		111			13	30%	
tert-Butylbenzene	ND	83.9	168	ug/kg dry	100		ND				30%	
Carbon disulfide	ND	839	1680	ug/kg dry	100		ND				30%	
Carbon tetrachloride	ND	83.9	168	ug/kg dry	100		ND				30%	
Chlorobenzene	ND	41.9	83.9	ug/kg dry	100		ND				30%	
Chloroethane	ND	839	1680	ug/kg dry	100		ND				30%	
Chloroform	ND	83.9	168	ug/kg dry	100		ND				30%	
Chloromethane	ND	419	839	ug/kg dry	100		ND				30%	
2-Chlorotoluene	ND	83.9	168	ug/kg dry	100		ND				30%	
4-Chlorotoluene	ND	83.9	168	ug/kg dry	100		ND				30%	
Dibromochloromethane	ND	168	336	ug/kg dry	100		ND				30%	
1,2-Dibromo-3-chloropropane	ND	419	839	ug/kg dry	100		ND				30%	
1,2-Dibromoethane (EDB)	ND	83.9	168	ug/kg dry	100		ND				30%	
Dibromomethane	ND	83.9	168	ug/kg dry	100		ND				30%	

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## Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- OWS</u> Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

## **QUALITY CONTROL (QC) SAMPLE RESULTS**

		Detection	Reporting			Spike	Source		% REC		RPD	
Analyte	Result	Limit	Limit	Units	Dilution	Amount	Result	% REC	Limits	RPD	Limit	Notes
Batch 23C0784 - EPA 5035A							Soi	I				
Duplicate (23C0784-DUP1)			Prepared:	: 03/17/23 17	':20 Anal	yzed: 03/21/	/23 13:13					V-15
QC Source Sample: T-201-031723-	3 (A3C0674	<u>4-01)</u>										
1,2-Dichlorobenzene	ND	41.9	83.9	ug/kg dry	100		ND				30%	
1,3-Dichlorobenzene	ND	41.9	83.9	ug/kg dry	100		ND				30%	
1,4-Dichlorobenzene	ND	41.9	83.9	ug/kg dry	100		ND				30%	
Dichlorodifluoromethane	ND	168	336	ug/kg dry	100		ND				30%	
1,1-Dichloroethane	ND	41.9	83.9	ug/kg dry	100		ND				30%	
1,2-Dichloroethane (EDC)	ND	41.9	83.9	ug/kg dry	100		ND				30%	
1,1-Dichloroethene	ND	41.9	83.9	ug/kg dry	100		ND				30%	
cis-1,2-Dichloroethene	ND	41.9	83.9	ug/kg dry	100		ND				30%	
trans-1,2-Dichloroethene	ND	41.9	83.9	ug/kg dry	100		ND				30%	
1,2-Dichloropropane	ND	41.9	83.9	ug/kg dry	100		ND				30%	
1,3-Dichloropropane	ND	83.9	168	ug/kg dry	100		ND				30%	
2,2-Dichloropropane	ND	83.9	168	ug/kg dry	100		ND				30%	
1,1-Dichloropropene	ND	83.9	168	ug/kg dry	100		ND				30%	
cis-1,3-Dichloropropene	ND	83.9	168	ug/kg dry	100		ND				30%	
trans-1,3-Dichloropropene	ND	83.9	168	ug/kg dry	100		ND				30%	
Ethylbenzene	569	41.9	83.9	ug/kg dry	100		535			6	30%	
Hexachlorobutadiene	ND	168	336	ug/kg dry	100		ND				30%	
2-Hexanone	ND	839	1680	ug/kg dry	100		ND				30%	
Isopropylbenzene	159	83.9	168	ug/kg dry	100		141			12	30%	
4-Isopropyltoluene	232	83.9	168	ug/kg dry	100		213			8	30%	M-0
Methylene chloride	ND	839	1680	ug/kg dry	100		ND				30%	
4-Methyl-2-pentanone (MiBK)	ND	839	1680	ug/kg dry	100		ND				30%	
Methyl tert-butyl ether (MTBE)	ND	83.9	168	ug/kg dry	100		ND				30%	
Naphthalene	73000	168	336	ug/kg dry	100		71000			3	30%	
n-Propylbenzene	90.6	41.9	83.9	ug/kg dry	100		82.2			10	30%	
Styrene	ND	83.9	168	ug/kg dry	100		ND				30%	
1,1,1,2-Tetrachloroethane	ND	41.9	83.9	ug/kg drv	100		ND				30%	
1,1,2,2-Tetrachloroethane	ND	83.9	168	ug/kg dry	100		ND				30%	
Tetrachloroethene (PCE)	ND	41.9	83.9	ug/kg drv	100		ND				30%	
Toluene	ND	83.9	168	ug/kg drv	100		ND				30%	
1,2,3-Trichlorobenzene	ND	419	839	ug/kg drv	100		ND				30%	
1,2,4-Trichlorobenzene	ND	419	839	ug/kg drv	100		ND				30%	
1.1.1-Trichloroethane	ND	41 9	83.0	110/ka dru	100		ND				30%	

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- OWS
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

# **QUALITY CONTROL (QC) SAMPLE RESULTS**

			Volatile Or	ganic Cor	npounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0784 - EPA 5035A							Soi	1				
Duplicate (23C0784-DUP1)			Prepared	1: 03/17/23 1	7:20 Ana	lyzed: 03/21	/23 13:13					V-15
QC Source Sample: T-201-031723-	3 (A3C067	4-01)										
1,1,2-Trichloroethane	ND	41.9	83.9	ug/kg dry	/ 100		ND				30%	
Trichloroethene (TCE)	ND	41.9	83.9	ug/kg dry	/ 100		ND				30%	
Trichlorofluoromethane	ND	168	336	ug/kg dry	/ 100		ND				30%	
1,2,3-Trichloropropane	ND	83.9	168	ug/kg dry	/ 100		ND				30%	
1,2,4-Trimethylbenzene	1660	83.9	168	ug/kg dry	/ 100		1510			9	30%	
1,3,5-Trimethylbenzene	612	83.9	168	ug/kg dry	/ 100		562			9	30%	
Vinyl chloride	ND	41.9	83.9	ug/kg dry	/ 100		ND				30%	
m,p-Xylene	332	83.9	168	ug/kg dry	/ 100		297			11	30%	
o-Xylene	379	41.9	83.9	ug/kg dry	/ 100		356			6	30%	
Surr: 1,4-Difluorobenzene (Surr)		Recov	very: 108 %	Limits: 80-	120 %	Dilı	ution: 1x					
Toluene-d8 (Surr)			95 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			99%	79-	120 %		"					
Matrix Spike (23C0784-MS1)			Prepared	1: 03/17/23 1	5:20 Ana	lyzed: 03/21	/23 14:04					V-15
QC Source Sample: Non-SDG (A3	<u>C0669-01)</u>		1			-						
5035A/8260D												
Acetone	2350	669	1340	ug/kg dry	50	2680	ND	88	36-164%			
Acrylonitrile	1340	66.9	134	ug/kg dry	50	1340	ND	100	65-134%			
Benzene	1540	6.69	13.4	ug/kg dry	50	1340	15.4	114	77-121%			
Bromobenzene	1370	16.7	33.5	ug/kg dry	50	1340	ND	102	78-121%			
Bromochloromethane	1380	33.5	66.9	ug/kg dry	50	1340	ND	103	78-125%			
Bromodichloromethane	1610	33.5	66.9	ug/kg dry	50	1340	ND	121	75-127%			
Bromoform	1840	66.9	134	ug/kg dry	50	1340	ND	138	67-132%			Q-54
Bromomethane	1890	669	669	ug/kg dry	50	1340	ND	141	53-143%			Q-54
2-Butanone (MEK)	2730	335	669	ug/kg dry	50	2680	ND	102	51-148%			
n-Butylbenzene	1500	33.5	66.9	ug/kg dry	50	1340	49.5	109	70-128%			
sec-Butylbenzene	1430	33.5	66.9	ug/kg dry	50	1340	ND	107	73-126%			
tert-Butylbenzene	1270	33.5	66.9	ug/kg dry	50	1340	ND	95	73-125%			
Carbon disulfide	1390	335	669	ug/kg dry	50	1340	ND	104	63-132%			
Carbon tetrachloride	1820	33.5	66.9	ug/kg dry	50	1340	ND	136	70-135%			Q-54
Chlorobenzene	1390	16.7	33.5	ug/kg dry	50	1340	ND	104	79-120%			
Chloroethane	2140	335	669	ug/kg dry	z 50	1340	ND	160	59-139%			Q-54
Chloroform	1530	33.5	66.9	ug/kg dry	7 50	1340	ND	114	78-123%			

Apex Laboratories



## Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project Number: 111323 Project Manager: Chip Byrd

Project:

<u>Report ID:</u> A3C0674 - 04 04 23 1317

# **QUALITY CONTROL (QC) SAMPLE RESULTS**

Gasco -- OWS

A	р. <sup>-</sup>	Detection	Reporting	<b>T</b> T •		Spike	Source	0/ ==	% REC	DPT	RPD	<b>N</b> T -
Analyte	Result	Limit	Lımit	Units	Dilution	Amount	Result	% REC	Limits	КРD	Lımit	Notes
Batch 23C0784 - EPA 5035A	,						Soi	il	,		,	
Matrix Spike (23C0784-MS1)			Prepared:	: 03/17/23 15	:20 Anal	yzed: 03/21/	/23 14:04					V-15
QC Source Sample: Non-SDG (A30	<u>C0669-01)</u>											
Chloromethane	1200	167	335	ug/kg dry	50	1340	ND	90	50-136%			
2-Chlorotoluene	1350	33.5	66.9	ug/kg dry	50	1340	ND	101	75-122%			
4-Chlorotoluene	1290	33.5	66.9	ug/kg dry	50	1340	ND	97	72-124%			
Dibromochloromethane	1640	66.9	134	ug/kg dry	50	1340	ND	122	74-126%			
1,2-Dibromo-3-chloropropane	1350	167	335	ug/kg dry	50	1340	ND	101	61-132%			
1,2-Dibromoethane (EDB)	1360	33.5	66.9	ug/kg dry	50	1340	ND	102	78-122%			
Dibromomethane	1500	33.5	66.9	ug/kg dry	50	1340	ND	112	78-125%			
1,2-Dichlorobenzene	1370	16.7	33.5	ug/kg dry	50	1340	30.1	100	78-121%			
1,3-Dichlorobenzene	1350	16.7	33.5	ug/kg dry	50	1340	ND	101	77-121%			
1,4-Dichlorobenzene	1350	16.7	33.5	ug/kg dry	50	1340	ND	101	75-120%			
Dichlorodifluoromethane	1460	66.9	134	ug/kg dry	50	1340	ND	109	29-149%			
1,1-Dichloroethane	1490	16.7	33.5	ug/kg dry	50	1340	ND	112	76-125%			
1,2-Dichloroethane (EDC)	1400	16.7	33.5	ug/kg dry	50	1340	ND	105	73-128%			
1,1-Dichloroethene	1580	16.7	33.5	ug/kg dry	50	1340	ND	118	70-131%			
cis-1,2-Dichloroethene	1480	16.7	33.5	ug/kg dry	50	1340	ND	110	77-123%			
trans-1,2-Dichloroethene	1500	16.7	33.5	ug/kg dry	50	1340	ND	112	74-125%			
1,2-Dichloropropane	1490	16.7	33.5	ug/kg dry	50	1340	ND	111	76-123%			
1,3-Dichloropropane	1350	33.5	66.9	ug/kg dry	50	1340	ND	101	77-121%			
2,2-Dichloropropane	1540	33.5	66.9	ug/kg dry	50	1340	ND	115	67-133%			
1,1-Dichloropropene	1570	33.5	66.9	ug/kg dry	50	1340	ND	118	76-125%			
cis-1,3-Dichloropropene	1350	33.5	66.9	ug/kg dry	50	1340	ND	101	74-126%			
trans-1,3-Dichloropropene	1390	33.5	66.9	ug/kg dry	50	1340	ND	104	71-130%			
Ethylbenzene	1910	16.7	33.5	ug/kg dry	50	1340	593	98	76-122%			
Hexachlorobutadiene	1650	66.9	134	ug/kg dry	50	1340	ND	124	61-135%			
2-Hexanone	2260	335	669	ug/kg drv	50	2680	ND	84	53-145%			
lsopropylbenzene	1520	33.5	66.9	ug/kg dry	50	1340	135	103	68-134%			
4-Isopropyltoluene	1690	33.5	66.9	ug/kg drv	50	1340	116	118	73-127%			M-
Methylene chloride	1490	335	669	ug/kg drv	50	1340	ND	111	70-128%			
4-Methyl-2-pentanone (MiBK)	2260	335	669	ug/kg drv	50	2680	ND	85	65-135%			
Methyl tert-butyl ether (MTBE)	1340	33.5	66.9	ug/kg drv	50	1340	ND	100	73-125%			
Naphthalene	49700	66.9	134	ug/kg drv	50	1340	52600	-217	62-129%			O-03
n-Propylbenzene	1430	167	33.5	ug/ko dru	50	1340	71.6	102	73-125%			( US
styrene	1200	20.7	660	5' ng ui y	50	1240	, 1.0 ND	96	76 12404			

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## Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- OWS</u> Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

# **QUALITY CONTROL (QC) SAMPLE RESULTS**

			Volatile Or	ganic Cor	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0784 - EPA 5035A							So	il				
Matrix Spike (23C0784-MS1)			Preparec	1: 03/17/23 1	5:20 Ana	lyzed: 03/21	/23 14:04					V-15
QC Source Sample: Non-SDG (A3	C0669-01)											
1,1,1,2-Tetrachloroethane	1570	16.7	33.5	ug/kg dr	y 50	1340	ND	117	78-125%			
1,1,2,2-Tetrachloroethane	1130	33.5	66.9	ug/kg dr	y 50	1340	ND	85	70-124%			
Tetrachloroethene (PCE)	1430	16.7	33.5	ug/kg dr	y 50	1340	ND	107	73-128%			
Toluene	1300	33.5	66.9	ug/kg dr	y 50	1340	ND	97	77-121%			
1,2,3-Trichlorobenzene	1290	167	335	ug/kg dr	y 50	1340	ND	96	66-130%			
1,2,4-Trichlorobenzene	1440	167	335	ug/kg dr	y 50	1340	ND	107	67-129%			
1,1,1-Trichloroethane	1590	16.7	33.5	ug/kg dr	y 50	1340	ND	119	73-130%			
1,1,2-Trichloroethane	1380	16.7	33.5	ug/kg dr	y 50	1340	ND	103	78-121%			
Trichloroethene (TCE)	1790	16.7	33.5	ug/kg dr	y 50	1340	ND	134	77-123%			Q-0
Trichlorofluoromethane	11800	66.9	134	ug/kg dr	y 50	1340	ND	881	62-140%			Q-54
1,2,3-Trichloropropane	1300	33.5	66.9	ug/kg dr	y 50	1340	ND	97	73-125%			
1,2,4-Trimethylbenzene	2340	33.5	66.9	ug/kg dr	y 50	1340	1130	91	75-123%			
1,3,5-Trimethylbenzene	1670	33.5	66.9	ug/kg dr	y 50	1340	390	96	73-124%			
Vinyl chloride	1500	16.7	33.5	ug/kg dr	y 50	1340	ND	112	56-135%			
m,p-Xylene	3100	33.5	66.9	ug/kg dr	y 50	2680	475	98	77-124%			
o-Xylene	1570	16.7	33.5	ug/kg dr	y 50	1340	270	97	77-123%			
Surr: 1,4-Difluorobenzene (Surr)		Reco	very: 110 %	Limits: 80-	120 %	Dilt	ution: 1x					
Toluene-d8 (Surr)			94 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			99 %	79-	120 %		"					

Apex Laboratories



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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project Number: 111323 Project Manager: Chip Byrd

Project:

<u>Report ID:</u> A3C0674 - 04 04 23 1317

## **QUALITY CONTROL (QC) SAMPLE RESULTS**

Gasco -- OWS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0846 - EPA 5035A							Soi	I				
Blank (23C0846-BLK1)			Prepared	: 03/22/23 08	8:35 Ana	lyzed: 03/22	/23 11:15					
5035A/8260D												
Acetone	ND	500	1000	ug/kg wet	50							
Acrylonitrile	ND	50.0	100	ug/kg wet	50							
Benzene	ND	5.00	10.0	ug/kg wet	50							
Bromobenzene	ND	12.5	25.0	ug/kg wet	50							
Bromochloromethane	ND	25.0	50.0	ug/kg wet	50							
Bromodichloromethane	ND	25.0	50.0	ug/kg wet	50							
Bromoform	ND	50.0	100	ug/kg wet	50							
Bromomethane	ND	500	500	ug/kg wet	50							
2-Butanone (MEK)	ND	250	500	ug/kg wet	50							
n-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
sec-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
tert-Butylbenzene	ND	25.0	50.0	ug/kg wet	50							
Carbon disulfide	ND	250	500	ug/kg wet	50							
Carbon tetrachloride	ND	25.0	50.0	ug/kg wet	50							
Chlorobenzene	ND	12.5	25.0	ug/kg wet	50							
Chloroethane	ND	250	500	ug/kg wet	50							
Chloroform	ND	25.0	50.0	ug/kg wet	50							
Chloromethane	ND	125	250	ug/kg wet	50							
2-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50							
4-Chlorotoluene	ND	25.0	50.0	ug/kg wet	50							
Dibromochloromethane	ND	50.0	100	ug/kg wet	50							
1,2-Dibromo-3-chloropropane	ND	125	250	ug/kg wet	50							
1,2-Dibromoethane (EDB)	ND	25.0	50.0	ug/kg wet	50							
Dibromomethane	ND	25.0	50.0	ug/kg wet	50							
1,2-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
1,3-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
1,4-Dichlorobenzene	ND	12.5	25.0	ug/kg wet	50							
Dichlorodifluoromethane	ND	50.0	100	ug/kg wet	50							
1,1-Dichloroethane	ND	12.5	25.0	ug/kg wet	50							
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/kg wet	50							
1,1-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							
cis-1,2-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							
trans-1 2-Dichloroethene	ND	12.5	25.0	ug/kg wet	50							

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## Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project Number: 111323 Project Manager: Chip Byrd

Project:

<u>Report ID:</u> A3C0674 - 04 04 23 1317

## **QUALITY CONTROL (QC) SAMPLE RESULTS**

Gasco -- OWS

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0846 - EPA 5035A							Soi	I				
Blank (23C0846-BLK1)			Prepared	: 03/22/23 08	8:35 Anal	lyzed: 03/22	/23 11:15					
1,2-Dichloropropane	ND	12.5	25.0	ug/kg wet	t 50							
1,3-Dichloropropane	ND	25.0	50.0	ug/kg wet	t 50							
2,2-Dichloropropane	ND	25.0	50.0	ug/kg wet	t 50							
1,1-Dichloropropene	ND	25.0	50.0	ug/kg wet	t 50							
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/kg wet	t 50							
trans-1,3-Dichloropropene	ND	25.0	50.0	ug/kg wet	t 50							
Ethylbenzene	ND	12.5	25.0	ug/kg wet	t 50							
Hexachlorobutadiene	ND	50.0	100	ug/kg wet	t 50							
2-Hexanone	ND	250	500	ug/kg wet	t 50							
Isopropylbenzene	ND	25.0	50.0	ug/kg wet	t 50							
4-Isopropyltoluene	ND	25.0	50.0	ug/kg wet	t 50							
Methylene chloride	ND	250	500	ug/kg wet	t 50							
4-Methyl-2-pentanone (MiBK)	ND	500	500	ug/kg wet	t 50							
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	ug/kg wet	t 50							
Naphthalene	ND	50.0	100	ug/kg wet	t 50							
n-Propylbenzene	ND	12.5	25.0	ug/kg wet	t 50							
Styrene	ND	25.0	50.0	ug/kg wet	t 50							
1,1,1,2-Tetrachloroethane	ND	12.5	25.0	ug/kg wet	t 50							
1,1,2,2-Tetrachloroethane	ND	25.0	50.0	ug/kg wet	t 50							
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/kg wet	t 50							
Toluene	ND	25.0	50.0	ug/kg wet	t 50							
1,2,3-Trichlorobenzene	ND	125	250	ug/kg wet	t 50							
1,2,4-Trichlorobenzene	ND	125	250	ug/kg wet	t 50							
1,1,1-Trichloroethane	ND	12.5	25.0	ug/kg wet	t 50							
1,1,2-Trichloroethane	ND	12.5	25.0	ug/kg wet	t 50							
Trichloroethene (TCE)	ND	12.5	25.0	ug/kg wet	t 50							
Trichlorofluoromethane	ND	50.0	100	ug/kg wet	t 50							
1,2,3-Trichloropropane	ND	25.0	50.0	ug/kg wet	t 50							
1,2,4-Trimethylbenzene	ND	25.0	50.0	ug/kg wet	t 50							
1,3,5-Trimethylbenzene	ND	25.0	50.0	ug/kg wet	t 50							
Vinyl chloride	ND	12.5	25.0	ug/kg wet	t 50							
m,p-Xylene	ND	25.0	50.0	ug/kg wet	t 50							
o-Xvlene	ND	12.5	25.0	uo/ko wet	50							

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

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

Project: Gasco -- OWS Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

# **QUALITY CONTROL (QC) SAMPLE RESULTS**

		Volatile Organic Compounds by EPA 8260D													
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes			
Batch 23C0846 - EPA 5035A							So	il							
Blank (23C0846-BLK1)			Preparec	1: 03/22/23 08	8:35 Anal	yzed: 03/22	/23 11:15								
Surr: Toluene-d8 (Surr)		Reco	overy: 98%	Limits: 80-1	120 %	Dilı	ution: 1x								
4-Bromofluorobenzene (Surr)			98 %	79-1	20 %		"								
LCS (23C0846-BS1)			Prepared	1: 03/22/23 08	8:35 Anal	yzed: 03/22/	/23 10:16								
<u>5035A/8260D</u>															
Acetone	1710	500	1000	ug/kg wet	50	2000		86	80-120%						
Acrylonitrile	962	50.0	100	ug/kg wet	50	1000		96	80-120%						
Benzene	1090	5.00	10.0	ug/kg wet	50	1000		109	80-120%						
Bromobenzene	1030	12.5	25.0	ug/kg wet	50	1000		103	80-120%						
Bromochloromethane	1020	25.0	50.0	ug/kg wet	50	1000		102	80-120%						
Bromodichloromethane	1130	25.0	50.0	ug/kg wet	50	1000		113	80-120%						
Bromoform	1280	50.0	100	ug/kg wet	50	1000		128	80-120%			Q-:			
Bromomethane	1520	500	500	ug/kg wet	50	1000		152	80-120%			Q-:			
2-Butanone (MEK)	1880	250	500	ug/kg wet	50	2000		94	80-120%						
n-Butylbenzene	988	25.0	50.0	ug/kg wet	50	1000		99	80-120%						
sec-Butylbenzene	1020	25.0	50.0	ug/kg wet	50	1000		102	80-120%						
tert-Butylbenzene	942	25.0	50.0	ug/kg wet	50	1000		94	80-120%						
Carbon disulfide	988	250	500	ug/kg wet	50	1000		99	80-120%						
Carbon tetrachloride	1250	25.0	50.0	ug/kg wet	50	1000		125	80-120%			Q-:			
Chlorobenzene	1020	12.5	25.0	ug/kg wet	50	1000		102	80-120%						
Chloroethane	1270	250	500	ug/kg wet	50	1000		127	80-120%			Q-:			
Chloroform	1100	25.0	50.0	ug/kg wet	50	1000		110	80-120%						
Chloromethane	968	125	250	ug/kg wet	50	1000		97	80-120%						
2-Chlorotoluene	1020	25.0	50.0	ug/kg wet	50	1000		102	80-120%						
4-Chlorotoluene	978	25.0	50.0	ug/kg wet	50	1000		98	80-120%						
Dibromochloromethane	1180	50.0	100	ug/kg wet	50	1000		118	80-120%						
1,2-Dibromo-3-chloropropane	886	125	250	ug/kg wet	50	1000		89	80-120%						
1,2-Dibromoethane (EDB)	1020	25.0	50.0	ug/kg wet	50	1000		102	80-120%						
Dibromomethane	1060	25.0	50.0	ug/kg wet	50	1000		106	80-120%						
1,2-Dichlorobenzene	1030	12.5	25.0	ug/kg wet	50	1000		103	80-120%						
1,3-Dichlorobenzene	1030	12.5	25.0	ug/kg wet	50	1000		103	80-120%						
1,4-Dichlorobenzene	1030	12.5	25.0	ug/kg wet	50	1000		103	80-120%						
Dichlorodifluoromethane	1180	50.0	100	ug/kg wet	50	1000		118	80-120%						
1,1-Dichloroethane	1070	12.5	25.0	ug/kg wet	50	1000		107	80-120%						

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## Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- OWS</u> Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

## **QUALITY CONTROL (QC) SAMPLE RESULTS**

			volatile Org	ganic Con	pounds	DY EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0846 - EPA 5035A							Soi	il				
LCS (23C0846-BS1)			Prepared	: 03/22/23 08	8:35 Ana	lyzed: 03/22	/23 10:16					
1,2-Dichloroethane (EDC)	1060	12.5	25.0	ug/kg wet	50	1000		106	80-120%			
1,1-Dichloroethene	1100	12.5	25.0	ug/kg wet	50	1000		110	80-120%			
cis-1,2-Dichloroethene	1070	12.5	25.0	ug/kg wet	50	1000		107	80-120%			
trans-1,2-Dichloroethene	1060	12.5	25.0	ug/kg wet	50	1000		106	80-120%			
1,2-Dichloropropane	1080	12.5	25.0	ug/kg wet	50	1000		108	80-120%			
1,3-Dichloropropane	1010	25.0	50.0	ug/kg wet	50	1000		101	80-120%			
2,2-Dichloropropane	1100	25.0	50.0	ug/kg wet	50	1000		110	80-120%			
1,1-Dichloropropene	1120	25.0	50.0	ug/kg wet	50	1000		112	80-120%			
cis-1,3-Dichloropropene	1010	25.0	50.0	ug/kg wet	50	1000		101	80-120%			
trans-1,3-Dichloropropene	1050	25.0	50.0	ug/kg wet	50	1000		105	80-120%			
Ethylbenzene	994	12.5	25.0	ug/kg wet	50	1000		99	80-120%			
Hexachlorobutadiene	1050	50.0	100	ug/kg wet	50	1000		105	80-120%			
2-Hexanone	1600	250	500	ug/kg wet	50	2000		80	80-120%			
Isopropylbenzene	1000	25.0	50.0	ug/kg wet	50	1000		100	80-120%			
4-Isopropyltoluene	1000	25.0	50.0	ug/kg wet	50	1000		100	80-120%			
Methylene chloride	1070	250	500	ug/kg wet	50	1000		107	80-120%			
4-Methyl-2-pentanone (MiBK)	1580	500	500	ug/kg wet	50	2000		79	80-120%			Q-
Methyl tert-butyl ether (MTBE)	972	25.0	50.0	ug/kg wet	50	1000		97	80-120%			
Naphthalene	984	50.0	100	ug/kg wet	50	1000		98	80-120%			
n-Propylbenzene	1020	12.5	25.0	ug/kg wet	50	1000		102	80-120%			
Styrene	904	25.0	50.0	ug/kg wet	50	1000		90	80-120%			
1,1,1,2-Tetrachloroethane	1140	12.5	25.0	ug/kg wet	50	1000		114	80-120%			
1,1,2,2-Tetrachloroethane	914	25.0	50.0	ug/kg wet	50	1000		91	80-120%			
Tetrachloroethene (PCE)	1080	12.5	25.0	ug/kg wet	50	1000		108	80-120%			
Toluene	998	25.0	50.0	ug/kg wet	50	1000		100	80-120%			
1,2,3-Trichlorobenzene	986	125	250	ug/kg wet	50	1000		99	80-120%			
1,2,4-Trichlorobenzene	1030	125	250	ug/kg wet	50	1000		103	80-120%			
1,1,1-Trichloroethane	1140	12.5	25.0	ug/kg wet	50	1000		114	80-120%			
1,1,2-Trichloroethane	1010	12.5	25.0	ug/kg wet	50	1000		101	80-120%			
Trichloroethene (TCE)	1210	12.5	25.0	ug/kg wet	50	1000		121	80-120%			Q-
Trichlorofluoromethane	1580	50.0	100	ug/kg wet	50	1000		158	80-120%			Q-
1,2,3-Trichloropropane	1010	25.0	50.0	ug/kg wet	50	1000		101	80-120%			
1,2,4-Trimethylbenzene	994	25.0	50.0	ug/kg wet	50	1000		99	80-120%			
1.3.5-Trimethylbenzene	1010	25.0	50.0	ug/kg wet	50	1000		101	80-120%			

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- OWS</u> Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

# **QUALITY CONTROL (QC) SAMPLE RESULTS**

		1	Volatile Or	ganic Com	pounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0846 - EPA 5035A							Soi	il				
LCS (23C0846-BS1)			Prepared	1: 03/22/23 08	:35 Anal	yzed: 03/22/	/23 10:16					
Vinyl chloride	1160	12.5	25.0	ug/kg wet	50	1000		116	80-120%			
m,p-Xylene	2010	25.0	50.0	ug/kg wet	50	2000		100	80-120%			
o-Xylene	971	12.5	25.0	ug/kg wet	50	1000		97	80-120%			
Surr: 1,4-Difluorobenzene (Surr)		Recov	very: 107 %	Limits: 80-1	20 %	Dilu	tion: 1x					
Toluene-d8 (Surr)			98 %	80-1	20 %		"					
4-Bromofluorobenzene (Surr)			98 %	79-1	20 %		"					
Duplicate (23C0846-DUP1)			Prepared	1: 03/21/23 11	:18 Anal	yzed: 03/22/	23 12:06					
OC Source Sample: Non-SDG (A3	<u>C0760-01)</u>											
Acetone	ND	1580	3160	ug/kg drv	50		ND				30%	
Acrylonitrile	ND	158	316	ug/kg drv	50		ND				30%	
Benzene	ND	15.8	31.6	ug/kg drv	50		ND				30%	
Bromobenzene	ND	39.6	79.1	ug/kg dry	50		ND				30%	
Bromochloromethane	ND	79.1	158	ug/kg dry	50		ND				30%	
Bromodichloromethane	ND	79.1	158	ug/kg dry	50		ND				30%	
Bromoform	ND	158	316	ug/kg dry	50		ND				30%	
Bromomethane	ND	1580	1580	ug/kg dry	50		ND				30%	
2-Butanone (MEK)	ND	791	1580	ug/kg dry	50		ND				30%	
n-Butylbenzene	ND	79.1	158	ug/kg dry	50		ND				30%	
sec-Butylbenzene	ND	79.1	158	ug/kg dry	50		ND				30%	
tert-Butylbenzene	ND	79.1	158	ug/kg dry	50		ND				30%	
Carbon disulfide	ND	791	1580	ug/kg dry	50		ND				30%	
Carbon tetrachloride	ND	79.1	158	ug/kg dry	50		ND				30%	
Chlorobenzene	ND	39.6	79.1	ug/kg dry	50		ND				30%	
Chloroethane	ND	791	1580	ug/kg dry	50		ND				30%	
Chloroform	ND	79.1	158	ug/kg dry	50		ND				30%	
Chloromethane	ND	396	791	ug/kg dry	50		ND				30%	
2-Chlorotoluene	ND	79.1	158	ug/kg dry	50		ND				30%	
4-Chlorotoluene	ND	79.1	158	ug/kg dry	50		ND				30%	
Dibromochloromethane	ND	158	316	ug/kg dry	50		ND				30%	
1,2-Dibromo-3-chloropropane	ND	396	791	ug/kg dry	50		ND				30%	
1,2-Dibromoethane (EDB)	ND	79.1	158	ug/kg dry	50		ND				30%	
Dibromomethane	ND	79.1	158	ug/kg dry	50		ND				30%	
1,2-Dichlorobenzene	ND	39.6	79.1	ug/kg dry	50		ND				30%	
				•								

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## Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- OWS Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

## **QUALITY CONTROL (QC) SAMPLE RESULTS**

			Volatile Org	ganic Con	npounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0846 - EPA 5035A							Soi	I				
Duplicate (23C0846-DUP1)			Prepared	: 03/21/23 1	l:18 Anal	yzed: 03/22/	/23 12:06					
QC Source Sample: Non-SDG (A3	C0760-01)											
1,3-Dichlorobenzene	ND	39.6	79.1	ug/kg dry	50		ND				30%	
1,4-Dichlorobenzene	ND	39.6	79.1	ug/kg dry	50		ND				30%	
Dichlorodifluoromethane	ND	158	316	ug/kg dry	50		ND				30%	
1,1-Dichloroethane	ND	39.6	79.1	ug/kg dry	50		ND				30%	
1,2-Dichloroethane (EDC)	ND	39.6	79.1	ug/kg dry	50		ND				30%	
1,1-Dichloroethene	ND	39.6	79.1	ug/kg dry	50		ND				30%	
cis-1,2-Dichloroethene	ND	39.6	79.1	ug/kg dry	50		ND				30%	
trans-1,2-Dichloroethene	ND	39.6	79.1	ug/kg dry	50		ND				30%	
1,2-Dichloropropane	ND	39.6	79.1	ug/kg dry	50		ND				30%	
1,3-Dichloropropane	ND	79.1	158	ug/kg dry	50		ND				30%	
2,2-Dichloropropane	ND	79.1	158	ug/kg dry	50		ND				30%	
1,1-Dichloropropene	ND	79.1	158	ug/kg dry	50		ND				30%	
cis-1,3-Dichloropropene	ND	79.1	158	ug/kg dry	50		ND				30%	
trans-1,3-Dichloropropene	ND	79.1	158	ug/kg dry	50		ND				30%	
Ethylbenzene	ND	39.6	79.1	ug/kg dry	50		ND				30%	
Hexachlorobutadiene	ND	158	316	ug/kg dry	50		ND				30%	
2-Hexanone	ND	791	1580	ug/kg dry	50		ND				30%	
Isopropylbenzene	ND	79.1	158	ug/kg dry	50		ND				30%	
4-Isopropyltoluene	ND	79.1	158	ug/kg dry	50		ND				30%	
Methylene chloride	ND	791	1580	ug/kg dry	50		ND				30%	
4-Methyl-2-pentanone (MiBK)	ND	1580	1580	ug/kg dry	50		ND				30%	
Methyl tert-butyl ether (MTBE)	ND	79.1	158	ug/kg dry	50		ND				30%	
Naphthalene	ND	158	316	ug/kg dry	50		ND				30%	
n-Propylbenzene	ND	39.6	79.1	ug/kg dry	50		ND				30%	
Styrene	ND	79.1	158	ug/kg dry	50		ND				30%	
1,1,1,2-Tetrachloroethane	ND	39.6	79.1	ug/kg dry	50		ND				30%	
1,1,2,2-Tetrachloroethane	ND	79.1	158	ug/kg dry	50		ND				30%	
Tetrachloroethene (PCE)	ND	39.6	79.1	ug/kg drv	50		ND				30%	
Toluene	ND	79.1	158	ug/kg dry	50		ND				30%	
1.2.3-Trichlorobenzene	ND	396	791	ug/kg drv	50		ND				30%	
1,2,4-Trichlorobenzene	ND	396	791	ug/kg drv	50		ND				30%	
1,1,1-Trichloroethane	ND	39.6	79.1	ug/kg drv	50		ND				30%	
1,1,2-Trichloroethane	ND	39.6	79.1	ug/kg dry	50		ND				30%	

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- OWS Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

# **QUALITY CONTROL (QC) SAMPLE RESULTS**

Analyte Batch 23C0846 - EPA 5035A Duplicate (23C0846-DUP1) QC Source Sample: Non-SDG (A3C) Trichloroethene (TCE) Trichlorofluoromethane	Result 20760-01) ND	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0846 - EPA 5035A Duplicate (23C0846-DUP1) OC Source Sample: Non-SDG (A3C) Trichloroethene (TCE) Trichlorofluoromethane	20760-01) ND								2	МЪ	Linni	
Duplicate (23C0846-DUP1) <u>QC Source Sample: Non-SDG (A3C</u> Trichloroethene (TCE) Trichlorofluoromethane	20760-01) ND						Soi	I				
OC Source Sample: Non-SDG (A3C Trichloroethene (TCE) Trichlorofluoromethane	20760-01) ND		Preparec	1: 03/21/23 1	1:18 Ana	lyzed: 03/22/	23 12:06					
Trichloroethene (TCE) Trichlorofluoromethane	ND											
Trichlorofluoromethane		39.6	79.1	ug/kg dr	y 50		ND				30%	
	ND	158	316	ug/kg dr	y 50		ND				30%	
1,2,3-Trichloropropane	ND	79.1	158	ug/kg dr	y 50		ND				30%	
1,2,4-Trimethylbenzene	ND	79.1	158	ug/kg dr	y 50		ND				30%	
1,3,5-Trimethylbenzene	ND	79.1	158	ug/kg dr	y 50		ND				30%	
Vinyl chloride	ND	39.6	79.1	ug/kg dr	y 50		ND				30%	
m,p-Xylene	ND	79.1	158	ug/kg dr	y 50		ND				30%	
o-Xylene	ND	39.6	79.1	ug/kg dr	y 50		ND				30%	
Surr: 1,4-Difluorobenzene (Surr)		Recov	very: 107 %	Limits: 80-	-120 %	Dilu	tion: 1x					
Toluene-d8 (Surr)			97 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			98 %	79-	120 %		"					
<u>QC Source Sample: Non-SDG (A3C</u> 5035A/8260D	20783-04)											
<u>auaaA/8200D</u>	4700	1200	2580	ua/ka do	v 50	5150	ND	91	36-16404			
Acrylonitrile	2560	1290	258	ug/kg dr	y 50	2570	ND	99	65-134%			
Benzene	2890	129	258	ug/kg dr	y 50	2570	ND	112	77-121%			
Bromohenzene	2600	32.9	64 A	110/kg dm	, 50 v 50	2570	ND	101	78-121%			
Bromochloromethane	2000	64 4	129	110/kg dm	, 50 v 50	2570	ND	108	78-125%			
Bromodichloromethane	3010	64.4	129	ug/kg dr	y 50	2570	ND	117	75-127%			
Bromoform	3160	129	258	ug/kø dr	y 50	2570	ND	123	67-132%			<b>O-5</b> 4
Bromomethane	4200	1290	1290	ug/kg dr	v 50	2570	ND	163	53-143%			Q-54
2-Butanone (MEK)	5210	644	1290	ug/kg dr	v 50	5150	ND	101	51-148%			
n-Butvlbenzene	2510	64.4	129	ug/kg dr	v 50	2570	ND	97	70-128%			
sec-Butylbenzene	2610	64.4	129	ug/kg dr	y 50	2570	ND	101	73-126%			
tert-Butylbenzene	2360	64.4	129	ug/kg dr	y 50	2570	ND	92	73-125%			
Carbon disulfide	2710	644	1290	ug/kg dr	y 50	2570	ND	105	63-132%			
Carbon tetrachloride	3430	64.4	129	ug/kg dr	y 50	2570	ND	133	70-135%			Q-54
Chlorobenzene	2660	32.2	64.4	ug/kg dr	y 50	2570	ND	103	79-120%			
Chloroethane	4180	644	1290	ug/kg dr	y 50	2570	ND	162	59-139%			Q-5
Chloroform	2930	64.4	129	ug/kg dr	v 50	2570	ND	114	78-123%			
Chloromethane	2750	322	644	ug/kg dry	v 50	2570	ND	107	50-136%			

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- OWS</u> Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

# **QUALITY CONTROL (QC) SAMPLE RESULTS**

			Volatile Org	ganic Com	pounds	by EPA 8	260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0846 - EPA 5035A							Soi	il				
Matrix Spike (23C0846-MS1)			Prepared	: 03/21/23 09	:00 Anal	yzed: 03/22/	/23 12:57					
QC Source Sample: Non-SDG (A30	C0783-04)											
2-Chlorotoluene	2540	64.4	129	ug/kg dry	50	2570	ND	99	75-122%			
4-Chlorotoluene	2510	64.4	129	ug/kg dry	50	2570	ND	98	72-124%			
Dibromochloromethane	2950	129	258	ug/kg dry	50	2570	ND	115	74-126%			
1,2-Dibromo-3-chloropropane	2130	322	644	ug/kg dry	50	2570	ND	83	61-132%			
1,2-Dibromoethane (EDB)	2550	64.4	129	ug/kg dry	50	2570	ND	99	78-122%			
Dibromomethane	2810	64.4	129	ug/kg dry	50	2570	ND	109	78-125%			
1,2-Dichlorobenzene	2530	32.2	64.4	ug/kg dry	50	2570	ND	98	78-121%			
1,3-Dichlorobenzene	2570	32.2	64.4	ug/kg dry	50	2570	ND	100	77-121%			
1,4-Dichlorobenzene	2560	32.2	64.4	ug/kg dry	50	2570	ND	100	75-120%			
Dichlorodifluoromethane	3440	129	258	ug/kg dry	50	2570	ND	134	29-149%			
1,1-Dichloroethane	2860	32.2	64.4	ug/kg dry	50	2570	ND	111	76-125%			
1,2-Dichloroethane (EDC)	2820	32.2	64.4	ug/kg dry	50	2570	ND	109	73-128%			
1,1-Dichloroethene	3040	32.2	64.4	ug/kg dry	50	2570	ND	118	70-131%			
cis-1,2-Dichloroethene	2830	32.2	64.4	ug/kg dry	50	2570	ND	110	77-123%			
trans-1,2-Dichloroethene	2880	32.2	64.4	ug/kg dry	50	2570	ND	112	74-125%			
1,2-Dichloropropane	2830	32.2	64.4	ug/kg dry	50	2570	ND	110	76-123%			
1,3-Dichloropropane	2560	64.4	129	ug/kg dry	50	2570	ND	100	77-121%			
2,2-Dichloropropane	2880	64.4	129	ug/kg dry	50	2570	ND	112	67-133%			
1,1-Dichloropropene	2980	64.4	129	ug/kg dry	50	2570	ND	116	76-125%			
cis-1,3-Dichloropropene	2580	64.4	129	ug/kg dry	50	2570	ND	100	74-126%			
trans-1,3-Dichloropropene	2650	64.4	129	ug/kg dry	50	2570	ND	103	71-130%			
Ethylbenzene	2590	32.2	64.4	ug/kg dry	50	2570	ND	100	76-122%			
Hexachlorobutadiene	2710	129	258	ug/kg dry	50	2570	ND	105	61-135%			
2-Hexanone	4150	644	1290	ug/kg dry	50	5150	ND	81	53-145%			
Isopropylbenzene	2600	64.4	129	ug/kg dry	50	2570	ND	101	68-134%			
4-Isopropyltoluene	2540	64.4	129	ug/kg dry	50	2570	ND	99	73-127%			
Methylene chloride	2850	644	1290	ug/kg dry	50	2570	ND	111	70-128%			
4-Methyl-2-pentanone (MiBK)	4290	1290	1290	ug/kg dry	50	5150	ND	83	65-135%			Q-54
Methyl tert-butyl ether (MTBE)	2490	64.4	129	ug/kg drv	50	2570	ND	97	73-125%			
Naphthalene	2330	129	258	ug/kg drv	50	2570	ND	90	62-129%			
n-Propylbenzene	2610	32.2	64.4	ug/kg drv	50	2570	ND	101	73-125%			
Styrene	2370	64.4	129	ug/kg drv	50	2570	ND	92	76-124%			
1.1.1.2-Tetrachloroethane	2860	32.2	64.4	ug/kø drv	50	2570	ND	111	78-125%			
1,1,1,2 returnition of uname	2000	52.2	т.т	ug/ ng ul y	50	2370		111	/0 123/0			

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## Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- OWS</u> Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

## **QUALITY CONTROL (QC) SAMPLE RESULTS**

			Volatile Or	ganic Cor	npounds	by EPA 8	3260D					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0846 - EPA 5035A							So	il				
Matrix Spike (23C0846-MS1)			Prepared	1: 03/21/23 0	9:00 Ana	lyzed: 03/22	/23 12:57					
QC Source Sample: Non-SDG (A3	<u> 20783-04)</u>											
1,1,2,2-Tetrachloroethane	2300	64.4	129	ug/kg dry	50	2570	ND	89	70-124%			
Tetrachloroethene (PCE)	2840	32.2	64.4	ug/kg dry	50	2570	ND	110	73-128%			
Toluene	2560	64.4	129	ug/kg dry	50	2570	ND	99	77-121%			
1,2,3-Trichlorobenzene	2390	322	644	ug/kg dry	50	2570	ND	93	66-130%			
1,2,4-Trichlorobenzene	2490	322	644	ug/kg dry	50	2570	ND	97	67-129%			
1,1,1-Trichloroethane	3020	32.2	64.4	ug/kg dry	50	2570	ND	117	73-130%			
1,1,2-Trichloroethane	2610	32.2	64.4	ug/kg dry	50	2570	ND	101	78-121%			
Trichloroethene (TCE)	3210	32.2	64.4	ug/kg dry	50	2570	ND	125	77-123%			Q-5
Trichlorofluoromethane	11000	129	258	ug/kg dry	50	2570	ND	427	62-140%			Q-54
1,2,3-Trichloropropane	2450	64.4	129	ug/kg dry	50	2570	ND	95	73-125%			
1,2,4-Trimethylbenzene	2520	64.4	129	ug/kg dry	50	2570	ND	98	75-123%			
1,3,5-Trimethylbenzene	2580	64.4	129	ug/kg dry	50	2570	ND	100	73-124%			
Vinyl chloride	3490	32.2	64.4	ug/kg dry	50	2570	ND	135	56-135%			
m,p-Xylene	5220	64.4	129	ug/kg dry	50	5150	ND	101	77-124%			
o-Xylene	2490	32.2	64.4	ug/kg dry	50	2570	ND	97	77-123%			
Surr: 1,4-Difluorobenzene (Surr)		Reco	very: 108 %	Limits: 80-	120 %	Dilt	ution: 1x					
Toluene-d8 (Surr)			97 %	80-	120 %		"					
4-Bromofluorobenzene (Surr)			96 %	79-	120 %		"					

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## Apex Laboratories, LLC

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

# Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- OWS Project Number: 111323 Project Manager: Chip Byrd

## **QUALITY CONTROL (QC) SAMPLE RESULTS**

		TCLP	Volatile Or	ganic Co	ompounds	s by EPA	1311/826	0D				
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1160 - EPA 1311/50	30B TCLP	Volatiles					Wa	ter				
Blank (23C1160-BLK1)			Prepared	1: 03/29/23	11:03 Anal	lyzed: 03/29	/23 13:52					TCLPt
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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## Apex Laboratories, LLC

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

# Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- OWS</u> Project Number: 111323 Project Manager: Chip Byrd

## **QUALITY CONTROL (QC) SAMPLE RESULTS**

		TCLP	Volatile Or	ganic Co	ompounds	s by EPA	1311/826	0D				
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1160 - EPA 1311/503	0B TCLP	Volatiles					Wa	ter				
Blank (23C1160-BLK1)			Prepared	1: 03/29/23	11:03 Anal	lyzed: 03/29	/23 13:52					TCLP
2,2-Dichloropropane	ND	25.0	50.0	ug/L	50							
1,1-Dichloropropene	ND	25.0	50.0	ug/L	50							
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/L	50							
trans-1,3-Dichloropropene	ND	25.0	50.0	ug/L	50							
Ethylbenzene	ND	12.5	25.0	ug/L	50							
Hexachlorobutadiene	ND	125	250	ug/L	50							
2-Hexanone	ND	250	500	ug/L	50							
Isopropylbenzene	ND	25.0	50.0	ug/L	50							
4-Isopropyltoluene	ND	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)		Reci	overv: 98 %	Limits: 8	0-120 %	Dil	ution: 1x					
Toluene-d8 (Surr)		1.00	102 %		0-120 %	50	"					
4-Bromofluorobenzene (Surr)			99 %	80	0-120 %		"					

Apex Laboratories



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

#### Gasco -- OWS Sevenson Environmental Services, Inc. Project: 2749 Lockport Road Project Number: 111323 **Report ID:** Niagara Falls, NY 14305 Project Manager: Chip Byrd A3C0674 - 04 04 23 1317 **QUALITY CONTROL (QC) SAMPLE RESULTS** TCLP Volatile Organic Compounds by EPA 1311/8260D Detection % REC RPD Reporting Spike Source Result Limit Units Dilution % REC RPD Analyte Limit Amount Result Limits Limit Notes Batch 23C1160 - EPA 1311/5030B TCLP Volatiles Water Blank (23C1160-BLK2) Prepared: 03/29/23 11:03 Analyzed: 03/29/23 14:15 TCLPb 1311/8260D Acetone ND 500 1000 ug/L 50 ---------Benzene ND 6.25 12.5 50 ug/L ------------------Bromobenzene ND 12.5 25.0 ug/L 50 ---------------Bromochloromethane ND 25.0 50.0 50 ug/L ----------\_\_\_\_ ------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 25.050.0 ug/L 50 ---------Carbon tetrachloride ND 25.0 50.0 ug/L 50 ---------\_\_\_\_ -------ND 12.5 25.0 Chlorobenzene ug/L 50 -------------------ug/L Chloroethane ND 250 250 50 ---------\_\_\_\_ ------25.0 50.0 Chloroform ND ug/L 50 ---Chloromethane ND 125 250 ug/L 50 ---2-Chlorotoluene ND 25.050.0 ug/L 50 ---4-Chlorotoluene ND 25.0 50.0 ug/L 50 -------------------ND 1,2-Dibromo-3-chloropropane 125 250 ug/L 50 -------------------25.0 Dibromochloromethane ND 50.0 ug/L 50 -------------------25.0 1,2-Dibromoethane (EDB) ND 12.5 50 ug/L ---\_\_\_ ------\_\_\_ \_\_\_ ND 25.0 50.0 Dibromomethane ug/L 50 ---ND 1,2-Dichlorobenzene 12.5 25.0 ug/L 50 ---------------1,3-Dichlorobenzene ND 12.5 25.0 ug/L 50 ---------------12.5 25.0 1,4-Dichlorobenzene ND ug/L 50 ---------\_\_\_\_ ------Dichlorodifluoromethane ND 25.0 50.0 ug/L 50 ------1.1-Dichloroethane ND 12.5 25.0 50 ug/L ------------------1,1-Dichloroethene ND 12.5 25.0 50 ug/L ------------ND 12.5 25.0 1,2-Dichloroethane (EDC) ug/L 50 ----------\_\_\_\_ --cis-1,2-Dichloroethene ND 25.0 50.0 ug/L 50 --------------trans-1,2-Dichloroethene ND 12.5 25.0 50 ug/L \_\_\_ ------------1,2-Dichloropropane ND 12.5 25.0 ug/L 50 ---------------ND 25.0 ug/L 1,3-Dichloropropane 50.0 50 --------------------The results in this report apply to the samples analyzed in accordance with the chain of Apex Laboratories

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## Apex Laboratories, LLC

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

# Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305

Project: Gasco -- OWS Project Number: 111323 Project Manager: Chip Byrd

## **QUALITY CONTROL (QC) SAMPLE RESULTS**

		TCLP	Volatile Or	rganic Co	ompounds	s by EPA	1311/826	0D				
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1160 - EPA 1311/503	0B TCLP	Volatiles					Wa	ter				
Blank (23C1160-BLK2)			Prepared	1: 03/29/23	11:03 Anal	lyzed: 03/29	/23 14:15					TCLP
2,2-Dichloropropane	ND	25.0	50.0	ug/L	50							
1,1-Dichloropropene	ND	25.0	50.0	ug/L	50							
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/L	50							
trans-1,3-Dichloropropene	ND	25.0	50.0	ug/L	50							
Ethylbenzene	ND	12.5	25.0	ug/L	50							
Hexachlorobutadiene	ND	125	250	ug/L	50							
2-Hexanone	ND	250	500	ug/L	50							
Isopropylbenzene	ND	25.0	50.0	ug/L	50							
4-Isopropyltoluene	ND	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)		Reco	verv: 100 %	Limits: 8	0-120 %	Dil	ution: 1x					
Toluene-d8 (Surr)			102 %	8(	)-120 %		"					
4-Bromofluorobenzene (Surr)			98 %	80	)-120 %		"					

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## Apex Laboratories, LLC

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

<u>Sevenson Environmental Serv</u> 2749 Lockport Road Niagara Falls, NY 14305	ices, Inc.		Pro Pro	Project: oject Numb ject Manag	<u>Gasco -</u> er: 111323 er: Chip By	<u>- OWS</u> yrd			А	<u>F</u> 3C0674	<u>Report ID</u> - 04 04 2	<u>:</u> 3 1317
		QU	ALITY CO	ONTROI	L (QC) SA	MPLE F	RESULT	S				
		TCLP	Volatile Or	ganic Co	ompound	s by EPA	1311/826	60D				
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1160 - EPA 1311/50	30B TCLP	Volatiles					Wa	ter				
LCS (23C1160-BS1)			Prepared	1: 03/29/23	11:03 Ana	vzed: 03/29	0/23 13:07					TCLPb
1311/8260D			1			<u> </u>						
Acetone	2230	500	1000	ug/L	50	2000		112	80-120%			
Benzene	1000	6.25	12.5	ug/L	50	1000		100	80-120%			
Bromobenzene	940	12.5	25.0	ug/L	50	1000		94	80-120%			
Bromochloromethane	1210	25.0	50.0	ug/L	50	1000		121	80-120%			Q-56
Bromodichloromethane	1120	25.0	50.0	ug/L	50	1000		112	80-120%			
Bromoform	1130	25.0	50.0	ug/L	50	1000		113	80-120%			
Bromomethane	1260	250	250	ug/L	50	1000		126	80-120%			Q-56
2-Butanone (MEK)	2250	250	500	ug/L	50	2000		113	80-120%			
n-Butylbenzene	1130	25.0	50.0	ug/L	50	1000		113	80-120%			
sec-Butylbenzene	1180	25.0	50.0	ug/L	50	1000		118	80-120%			
tert-Butylbenzene	1120	25.0	50.0	ug/L	50	1000		112	80-120%			
Carbon tetrachloride	1210	25.0	50.0	ug/L	50	1000		121	80-120%			Q-56
Chlorobenzene	1020	12.5	25.0	ug/L	50	1000		102	80-120%			
Chloroethane	1290	250	250	ug/L	50	1000		129	80-120%			Q-56
Chloroform	1030	25.0	50.0	ug/L	50	1000		103	80-120%			
Chloromethane	1120	125	250	ug/L	50	1000		112	80-120%			
2-Chlorotoluene	996	25.0	50.0	ug/L	50	1000		100	80-120%			
4-Chlorotoluene	1070	25.0	50.0	ug/L	50	1000		107	80-120%			
1,2-Dibromo-3-chloropropane	960	125	250	ug/L	50	1000		96	80-120%			
Dibromochloromethane	1090	25.0	50.0	ug/L	50	1000		109	80-120%			
1,2-Dibromoethane (EDB)	1050	12.5	25.0	ug/L	50	1000		105	80-120%			
Dibromomethane	1040	25.0	50.0	ug/L	50	1000		104	80-120%			
1,2-Dichlorobenzene	1010	12.5	25.0	ug/L	50	1000		101	80-120%			
1,3-Dichlorobenzene	1040	12.5	25.0	ug/L	50	1000		104	80-120%			
1,4-Dichlorobenzene	970	12.5	25.0	ug/L	50	1000		97	80-120%			
Dichlorodifluoromethane	1190	25.0	50.0	ug/L	50	1000		119	80-120%			
1,1-Dichloroethane	1080	12.5	25.0	ug/L	50	1000		108	80-120%			
1,1-Dichloroethene	1130	12.5	25.0	ug/L	50	1000		113	80-120%			
1,2-Dichloroethane (EDC)	1170	12.5	25.0	ug/L	50	1000		117	80-120%			
cis-1,2-Dichloroethene	1020	25.0	50.0	ug/L	50	1000		102	80-120%			
trans-1,2-Dichloroethene	1020	12.5	25.0	ug/L	50	1000		102	80-120%			
1,2-Dichloropropane	999	12.5	25.0	ug/L	50	1000		100	80-120%			
1,3-Dichloropropane	1060	25.0	50.0	ug/L	50	1000		106	80-120%			

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## Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- OWS</u> Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

## **QUALITY CONTROL (QC) SAMPLE RESULTS**

				-								
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1160 - EPA 1311/503	0B TCLP	Volatiles					Wa	ter				
LCS (23C1160-BS1)			Preparec	1: 03/29/23	11:03 Anal	lyzed: 03/29	/23 13:07					TCLPb
2,2-Dichloropropane	1260	25.0	50.0	ug/L	50	1000		126	80-120%			Q-:
,1-Dichloropropene	1070	25.0	50.0	ug/L	50	1000		107	80-120%			
cis-1,3-Dichloropropene	1090	25.0	50.0	ug/L	50	1000		109	80-120%			
rans-1,3-Dichloropropene	1240	25.0	50.0	ug/L	50	1000		124	80-120%			Q-:
Ethylbenzene	1090	12.5	25.0	ug/L	50	1000		109	80-120%			
Hexachlorobutadiene	1090	125	250	ug/L	50	1000		109	80-120%			
2-Hexanone	2200	250	500	ug/L	50	2000		110	80-120%			
sopropylbenzene	1120	25.0	50.0	ug/L	50	1000		112	80-120%			
4-Isopropyltoluene	1150	25.0	50.0	ug/L	50	1000		115	80-120%			
4-Methyl-2-pentanone (MiBK)	2460	250	500	ug/L	50	2000		123	80-120%			Q-:
Methyl tert-butyl ether (MTBE)	1050	25.0	50.0	ug/L	50	1000		105	80-120%			
Methylene chloride	982	250	500	ug/L	50	1000		98	80-120%			
n-Propylbenzene	1070	12.5	25.0	ug/L	50	1000		107	80-120%			
Styrene	1130	25.0	50.0	ug/L	50	1000		113	80-120%			
,1,1,2-Tetrachloroethane	1060	12.5	25.0	ug/L	50	1000		106	80-120%			
,1,2,2-Tetrachloroethane	1080	12.5	25.0	ug/L	50	1000		108	80-120%			
Naphthalene	774	100	100	ug/L	50	1000		77	80-120%			Q-:
Tetrachloroethene (PCE)	1090	12.5	25.0	ug/L	50	1000		109	80-120%			
Foluene	996	25.0	50.0	ug/L	50	1000		100	80-120%			
,2,3-Trichlorobenzene	1040	25.0	50.0	ug/L	50	1000		104	80-120%			
,2,4-Trichlorobenzene	936	50.0	100	ug/L	50	1000		94	80-120%			
,1,1-Trichloroethane	1150	12.5	25.0	ug/L	50	1000		115	80-120%			
,1,2-Trichloroethane	1050	12.5	25.0	ug/L	50	1000		105	80-120%			
Trichloroethene (TCE)	926	12.5	25.0	ug/L	50	1000		93	80-120%			
Frichlorofluoromethane	1260	50.0	100	ug/L	50	1000		126	80-120%			Q-:
,2,3-Trichloropropane	1100	25.0	50.0	ug/L	50	1000		110	80-120%			
,2,4-Trimethylbenzene	1160	25.0	50.0	ug/L	50	1000		116	80-120%			
,3,5-Trimethylbenzene	1150	25.0	50.0	ug/L	50	1000		115	80-120%			
Vinyl chloride	1030	12.5	25.0	ug/L	50	1000		103	80-120%			
n,p-Xylene	2360	25.0	50.0	ug/L	50	2000		118	80-120%			
o-Xylene	1080	12.5	25.0	ug/L	50	1000		108	80-120%			
Surr: 1,4-Difluorobenzene (Surr)		Reco	overy: 94 %	Limits: 80	0-120 %	Dili	ution: 1x					
Toluene-d8 (Surr)			. 99 %	80	)-120 %		"					
4-Bromofluorobenzene (Surr)			92 %	81	0-120 %		"					

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

Sevenson Environmental Serv	ices, Inc.			Project:	<u>Gasco</u>	OWS						
2749 Lockport Road			Pro	ject Numbe	er: 111323					F	Report ID:	-
Niagara Falls, NY 14305			Proj	ect Manage	er: Chip By	rd			A		- 04 04 23	3 1317
		QUA	ALITY CO	ONTROL	L (QC) SA	MPLE R	ESULTS	5				
		TCLP	Volatile Or	ganic Co	mpounds	by EPA ′	1311/826	0D				
		Detection	Reporting			Spike	Source		% REC		RPD	
Analyte	Result	Limit	Limit	Units	Dilution	Amount	Result	% REC	Limits	RPD	Limit	Notes
Batch 23C1160 - EPA 1311/50	30B TCLP	Volatiles					Wat	ter				
Duplicate (23C1160-DUP1)			Prepared	: 03/29/23	11:03 Anal	vzed: 03/29/	/23 17:38					
OC Source Sample: Non SDC (A	300669-01)											
Acetone	<u>ND</u>	500	1000	11ø/L	50		ND				30%	
Benzene	ND	6.25	12.5	ug/L	50		ND				30%	
Bromobenzene	ND	12.5	25.0	ug/L	50		ND				30%	
Bromochloromethane	ND	25.0	50.0	ug/L	50		ND				30%	
Bromodichloromethane	ND	25.0	50.0	ug/L	50		ND				30%	
Bromoform	ND	25.0	50.0	ug/L	50		ND				30%	
Bromomethane	ND	250	250	ug/L	50		ND				30%	
2-Butanone (MEK)	ND	250	500	ug/L	50		ND				30%	
n-Butylbenzene	ND	25.0	50.0	ug/L	50		ND				30%	
sec-Butylbenzene	ND	25.0	50.0	ug/L	50		ND				30%	
tert-Butylbenzene	ND	25.0	50.0	ug/L	50		ND				30%	
Carbon tetrachloride	ND	25.0	50.0	ug/L	50		ND				30%	
Chlorobenzene	ND	12.5	25.0	ug/L	50		ND				30%	
Chloroethane	ND	250	250	ug/L	50		ND				30%	
Chloroform	ND	25.0	50.0	ug/L	50		ND				30%	
Chloromethane	ND	125	250	ug/L	50		ND				30%	
2-Chlorotoluene	ND	25.0	50.0	ug/L	50		ND				30%	
4-Chlorotoluene	ND	25.0	50.0	ug/L	50		ND				30%	
1,2-Dibromo-3-chloropropane	ND	125	250	ug/L	50		ND				30%	
Dibromochloromethane	ND	25.0	50.0	ug/L	50		ND				30%	
1,2-Dibromoethane (EDB)	ND	12.5	25.0	ug/L	50		ND				30%	
Dibromomethane	ND	25.0	50.0	ug/L	50		ND				30%	
1,2-Dichlorobenzene	ND	12.5	25.0	ug/L	50		ND				30%	
1,3-Dichlorobenzene	ND	12.5	25.0	ug/L	50		ND				30%	
1,4-Dichlorobenzene	ND	12.5	25.0	ug/L	50		ND				30%	
Dichlorodifluoromethane	ND	25.0	50.0	ug/L	50		ND				30%	
1,1-Dichloroethane	ND	12.5	25.0	ug/L	50		ND				30%	
1,1-Dichloroethene	ND	12.5	25.0	ug/L	50		ND				30%	
1,2-Dichloroethane (EDC)	ND	12.5	25.0	ug/L	50		ND				30%	
cis-1,2-Dichloroethene	ND	25.0	50.0	ug/L	50		ND				30%	
trans-1,2-Dichloroethene	ND	12.5	25.0	ug/L	50		ND				30%	
1,2-Dichloropropane	ND	12.5	25.0	ug/L	50		ND				30%	
				0								

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305

Project: Gasco -- OWS Project Number: 111323 Project Manager: Chip Byrd

**Report ID:** A3C0674 - 04 04 23 1317

## **QUALITY CONTROL (QC) SAMPLE RESULTS**

		TCLP	Volatile Or	rganic Co	ompounds	s by EPA	1311/826	0D				
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1160 - EPA 1311/503	0B TCLP	Volatiles					Wa	ter				
Duplicate (23C1160-DUP1)			Prepared	1: 03/29/23	11:03 Anal	lyzed: 03/29	/23 17:38					
QC Source Sample: Non-SDG (A3	C0669-01)											
1,3-Dichloropropane	ND	25.0	50.0	ug/L	50		ND				30%	
2,2-Dichloropropane	ND	25.0	50.0	ug/L	50		ND				30%	
1,1-Dichloropropene	ND	25.0	50.0	ug/L	50		ND				30%	
cis-1,3-Dichloropropene	ND	25.0	50.0	ug/L	50		ND				30%	
trans-1,3-Dichloropropene	ND	25.0	50.0	ug/L	50		ND				30%	
Ethylbenzene	16.5	12.5	25.0	ug/L	50		16.5			0	30%	J
Hexachlorobutadiene	ND	125	250	ug/L	50		ND				30%	
2-Hexanone	ND	250	500	ug/L	50		ND				30%	
Isopropylbenzene	ND	25.0	50.0	ug/L	50		ND				30%	
4-Isopropyltoluene	ND	25.0	50.0	ug/L	50		ND				30%	
4-Methyl-2-pentanone (MiBK)	ND	250	500	ug/L	50		ND				30%	
Methyl tert-butyl ether (MTBE)	ND	25.0	50.0	ug/L	50		ND				30%	
Methylene chloride	ND	250	500	ug/L	50		ND				30%	
n-Propylbenzene	ND	12.5	25.0	ug/L	50		ND				30%	
Styrene	ND	25.0	50.0	ug/L	50		ND				30%	
1,1,1,2-Tetrachloroethane	ND	12.5	25.0	ug/L	50		ND				30%	
1,1,2,2-Tetrachloroethane	ND	12.5	25.0	ug/L	50		ND				30%	
Naphthalene	2700	100	100	ug/L	50		2610			3	30%	Q-54n
Tetrachloroethene (PCE)	ND	12.5	25.0	ug/L	50		ND				30%	
Toluene	ND	25.0	50.0	ug/L	50		ND				30%	
1,2,3-Trichlorobenzene	ND	25.0	50.0	ug/L	50		ND				30%	
1,2,4-Trichlorobenzene	ND	50.0	100	ug/L	50		ND				30%	
1,1,1-Trichloroethane	ND	12.5	25.0	ug/L	50		ND				30%	
1,1,2-Trichloroethane	ND	12.5	25.0	ug/L	50		ND				30%	
Trichloroethene (TCE)	ND	12.5	25.0	ug/L	50		ND				30%	
Trichlorofluoromethane	ND	50.0	100	ug/L	50		ND				30%	
1,2,3-Trichloropropane	ND	25.0	50.0	ug/L	50		ND				30%	
1,2,4-Trimethylbenzene	ND	25.0	50.0	ug/L	50		ND				30%	
1,3,5-Trimethylbenzene	ND	25.0	50.0	ug/L	50		ND				30%	
Vinyl chloride	ND	12.5	25.0	ug/L	50		ND				30%	
m,p-Xylene	ND	25.0	50.0	ug/L	50		ND				30%	
o-Xylene	ND	12.5	25.0	ug/L	50		ND				30%	
Surr: 1,4-Difluorobenzene (Surr)		Reco	overy: 98 %	Limits: 80	0-120 %	Dili	ution: 1x					

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



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

# Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project Number: 111323

Project:

Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

# **QUALITY CONTROL (QC) SAMPLE RESULTS**

Gasco -- OWS

		TCLP	Volatile Or	ganic Co	ompound	s by EPA	1311/826	60D				
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1160 - EPA 1311/503	0B TCLP	Volatiles					Wa	iter				
Duplicate (23C1160-DUP1)			Preparec	1: 03/29/23	11:03 Ana	lyzed: 03/29	/23 17:38					
QC Source Sample: Non-SDG (A3 Surr: Toluene-d8 (Surr)	<u>C0669-01)</u>	Recon	very: 102 %	Limits: 80	0-120 %	Dil	ution: 1x					
4-Bromofluorobenzene (Surr)			97 %	80	)-120 %		"					
Matrix Spike (23C1160-MS1)			Preparec	1: 03/29/23	11:03 Ana	lyzed: 03/29	/23 18:23					
QC Source Sample: T-201-031723-	3 (A3C0674	4-01)										
<u>1311/8260D</u>												
Acetone	2300	500	1000	ug/L	50	2000	ND	115	39-160%			
Benzene	1060	6.25	12.5	ug/L	50	1000	ND	106	79-120%			
Bromobenzene	998	12.5	25.0	ug/L	50	1000	ND	100	80-120%			
Bromochloromethane	1230	25.0	50.0	ug/L	50	1000	ND	123	78-123%			Q-
Bromodichloromethane	1140	25.0	50.0	ug/L	50	1000	ND	114	79-125%			
Bromoform	1130	25.0	50.0	ug/L	50	1000	ND	113	66-130%			
Bromomethane	1420	250	250	ug/L	50	1000	ND	142	53-141%			Q-54
2-Butanone (MEK)	2450	250	500	ug/L	50	2000	ND	122	56-143%			
n-Butylbenzene	1280	25.0	50.0	ug/L	50	1000	ND	128	75-128%			
sec-Butylbenzene	1260	25.0	50.0	ug/L	50	1000	ND	126	77-126%			
tert-Butylbenzene	1230	25.0	50.0	ug/L	50	1000	ND	123	78-124%			
Carbon tetrachloride	1300	25.0	50.0	ug/L	50	1000	ND	130	72-136%			Q-:
Chlorobenzene	1050	12.5	25.0	ug/L	50	1000	ND	105	80-120%			
Chloroethane	1400	250	250	ug/L	50	1000	ND	140	60-138%			Q-5
Chloroform	1070	25.0	50.0	ug/L	50	1000	ND	107	79-124%			
Chloromethane	1220	125	250	ug/L	50	1000	ND	122	50-139%			
2-Chlorotoluene	1080	25.0	50.0	ug/L	50	1000	ND	108	79-122%			
4-Chlorotoluene	1140	25.0	50.0	ug/L	50	1000	ND	114	78-122%			
1,2-Dibromo-3-chloropropane	1040	125	250	ug/L	50	1000	ND	104	62-128%			
Dibromochloromethane	1110	25.0	50.0	ug/L	50	1000	ND	111	74-126%			
1,2-Dibromoethane (EDB)	1070	12.5	25.0	ug/L	50	1000	ND	107	77-121%			
Dibromomethane	1050	25.0	50.0	ug/L	50	1000	ND	105	79-123%			
1,2-Dichlorobenzene	1070	12.5	25.0	ug/L	50	1000	ND	107	80-120%			
1,3-Dichlorobenzene	1080	12.5	25.0	ug/L	50	1000	ND	108	80-120%			
1,4-Dichlorobenzene	1000	12.5	25.0	ug/L	50	1000	ND	100	79-120%			
Dichlorodifluoromethane	1260	25.0	50.0	ug/L	50	1000	ND	126	32-152%			
1.1-Dichloroethane	1150	12.5	25.0	ug/L	50	1000	ND	115	77-125%			

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- OWS</u> Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

# **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 23C1160 - EPA 1311/503	0B TCLP	Volatiles					Wa	ter					
Matrix Spike (23C1160-MS1)			Prepared	: 03/29/23	11:03 Anal	yzed: 03/29	/23 18:23						
QC Source Sample: T-201-031723-	-3 (A3C067-	<u>4-01)</u>											
1,1-Dichloroethene	1230	12.5	25.0	ug/L	50	1000	ND	123	71-131%				
1,2-Dichloroethane (EDC)	1200	12.5	25.0	ug/L	50	1000	ND	120	73-128%				
cis-1,2-Dichloroethene	1100	25.0	50.0	ug/L	50	1000	ND	110	78-123%				
trans-1,2-Dichloroethene	1120	12.5	25.0	ug/L	50	1000	ND	112	75-124%				
1,2-Dichloropropane	1050	12.5	25.0	ug/L	50	1000	ND	105	78-122%				
1,3-Dichloropropane	1100	25.0	50.0	ug/L	50	1000	ND	110	80-120%				
2,2-Dichloropropane	1300	25.0	50.0	ug/L	50	1000	ND	130	60-139%			Q-54	
1,1-Dichloropropene	1200	25.0	50.0	ug/L	50	1000	ND	120	79-125%				
cis-1,3-Dichloropropene	1160	25.0	50.0	ug/L	50	1000	ND	116	75-124%				
trans-1,3-Dichloropropene	1270	25.0	50.0	ug/L	50	1000	ND	127	73-127%			Q-54	
Ethylbenzene	1150	12.5	25.0	ug/L	50	1000	ND	115	79-121%				
Hexachlorobutadiene	1170	125	250	ug/L	50	1000	ND	117	66-134%				
2-Hexanone	2390	250	500	ug/L	50	2000	ND	120	57-139%				
Isopropylbenzene	1210	25.0	50.0	ug/L	50	1000	ND	121	72-131%				
4-Isopropyltoluene	1260	25.0	50.0	ug/L	50	1000	ND	126	77-127%				
4-Methyl-2-pentanone (MiBK)	2670	250	500	ug/L	50	2000	ND	134	67-130%			Q-5-	
Methyl tert-butyl ether (MTBE)	1090	25.0	50.0	ug/L	50	1000	ND	109	71-124%				
Methylene chloride	1050	250	500	ug/L	50	1000	ND	105	74-124%				
n-Propylbenzene	1150	12.5	25.0	ug/L	50	1000	ND	115	76-126%				
Styrene	1180	25.0	50.0	ug/L	50	1000	ND	118	78-123%				
1,1,1,2-Tetrachloroethane	1060	12.5	25.0	ug/L	50	1000	ND	106	78-124%				
1,1,2,2-Tetrachloroethane	1100	12.5	25.0	ug/L	50	1000	ND	110	71-121%				
Naphthalene	2030	100	100	ug/L	50	1000	804	123	61-128%			Q-54	
Tetrachloroethene (PCE)	1150	12.5	25.0	ug/L	50	1000	ND	115	74-129%				
Toluene	1050	25.0	50.0	ug/L	50	1000	ND	105	80-121%				
1,2,3-Trichlorobenzene	1180	25.0	50.0	ug/L	50	1000	ND	118	69-129%				
1,2,4-Trichlorobenzene	1120	50.0	100	ug/L	50	1000	ND	112	69-130%				
1,1,1-Trichloroethane	1200	12.5	25.0	ug/L	50	1000	ND	120	74-131%				
1,1,2-Trichloroethane	1040	12.5	25.0	ug/L	50	1000	ND	104	80-120%				
Trichloroethene (TCE)	998	12.5	25.0	ug/L	50	1000	ND	100	79-123%				
Trichlorofluoromethane	1330	50.0	100	ug/L	50	1000	ND	133	65-141%			Q-54	
1,2,3-Trichloropropane	1110	25.0	50.0	ug/L	50	1000	ND	111	73-122%				
1,2,4-Trimethylbenzene	1260	25.0	50.0	ug/L	50	1000	ND	126	76-124%			Q-(	

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

# Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- OWS Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

# **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 23C1160 - EPA 1311/50	30B TCLP	Volatiles					Wa	ter						
Matrix Spike (23C1160-MS1)	)		Prepare	d: 03/29/23	11:03 Ana	lyzed: 03/29	/23 18:23							
QC Source Sample: T-201-03172	3-3 (A3C067	<u>4-01)</u>												
1,3,5-Trimethylbenzene	1230	25.0	50.0	ug/L	50	1000	ND	123	75-124%	,				
Vinyl chloride	1200	12.5	25.0	ug/L	50	1000	ND	120	58-137%	,				
m,p-Xylene	2500	25.0	50.0	ug/L	50	2000	ND	125	80-121%	,		Q-		
o-Xylene	1170	12.5	25.0	ug/L	50	1000	ND	117	78-122%	,				
Surr: 1,4-Difluorobenzene (Surr)		Rec	overy: 94 %	Limits: 8	0-120 %	Dilt	ution: 1x							
Toluene-d8 (Surr)			99 %	8	0-120 %		"							
4-Bromofluorobenzene (Surr)			94 %	8	0-120 %		"							

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Darwin Thomas, Business Development Director



## Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- OWS Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

# **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 23C1019 - EPA 3546							Sol	id				
Blank (23C1019-BLK1)			Prepared	l: 03/27/23 0	7:35 Ana	yzed: 03/27	/23 16:25					
EPA 8270E												
Acenaphthene	ND	1.33	2.67	ug/kg we	t 1							
Acenaphthylene	ND	1.33	2.67	ug/kg we	t 1							
Anthracene	ND	1.33	2.67	ug/kg we	t 1							
Benz(a)anthracene	ND	1.33	2.67	ug/kg we	t 1							
Benzo(a)pyrene	ND	2.00	4.00	ug/kg we	t 1							
Benzo(b)fluoranthene	2.08	2.00	4.00	ug/kg we	t 1							J, B-0
Benzo(k)fluoranthene	ND	2.00	4.00	ug/kg we	t 1							
Benzo(g,h,i)perylene	ND	1.33	2.67	ug/kg we	t 1							
Chrysene	ND	1.33	2.67	ug/kg we	t 1							
Dibenz(a,h)anthracene	ND	1.33	2.67	ug/kg we	t 1							
Fluoranthene	ND	1.33	2.67	ug/kg we	t 1							
Fluorene	ND	1.33	2.67	ug/kg we	t 1							
Indeno(1,2,3-cd)pyrene	ND	1.33	2.67	ug/kg we	t 1							
1-Methylnaphthalene	ND	2.67	5.33	ug/kg we	t 1							
2-Methylnaphthalene	ND	2.67	5.33	ug/kg we	t 1							
Naphthalene	8.73	2.67	5.33	ug/kg we	t 1							
Phenanthrene	ND	1.33	2.67	ug/kg we	t 1							
Pyrene	ND	1.33	2.67	ug/kg we	t 1							
Carbazole	ND	2.00	4.00	ug/kg we	t 1							
Dibenzofuran	ND	1.33	2.67	ug/kg we	t 1							
2-Chlorophenol	ND	6.67	13.3	ug/kg we	t 1							
4-Chloro-3-methylphenol	ND	13.3	26.7	ug/kg we	t 1							
2,4-Dichlorophenol	ND	6.67	13.3	ug/kg we	t 1							
2,4-Dimethylphenol	ND	6.67	13.3	ug/kg we	t 1							
2.4-Dinitrophenol	ND	33.3	66.7	ug/kg we	t 1							
4,6-Dinitro-2-methylphenol	ND	33.3	66.7	ug/kg we	t 1							
2-Methylphenol	ND	3.33	6.67	ug/kg we	t 1							
3+4-Methylphenol(s)	ND	3.33	6.67	ug/kg we	t 1							
2-Nitrophenol	ND	13.3	26.7	ug/kg we	t 1							
4-Nitrophenol	ND	13.3	26.7	110/ko we	 							
Pentachlorophenol (PCP)	ND	13.3	26.7	110/ko we	et 1							
Phenol	ND	2 67	5 3 3	110/kg we	-t 1	<b>-</b>						
2.2.4.6 Totrophlorophanol		2.07	12.2	ug/kg we	ι I + 1							

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- OWS</u> Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

## **QUALITY CONTROL (QC) SAMPLE RESULTS**

		Se	mivolatile	Organic C	ompour	ds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1019 - EPA 3546							Soli	d				
Blank (23C1019-BLK1)			Prepared	: 03/27/23 0	7:35 Ana	lyzed: 03/27	/23 16:25					
2,3,5,6-Tetrachlorophenol	ND	6.67	13.3	ug/kg wet	t 1							
2,4,5-Trichlorophenol	ND	6.67	13.3	ug/kg wet	t 1							
2,4,6-Trichlorophenol	ND	6.67	13.3	ug/kg wet	t 1							
Bis(2-ethylhexyl)phthalate	ND	20.0	40.0	ug/kg wet	t 1							
Butyl benzyl phthalate	ND	13.3	26.7	ug/kg wet	t 1							
Diethylphthalate	ND	13.3	26.7	ug/kg wet	t 1							
Dimethylphthalate	ND	13.3	26.7	ug/kg wet	t 1							
Di-n-butylphthalate	ND	13.3	26.7	ug/kg wet	t 1							
Di-n-octyl phthalate	ND	13.3	26.7	ug/kg wet	t 1							
N-Nitrosodimethylamine	ND	3.33	6.67	ug/kg wet	t 1							
N-Nitroso-di-n-propylamine	ND	3.33	6.67	ug/kg wet	t 1							
N-Nitrosodiphenylamine	ND	3.33	6.67	ug/kg wet	t 1							
Bis(2-Chloroethoxy) methane	ND	3.33	6.67	ug/kg wet	t 1							
Bis(2-Chloroethyl) ether	ND	3.33	6.67	ug/kg wet	t 1							
2,2'-Oxybis(1-Chloropropane)	ND	3.33	6.67	ug/kg wet	t 1							
Hexachlorobenzene	ND	1.33	2.67	ug/kg wet	t 1							
Hexachlorobutadiene	ND	3.33	6.67	ug/kg wet	t 1							
Hexachlorocyclopentadiene	ND	6.67	13.3	ug/kg wet	t 1							
Hexachloroethane	ND	3.33	6.67	ug/kg wet	t 1							
2-Chloronaphthalene	ND	1.33	2.67	ug/kg wet	t 1							
1,2,4-Trichlorobenzene	ND	3.33	6.67	ug/kg wet	t 1							
4-Bromophenyl phenyl ether	ND	3.33	6.67	ug/kg wet	t 1							
4-Chlorophenyl phenyl ether	ND	3.33	6.67	ug/kg wet	t 1							
Aniline	ND	6.67	13.3	ug/kg wet	t 1							
4-Chloroaniline	ND	3.33	6.67	ug/kg wet	t 1							
2-Nitroaniline	ND	26.7	53.3	ug/kg wet	t 1							
3-Nitroaniline	ND	26.7	53.3	ug/kg wet	t 1							
4-Nitroaniline	ND	26.7	53.3	ug/kg wet	t 1							
Nitrobenzene	ND	13.3	26.7	ug/kg wet	t 1							
2,4-Dinitrotoluene	ND	13.3	26.7	ug/kg wet	t 1							
2,6-Dinitrotoluene	ND	13.3	26.7	ug/kg wet	t 1							
Benzoic acid	ND	167	333	ug/kg wet	t 1							
Benzyl alcohol	ND	6.67	13.3	ug/kg wet	t 1							
Isophorone	ND	3.33	6.67	ug/kg wet	t 1							

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## Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- OWS Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

# **QUALITY CONTROL (QC) SAMPLE RESULTS**

		Se	mivolatile	Organic C	Compour	ids by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1019 - EPA 3546							So	lid				
Blank (23C1019-BLK1)			Prepared	1: 03/27/23 0	7:35 Ana	lyzed: 03/27	/23 16:25					
Azobenzene (1,2-DPH)	ND	3.33	6.67	ug/kg we	t 1							
Bis(2-Ethylhexyl) adipate	ND	33.3	66.7	ug/kg we	t 1							
3,3'-Dichlorobenzidine	ND	26.7	53.3	ug/kg we	t 1							Q-5
1,2-Dinitrobenzene	ND	33.3	66.7	ug/kg we	t 1							
1,3-Dinitrobenzene	ND	33.3	66.7	ug/kg we	t 1							
1,4-Dinitrobenzene	ND	33.3	66.7	ug/kg we	t 1							
Pyridine	ND	6.67	13.3	ug/kg we	t 1							
1,2-Dichlorobenzene	ND	3.33	6.67	ug/kg we	t 1							
1,3-Dichlorobenzene	ND	3.33	6.67	ug/kg we	t 1							
1,4-Dichlorobenzene	ND	3.33	6.67	ug/kg we	t 1							
Surr: Nitrobenzene-d5 (Surr)		Reco	overy: 92 %	Limits: 37-	-122 %	Dili	ution: 1x					
2-Fluorobiphenyl (Surr)			94 %	44-	120 %		"					
Phenol-d6 (Surr)			91 %	33-	122 %		"					
p-Terphenyl-d14 (Surr)			105 %	54-	127 %		"					
2-Fluorophenol (Surr)			93 %	35-	120 %		"					
2,4,6-Tribromophenol (Surr)			94 %	39-	132 %		"					Q-41
LCS (23C1019-BS1)			Prepared	1: 03/27/23 0	7:35 Ana	lyzed: 03/27	/23 17:00					Q-18
EPA 8270E												
Acenaphthene	573	5.32	10.7	ug/kg we	t 4	533		107	40-123%			
Acenaphthylene	620	5.32	10.7	ug/kg we	t 4	533		116	32-132%			
Anthracene	632	5.32	10.7	ug/kg we	t 4	533		118	47-123%			
Benz(a)anthracene	634	5.32	10.7	ug/kg we	t 4	533		119	49-126%			
Benzo(a)pyrene	622	8.00	16.0	ug/kg we	t 4	533		117	45-129%			
Benzo(b)fluoranthene	638	8.00	16.0	ug/kg we	t 4	533		120	45-132%			B-0
Benzo(k)fluoranthene	637	8.00	16.0	ug/kg we	t 4	533		119	47-132%			
Benzo(g,h,i)perylene	633	5.32	10.7	ug/kg we	t 4	533		119	43-134%			
Chrysene	612	5.32	10.7	ug/kg we	t 4	533		115	50-124%			
Dibenz(a,h)anthracene	615	5.32	10.7	ug/kg we	t 4	533		115	45-134%			
Fluoranthene	627	5.32	10.7	ug/kg we	t 4	533		118	50-127%			
Fluorene	608	5.32	10.7	ug/kg we	t 4	533		114	43-125%			
Indeno(1,2,3-cd)pvrene	617	5.32	10.7	ug/kg we	t 4	533		116	45-133%			
1-Methylnaphthalene	572	10.7	21.3	ug/kg we	t 4	533		107	40-120%			
2 Methylpophthalene	600	10.7	21.3	110/ko we	t 4	533		112	38-122%			

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## Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project Number: **111323** Project Manager: **Chip Byrd** 

Project:

<u>Report ID:</u> A3C0674 - 04 04 23 1317

# **QUALITY CONTROL (QC) SAMPLE RESULTS**

Gasco -- OWS

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 23C1019 - EPA 3546							Sol	id				
LCS (23C1019-BS1)			Prepared	: 03/27/23 0	7:35 Anal	yzed: 03/27	/23 17:00					Q-18
Naphthalene	563	10.7	21.3	ug/kg we	t 4	533		106	35-123%			
Phenanthrene	588	5.32	10.7	ug/kg we	t 4	533		110	50-121%			
Pyrene	624	5.32	10.7	ug/kg we	t 4	533		117	47-127%			
Carbazole	623	8.00	16.0	ug/kg we	t 4	533		117	50-123%			
Dibenzofuran	601	5.32	10.7	ug/kg we	t 4	533		113	44-120%			
2-Chlorophenol	574	26.7	53.2	ug/kg we	t 4	533		108	34-121%			
4-Chloro-3-methylphenol	614	53.2	107	ug/kg we	t 4	533		115	45-122%			
2,4-Dichlorophenol	680	26.7	53.2	ug/kg we	t 4	533		127	40-122%			Q-29, Q-4
2,4-Dimethylphenol	644	26.7	53.2	ug/kg we	t 4	533		121	30-127%			
2,4-Dinitrophenol	778	133	267	ug/kg we	t 4	533		146	10-137%			Q-29, Q-4
4,6-Dinitro-2-methylphenol	765	133	267	ug/kg we	t 4	533		143	29-132%			Q-2
2-Methylphenol	559	13.3	26.7	ug/kg we	t 4	533		105	32-122%			
3+4-Methylphenol(s)	573	13.3	26.7	ug/kg we	t 4	533		107	34-120%			
2-Nitrophenol	668	53.2	107	ug/kg we	t 4	533		125	36-123%			Q-29, Q-4
4-Nitrophenol	656	53.2	107	ug/kg we	t 4	533		123	30-132%			
Pentachlorophenol (PCP)	500	53.2	107	ug/kg we	t 4	533		94	25-133%			
Phenol	597	10.7	21.3	ug/kg we	t 4	533		112	34-121%			
2,3,4,6-Tetrachlorophenol	651	26.7	53.2	ug/kg we	t 4	533		122	44-125%			
2,3,5,6-Tetrachlorophenol	633	26.7	53.2	ug/kg we	t 4	533		119	40-120%			
2,4,5-Trichlorophenol	663	26.7	53.2	ug/kg we	t 4	533		124	41-124%			
2,4,6-Trichlorophenol	638	26.7	53.2	ug/kg we	t 4	533		120	39-126%			
Bis(2-ethylhexyl)phthalate	587	80.0	160	ug/kg we	t 4	533		110	51-133%			
Butyl benzyl phthalate	607	53.2	107	ug/kg we	t 4	533		114	48-132%			
Diethylphthalate	615	53.2	107	ug/kg we	t 4	533		115	50-124%			
Dimethylphthalate	624	53.2	107	ug/kg we	t 4	533		117	48-124%			
Di-n-butylphthalate	652	53.2	107	ug/kg we	t 4	533		122	51-128%			
Di-n-octyl phthalate	639	53.2	107	ug/kg we	t 4	533		120	45-140%			
N-Nitrosodimethylamine	470	13.3	26.7	ug/kg we	t 4	533		88	23-120%			
N-Nitroso-di-n-propylamine	541	13.3	26.7	ug/kg we	t 4	533		102	36-120%			
N-Nitrosodiphenylamine	593	13.3	26.7	ug/kg we	t 4	533		111	38-127%			
Bis(2-Chloroethoxy) methane	558	13.3	26.7	ug/kg we	t 4	533		105	36-121%			
Bis(2-Chloroethyl) ether	519	13.3	26.7	ug/kg we	t 4	533		97	31-120%			
2,2'-Oxybis(1-Chloropropane)	463	13.3	26.7	ug/kg we	t 4	533		87	39-120%			
Hexachlorobenzene	638	5.32	10.7	ug/kg we	t 4	533		120	45-122%			

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## Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- OWS</u> Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

# **QUALITY CONTROL (QC) SAMPLE RESULTS**

							<u> </u>		0/ == -		B	
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1019 - EPA 3546							So	lid				
LCS (23C1019-BS1)			Prepared	1: 03/27/23 0	7:35 Ana	lyzed: 03/27/	/23 17:00					Q-18
Hexachlorobutadiene	585	13.3	26.7	ug/kg we	t 4	533		110	32-123%			
Hexachlorocyclopentadiene	665	26.7	53.2	ug/kg we	t 4	533		125	10-140%			
Hexachloroethane	523	13.3	26.7	ug/kg we	t 4	533		98	28-120%			
2-Chloronaphthalene	598	5.32	10.7	ug/kg we	t 4	533		112	41-120%			
1,2,4-Trichlorobenzene	601	13.3	26.7	ug/kg we	t 4	533		113	34-120%			
4-Bromophenyl phenyl ether	650	13.3	26.7	ug/kg we	t 4	533		122	46-124%			
4-Chlorophenyl phenyl ether	628	13.3	26.7	ug/kg we	t 4	533		118	45-121%			
Aniline	404	26.7	53.2	ug/kg we	t 4	533		76	10-120%			Q-3
4-Chloroaniline	472	13.3	26.7	ug/kg we	t 4	533		89	17-120%			
2-Nitroaniline	607	107	213	ug/kg we	t 4	533		114	44-127%			
3-Nitroaniline	622	107	213	ug/kg we	t 4	533		117	33-120%			
4-Nitroaniline	581	107	213	ug/kg we	t 4	533		109	51-125%			
Nitrobenzene	534	53.2	107	ug/kg we	t 4	533		100	34-122%			
2,4-Dinitrotoluene	652	53.2	107	ug/kg we	t 4	533		122	48-126%			
2,6-Dinitrotoluene	613	53.2	107	ug/kg we	t 4	533		115	46-124%			
Benzoic acid	1380	668	1330	ug/kg we	t 4	1070		129	10-140%			
Benzyl alcohol	527	26.7	53.2	ug/kg we	t 4	533		99	29-122%			
sophorone	547	13.3	26.7	ug/kg we	t 4	533		103	30-122%			
Azobenzene (1,2-DPH)	508	13.3	26.7	ug/kg we	t 4	533		95	39-125%			
Bis(2-Ethylhexyl) adipate	604	133	267	ug/kg we	t 4	533		113	61-121%			
3,3'-Dichlorobenzidine	2190	107	213	ug/kg we	t 4	1070		205	22-121%			Q-29, Q-2
1,2-Dinitrobenzene	640	133	267	ug/kg we	t 4	533		120	44-120%			
1,3-Dinitrobenzene	640	133	267	ug/kg we	t 4	533		120	43-127%			
1,4-Dinitrobenzene	697	133	267	ug/kg we	t 4	533		131	37-132%			
Pyridine	352	26.7	53.2	ug/kg we	t 4	533		66	10-120%			
1,2-Dichlorobenzene	525	13.3	26.7	ug/kg we	t 4	533		98	33-120%			
.3-Dichlorobenzene	530	13.3	26.7	ug/kg we	t 4	533		99	30-120%			
.4-Dichlorobenzene	522	13.3	26.7	ug/kg we	t 4	533		98	31-120%			
Surr: Nitrobenzene-d5 (Surr)	-	Reco	werv: 96%	Limits: 37-	122 %	Dilı	ution · 4r					—
2-Fluorohinhenvl (Surr)		neer	103 %		120 %	Diii	"					
Phonol_d6 (Surve)			06 %	44-	120 /0		"					
n Townhonyl d14 (Surv)			90 70 110 07	55 51	122 /0		"					
p-terpnenyt-a14 (Surr)			119 %	34-	12/ 70		"					
2-Fluoropnenol (Surr)			98 %	33-	120 %							

Apex Laboratories



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

<u>Sevenson Environmental Servi</u> 2749 Lockport Road Niagara Falls, NY 14305	ices, Inc.		Pro	Project: <u>Gasco OWS</u> oject Number: <b>111323</b> oject Manager: <b>Chip Byrd</b>						<u>Report ID:</u> A3C0674 - 04 04 23 1317			
		QU	ALITY CO	ONTROL	(QC) SA	AMPLE F	RESULTS	8					
		Se	mivolatile	Organic C	ompour	nds by EP	A 8270E						
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
Batch 23C1019 - EPA 3546							Sol	id					
Duplicate (23C1019-DUP1)			Prepared	: 03/27/23 0	7:35 Ana	lyzed: 03/27	/23 18:09						
OC Source Sample: T-201-031723	-3 (A3C0674	4-01)				<u> </u>							
EPA 8270E	•												
Acenaphthene	49000	1880	3780	ug/kg dry	y 1000		42700			14	30%		
Acenaphthylene	ND	4960	4960	ug/kg dry	y 1000		ND				30%	R-02	
Anthracene	33600	1880	3780	ug/kg dry	y 1000		28600			16	30%		
Benz(a)anthracene	20800	1880	3780	ug/kg dry	y 1000		18000			15	30%		
Benzo(a)pyrene	26800	2830	5660	ug/kg dry	y 1000		24100			11	30%		
Benzo(b)fluoranthene	19400	2830	5660	ug/kg dry	y 1000		17500			10	30%	B-02	
Benzo(k)fluoranthene	8610	2830	5660	ug/kg dry	y 1000		7970			8	30%	M-05	
Benzo(g,h,i)perylene	15400	1880	3780	ug/kg dry	y 1000		14200			8	30%		
Chrysene	25600	1880	3780	ug/kg dry	y 1000		22200			14	30%		
Dibenz(a,h)anthracene	ND	1880	3780	ug/kg dry	y 1000		ND				30%		
Fluoranthene	89300	1880	3780	ug/kg dry	y 1000		77800			14	30%		
Fluorene	33900	1880	3780	ug/kg dry	y 1000		29500			14	30%		
Indeno(1,2,3-cd)pyrene	13500	1880	3780	ug/kg dry	y 1000		12400			8	30%		
1-Methylnaphthalene	44300	3780	7550	ug/kg dry	y 1000		36700			19	30%		
2-Methylnaphthalene	64900	3780	7550	ug/kg dry	y 1000		53600			19	30%		
Naphthalene	54900	3780	7550	ug/kg dry	y 1000		47700			14	30%	В	
Phenanthrene	186000	1880	3780	ug/kg dry	y 1000		164000			12	30%		
Pyrene	109000	1880	3780	ug/kg dry	y 1000		96400			12	30%		
Carbazole	3530	2830	5660	ug/kg dry	y 1000		3390			4	30%	J	
Dibenzofuran	6020	1880	3780	ug/kg dry	y 1000		5110			16	30%		
2-Chlorophenol	ND	9440	18800	ug/kg dry	y 1000		ND				30%		
4-Chloro-3-methylphenol	ND	18800	37800	ug/kg dry	y 1000		ND				30%		
2,4-Dichlorophenol	ND	9440	18800	ug/kg dry	y 1000		ND				30%		
2,4-Dimethylphenol	ND	9440	18800	ug/kg dry	y 1000		ND				30%		
2,4-Dinitrophenol	ND	47200	94400	ug/kg dry	y 1000		ND				30%		
4,6-Dinitro-2-methylphenol	ND	47200	94400	ug/kg dry	y 1000		ND				30%		
2-Methylphenol	ND	4720	9440	ug/kg dry	y 1000		ND				30%		
3+4-Methylphenol(s)	ND	4720	9440	ug/kg dry	y 1000		ND				30%		
2-Nitrophenol	ND	18800	37800	ug/kg dry	y 1000		ND				30%		
4-Nitrophenol	ND	18800	37800	ug/kg dry	y 1000		ND				30%		
Pentachlorophenol (PCP)	ND	18800	37800	ug/kg dry	y 1000		ND				30%		

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- OWS
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

## **QUALITY CONTROL (QC) SAMPLE RESULTS**

		Se	mivolatile (	Organic C	ompour	ds by EP	A 8270E					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C1019 - EPA 3546							Sol	id				
Duplicate (23C1019-DUP1)			Prepared	: 03/27/23 07	7:35 Ana	yzed: 03/27	/23 18:09					
QC Source Sample: T-201-031723	3-3 (A3C067	<u>4-01)</u>										
Phenol	ND	3780	7550	ug/kg dry	1000		ND				30%	
2,3,4,6-Tetrachlorophenol	ND	9440	18800	ug/kg dry	1000		ND				30%	
2,3,5,6-Tetrachlorophenol	ND	9440	18800	ug/kg dry	1000		ND				30%	
2,4,5-Trichlorophenol	ND	9440	18800	ug/kg dry	1000		ND				30%	
2,4,6-Trichlorophenol	ND	9440	18800	ug/kg dry	1000		ND				30%	
Bis(2-ethylhexyl)phthalate	ND	28300	56600	ug/kg dry	1000		ND				30%	
Butyl benzyl phthalate	ND	18800	37800	ug/kg dry	1000		ND				30%	
Diethylphthalate	ND	18800	37800	ug/kg dry	1000		ND				30%	
Dimethylphthalate	ND	18800	37800	ug/kg dry	1000		ND				30%	
Di-n-butylphthalate	ND	18800	37800	ug/kg dry	1000		ND				30%	
Di-n-octyl phthalate	ND	18800	37800	ug/kg dry	1000		ND				30%	
N-Nitrosodimethylamine	ND	4720	9440	ug/kg dry	1000		ND				30%	
N-Nitroso-di-n-propylamine	ND	4720	9440	ug/kg dry	1000		ND				30%	
N-Nitrosodiphenylamine	ND	9440	9440	ug/kg dry	1000		ND				30%	
Bis(2-Chloroethoxy) methane	ND	4720	9440	ug/kg dry	1000		ND				30%	
Bis(2-Chloroethyl) ether	ND	4720	9440	ug/kg dry	1000		ND				30%	
2,2'-Oxybis(1-Chloropropane)	ND	4720	9440	ug/kg dry	1000		ND				30%	
Hexachlorobenzene	ND	1880	3780	ug/kg dry	1000		ND				30%	
Hexachlorobutadiene	ND	4720	9440	ug/kg dry	1000		ND				30%	
Hexachlorocyclopentadiene	ND	9440	18800	ug/kg dry	1000		ND				30%	
Hexachloroethane	ND	4720	9440	ug/kg dry	1000		ND				30%	
2-Chloronaphthalene	ND	1880	3780	ug/kg dry	1000		ND				30%	
1,2,4-Trichlorobenzene	ND	4720	9440	ug/kg dry	1000		ND				30%	
4-Bromophenyl phenyl ether	ND	4720	9440	ug/kg dry	1000		ND				30%	
4-Chlorophenyl phenyl ether	ND	4720	9440	ug/kg dry	1000		ND				30%	
Aniline	ND	9440	18800	ug/kg dry	1000		ND				30%	
4-Chloroaniline	ND	4720	9440	ug/kg dry	1000		ND				30%	
2-Nitroaniline	ND	37800	75500	ug/kg dry	1000		ND				30%	
3-Nitroaniline	ND	37800	75500	ug/kg dry	1000		ND				30%	
4-Nitroaniline	ND	37800	75500	ug/kg dry	1000		ND				30%	
Nitrobenzene	ND	18800	37800	ug/kg dry	1000		ND				30%	
2,4-Dinitrotoluene	ND	18800	37800	ug/kg dry	1000		ND				30%	
2,6-Dinitrotoluene	ND	18800	37800	ug/kg dry	1000		ND				30%	

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## Apex Laboratories, LLC

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- OWS
Project Number: 111323
Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

## **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 23C1019 - EPA 3546							Sol	id					
Duplicate (23C1019-DUP1)			Prepared	1: 03/27/23 (	07:35 Ana	lyzed: 03/27	//23 18:09						
QC Source Sample: T-201-031723	-3 (A3C067	<u>4-01)</u>											
Benzoic acid	ND	236000	472000	ug/kg dr	y 1000		ND				30%		
Benzyl alcohol	ND	9440	18800	ug/kg dr	y 1000		ND				30%		
Isophorone	ND	4720	9440	ug/kg dr	y 1000		ND				30%		
Azobenzene (1,2-DPH)	ND	4720	9440	ug/kg dr	y 1000		ND				30%		
Bis(2-Ethylhexyl) adipate	ND	47200	94400	ug/kg dr	y 1000		ND				30%		
3,3'-Dichlorobenzidine	ND	37800	75500	ug/kg dr	y 1000		ND				30%	Q-52	
1,2-Dinitrobenzene	ND	47200	94400	ug/kg dr	y 1000		ND				30%		
1,3-Dinitrobenzene	ND	47200	94400	ug/kg dr	y 1000		ND				30%		
1,4-Dinitrobenzene	ND	47200	94400	ug/kg dr	y 1000		ND				30%		
Pyridine	ND	9440	18800	ug/kg dr	y 1000		ND				30%		
1,2-Dichlorobenzene	ND	4720	9440	ug/kg dr	y 1000		ND				30%		
1,3-Dichlorobenzene	ND	4720	9440	ug/kg dr	y 1000		ND				30%		
1,4-Dichlorobenzene	ND	4720	9440	ug/kg dr	y 1000		ND				30%		
Surr: Nitrobenzene-d5 (Surr)		Reco	wery: 88 %	Limits: 37	-122 %	Dilt	ution: 1000	)x				S-05	
2-Fluorobiphenyl (Surr)			121 %	44-	120 %		"					S-05	
Phenol-d6 (Surr)			57 %	33-	122 %		"					S-05	
p-Terphenyl-d14 (Surr)			139 %	54-	127 %		"					S-05	
2-Fluorophenol (Surr)			56 %	35-	120 %		"					S-05	
2,4,6-Tribromophenol (Surr)			1220 %	39.	132 %		"					S-05	

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## Apex Laboratories, LLC

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

# Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project Number: 111323 Project Manager: Chip Byrd

Project:

Report	t ID:
A3C0674 - 04 (	04 23 1317

# **QUALITY CONTROL (QC) SAMPLE RESULTS**

Gasco -- OWS

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 23C0864 - EPA 1311/3	510C (BNA	Extraction)					Soi	I				
Blank (23C0864-BLK1)			Prepared	: 03/22/23	11:27 Anal	lyzed: 03/23/	/23 12:32					TCLPa
1311/8270E-LL												
Acenaphthene	0.139	0.100	0.200	ug/L	1							J, B-02
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	0.337	0.200	0.400	ug/L	1							J, B-02
2-Methylnaphthalene	0.580	0.200	0.400	ug/L	1							В
Naphthalene	2.83	0.200	0.400	ug/L	1							В
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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## Apex Laboratories, LLC

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

# Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- OWS</u> Project Number: 111323 Project Manager: Chip Byrd

## 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 23C0864 - EPA 1311/35	10C (BNA	Extraction)					So	il				
Blank (23C0864-BLK1)			Prepared	l: 03/22/23	11:27 Anal	yzed: 03/23	/23 12:32					TCLPa
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	3.44	2.00	4.00	ug/L	1							J, B-(
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							
Benzvl alcohol	ND	1.00	2.00	ug/L	1							
Isonhorone	ND	0.250	0.500	110/I	1							

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# Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- OWS</u> Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

# **QUALITY CONTROL (QC) SAMPLE RESULTS**

TCLP Semivolatile Organic Compounds by EPA 1311/8270E Detection % REC RPD Reporting Spike Source Analyte Result Limit Units Dilution Result % REC RPD Limit Amount Limits Limit Notes Batch 23C0864 - EPA 1311/3510C (BNA Extraction) Soil Blank (23C0864-BLK1) Prepared: 03/22/23 11:27 Analyzed: 03/23/23 12:32 TCLPa Azobenzene (1,2-DPH) ND 0.250 0.500 ug/L 1 \_\_\_ --------------ug/L Bis(2-Ethylhexyl) adipate ND 2.50 5.00 1 ------------------5.00 1,2-Dinitrobenzene ND 2.50ug/L 1 ---1,3-Dinitrobenzene ND 2.50 5.00 ug/L 1 ------------ND 2.50 5.00 1,4-Dinitrobenzene ug/L 1 -------------\_\_\_\_ ---Pyridine ND 1.00 2.00 ug/L 1 ---------------0.250 1,2-Dichlorobenzene ND 0.500 ug/L 1 ---------------ND 0.250 1,3-Dichlorobenzene 0.500 ug/L 1 ------0.250 0.500 1,4-Dichlorobenzene ND ug/L 1 74 % Surr: Nitrobenzene-d5 (Surr) Recovery: Limits: 44-120 % Dilution: 1x 2-Fluorobiphenyl (Surr) 69 % 44-120 % 37% Phenol-d6 (Surr) 10-133 % p-Terphenyl-d14 (Surr) 96 % 50-134 % 2-Fluorophenol (Surr) 57% 19-120 % 2,4,6-Tribromophenol (Surr) 87% 43-140 % " Blank (23C0864-BLK2) Prepared: 03/22/23 12:49 Analyzed: 03/23/23 13:06 TCLP 1311/8270E-LL Acenaphthene ND 0.100 0.200 ug/L 1 ---ND 0.100 0.200 ug/L 1 Acenaphthylene ---------\_ \_ \_ ------Anthracene ND 0.100 0.200 ug/L 1 ------Benz(a)anthracene ND 0.100 0.200 ug/L 1 -------------------ND 0.150 0.300 Benzo(a)pyrene ug/L 1 ------------0.150 Benzo(b)fluoranthene ND 0.300 ug/L 1 \_\_\_ -------------Benzo(k)fluoranthene ND 0.150 0.300 ug/L 1 ---ND 0.100 0.200 Benzo(g,h,i)perylene 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 ------ND 0.200 0.400 ug/L 1-Methylnaphthalene 1 -------------------2-Methylnaphthalene ND 0.200 0.400 ug/L 1 ------------Naphthalene 0.434 0.200 0.400 ug/L 1 ---------В

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# Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project Number: **111323** Project Manager: **Chip Byrd** 

Project:

## **QUALITY CONTROL (QC) SAMPLE RESULTS**

<u>Gasco -- OW</u>S

TCLP Semivolatile Organic Compounds by EPA 1311/8270E Detection Spike % REC RPD Reporting Source Dilution Analyte Result Limit Units Result % REC RPD Limit Amount Limits Limit Notes Batch 23C0864 - EPA 1311/3510C (BNA Extraction) Soil Blank (23C0864-BLK2) Prepared: 03/22/23 12:49 Analyzed: 03/23/23 13:06 TCLP Phenanthrene ND 0.100 0.200 ug/L 1 \_\_\_ --------------ug/L Pyrene ND 0.100 0.200 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 ---------2.50 5.00 2,4-Dinitrophenol ND 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 -------------------0.500 0.250 3+4-Methylphenol(s) ND ug/L 1 --------------------ND 1.00 2-Nitrophenol 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 -------------------ND 0.500 1.00 2,3,4,6-Tetrachlorophenol 1 ug/L ------------\_\_\_\_ ---2,3,5,6-Tetrachlorophenol ND 0.500 1.00 1 ug/L ------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 ------ND 2.00 4.00 Di-n-butylphthalate 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 ------ND 0.250 Bis(2-Chloroethyl) ether 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 ----------------0.250 Hexachlorobutadiene ND 0.500 ug/L 1 \_\_\_

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# Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project Number: 111323 Project Manager: Chip Byrd

Project:

## **QUALITY CONTROL (QC) SAMPLE RESULTS**

Gasco -- OWS

TCLP Semivolatile Organic Compounds by EPA 1311/8270E Detection Spike % REC RPD Reporting Source Analyte Result Limit Units Dilution Result % REC RPD Limit Amount Limits Limit Notes Batch 23C0864 - EPA 1311/3510C (BNA Extraction) Soil Blank (23C0864-BLK2) Prepared: 03/22/23 12:49 Analyzed: 03/23/23 13:06 TCLP ND 0.500 1.00 Hexachlorocyclopentadiene ug/L 1 \_\_\_ ---------------0.250 ug/L Hexachloroethane ND 0.500 1 ------------------2-Chloronaphthalene ND 0.100 0.200 ug/L 1 ------1,2,4-Trichlorobenzene ND 0.0500 0.500 ug/L 1 ------------0.500 4-Bromophenyl phenyl ether ND 0.250 ug/L 1 -------------\_\_\_\_ ---4-Chlorophenyl phenyl ether ND 0.250 0.500 ug/L 1 ---------------Aniline ND 0.500 1.00 ug/L 1 \_\_\_ ------------0.250 4-Chloroaniline ND 0.500 ug/L 1 ------2.00 4.00 2-Nitroaniline ND ug/L 1 ---3-Nitroaniline ND 2.00 4.00 ug/L 1 -------------------4-Nitroaniline ND 2.00 4.00 ug/L 1 -------------------1.00 Nitrobenzene ND 2.00 ug/L 1 --------------------ND 1.00 2.00 2,4-Dinitrotoluene ug/L 1 ---------\_\_\_\_ ------2,6-Dinitrotoluene ND 1.00 2.00 ug/L 1 ---ND 25.0 Benzoic acid 12.5 ug/L 1 ----------------Benzyl alcohol ND 1.00 2.00 ug/L 1 ---------------ND 0.250 0.500 Isophorone 1 ug/L ---------------Azobenzene (1,2-DPH) ND 0.250 0.500 ug/L 1 ---ND 2.50 5.00 Bis(2-Ethylhexyl) adipate 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 ---ND 0.250 1,3-Dichlorobenzene 0.500 ug/L 1 -------------------1,4-Dichlorobenzene ND 0.250 0.500 ug/L 1 ---\_\_\_ ---Surr: Nitrobenzene-d5 (Surr) Recovery: 71 % Limits: 44-120 % Dilution: 1x 65 % 2-Fluorobiphenyl (Surr) 44-120 % Phenol-d6 (Surr) 19 % 10-133 % p-Terphenyl-d14 (Surr) 96% 50-134 % 2-Fluorophenol (Surr) 35 % 19-120 % 2,4,6-Tribromophenol (Surr) 84% 43-140 % "

## LCS (23C0864-BS1)

Prepared: 03/22/23 11:27 Analyzed: 03/23/23 13:41

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# Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- OWS</u> Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

# QUALITY CONTROL (QC) SAMPLE RESULTS

TCLP Semivolatile Organic Compounds by EPA 1311/8270E         Detection       Reporting       Spike       Source       % REC       RPD													
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes	
Batch 23C0864 - EPA 1311/3	510C (BNA	Extraction)					So	il					
LCS (23C0864-BS1)			Prepared	: 03/22/23	11:27 Anal	yzed: 03/23/	/23 13:41						
1311/8270E-LL													
Acenaphthene	23.6	0.400	0.800	ug/L	4	40.0		59	47-122%			В-(	
Acenaphthylene	26.7	0.400	0.800	ug/L	4	40.0		67	41-130%				
Anthracene	33.9	0.400	0.800	ug/L	4	40.0		85	57-123%				
Benz(a)anthracene	35.1	0.400	0.800	ug/L	4	40.0		88	58-125%				
Benzo(a)pyrene	37.0	0.600	1.20	ug/L	4	40.0		92	54-128%				
Benzo(b)fluoranthene	38.3	0.600	1.20	ug/L	4	40.0		96	53-131%				
Benzo(k)fluoranthene	36.4	0.600	1.20	ug/L	4	40.0		91	57-129%				
Benzo(g,h,i)perylene	33.8	0.400	0.800	ug/L	4	40.0		85	50-134%				
Chrysene	35.4	0.400	0.800	ug/L	4	40.0		89	59-123%				
Dibenz(a,h)anthracene	36.2	0.400	0.800	ug/L	4	40.0		91	51-134%				
Fluoranthene	38.3	0.400	0.800	ug/L	4	40.0		96	57-128%				
Fluorene	30.1	0.400	0.800	ug/L	4	40.0		75	52-124%				
Indeno(1,2,3-cd)pyrene	35.1	0.400	0.800	ug/L	4	40.0		88	52-134%				
l-Methylnaphthalene	19.4	0.800	1.60	ug/L	4	40.0		48	41-120%			В-(	
2-Methylnaphthalene	19.4	0.800	1.60	ug/L	4	40.0		49	40-121%				
Naphthalene	19.6	0.800	1.60	ug/L	4	40.0		49	40-121%				
Phenanthrene	32.0	0.400	0.800	ug/L	4	40.0		80	59-120%				
Pyrene	38.7	0.400	0.800	ug/L	4	40.0		97	57-126%				
Carbazole	37.7	0.600	1.20	ug/L	4	40.0		94	60-122%				
Dibenzofuran	27.2	0.400	0.800	ug/L	4	40.0		68	53-120%				
2-Chlorophenol	28.5	2.00	4.00	ug/L	4	40.0		71	38-120%				
4-Chloro-3-methylphenol	33.6	4.00	8.00	ug/L	4	40.0		84	52-120%				
2,4-Dichlorophenol	34.1	2.00	4.00	ug/L	4	40.0		85	47-121%				
2,4-Dimethylphenol	30.6	2.00	4.00	ug/L	4	40.0		77	31-124%				
2,4-Dinitrophenol	53.4	10.0	20.0	ug/L	4	40.0		134	23-143%			Q-4	
4,6-Dinitro-2-methylphenol	49.5	10.0	20.0	ug/L	4	40.0		124	44-137%			Q-4	
2-Methylphenol	24.7	1.00	2.00	ug/L	4	40.0		62	30-120%				
3+4-Methylphenol(s)	22.0	1.00	2.00	ug/L	4	40.0		55	29-120%				
2-Nitrophenol	38.4	4.00	8.00	ug/L	4	40.0		96	47-123%			Q-4	
4-Nitrophenol	10.7	4.00	8.00	ug/L	4	40.0		27	10-120%				
Pentachlorophenol (PCP)	32.0	4.00	8.00	ug/L	4	40.0		80	35-138%				
Phenol	12.0	8.00	8.00	110/I	4	40.0		31	10-120%				
2.3.4.6-Tetrachlorophenol	37.2	2.00	4 00	110/I	4	40.0		93	50-128%				
2,3,4,0- retractitorophenoi	57.2	2.00	4.00	ug/L	4	40.0		75	30-128%				

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## Apex Laboratories, LLC

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

# Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- OWS</u> Project Number: 111323 Project Manager: Chip Byrd

<b>Report ID:</b>	
A3C0674 - 04 04 23 13	17

# **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 23C0864 - EPA 1311/35	10C (BNA	Extraction)					So	il						
LCS (23C0864-BS1)			Prepared	1: 03/22/23	11:27 Anal	lyzed: 03/23	/23 13:41							
2,3,5,6-Tetrachlorophenol	36.5	2.00	4.00	ug/L	4	40.0		91	50-121%	,				
2,4,5-Trichlorophenol	37.6	2.00	4.00	ug/L	4	40.0		94	53-123%	,				
2,4,6-Trichlorophenol	34.9	2.00	4.00	ug/L	4	40.0		87	50-125%	,				
Bis(2-ethylhexyl)phthalate	33.8	8.00	16.0	ug/L	4	40.0		85	55-135%	,				
Butyl benzyl phthalate	34.8	8.00	16.0	ug/L	4	40.0		87	53-134%	,				
Diethylphthalate	35.6	8.00	16.0	ug/L	4	40.0		89	56-125%	,		B-		
Dimethylphthalate	35.5	8.00	16.0	ug/L	4	40.0		89	45-127%	,				
Di-n-butylphthalate	38.4	8.00	16.0	ug/L	4	40.0		96	59-127%	,				
Di-n-octyl phthalate	40.4	8.00	16.0	ug/L	4	40.0		101	51-140%	,				
N-Nitrosodimethylamine	16.1	1.00	2.00	ug/L	4	40.0		40	19-120%	,				
N-Nitroso-di-n-propylamine	32.3	1.00	2.00	ug/L	4	40.0		81	49-120%	,				
N-Nitrosodiphenylamine	31.5	1.00	2.00	ug/L	4	40.0		79	51-123%	,				
Bis(2-Chloroethoxy) methane	29.7	1.00	2.00	ug/L	4	40.0		74	48-120%	,				
Bis(2-Chloroethyl) ether	27.7	1.00	2.00	ug/L	4	40.0		69	43-120%	,				
2,2'-Oxybis(1-Chloropropane)	23.6	1.00	2.00	ug/L	4	40.0		59	41-120%	,				
Hexachlorobenzene	32.8	0.400	0.800	ug/L	4	40.0		82	53-125%	,				
Hexachlorobutadiene	11.6	1.00	2.00	ug/L	4	40.0		29	22-124%	,				
Hexachlorocyclopentadiene	5.16	2.00	4.00	ug/L	4	40.0		13	10-127%	,		Q-4		
Hexachloroethane	10.5	1.00	2.00	ug/L	4	40.0		26	21-120%	,				
2-Chloronaphthalene	20.3	0.400	0.800	ug/L	4	40.0		51	40-120%	,				
,2,4-Trichlorobenzene	14.9	0.200	2.00	ug/L	4	40.0		37	29-120%	,				
-Bromophenyl phenyl ether	30.3	1.00	2.00	ug/L	4	40.0		76	55-124%	,				
4-Chlorophenyl phenyl ether	27.7	1.00	2.00	ug/L	4	40.0		69	53-121%	,				
Aniline	23.4	2.00	4.00	ug/L	4	40.0		58	10-120%	,				
I-Chloroaniline	28.3	1.00	2.00	ug/L	4	40.0		71	33-120%	,				
2-Nitroaniline	36.1	8.00	16.0	ug/L	4	40.0		90	55-127%	,				
3-Nitroaniline	37.1	8.00	16.0	ug/L	4	40.0		93	41-128%	,		Q-4		
I-Nitroaniline	38.4	8.00	16.0	ug/L	4	40.0		96	25-120%	,				
Nitrobenzene	28.7	4.00	8.00	ug/L	4	40.0		72	45-121%	,				
2.4-Dinitrotoluene	38.2	4.00	8.00	110/L	4	40.0		95	57-128%	,				
2.6-Dinitrotoluene	34.8	4 00	8.00	110/I	4	40.0		87	57-120%					
Renzoic acid	ND	50.0	100	u <sub>5</sub> /L μσ/Ι	4	80.0		07	10_120%			0-		
Senzul alcohol	23.2	4 00	8.00	ug/L		40.0		58	31_120%			<b>Q</b>		
sonborono	23.2	4.00	2.00	ug/L	4	40.0		50 79	12 1240/	,				
sopnorone	31.1	1.00	2.00	ug/L	4	40.0		/8	42-124%	,				

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## Apex Laboratories, LLC

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

# Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- OWS Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

# **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 23C0864 - EPA 1311/351	10C (BNA	Extraction)					So	il				
LCS (23C0864-BS1)			Prepared	d: 03/22/23	11:27 Anal	lyzed: 03/23	/23 13:41					
Azobenzene (1,2-DPH)	27.1	1.00	2.00	ug/L	4	40.0		68	61-120%			
Bis(2-Ethylhexyl) adipate	34.6	10.0	20.0	ug/L	4	40.0		86	63-121%			
1,2-Dinitrobenzene	36.4	10.0	20.0	ug/L	4	40.0		91	59-120%			
1,3-Dinitrobenzene	36.3	10.0	20.0	ug/L	4	40.0		91	49-128%			
1,4-Dinitrobenzene	39.3	10.0	20.0	ug/L	4	40.0		98	54-120%			
Pyridine	15.3	4.00	8.00	ug/L	4	40.0		38	10-120%			
1,2-Dichlorobenzene	13.8	1.00	2.00	ug/L	4	40.0		34	32-120%			
1,3-Dichlorobenzene	12.8	1.00	2.00	ug/L	4	40.0		32	28-120%			
1,4-Dichlorobenzene	12.9	1.00	2.00	ug/L	4	40.0		32	29-120%			
Surr: Nitrobenzene-d5 (Surr)		Rece	overy: 76 %	Limits: 44	4-120 %	Dili	ution: 4x					
2-Fluorobiphenyl (Surr)			71%	44	-120 %		"					
Phenol-d6 (Surr)			24 %	10	-133 %		"					
p-Terphenyl-d14 (Surr)			92 %	50	-134 %		"					
2-Fluorophenol (Surr)			40 %	19	-120 %		"					
2,4,6-Tribromophenol (Surr)			95 %	43	8-140 %		"					
LCS Dup (23C0864-BSD1)			Prepareo	1: 03/22/23	11:27 Anal	lyzed: 03/23	/23 14:16					Q-19
1311/8270E-LL												
Acenaphthene	24.1	0.400	0.800	ug/L	4	40.0		60	47-122%	2	30%	B-0
Acenaphthylene	27.6	0.400	0.800	ug/L	4	40.0		69	41-130%	3	30%	
Anthracene	37.1	0.400	0.800	ug/L	4	40.0		93	57-123%	9	30%	
Benz(a)anthracene	39.1	0.400	0.800	ug/L	4	40.0		98	58-125%	11	30%	
Benzo(a)pyrene	39.7	0.600	1.20	ug/L	4	40.0		99	54-128%	7	30%	
Benzo(b)fluoranthene	41.4	0.600	1.20	ug/L	4	40.0		103	53-131%	8	30%	
Benzo(k)fluoranthene	41.3	0.600	1.20	ug/L	4	40.0		103	57-129%	12	30%	
Benzo(g,h,i)perylene	35.0	0.400	0.800	ug/L	4	40.0		88	50-134%	3	30%	
Chrysene	38.9	0.400	0.800	ug/L	4	40.0		97	59-123%	9	30%	
Dibenz(a,h)anthracene	38.3	0.400	0.800	ug/L	4	40.0		96	51-134%	6	30%	
Fluoranthene	41.4	0.400	0.800	ug/L	4	40.0		104	57-128%	8	30%	
Fluorene	31.8	0.400	0.800	ug/L	4	40.0		80	52-124%	6	30%	
Indeno(1,2,3-cd)pyrene	37.6	0.400	0.800	ug/L	4	40.0		94	52-134%	7	30%	
1-Methylnaphthalene	20.3	0.800	1.60	ug/L	4	40.0		51	41-120%	5	30%	B-0
2-Methylnaphthalene	19.8	0.800	1.60	ug/L	4	40.0		50	40-121%	2	30%	
Naphthalene	20.3	0.800	1.60	ug/L	4	40.0		51	40-121%	3	30%	

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

# Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project Number: **111323** Project Manager: **Chip Byrd** 

Project:

Re	poi	rt I	<u>D:</u>	
A3C0674 -	04	04	23	1317

## **QUALITY CONTROL (QC) SAMPLE RESULTS**

<u>Gasco -- OW</u>S

TCLP Semivolatile Organic Compounds by EPA 1311/8270E Detection % REC RPD Reporting Spike Source Analyte Result Limit Units Dilution Result % REC RPD Limit Amount Limits Limit Notes Batch 23C0864 - EPA 1311/3510C (BNA Extraction) Soil LCS Dup (23C0864-BSD1) Prepared: 03/22/23 11:27 Analyzed: 03/23/23 14:16 Q-19 Phenanthrene 34.4 0.400 0.800 4 40.0 86 59-120% 7 30% ug/L --ug/L Pyrene 41.8 0.400 0.800 4 40.0 104 57-126% 8 30% ---40.0 Carbazole 40.1 0.600 1.20 ug/L 4 100 60-122% 6 30% ---Dibenzofuran 28.5 0.400 0.800 ug/L 4 40.0 71 53-120% 5 30% ---40.0 74 30% 2-Chlorophenol 29.7 2.00 4.00 4 38-120% ug/L ---4 40.0 93 4-Chloro-3-methylphenol 37.0 4.00 8.00 ug/L 4 52-120% 10 30% ---2,4-Dichlorophenol 36.0 2.00 4.00ug/L 4 40.0 ---90 47-121% 5 30% 4 40.0 80 2,4-Dimethylphenol 31.9 2.00 4.00 ug/L 31-124% 4 30% ---Q-41 10.0 20.0 40.0 2,4-Dinitrophenol 52.8 ug/L 4 ---132 23-143% 1 30% 4,6-Dinitro-2-methylphenol 49.9 10.020.0ug/L 4 40.0 125 44-137% 0.8 30% Q-41 ---40.0 2-Methylphenol 26.1 1.00 2.00 4 65 30-120% 5 30% ug/L ----40.0 29-120% 3+4-Methylphenol(s) 24.0 1.00 2.00ug/L 4 60 9 30% ---40.2 4.00 4 40.0 100 47-123% 30% O-41 2-Nitrophenol 8.00 ug/L ----4 4-Nitrophenol 11.8 4.00 8.00 ug/L 4 40.0 29 10-120% 9 30% ---Pentachlorophenol (PCP) 32.3 8.00 4 40.0 81 35-138% 30% 4.00ug/L ---1 Phenol 13.3 8.00 8.00 ug/L 4 40.0 33 10-120% 8 30% ---39.6 2.00 4.00 4 40.0 99 2,3,4,6-Tetrachlorophenol 50-128% 6 30% ug/L ---2,3,5,6-Tetrachlorophenol 39.0 2.00 4.00 4 40.0 98 50-121% 7 30% ug/L ---4.00 30% 2,4,5-Trichlorophenol 39.5 2.004 40.0 99 53-123% 5 ug/L ---2,4,6-Trichlorophenol 36.6 2.00 4.00 ug/L 4 40.0 ---91 50-125% 5 30% Bis(2-ethylhexyl)phthalate 36.3 8.00 16.0 4 40.0 91 55-135% 7 30% ug/L ---Butyl benzyl phthalate 38.1 8.00 16.0 ug/L 4 40.0 95 53-134% 9 30% ---Diethylphthalate 38.7 8.00 16.0 4 40.0 97 56-125% 8 30% B-02 ug/L ---Dimethylphthalate 38.0 8.00 16.0 ug/L 4 40.0 95 45-127% 7 30% ---41.7 8.00 16.0 4 40.0 104 59-127% 30% Di-n-butylphthalate ug/L 8 ----Di-n-octyl phthalate 43.0 8.00 16.0 ug/L 4 40.0 ---107 51-140% 6 30% N-Nitrosodimethylamine 16.9 1.00 2.00 4 40.0 42 19-120% 4 30% ug/L ---N-Nitroso-di-n-propylamine 36.1 1.00 2.00 ug/L 4 40.0 ---90 49-120% 11 30% N-Nitrosodiphenylamine 34.2 1.00 2.00 4 40.0 86 51-123% 8 30% ug/L ---Bis(2-Chloroethoxy) methane 31.8 1.00 2.00 ug/L 4 40.0 79 48-120% 7 30% 29.7 1.00 2.00 4 40.0 74 43-120% 7 30% Bis(2-Chloroethyl) ether ug/L ---2,2'-Oxybis(1-Chloropropane) 25.4 1.00 2.00 ug/L 4 40.0 63 41-120% 7 30% ---Hexachlorobenzene 36.3 0.400 0.800 ug/L 4 40.0 91 53-125% 10 30% ---Hexachlorobutadiene 10.4 1.00 2.00 ug/L 4 40.0 26 22-124% 10 30%

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

# Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305

<u>Gasco -- OW</u>S Project Number: 111323 Project Manager: Chip Byrd

Project:

## **QUALITY CONTROL (QC) SAMPLE RESULTS**

TCLP Semivolatile Organic Compounds by EPA 1311/8270E Detection Spike % REC RPD Reporting Source Analyte Result Limit Units Dilution Result % REC Limits RPD Limit Amount Limit Notes Batch 23C0864 - EPA 1311/3510C (BNA Extraction) Soil LCS Dup (23C0864-BSD1) Prepared: 03/22/23 11:27 Analyzed: 03/23/23 14:16 Q-19 5.11 2.00 4.00 4 40.0 13 10-127% 30% Q-41 Hexachlorocyclopentadiene ug/L ----1 ug/L 23 Hexachloroethane 9.29 1.00 2.00 4 40.0 21-120% 13 30% ---50 2 2-Chloronaphthalene 19.9 0.400 0.800 ug/L 4 40.0 40-120% 30% ---1,2,4-Trichlorobenzene 14.1 0.200 2.00 ug/L 4 40.0 35 29-120% 6 30% ---40.0 83 4-Bromophenyl phenyl ether 33.2 1.00 2.00 4 55-124% 9 30% ug/L ---72 4-Chlorophenyl phenyl ether 28.9 1.00 2.00 ug/L 4 40.0 53-121% 4 30% ---Aniline 25.4 2.00 4.00 ug/L 4 40.0 64 10-120% 8 30% ---4 40.0 76 4-Chloroaniline 30.4 1.00 2.00 ug/L 33-120% 7 30% ---16.0 40.0 30% 2-Nitroaniline 38.4 8.00 ug/L 4 96 55-127% 6 3-Nitroaniline 39.7 8.00 16.0 ug/L 4 40.0 99 41-128% 7 30% Q-41 ---40.0 99 3 4-Nitroaniline 39.7 8.00 16.0 4 25-120% 30% ug/L ---4.00 40.0 77 Nitrobenzene 30.6 8.00 ug/L 4 45-121% 7 30% ---40.9 4.00 4 40.0 102 57-128% 7 30% 2.4-Dinitrotoluene 8.00 ug/L ---2,6-Dinitrotoluene 37.8 4.00 8.00 ug/L 4 40.0 94 57-124% 8 30% ---Q-41 Benzoic acid 52.9 50.0 50.0 4 80.0 10-120% 7 30% ug/L ---66 Benzyl alcohol 25.8 4.008.00 ug/L 4 40.0 65 31-120% 11 30% ---1.00 2.00 4 40.0 Isophorone 34.3 86 42-124% 10 30% ug/L ---Azobenzene (1,2-DPH) 28.9 1.00 4 40.0 72 61-120% 30% 2.00ug/L ---6 20.0 30% 38.1 10.04 40.0 95 63-121% Bis(2-Ethylhexyl) adipate ug/L ----10 1,2-Dinitrobenzene 39.1 10.0 20.0 ug/L 4 40.0 ---98 59-120% 7 30% 40.0 1,3-Dinitrobenzene 39.1 10.0 20.0 4 98 49-128% 7 30% ug/L ---1,4-Dinitrobenzene 42.0 10.0 20.0 ug/L 4 40.0 105 54-120% 7 30% ---Pyridine 18.4 4.008.00 ug/L 4 40.0 46 10-120% 18 30% ---1,2-Dichlorobenzene 13.2 1.00 2.00 ug/L 4 40.0 33 32-120% 5 30% ---11.8 1.00 2.00 4 40.0 29 28-120% 30% 1,3-Dichlorobenzene ug/L 8 ---1,4-Dichlorobenzene 11.9 1.00 2.00 ug/L 4 40.0 ---30 29-120% 8 30% Surr: Nitrobenzene-d5 (Surr) Recovery: 82 % Limits: 44-120 % Dilution: 4x 2-Fluorobiphenyl (Surr) 74% 44-120 % Phenol-d6 (Surr) 26 % 10-133 % p-Terphenyl-d14 (Surr) 99 % 50-134 % 2-Fluorophenol (Surr) 43 % 19-120 % 2,4,6-Tribromophenol (Surr) 100 % 43-140 % "

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

Sevenson Environmental Services, Inc.

2749 Lockport Road

Niagara Falls, NY 14305

Project: Gasco -- OWS Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

## **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 23C0713 - EPA 3051A							So	lid						
Blank (23C0713-BLK1)			Prepared	l: 03/20/23 (	)7:12 Ana	lyzed: 03/21	/23 15:36							
EPA 6020B														
Arsenic	ND	500	1000	ug/kg we	et 10									
Barium	ND	500	1000	ug/kg we	et 10									
Cadmium	ND	100	200	ug/kg we	et 10									
Chromium	ND	500	1000	ug/kg we	et 10									
Lead	ND	100	200	ug/kg we	et 10									
Mercury	ND	40.0	80.0	ug/kg we	et 10									
Selenium	ND	500	1000	ug/kg we	et 10									
Silver	ND	100	200	ug/kg we	et 10									
LCS (23C0713-BS1)			Prepared	l: 03/20/23 (	)7:12 Ana	lyzed: 03/21	/23 15:42							
EPA 6020B														
Arsenic	50000	500	1000	ug/kg we	et 10	50000		100	80-120%					
Barium	50200	500	1000	ug/kg we	et 10	50000		100	80-120%					
Cadmium	50500	100	200	ug/kg we	et 10	50000		101	80-120%					
Chromium	51000	500	1000	ug/kg we	et 10	50000		102	80-120%					
Lead	52800	100	200	ug/kg we	et 10	50000		106	80-120%					
Mercury	984	40.0	80.0	ug/kg we	et 10	1000		98	80-120%					
Selenium	24800	500	1000	ug/kg we	et 10	25000		99	80-120%					
Silver	25100	100	200	ug/kg we	et 10	25000		101	80-120%					
Duplicate (23C0713-DUP1)			Prepared	l: 03/20/23 (	)7:12 Ana	lyzed: 03/21	/23 15:52							
QC Source Sample: Non-SDG (A	A3C0529-01)													
Arsenic	1680	554	1110	ug/kg we	et 10		1710			2	20%			
Barium	80400	554	1110	ug/kg we	et 10		79900			0.6	20%			
Cadmium	173	111	222	ug/kg we	et 10		208			18	20%			
Chromium	10100	554	1110	ug/kg we	et 10		12200			19	20%			
Lead	10500	111	222	ug/kg we	et 10		13400			23	20%	Q-0		
Mercury	ND	44.3	88.7	ug/kg we	et 10		ND				20%			
Selenium	ND	554	1110	ug/kg we	et 10		ND				20%			
Silver	ND	111	222	ug/kg we	et 10		ND				20%			

Matrix Spike (23C0713-MS1)

Prepared: 03/20/23 07:12 Analyzed: 03/21/23 15:57

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- OWS
Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

# **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 23C0713 - EPA 3051A							Sol	lid					
Matrix Spike (23C0713-MS1)			Prepared	: 03/20/23 0	7:12 Anal	yzed: 03/21/	/23 15:57						
QC Source Sample: Non-SDG (A30	20529-01)												
<u>EPA 6020B</u>													
Arsenic	51700	510	1020	ug/kg wet	t 10	51000	1710	98	75-125%				
Barium	148000	510	1020	ug/kg wet	t 10	51000	79900	134	75-125%			Q-U	
Cadmium	51600	102	204	ug/kg wet	t 10	51000	208	101	75-125%				
Chromium	62300	510	1020	ug/kg wet	t 10	51000	12200	98	75-125%				
Lead	61000	102	204	ug/kg wei	t 10	51000	13400	93	75-125%				
Mercury	979	40.8	81.6	ug/kg wet	t 10	1020	ND	96	75-125%				
Selenium	25500	510	1020	ug/kg wet	t 10	25500	ND	100	75-125%				
Silver	25800	102	204	ug/kg wei	t 10	25500	ND	101	75-125%				

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- OWS Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

# **QUALITY CONTROL (QC) SAMPLE RESULTS**

			TCLP	letals by	EPA 602	OB (ICPM	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0830 - EPA 1311/3	8015A						So	lid				
Blank (23C0830-BLK1)			Prepared	: 03/21/23	16:02 Ana	yzed: 03/21	/23 21:23					
<u>1311/6020B</u>												
Arsenic	ND	50.0	100	ug/L	10							TCLF
Barium	ND	2500	5000	ug/L	10							TCLF
Cadmium	ND	50.0	100	ug/L	10							TCLF
Chromium	ND	50.0	100	ug/L	10							TCLF
Lead	ND	25.0	50.0	ug/L	10							TCLF
Mercury	ND	3.75	7.00	ug/L	10							TCLF
Selenium	ND	50.0	100	ug/L	10							TCLF
Silver	ND	50.0	100	ug/L	10							TCLF
LCS (23C0830-BS1)			Prepared	: 03/21/23	16:02 Ana	yzed: 03/21	/23 21:39					
<u>1311/6020B</u>												
Arsenic	5020	50.0	100	ug/L	10	5000		100	80-120%			TCLF
Cadmium	1030	50.0	100	ug/L	10	1000		103	80-120%			TCLF
Chromium	5140	50.0	100	ug/L	10	5000		103	80-120%			TCLF
Selenium	1010	50.0	100	ug/L	10	1000		101	80-120%			TCLI
LCS (23C0830-BS2)			Prepared	: 03/21/23	16:02 Ana	yzed: 03/22	/23 16:34					
<u>1311/6020B</u>												
Barium	9860	2500	5000	ug/L	10	10000		99	80-120%			Q-16, TCLF
Lead	5240	25.0	50.0	ug/L	10	5000		105	80-120%			Q-16, TCLF
Mercury	95.0	3.75	7.00	ug/L	10	100		95	80-120%			Q-16, TCLF
Silver	852	50.0	100	ug/L	10	1000		85	80-120%			Q-16, TCLF
Duplicate (23C0830-DUP1)			Prepared	: 03/21/23	16:02 Ana	yzed: 03/21	/23 21:50					
QC Source Sample: T-201-0317	23-3 (A3C067	<u>4-01)</u>										
<u>1311/6020B</u>												
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%	
Selenium	ND	50.0	100	ug/L	10		ND				20%	

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- OWS Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

# **QUALITY CONTROL (QC) SAMPLE RESULTS**

			TCLP N	letals by	EPA 602	0B (ICPM	S)					
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes
Batch 23C0830 - EPA 1311/301	5A						So	lid				
Duplicate (23C0830-DUP2)			Prepared	: 03/21/23	16:02 Ana	lyzed: 03/22	2/23 16:43					
QC Source Sample: T-201-031723-	3 (A3C067	4-01RE1)										
<u>1311/6020B</u>												
Lead	ND	25.0	50.0	ug/L	10		ND				20%	Q-16
Mercury	ND	3.75	7.00	ug/L	10		ND				20%	Q-16
Silver	ND	50.0	100	ug/L	10		ND				20%	Q-16
Matrix Spike (23C0830-MS1)			Prepared	: 03/21/23	16:02 Ana	lyzed: 03/21	/23 21:55					
QC Source Sample: T-201-031723-	3 (A3C067	4-01)										
<u>1311/6020B</u>												
Arsenic	4970	50.0	100	ug/L	10	5000	ND	99	50-150%			
Cadmium	1010	50.0	100	ug/L	10	1000	ND	101	50-150%			
Chromium	5110	50.0	100	ug/L	10	5000	ND	102	50-150%			
Selenium	1010	50.0	100	ug/L	10	1000	ND	101	50-150%			
Matrix Spike (23C0830-MS2)			Prepared	: 03/21/23	16:02 Ana	lyzed: 03/22	2/23 16:48					
QC Source Sample: T-201-031723-	3 (A3C067	4-01RE1)										
<u>1311/6020B</u>												
Barium	11100	2500	5000	ug/L	10	10000	ND	111	50-150%			Q-16
Lead	5290	25.0	50.0	ug/L	10	5000	ND	106	50-150%			Q-16
Mercury	95.0	3.75	7.00	ug/L	10	100	ND	95	50-150%			Q-16
Silver	908	50.0	100	ug/L	10	1000	ND	91	50-150%			Q-16

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# Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- OWS Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

# **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 23C0850 - ASTM D7511-	12mod (S	)					So	il						
Blank (23C0850-BLK2)			Prepared	l: 03/22/23	09:18 Ana	lyzed: 03/23	3/23 11:11							
<u>D7511-12</u> Total Cyanide	ND	50.0	100	ug/kg v	vet 1							Q-1		
LCS (23C0850-BS2)			Prepared	l: 03/22/23	09:18 Ana	lyzed: 03/23	3/23 11:13							
<u>D7511-12</u> Total Cyanide	394	50.0	100	ug/kg v	vet 1	400		99	84-116%			Q-1		
Matrix Spike (23C0850-MS2)			Prepared	l: 03/22/23	09:18 Ana	lyzed: 03/23	3/23 11:21							
QC Source Sample: Non-SDG (A30 D7511-12	<u>C0669-01)</u>													
Total Cyanide	978	60.4	121	ug/kg d	lry 1	483	519	95	64-136%	,		Q-1		
Matrix Spike Dup (23C0850-M	SD2)		Prepared	l: 03/22/23	09:18 Ana	lyzed: 03/23	3/23 11:23							
OC Source Sample: Non-SDG (A3	<u>C0669-01)</u>													
Total Cyanide	1020	60.0	120	ug/kg o	lry 1	480	519	105	64-136%	4	47%	Q-1		

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

Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: Gasco -- OWS Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

## **QUALITY CONTROL (QC) SAMPLE RESULTS**

	Percent Dry Weight													
Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Spike Amount	Source Result	% REC	% REC Limits	RPD	RPD Limit	Notes		
Batch 23C0750 - Total Solids (I	Ory Weigl	ht)					Soil	1						
Duplicate (23C0750-DUP1)			Prepared	: 03/20/23	12:02 Anal	yzed: 03/21/	/23 06:34							
QC Source Sample: Non-SDG (A30	<u>20662-01)</u>													
% Solids	84.5	1.00	1.00	%	1		87.4			3	10%			
Duplicate (23C0750-DUP2)			Prepared	: 03/20/23	12:02 Anal	yzed: 03/21/	/23 06:34							
<b><u>OC</u> Source Sample: Non-SDG (A30</b>	<u>C0662-05)</u>													
% Solids	90.2	1.00	1.00	%	1		89.5			0.8	10%			
Duplicate (23C0750-DUP3)			Prepared	: 03/20/23	12:02 Anal	yzed: 03/21/	/23 06:34							
QC Source Sample: Non-SDG (A30	<u>C0662-08)</u>			<u>.</u>	_		0.7.5			_	1001			
% Solids	91.0	1.00	1.00	%	1		92.2			1	10%			
Duplicate (23C0750-DUP4)			Prepared	: 03/20/23	12:02 Anal	yzed: 03/21/	/23 06:34							
QC Source Sample: Non-SDG (A30	<u>20667-03)</u>													
% Solids	83.3	1.00	1.00	%	1		83.5			0.3	10%			
Duplicate (23C0750-DUP5)			Prepared	: 03/20/23	12:02 Anal	yzed: 03/21/	23 06:34							
QC Source Sample: Non-SDG (A30	<u>20667-04)</u>													
% Solids	87.5	1.00	1.00	%	1		89.4			2	10%			
Duplicate (23C0750-DUP6)			Prepared	: 03/20/23	17:58 Anal	yzed: 03/21/	23 06:34							
QC Source Sample: Non-SDG (A30	<u>20712-01)</u>													
% Solids	77.8	1.00	1.00	%	1		80.4			3	10%			
Duplicate (23C0750-DUP7)			Prepared	: 03/20/23	17:58 Anal	yzed: 03/21/	23 06:34							
QC Source Sample: Non-SDG (A30	<u>20732-01)</u>													
% Solids	82.1	1.00	1.00	%	1		83.6			2	10%			

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

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<u>Sevenson Environmental S</u> 2749 Lockport Road Niagara Falls, NY 14305	Services, Inc.	Pr Pro	Project: Gasco - roject Number: 111323 oject Manager: Chip By		<u>Report ID:</u> A3C0674 - 04 04 23	1317					
		SAMPLE	PREPARATION I	NFORMATION							
		Diesel and	/or Oil Hydrocarbor	is by NWTPH-Dx							
Prep: EPA 3546 (Fuels)					Sample	Default	RL Prep				
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor				
Batch: 23C0876 A3C0674-01	Solid	NWTPH-Dx	03/17/23 08:00	03/22/23 13:46	10.05g/5mL	10g/5mL	1.00				
	Gas	oline Range Hydrocarb	oons (Benzene throu	ugh Naphthalene) by	/ NWTPH-Gx						
Prep: EPA 5035A	sample Sassime Range Hydrocarbons (Benzene through Naphthalene) by NWTPH-G										
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor				
<u>Batch: 23C0784</u> A3C0674-01	Solid	NWTPH-Gx (MS)	03/17/23 08:00	03/17/23 17:20	5.65g/5mL	5g/5mL	0.89				
		Volatile C	Organic Compounds	by EPA 8260D							
Prep: EPA 5035A					Sample	Default	RL Prep				
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor				
Batch: 23C0784 A3C0674-01	Solid	5035A/8260D	03/17/23 08:00	03/17/23 17:20	5.65g/5mL	5g/5mL	0.89				
<u>Batch: 23C0846</u> A3C0674-01RE1	Solid	5035A/8260D	03/17/23 08:00	03/17/23 17:20	5.65g/5mL	5g/5mL	0.89				
		TCLP Volatile (	Organic Compounds	s by EPA 1311/8260	D						
Prep: EPA 1311/5030B T	CLP Volatile	<u>s</u>			Sample	Default	RL Prep				
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor				
<u>Batch: 23C1160</u> A3C0674-01	Solid	1311/8260D	03/17/23 08:00	03/29/23 11:03	5mL/5mL	5mL/5mL	1.00				
		Semivolatile	e Organic Compour	nds by EPA 8270E							
Prep: EPA 3546					Sample	Default	RL Prep				
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor				
Batch: 23C1019 A3C0674-01	Solid	EPA 8270E	03/17/23 08:00	03/27/23 07:35	15.01g/2mL	15g/2mL	1.00				
		TCLP Semivolatil	e Organic Compour	nds by EPA 1311/82	70E						
1											

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Gasco -- OWS Sevenson Environmental Services, Inc. Project: 2749 Lockport Road Project Number: 111323 **Report ID:** Niagara Falls, NY 14305 Project Manager: Chip Byrd A3C0674 - 04 04 23 1317 SAMPLE PREPARATION INFORMATION TCLP Semivolatile Organic Compounds by EPA 1311/8270E Prep: EPA 1311/3510C (BNA Extraction) Sample Default RL Prep Initial/Final Initial/Final Factor Lab Number Matrix Method Sampled Prepared Batch: 23C0864 A3C0674-01RE1 Solid 1311/8270E-LL 03/17/23 08:00 03/22/23 11:27 200mL/2mL 200mL/2mL 1.00 Total Metals by EPA 6020B (ICPMS) Prep: EPA 3051A Sample Default RL Prep Initial/Final Initial/Final Factor Lab Number Matrix Method Sampled Prepared Batch: 23C0713 EPA 6020B A3C0674-01 Solid 03/17/23 08:00 03/20/23 07:12 0.471g/50mL 0.5g/50mL 1.06 TCLP Metals by EPA 6020B (ICPMS) Prep: EPA 1311/3015A Sample Default RL Prep Initial/Final Initial/Final Factor Lab Number Matrix Method Sampled Prepared Batch: 23C0830 A3C0674-01 1311/6020B 03/17/23 08:00 03/21/23 16:02 10mL/50mL 10mL/50mL 1.00 Solid A3C0674-01RE1 1311/6020B 03/17/23 08:00 03/21/23 16:02 10mL/50mL 10mL/50mL 1.00 Solid Soluble Cyanide by UV Digestion/Gas Diffusion/Amperometric Detection Prep: ASTM D7511-12mod (S) RL Prep Sample Default Initial/Final Initial/Final Factor Lab Number Matrix Method Sampled Prepared Batch: 23C0850 D7511-12 A3C0674-01RE1 Solid 03/17/23 08:00 03/22/23 09:18 2.5557g/50mL 2.5g/50mL 0.98 Percent Dry Weight Prep: Total Solids (Dry Weight) Sample Default RL Prep Initial/Final Initial/Final Factor Lab Number Method Matrix Sampled Prepared Batch: 23C0750 A3C0674-01 Solid EPA 8000D 03/17/23 08:00 03/20/23 12:02 NA TCLP Extraction by EPA 1311 Prep: EPA 1311 (TCLP) Sample Default RL Prep Initial/Final Initial/Final Factor Lab Number Matrix Method Sampled Prepared Batch: 23C0744

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Sevenson Environmental Services, Inc.	Project: <u>Gasco C</u>	<u>WS</u>
2749 Lockport Road	Project Number: 111323	<u>Report ID:</u>
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3C0674 - 04 04 23 1317

# SAMPLE PREPARATION INFORMATION

TCLP Extraction by EPA 1311							
Prep: EPA 1311 (TCI	<u>_P)</u>				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
A3C0674-01	Solid	EPA 1311	03/17/23 08:00	03/20/23 17:37	100g/2000g	100g/2000g	NA
Prep: EPA 1311 TCL	P/ZHE				Sample	Default	RL Prep
Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 23C1120							
A3C0674-01	Solid	EPA 1311 ZHE	03/17/23 08:00	03/28/23 16:16	24.9g/501g	25g/500g	NA

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<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- OWS</u> Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

## **QUALIFIER DEFINITIONS**

### **<u>Client Sample and Quality Control (QC) Sample Qualifier Definitions:</u>**

#### Apex Laboratories

- **B** Analyte detected in an associated blank at a level above the MRL. (See Notes and Conventions below.)
- **B-02** Analyte detected in an associated blank at a level between one-half the MRL and the MRL. (See Notes and Conventions below.)
- **E** Estimated Value. The result is above the calibration range of the instrument.
- F-17 No fuel pattern detected. The Diesel result represents carbon range C12 to C24, and the Oil result represents >C24 to C40.
- J Estimated Result. Result detected below the lowest point of the calibration curve, but above the specified MDL.
- **M-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-03 Spike recovery and/or RPD is outside control limits due to the high concentration of analyte present in the sample.
- Q-04 Spike recovery and/or RPD is outside control limits due to a non-homogeneous sample matrix.
- Q-16 Reanalysis of an original Batch QC sample.
- Q-18 Matrix Spike results for this extraction batch are not reported due to the high dilution necessary for analysis of the source sample.
- Q-19 Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
- Q-29 Recovery for Lab Control Spike (LCS) is above the upper control limit. Data may be biased high.
- Q-31 Estimated Results. Recovery of Continuing Calibration Verification sample below lower control limit for this analyte. Results are likely biased low.
- Q-41 Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.
- Q-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 +3%. 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 +32%. The results are reported as Estimated Values.
- Q-54c Daily Continuing Calibration Verification recovery for this analyte failed the +/-20% criteria listed in EPA method 8260/8270 by +38%. 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 +4%. The results are reported as Estimated Values.

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<u>Sevenson Envi</u> 2749 Lockport	ronmental Services, Inc. Road	Project: Project Number:	<u>Gasco OWS</u> 111323	<u>Report ID:</u>
Niagara Falls,	NY 14305	Project Manager:	Chip Byrd	A3C0674 - 04 04 23 1317
Q-54e	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in EPA metho	bd 8260/8270 by +41%. The
Q-54f	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in EPA metho	bd 8260/8270 by +43%. The
Q-54g	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in EPA metho	bd 8260/8270 by +5%. The
Q-54h	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in EPA metho	bd 8260/8270 by +6%. The
Q-54i	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in EPA metho	od 8260/8270 by +7%. The
Q-54j	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in EPA metho	bd 8260/8270 by +72%. The
Q-54k	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in EPA metho	bd 8260/8270 by +8%. The
Q-541	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in EPA metho	od 8260/8270 by +9%. The
Q-54m	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in EPA metho	od 8260/8270 by -1%. The
Q-54n	Daily Continuing Calibration Verification recovery results are reported as Estimated Values.	for this analyte fai	led the +/-20% criteria listed in EPA metho	od 8260/8270 by -3%. The
Q-55	Daily CCV/LCS recovery for this analyte was belo detection at the reporting level.	ow the +/-20% crite	ria listed in EPA 8260, however there is ad	equate sensitivity to ensure
Q-56	Daily CCV/LCS recovery for this analyte was above	ve the +/-20% crite	ria listed in EPA 8260	
R-02	The Reporting Limit for this analyte has been raise	ed to account for int	terference from coeluting organic compoun	ids present in the sample.
S-01	Surrogate recovery for this sample is not available interference.	due to sample dilu	tion required from high analyte concentrati	on and/or matrix
S-05	Surrogate recovery is estimated due to sample dilut	tion required for hi	gh analyte concentration and/or matrix inte	rference.
TCLP	This batch QC sample was prepared with TCLP or	SPLP fluid from p	reparation batch 23C0744.	
TCLPa	This batch QC sample was prepared with TCLP or	SPLP fluid from p	reparation batch 23C0771.	
TCLPb	This batch QC sample was prepared with TCLP or	SPLP fluid from p	reparation batch 23C1060/ 23C1120.	
V-15	Sample aliquot was subsampled from the sample cosampling.	ontainer. The subsa	ampled aliquot was preserved in the laborat	tory within 48 hours of

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# Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- OWS</u> Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

# **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.

- <u>" dry"</u> Sample results and Reporting Limits are reported on a dry weight basis. (i.e. "ug/kg dry") See Percent Solids section for details of dry weight analysis.
- "wet" Sample results and Reporting Limits for this analysis are normally dry weight corrected, but have not been modified in this case.
- "\_\_\_ Results without 'wet' or 'dry' designation are not normally dry weight corrected. These results are considered 'As Received'.

#### **QC Source:**

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

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

#### Miscellaneous Notes:

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

#### **Blanks:**

Standard practice is to evaluate the results from Blank QC Samples down to a level equal to 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.

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## Sevenson Environmental Services, Inc.

2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- OWS</u> Project Number: 111323

Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

# **REPORTING NOTES AND CONVENTIONS (Cont.):**

#### Blanks (Cont.):

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

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

#### **Preparation Notes:**

Mixed Matrix Samples:

#### Water Samples:

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

#### Soil and Sediment Samples:

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

#### **Sampling and Preservation Notes:**

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

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

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

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

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<u>Sevenson Environmental Services, Inc.</u> 2749 Lockport Road Niagara Falls, NY 14305 Project: <u>Gasco -- OWS</u> Project Number: 111323 Project Manager: Chip Byrd

<u>Report ID:</u> A3C0674 - 04 04 23 1317

# 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 <u>exception</u> 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.

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Sevenson Environmental Services, Inc.	Project: <u>Gasco OWS</u>	
2749 Lockport Road	<u>Report ID:</u>	
Niagara Falls, NY 14305	Project Manager: Chip Byrd	A3C0674 - 04 04 23 1317
Niagara Falls, NY 14305         Client:       Sevension         Project/Project #:       Gar         Delivery Info:       Date/time received:         Date/time received:       J         Delivered by:       ApexClin         Cooler Inspection       Date         Chain of Custody include       Signed/dated by client?         Temperature (°C)       Custody seals? (Y/N)         Received on ice? (Y/N)       Temp. blanks? (Y/N)         Ice type:       Gel Real/Other         Condition (In/Out):       Cooler out of temp? (V/N)         Green dots applied to out       Out of temperature sample         Sample Inspection:       Date         All samples intact? Yes       Date         Bottle labels/COCs agree       Z (D)	Project Manager: Chip Byrd         APEX LABS COOLER RECEIPT FORM         Environmental Services, Luc Element WO#: A3Coloff $acoloffic formental Services, Luc Element WO#: A3Coloffic         acoloffic formental Services, Luc Element WO#: A3Coloffic formental Services, Luc Element WO#: A3Coloffic formental Services, Luc Element WO#: A3Coloffic formental Services, Luc Element By: AJM         acoloffic formental Services, Luc Element By: AJM         acoloffic formental Services           $	A3C0674 - 04 04 23 1317
COC/container discrepand Containers/volumes recei	cies form initiated? Yes No $\swarrow$ ved appropriate for analysis? Yes $\swarrow$ No Comments:	
Do VOA vials have visib Comments Water samples: pH check Comments:	le headspace? Yes <u>No</u> NA <u>K</u> ed: Yes <u>No NA</u> <del>p</del> H appropriate? Yes <u>No NA</u>	
Additional information:		
Labeled by:	Witness: Cooler Inspected by:	Form Y-003 R-00 -

Apex Laboratories