# Operation, Maintenance and Monitoring Report November 2019

# NOW Corporation NYSDEC Site No. 3-14-008

# Work Assignment No. D007626-25

# Prepared for:

SUPERFUND STANDBY PROGRAM
New York State
Department of Environmental Conservation
625 Broadway
Albany, New York 12233

# Prepared by:

AECOM Technical Services Northeast, Inc. 40 British American Boulevard Latham, New York 12110

January 2020



January 10, 2020

Mr. Payson Long NYSDEC Division of Environmental Remediation 625 Broadway, 12<sup>th</sup> Floor Albany, New York 12233-7013

Re: NOW Corporation - Site No. 3-14-008 O&M Summary Report: November 2019

Dear Mr. Long:

This monthly summary report describes the operation, maintenance and monitoring (OM&M) of the remedial system at the NOW Corporation site in the Town of Clinton, New York, for a 28-day period (October 22 – November 19, 2019).

With the exceptions noted below, if any, the pump and treat system was online and operational throughout the reporting period. Approximately 235,000 gallons of water were treated. Discharge from the treatment system averaged approximately 8,400 gallons per day (gpd).

As of the last day of the reporting period, a total of 117,587,000 gallons of groundwater had been recovered and treated by the system since it became operational in February 1998.

Table 1 summarizes influent and effluent analytical data for water samples collected on November 19, 2019. **There were no exceedances of effluent limitations.** A copy of the analytical laboratory report is attached. Total VOCs in the most contaminated extraction well (TW-2A) was 1,454 ug/L; last month's value was 1,559 ug/L.

Table 2 presents operational data recorded on the sampling date.

Table 3 presents quarterly water levels measured in selected monitoring wells.

There was no downtime during the reporting period. Pumps in recovery wells were operational throughout the period.

AECOM made two site visits to conduct the required system inspection, perform scheduled and unscheduled maintenance, and to collect water samples. Details for the current period follow:

November 11 – Took the TW-2A influent flowmeter apart because it had not been recording flow. Thoroughly cleaned the internals, and put the flowmeter back together. Impeller turns freely, and influent is now being recorded. Note that system *discharge* shown in paragraph two above is recorded on a magmeter, which is less susceptible to biological fouling. The discharge is *not* the sum of the influent flow from the recovery wells.

Page 2 Mr. Payson Long NYSDEC

<u>November 19</u> – Performed monthly system inspection and influent and effluent sampling. Collected well water level measurements.

The VFD regulating the stripper blower remained at 55 Hz upon departure.

Please feel free to contact me at (518) 951-2262, or at <a href="mailto:stephen.choiniere@aecom.com">stephen.choiniere@aecom.com</a> if you have any questions or comments regarding this report or the operation of the treatment system.

Sincerely,

AECOM Technical Services Northeast, Inc.

Stephen R. Choiniere Project Manager

# Table 1 Summary of Influent and Effluent Data Sampling Date: November 19, 2019

NOW Corporation Site NYSDEC Site No. 3-14-008 Town of Clinton, New York

Analytes/	Total			Recovery Well	Effluent		
Parameters	Influent	Effluent	TW-1	TW-2A	TW-3	Lim	itations
							(units)
Quantity treated, avg per day		8,379				Monitor	gallons
pН	6.9	7.3				6.5 to 8.5	standard units
Oil and Grease	<5	3.5 J	NA	NA	NA	15	mg/L
Total Cyanide	< 0.01	< 0.01	NA	NA	NA	0.01	mg/L
TDS	320	300	NA	NA	NA	1000	mg/L
TSS	15	<2.5	NA	NA	NA	50	mg/L
Aluminum, Total	78	<25	NA	NA	NA	Monitor	ug/L
Arsenic, Total	<2	<4	NA	NA	NA	100	ug/L
Barium, Total	109	89.1	NA	NA	NA	Monitor	ug/L
Chromium	5.2	1.5 J	NA	NA	NA	400	ug/L
Copper	7.2	0.83 J	NA	NA	NA	24	ug/L
Iron	840	79.3	NA	NA	NA	600	ug/L
Mercury	< 0.2	< 0.2	NA	NA	NA	0.8	ug/L
Manganese	358	52.2	NA	NA	NA	Monitor	ug/L
Nickel	11.8	3	NA	NA	NA	200	ug/L
Zinc	19.5	<10	NA	NA	NA	150	ug/L
1,1,1-Trichloroethane	510 D	<1	1	760 D	5	10	ug/L
1,1,2-Trichloroethane	0.3 J	<1	<1	0.4 J	<1	1.2	ug/L
1,1-Dichloroethane	180	<1	31	250	13	10	ug/L
1,1-Dichloroethene	15	<1	11	19	2	0.5	ug/L
1,2-Dichloroethane	0.4 J	<1	<1	0.6 J	<1	1.6	ug/L
2-Butanone	<10	0.9 J	<10	<10	<10	NL	ug/L
Benzene	<1	<1	<1	<1	<1	1.4	ug/L
Chlorobenzene	<1	<1	<1	<1	<1	10	ug/L
Chloroethane	0.4 J	<1	<1	0.6 J	0.8 J	10	ug/L
cis-1,2-Dichloroethene	7	<1	4	13	0.9 J	5	ug/L
Ethylbenzene	<1	<1	<1	<1	<1	10	ug/L
o-Xylene	<1	<1	<1	<1	<1	5	ug/L
m,p-Xylene	<5	<5	<5	<5	<5	10	ug/L
Tetrachloroethene	<1	<1	<1	0.2 J	<1	1.4	ug/L
Tertrahydrofuran	<10	2 J	<10	<10	<10	NL	ug/L
Toluene	<1	<1	<1	<1	<1	10	ug/L
Trichloroethene	300	<1	45	410	38	6	ug/L
Vinyl Chloride	0.4 J	<1	0.3 J	0.7 J	<1	0.6	ug/L

#### Notes:

- 1) Detected concentrations are presented in **bold** typeface, and are expressed in the units shown in far right column.
- 2) Effluent concentration boxed in **bold** denotes exceedance of effluent limitations.
- 3) NA indicates not analyzed.
- 4) "J" indicates an estimated concentration below the reporting limit (RL).
- 5) "B" denotes metal detected in method blank at concentration below the RL, but above the method detection limit.
- 6) "D" indicates result from a diluted sample.
- 7) NL indicates no effluent limitations specified.
- 8) "B" indicates analyte is found in the associated blank as well as in the sample.

Tables November 2019.xls 1/10/2020

# Table 2 Summary of November 2019 O&M Data

# NOW Corporation Site Town of Clinton, New York

Instrumentat	ion/Readings:	11/19/19	Units
TW-1	Pumping Rate Water Level Above Transducer Flow Meter Reading Pump Pressure  -2A  Pumping Rate Water Level Above Transducer Flow Meter Reading Pump Pressure  -3  Pumping Rate Water Level Above Transducer Flow Meter Reading Pump Pressure  -3  Pumping Rate Water Level Above Transducer Flow Meter Reading Pump Pressure  -5  -6  -6  -6  -6  -6  -7  -7  -7  -7  -7		
	Pumping Rate	0	GPM
	Water Level Above Transducer	14.85	feet
	Flow Meter Reading	9,341,000	gallons
	Pump Pressure	0	psi
TW-2A			
	Pumping Rate	8	GPM
	Water Level Above Transducer	20.57	feet
	Flow Meter Reading	20,342,400	gallons
	Pump Pressure	0	psi
TW-3			
		3	GPM
	Water Level Above Transducer	25.69	feet
	Flow Meter Reading	16,923,800	gallons
	Pump Pressure	0	psi
VFD Setting	Arrival	55	Hz
	Departure	55	Hz
Air Stripper			
	Stripper Blower Pressure	13	inches H <sub>2</sub> O
	Air Temperature in Stripper	52	°F
Effluent Flow			
	Effluent Flow this period	234,625	gallons
	Total Effluent Flow	117,586,565	gallons

Tables November 2019.xls 1/10/2020

Table 3 Groundwater Levels NOW Corporation Site NYSDEC Site No. 3-14-008 Town of Clinton, New York

	MP	11/1	9/19
MW-1 MW-2 MW-3 MW-3 MW-3 MW-4S MW-4S MW-4D MW-5 MW-6S MW-6D MW-7S MW-7D OW-1 OW-2 OW-3 OW-4 OW-5 OW-6 IW-1 IW-2 MW-8 MW-9 MW-10 MW-11 MW-12S MW-12D	Elevation	Depth to Water (Ft below MP)	<b>GW</b> Elevation
MW-1	289.50	13.18	276.32
MW-2	332.51	29.96	302.55
MW-3	312.83	31.87	280.96
MW-3S	312.51	26.69	285.82
MW-4S	298.29	22.45	275.84
MW-4D	298.16	22.28	275.88
MW-5	285.48	19.00	266.48
MW-6S	287.90	8.16	279.74
MW-6D	287.25	10.63	276.62
MW-7S	292.12	24.70	267.42
MW-7D	292.54	57.33	235.21
OW-1	307.75	47.32	260.43
OW-2	305.96	67.00	238.96
OW-3	NA		NA
OW-4	NA		NA
OW-5	NA		NA
OW-6	294.81	5.94	288.87
IW-1	312.46	36.24	276.22
IW-2	304.56	37.43	267.13
MW-8	283.65		NA
MW-9	275.37		NA
MW-10	280.92		NA
MW-11	283.72		NA
MW-12S	NA		NA
MW-12D	NA		NA

Note: NA indicates data are not available.

MP denotes measuring point.

Tables November 2019.xls 1/10/2020



V	Final Report
	Revised Report
Rei	oort Date:

05-Dec-19 16:36

# Laboratory Report SC56816

AECOM Environment 40 British American Boulevard Latham, NY 12110 Attn: Stephen Choiniere

Project: Now Corp - Staatsburg, NY

Project #: 60276639-1

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.

All applicable NELAC requirements have been met.

New York # 11393 USDA # P330-15-00375

Authorized by:

Dawn Wojcik Laboratory Director

Sawn & Work

Eurofins Spectrum Analytical holds primary NELAC certification in the State of New York for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of New York does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.

Please note that this report contains 33 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Eurofins Spectrum Analytical, Inc.

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Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

# **Sample Summary**

Work Order: SC56816

**Project:** Now Corp - Staatsburg, NY

**Project Number:** 60276639-1

<b>Laboratory ID</b>	Client Sample ID	<u>Matrix</u>	<b>Date Sampled</b>	<b>Date Received</b>
SC56816-01	EFF55 111919	Ground Water	19-Nov-19 13:30	20-Nov-19 11:00
SC56816-02	INF 111919	Ground Water	19-Nov-19 13:10	20-Nov-19 11:00
SC56816-03	TW-1 111919	Ground Water	19-Nov-19 13:15	20-Nov-19 11:00
SC56816-04	TW-2A 111919	Ground Water	19-Nov-19 13:25	20-Nov-19 11:00
SC56816-05	TW-3 111919	Ground Water	19-Nov-19 13:20	20-Nov-19 11:00
SC56816-06	Trip Blank	Trip Blank	19-Nov-19 00:00	20-Nov-19 11:00

05-Dec-19 16:36 Page 2 of 33

#### **CASE NARRATIVE:**

Data has been reported to the RDL. This report includes estimated concentrations detected below the RDL and above the MDL (J-Flag).

All non-detects and all results below the detection limit are reported as "<" (less than) the detection limit in this report.

The samples were received 2.7 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group. If method or program required MS/MSD/Dup were not performed, sufficient sample was not provided to the laboratory.

#### **Analysis Specific Comments:** SW-846 8260C, GC/MS Volatiles

Sample #s: 1207432

Sample #s: 1207433, 1207434, 1207435, 1207436

The referenced method allows a maximum of 20% of the analytes in the calibration to exceed the 20% Drift continuing calibration verification criteria. The reported concentration in the associated sample(s) is considered to be estimated. Therefore the result for the following analyte(s) is estimated: The affected analyte(s) and response(s) are:

Analyte Response (%Drift) 1,1-dichloroethene 22

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

#### SW-846 6020B

#### Samples:

SC56816-01 EFF55 111919

Continuing Calibration Verification is above QC limit and sample result is ND

Aluminum

#### SW-846 8260C

#### Samples:

SC56816-02 INF 111919

Exceeded calibration range of the instrument

1,1,1-Trichloroethane

SC56816-04 TW-2A 111919

Exceeded calibration range of the instrument

1.1.1-Trichloroethane

Trichloroethene

This laboratory report is not valid without an authorized signature on the cover page.

# **Sample Acceptance Check Form**

Client:	AECOM Environment - Latham, NY
Project:	Now Corp - Staatsburg, NY / 60276639-1
Work Order	SC56816

Sample(s) received on: 11/20/2019

## The following outlines the condition of samples for the attached Chain of Custody upon receipt.

	Yes	No	N/A
Were custody seals present?	$\checkmark$		
Were custody seals intact?	<b>✓</b>		
Were samples received at a temperature of $\leq 6^{\circ}$ C?	<b>✓</b>		
Were samples cooled on ice upon transfer to laboratory representative?	$\checkmark$		
Were sample containers received intact?	$\checkmark$		
Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?	$\checkmark$		
Were samples accompanied by a Chain of Custody document?	<b>✓</b>		
Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?			
Did sample container labels agree with Chain of Custody document?	$\checkmark$		
Were samples received within method-specific holding times?	$\checkmark$		

# **Summary of Hits**

**Lab ID:** SC56816-01 **Client ID:** EFF55 111919

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
HEM (oil & grease)	3.5	J	5.0	mg/l	EPA 1664B
Tot. Diss. Solids	300		10	mg/l	SM2540C-11
Barium	0.0891		0.0040	mg/l	SW-846 6020B
Chromium	0.0015	J	0.0040	mg/l	SW-846 6020B
Copper	0.00083	J	0.0020	mg/l	SW-846 6020B
Iron	0.0793		0.0500	mg/l	SW-846 6020B
Manganese	0.0522		0.0040	mg/l	SW-846 6020B
Nickel	0.0030		0.0010	mg/l	SW-846 6020B
2-Butanone	0.9	J	10	ug/l	SW-846 8260C
Acetone	1	J	20	ug/l	SW-846 8260C
Tetrahydrofuran	2	J	10	ug/l	SW-846 8260C
<b>Lab ID:</b> SC56816-02			Client ID: INF 1119	919	
Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Total Suspended Solids	15		5.0	mg/l	SM 2540D-11
Tot. Diss. Solids	320		10	mg/l	SM2540C-11
Aluminum	0.0780		0.0250	mg/l	SW-846 6020B
Barium	0.109		0.0020	mg/l	SW-846 6020B
Chromium	0.0052		0.0020	mg/l	SW-846 6020B
Copper	0.0072		0.0010	mg/l	SW-846 6020B
Iron	0.840		0.0500	mg/l	SW-846 6020B
Manganese	0.358		0.0020	mg/l	SW-846 6020B
Nickel	0.0118		0.0010	mg/l	SW-846 6020B
Zinc	0.0195		0.0100	mg/l	SW-846 6020B
1,1,1-Trichloroethane	630	E.	1	ug/l	SW-846 8260C
1,1,2-Trichloroethane	0.3	J	1	ug/l	SW-846 8260C
1,1-Dichloroethane	180		1	ug/l	SW-846 8260C
1,1-Dichloroethene	15		1	ug/l	SW-846 8260C
1,2-Dichloroethane	0.4	J	1	ug/l	SW-846 8260C
Chloroethane	0.4	J	1	ug/l	SW-846 8260C
cis-1,2-Dichloroethene	7		1	ug/l	SW-846 8260C
Trichloroethene	300		1	ug/l	SW-846 8260C
Vinyl Chloride	0.4	J	1	ug/l	SW-846 8260C
<b>Lab ID:</b> SC56816-02RE01			Client ID: INF 1119	919	
Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
1,1,1-Trichloroethane	510		10	ug/l	SW-846 8260C
1,1-Dichloroethane	150		10	ug/l	SW-846 8260C
1,1-Dichloroethene	12		10	ug/l	SW-846 8260C
cis-1,2-Dichloroethene	7	J	10	ug/l	SW-846 8260C
Trichloroethene	250		10	ug/l	SW-846 8260C

Lab ID:	SC56816-03	Client ID:	TW-1 111919

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
1,1,1-Trichloroethane	1		1	ug/l	SW-846 8260C
1,1-Dichloroethane	31		1	ug/l	SW-846 8260C
1,1-Dichloroethene	11		1	ug/l	SW-846 8260C
cis-1,2-Dichloroethene	4		1	ug/l	SW-846 8260C
Trichloroethene	45		1	ug/l	SW-846 8260C
Vinyl Chloride	0.3	J	1	ug/l	SW-846 8260C
<b>Lab ID:</b> SC56816-04			Client ID: TW-2A	111919	
Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
1,1,1-Trichloroethane	940	E.	1	ug/l	SW-846 8260C
1,1,2-Trichloroethane	0.4	J	1	ug/l	SW-846 8260C
1,1-Dichloroethane	250		1	ug/l	SW-846 8260C
1,1-Dichloroethene	19		1	ug/l	SW-846 8260C
1,2-Dichloroethane	0.6	J	1	ug/l	SW-846 8260C
Chloroethane	0.6	J	1	ug/l	SW-846 8260C
cis-1,2-Dichloroethene	13		1	ug/l	SW-846 8260C
Tetrachloroethene	0.2	J	1	ug/l	SW-846 8260C
trans-1,2-Dichloroethene	0.2	J	1	ug/l	SW-846 8260C
Trichloroethene	490	E.	1	ug/l	SW-846 8260C
Vinyl Chloride	0.7	J	1	ug/l	SW-846 8260C
<b>Lab ID:</b> SC56816-04RE01			Client ID: TW-2A	111919	
Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
1,1,1-Trichloroethane	760		10	ug/l	SW-846 8260C
1,1-Dichloroethane	210		10	ug/l	SW-846 8260C
1,1-Dichloroethene	14		10	ug/l	SW-846 8260C
cis-1,2-Dichloroethene	12		10	ug/l	SW-846 8260C
Trichloroethene	410		10	ug/l	SW-846 8260C
<b>Lab ID:</b> SC56816-05			Client ID: TW-3 11	11919	
Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
1,1,1-Trichloroethane	5		1	ug/l	SW-846 8260C
1,1-Dichloroethane	13		1	ug/l	SW-846 8260C
1,1-Dichloroethene	2		1	ug/l	SW-846 8260C
Chloroethane	0.8	J	1	ug/l	SW-846 8260C
cis-1,2-Dichloroethene	0.9	J	1	ug/l	SW-846 8260C
Trichloroethene	38		1	ug/l	SW-846 8260C
<b>Lab ID:</b> SC56816-06			Client ID: Trip Bla	nk	
Parameter	Result	Flag	Reporting Limit	Units	Analytical Method

Please note that because there are no reporting limits associated with hazardous waste characterizations or micro analyses, this summary does not include hits from these analyses if included in this work order.

EFF55 111919 SC56816-01		<u>Client Project #</u> 60276639-1			(			ection Date Nov-19 1	Received 20-Nov-19				
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cei
	acted Analyses												
	by method SM 2540D-11												
Analysis p	performed by Phoenix Environ		nc. * - CT007										
	Total Suspended Solids	< 2.5		mg/l	2.5	2.5	0.5	SM 2540D-11	21-Nov-19 12:15	21-Nov-19 12:15	11301	507309 <i>A</i>	١
Prepared	by method SM2540C-11												
Analysis p	erformed by Phoenix Environ	nmental Labs, I	nc. * - CT007										
	Tot. Diss. Solids	300		mg/l	10	10	1	SM2540C-11	21-Nov-19 08:54	21-Nov-19 08:54	11301	507289A	١.
Prepared	by method SM 4500 CN								00.54	00.54			
Analysis p	erformed by Phoenix Environ	nmental Labs, I	nc. * - CT007										
57-12-5	Total Cyanide	< 0.010		mg/l	0.010	0.010	1	SW9010C/SW9	22-Nov-19	25-Nov-19	11301	507594	١.
~ -								012B		08:03			
	acted Analyses I by method General Prepa	aration											
	erformed by Eurofins Lancas		es Environmer	ntal - 1067	70								
	HEM (oil & grease)	3.5	J	mg/l	5.0	1.4	1	EPA 1664B	25-Nov-19	25-Nov-19	10670	3298079	)
									15:54	15:54			
	acted Analyses	Δ											
	by method SW-846 3020	<del></del> '	Fi	1067	70								
7429-90-5	erformed by Eurofins Lancas Aluminum	< 0.0250	es Environmer K4	nai - 1007 mg/l	0.0250	0.0197	1	SW-846 6020B	25 Nov 10	26-Nov-19	10670	2614047	r
7-120-00-0	Aluminum	< 0.0230	114	mg/i	0.0230	0.0197	'	3W-040 0020B	11:45	11:37	10070	2014047	
7440-38-2	Arsenic	< 0.0040		mg/l	0.0040	0.0014	2	"	"	27-Nov-19	"	"	
7440-39-3	Davisses	0.0004			0.0040	0.0045	0	"	"	13:14			
7440-39-3	Barium Chromium	0.0891		mg/l	0.0040 0.0040	0.0015 0.00067	2	"	"	"	"	"	
7440-50-8	Copper	0.0015	J	mg/l	0.0040	0.00007	2	"			,,	"	
7439-89-6	Iron	0.00083 0.0793	J	mg/l mg/l	0.0500	0.00072	1		"	04-Dec-19		"	
7-100-00-0	11011	0.0793		ilig/i	0.0000	0.0220				09:33			
7439-96-5	Manganese	0.0522		mg/l	0.0040	0.0013	2	"	"	27-Nov-19	"	"	
7440-02-0	Niekol	0.0000			0.0010	0.00060	1	"	"	13:14 03-Dec-19	,,	"	
7440-02-0	Nickel	0.0030		mg/l	0.0010	0.00060	1			12:45			
7440-66-6	Zinc	< 0.0100		mg/l	0.0100	0.0062	1	"	"	26-Nov-19	"	"	
Prenared	by method METHOD									11:37			
	performed by Eurofins Lancas	ster Laboratorie	es Environmer	ntal - 1067	70								
7439-97-6	Mercury	< 0.00020	.5 2	mg/l		0.000050	1	SW-846 7470A	23-Nov-19	25-Nov-19	10670	3270571	3
	•			J					03:42	09:59			
	acted Analyses	C											
	by method SW-846 5030		on English	.tal 1005	70								
Analysis po	erformed by Eurofins Lancas 1,1,1,2-Tetrachloroethane	ster Laboratorie < 1	s Environmer	<i>ital - 106 /</i> ug/l	<i>u</i> 1	0.2	1	SW-846 8260C	27-Nov 10	27-Nov 10	10670	.193311	.,
300 20-0	1, 1, 1,2-1 Gu aomoi de una le	> 1		ug/I	1	0.2	'	377-040 0200C	13:19	13:20	10070	.1933116	v
71-55-6	1,1,1-Trichloroethane	< 1		ug/l	1	0.3	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 1		ug/l	1	0.2	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 1		ug/l	1	0.2	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 1		ug/l	1	0.2	1	II .	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 1		ug/l	1	0.2	1	II .	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 5		ug/l	5	0.2	1	II .	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 5		ug/l	5	0.4	1	II .	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 5		ug/l	5	0.2	1	"	"	"	"	"	

Sample Identification

120-82-1

1,2,4-Trichlorobenzene

< 5

0.3

5

ug/l

10

0.4

0.2

1

1

ug/l

ug/l

Ethylbenzene

Freon 113

< 1

< 10

100-41-4

76-13-1

ug/l

ug/l

ug/l

ug/l

ug/l

ug/l

ug/l

ug/l

ug/l

1

10

1

50

1

80-120 %

80-120 %

80-120 %

80-120 %

0.2

0.7

0.2

0.2

0.2

6

0.2

0.2

0.2

1

1

1

1

1

1

1

1

1

"

127-18-4

109-99-9

108-88-3

156-60-5

110-57-6

79-01-6

75-69-4

75-01-4

17060-07-0

460-00-4

1868-53-7

2037-26-5

Surrogate recoveries:

10061-02-6

Tetrachloroethene

trans-1,2-Dichloroethene

trans-1,3-Dichloropropene

trans-1,4-Dichloro-2-buten

Trichlorofluoromethane

1,2-Dichloroethane-d4

4-Bromofluorobenzene

Dibromofluoromethane

Tetrahydrofuran

Trichloroethene

Vinyl Chloride

Toluene-d8

Toluene

< 1

2

< 1

< 1

< 1

< 50

< 1

< 1

< 1

102

101

96

98

J

05-Dec-19 16:36 Page 9 of 33

Sample Id INF 1119 SC56816-					Project # 6639-1	(	<u>Matrix</u> Ground W		ection Date -Nov-19 1:			eceived Nov-19	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analysi	Batch	Cer
	acted Analyses												
	by method SM 2540D-11												
Analysis pe	erformed by Phoenix Environ		c. * - C1007		5.0	5.0	4	014 05405 44	04 No. 40	04 No. 40	44004	50 <b>7</b> 000 A	
	Total Suspended Solids	15		mg/l	5.0	5.0	1	SM 2540D-11	12:15	21-Nov-19 12:15	11301	507309A	•
Prepared	by method SM2540C-11												
Analysis pe	erformed by Phoenix Environ	mental Labs, In	c. * - CT007										
	Tot. Diss. Solids	320		mg/l	10	10	1	SM2540C-11	21-Nov-19 08:55	21-Nov-19 08:55	11301	507289A	
Prepared	by method SM 4500 CN								06.55	06.55			
Analysis pe	erformed by Phoenix Environ	mental Labs, In	c. * - CT007										
57-12-5	Total Cyanide	< 0.010		mg/l	0.010	0.010	1	SW9010C/SW9	22-Nov-19	25-Nov-19	11301	507594A	١.
								012B		08:04			
	icted Analyses	ration											
	by method General Prepa		. F		70								
Anaiysis pe	erformed by Eurofins Lancasi HEM (oil & grease)	er Laboratorie: < 5.0	s Environmei	<i>ıtaı - 1007</i> mg/l	<i>0</i> 5.0	1.4	1	EPA 1664B	25 Nov 10	25-Nov-19	10670	32980790	0
	HEIVI (OII & Grease)	<b>\ 5.0</b>		mg/i	5.0	1.4	'	EFA 1004B	15:54	15:54	10070	32960790	J
Subcontra	acted Analyses												
Prepared	by method SW-846 3020A	<u>4</u>											
Analysis pe	erformed by Eurofins Lancasi	ter Laboratorie:	s Environmer	ıtal - 1067	70								
7429-90-5	Aluminum	0.0780		mg/l	0.0250	0.0197	1	SW-846 6020B	23-Nov-19 02:56	02-Dec-19 09:21	10670	2614047	(
7440-38-2	Arsenic	< 0.0020		mg/l	0.0020	0.00068	1	"	"	"	"	"	
7440-39-3	Barium	0.109		mg/l	0.0020	0.00075	1	"	"	02-Dec-19	"	"	
				3						12:45			
7440-47-3	Chromium	0.0052		mg/l	0.0020	0.00033	1	"	"	"	"	"	
7440-50-8	Copper	0.0072		mg/l	0.0010	0.00036	1	"	"	27-Nov-19	"	"	
7439-89-6	Iron	0.840		mg/l	0.0500	0.0228	1		"	15:17 02-Dec-19	"		
1400 00 0	lion	0.040		ilig/i	0.0300	0.0220				09:21			
7439-96-5	Manganese	0.358		mg/l	0.0020	0.00063	1	"	"	27-Nov-19	"	"	
7440.00.0	AP 1				0.0040					15:17			
7440-02-0	Nickel	0.0118		mg/l	0.0010	0.00060	1			02-Dec-19 09:21		"	
7440-66-6	Zinc	0.0195		mg/l	0.0100	0.0062	1	"	"	03-Dec-19	"		
	I I IMETHOD			_						16:46			
	by method METHOD	Y 7		1 10/5	••								
	erformed by Eurofins Lancasi		s Environmer			0.000050	4	014/040 74704	00 No. 40	05 No. 40	40070	2070574	•
7439-97-6	Mercury	< 0.00020		mg/l	0.00020	0.000050	1	SW-846 7470A	23-Nov-19 03:42	25-Nov-19 09:51	10670	3270571	3
Subcontra	acted Analyses												
Prepared	by method SW-846 50300	<u>2</u>											
Analysis pe	erformed by Eurofins Lancasi	ter Laboratorie:	s Environmen	ıtal - 1067	70								
630-20-6	1,1,1,2-Tetrachloroethane	< 1		ug/l	1	0.2	1	SW-846 8260C			10670	.193311A	J
71-55-6	1,1,1-Trichloroethane	620	E.	uc/I	1	0.3	1	"	13:41	13:42	"	"	
79-34-5		<b>630</b> < 1	L.	ug/l	1	0.3 0.2	1	"	"	"			
79-34-5	1,1,2,2-Tetrachloroethane			ug/l				"	"				
75-34-3	1,1,2-Trichloroethane	0.3	J	ug/l	1	0.2	1	"					
	1,1-Dichloroethane	180		ug/l	1	0.2	1						
75-35-4	1,1-Dichloroethene	15		ug/l	1	0.2	1		"				
563-58-6	1,1-Dichloropropene	< 5		ug/l	5	0.2	1						
87-61-6	1,2,3-Trichlorobenzene	< 5		ug/l	5	0.4	1	"	"	"	"	"	

0.2

5

ug/l

1,2,3-Trichloropropane

< 5

96-18-4

Sample Id INF 1119: SC56816-				Client F 60276	Project # 6639-1		<u>Matrix</u> Ground W		ection Date Nov-19 13			eceived Nov-19	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Subcontrac	cted Analyses												
	icted Analyses												
	erformed by Eurofins Lancast	er Lahoratori	es Environme	ental - 1067	0								
76-13-1	Freon 113	< 10		ug/l	10	0.2	1	SW-846 8260C	27-Nov-19 13:41	27-Nov-19 13:42	10670	.193311A	J
87-68-3	Hexachlorobutadiene	< 5		ug/l	5	2	1	"	"	"	"		
98-82-8	Isopropylbenzene	< 5		ug/l	5	0.2	1	"	"	"	"		
179601-23-1	m+p-Xylene	< 5		ug/l	5	1	1	"	"	"	"		
1634-04-4	Methyl Tertiary Butyl Ether	< 1		ug/l	1	0.2	1	"	"	"	"	"	
75-09-2	Methylene Chloride	< 1		ug/l	1	0.3	1	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 5		ug/l	5	0.2	1	"	"	"	"		
103-65-1	n-Propylbenzene	< 5		ug/l	5	0.2	1	"	"		"		
91-20-3	Naphthalene	< 5		ug/l	5	1	1	"	"	"	"		
95-47-6	o-Xylene	< 1		ug/l	1	0.4	1	"	"	"			
99-87-6	p-Isopropyltoluene	< 5		ug/l	5	0.2	1	"	"	"	"		
135-98-8	sec-Butylbenzene	< 5		ug/l	5	0.2	1		"	"			
100-42-5	Styrene	< 5		ug/l	5	0.2	1	"	"				
994-05-8	t-Amyl methyl ether	< 5		ug/l	5	0.8	1	"	"				
75-65-0	t-Butyl alcohol	< 50			50	12	1	"	"				
98-06-6	-			ug/l	5			"					
127-18-4	tert-Butylbenzene	< 5		ug/l		0.3	1	"	"				
	Tetrachloroethene	< 1		ug/l	1	0.2	1	"	"			"	
109-99-9	Tetrahydrofuran	< 10		ug/l	10	0.7	1			"			
108-88-3	Toluene	< 1		ug/l	1	0.2	1			"			
156-60-5	trans-1,2-Dichloroethene	< 1		ug/l	1	0.2	1			"			
10061-02-6	trans-1,3-Dichloropropene	< 1		ug/l	1	0.2	1	"	"			"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 50		ug/l	50	6	1	"	"	"	"	"	
79-01-6	Trichloroethene	300		ug/l	1	0.2	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane	< 1		ug/l	1	0.2	1	"	"	"	"	"	
75-01-4	Vinyl Chloride	0.4	J	ug/l	1	0.2	1	"	"	"	"	"	
Surrogate r	recoveries:												
17060-07-0	1,2-Dichloroethane-d4	102			80-12	20 %		"	"	"	"	"	
460-00-4	4-Bromofluorobenzene	100			80-12	20 %		"	"	"	"	"	
1868-53-7	Dibromofluoromethane	99			80-12	20 %		"	"	"	"	"	
2037-26-5	Toluene-d8	98			80-12	20 %		II .	"	"	"	"	
	is of Subcontracted Analys by method SW-846 5030C												
630-20-6	1,1,1,2-Tetrachloroethane	< 10		ug/l	10	2	10	SW-846 8260C	27-Nov-19 14:03	27-Nov-19 14:04	10670	.193311A	J
71-55-6	1,1,1-Trichloroethane	510		ug/l	10	3	10	п	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 10		ug/l	10	2	10	II .	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 10		ug/l	10	2	10	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	150		ug/l	10	2	10	u u	"	"	"	"	
75-35-4	1,1-Dichloroethene	12		ug/l	10	2	10	n .	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 50		ug/l	50	2	10	II .	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 50		ug/l	50	4	10	"	"	"		"	
96-18-4	1,2,3-Trichloropropane	< 50		ug/l	50	2	10	"				"	
120-82-1	1,2,4-Trichlorobenzene	< 50		ug/l	50	3	10	n .	"	"		"	
	, ,			- 5 .		-							

80-120 %

80-120 %

80-120 %

05-Dec-19 16:36 Page 14 of 33

460-00-4

1868-53-7

2037-26-5

4-Bromofluorobenzene

Dibromofluoromethane

Toluene-d8

100

100

98

80-120 %

05-Dec-19 16:36 Page 16 of 33

2037-26-5

Toluene-d8

98

05-Dec-19 16:36 Page 18 of 33

Prepared by method SW-846 5030C

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Subcontra	cted Analyses												
Analysis pe	erformed by Eurofins Lancast	er Laboratorie	s Environme	ntal - 10670	9								
Re-analys	is of Subcontracted Analys	<u>ses</u>											
156-59-2	cis-1,2-Dichloroethene	12		ug/l	10	2	10	SW-846 8260C	27-Nov-19 15:09	27-Nov-19 15:10	10670	.193311A	•
10061-01-5	cis-1,3-Dichloropropene	< 10		ug/l	10	2	10	n .	"	"	"	"	
108-20-3	di-Isopropyl ether	< 10		ug/l	10	2	10	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 10		ug/l	10	2	10	"	"	"	"	"	
74-95-3	Dibromomethane	< 10		ug/l	10	2	10	"	u u	"	"	"	
75-71-8	Dichlorodifluoromethane	< 10		ug/l	10	2	10	"	u u	"	"	"	
64-17-5	Ethanol	< 7500		ug/l	7500	2800	10	"	u u	"	"	"	
60-29-7	Ethyl ether	< 50		ug/l	50	2	10	"	u u	"	"	"	
637-92-3	Ethyl t-butyl ether	< 10		ug/l	10	2	10	"	u	"	"	"	
100-41-4	Ethylbenzene	< 10		ug/l	10	4	10	"	"	"	"	"	
76-13-1	Freon 113	< 100		ug/l	100	2	10	"	u u	"	"	"	
87-68-3	Hexachlorobutadiene	< 50		ug/l	50	20	10	"	u	"	"	"	
98-82-8	Isopropylbenzene	< 50		ug/l	50	2	10	"	u u	"	"	"	
179601-23-1	m+p-Xylene	< 50		ug/l	50	10	10	"	"	"	"	"	
1634-04-4	Methyl Tertiary Butyl Ether	< 10		ug/l	10	2	10	"	"	"	"	"	
75-09-2	Methylene Chloride	< 10		ug/l	10	3	10	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 50		ug/l	50	2	10	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 50		ug/l	50	2	10	"	"	"	"	"	
91-20-3	Naphthalene	< 50		ug/l	50	10	10	"	"	"	"	"	
95-47-6	o-Xylene	< 10		ug/l	10	4	10	"	"	"	"	"	
99-87-6	p-Isopropyltoluene	< 50		ug/l	50	2	10	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 50		ug/l	50	2	10	"	"	"	"	"	
100-42-5	Styrene	< 50		ug/l	50	2	10	"	"	"	"	"	
994-05-8	t-Amyl methyl ether	< 50		ug/l	50	8	10	"	"	"	"	"	
75-65-0	t-Butyl alcohol	< 500		ug/l	500	120	10	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 50		ug/l	50	3	10	"	u u	"	"	"	
127-18-4	Tetrachloroethene	< 10		ug/l	10	2	10	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 100		ug/l	100	7	10	"	"	"	"	"	
108-88-3	Toluene	< 10		ug/l	10	2	10	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 10		ug/l	10	2	10	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 10		ug/l	10	2	10	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 500		ug/l	500	60	10	"	н	"	"	"	
79-01-6	Trichloroethene	410		ug/l	10	2	10	"	"	"	"	"	
75-69-4	Trichlorofluoromethane	< 10		ug/l	10	2	10	"	"	"	"	"	
75-01-4	Vinyl Chloride	< 10		ug/l	10	2	10	II .	u u	"	"	u	
Surrogate r	ecoveries:												
17060-07-0	1,2-Dichloroethane-d4	104			80-12	0 %		"	"	"		"	
460-00-4	4-Bromofluorobenzene	100			80-12				"	"	"	"	
1868-53-7	Dibromofluoromethane	100			80-12			"	"	"		"	
2037-26-5	Toluene-d8	97			80-12			ıı .	"	"		"	
					50 12								

Received

20-Nov-19

80-120 %

05-Dec-19 16:36 Page 22 of 33

2037-26-5

Toluene-d8

98

Sample Id Trip Blan SC56816				<u>Client F</u> 60276	Project # 6639-1		<u>Matrix</u> Trip Blar		ection Date 0-Nov-19 00			ceived Nov-19	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Subcontra	acted Analyses												
	acted Analyses												
	by method SW-846 50300	<del>_</del> '	_		_								
	performed by Eurofins Lancasi		s Environme					0144 0 40 00000	07.11 40	07.11 40	40070	1000111	
630-20-6	1,1,1,2-Tetrachloroethane	< 1		ug/l	1	0.2	1	SW-846 8260C	27-Nov-19 12:35	27-Nov-19 12:36	10670	.193311	V
71-55-6	1,1,1-Trichloroethane	< 1		ug/l	1	0.3	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 1		ug/l	1	0.2	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 1		ug/l	1	0.2	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 1		ug/l	1	0.2	1	II .	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 1		ug/l	1	0.2	1	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 5		ug/l	5	0.2	1	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 5		ug/l	5	0.4	1	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 5		ug/l	5	0.2	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 5		ug/l	5	0.3	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 5		ug/l	5	1	1	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloroprop ane	< 5		ug/l	5	0.3	1	"	"	"	"	"	
106-93-4	1,2-Dibromoethane	< 1		ug/l	1	0.2	1	u u	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 5		ug/l	5	0.2	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 1		ug/l	1	0.3	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 1		ug/l	1	0.2	1	"	"	"		"	
108-70-3	1,3,5-Trichlorobenzene	< 5		ug/l	5	0.2	1	"	"	"		"	
108-67-8	1,3,5-Trimethylbenzene	< 5		ug/l	5	0.3	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 5		ug/l	5	0.2	1	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 1		ug/l	1	0.2	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 5		ug/l	5	0.2	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 250		ug/l	250	29	1	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 1		ug/l	1	0.3	1	"	"	"	"	"	
78-93-3	2-Butanone	< 10		ug/l	10	0.3	1	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 5		ug/l	5	0.2	1	"	"	"	"	"	
591-78-6	2-Hexanone	< 10		ug/l	10	0.3	1	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 5		ug/l	5	0.2	1	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone	< 10		ug/l	10	0.5	1	"	"	"	"	"	
67-64-1	Acetone	< 20		ug/l	20	0.7	1	"	"	"	"	"	
107-13-1	Acrylonitrile	< 20		ug/l	20	0.3	1	"	"	"	"	"	
71-43-2	Benzene	< 1		ug/l	1	0.2	1	"	"	"	"	"	
108-86-1	Bromobenzene	< 5		ug/l	5	0.2	1	"	"	"	"	"	
74-97-5	Bromochloromethane	< 5		ug/l	5	0.2	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 1		ug/l	1	0.2	1	"	"	"	"	"	
75-25-2	Bromoform	< 4		ug/l	4	1	1	"	"	"	"	"	
74-83-9	Bromomethane	< 1		ug/l	1	0.3	1	"	"	"	"	"	
75-15-0	Carbon Disulfide	< 5		ug/l	5	0.2	1	"		"	"	"	
56-23-5	Carbon Tetrachloride	< 1		ug/l	1	0.2	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 1		ug/l	1	0.2	1	"	"	"		"	
75-00-3	Chloroethane	< 1		ug/l	1	0.2	1						
67-66-3	Chloroform	< 1		ug/l	1	0.2	1						
74-87-3	Chloromethane	< 1		ug/l	1	0.2	1	"	"	"	"	"	

Sample 10 Trip Blan SC56816-				Client P 60276	<u>Project #</u> 639-1		<u>Matrix</u> Trip Blan		ection Date Nov-19 00			ceived Nov-19	
CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Subcontra	cted Analyses												
Subcontra	acted Analyses												
Analysis pe	erformed by Eurofins Lancast	er Laboratori	es Environme	ental - 10670	)								
156-59-2	cis-1,2-Dichloroethene	< 1		ug/l	1	0.2	1	SW-846 8260C	27-Nov-19 12:35	27-Nov-19 12:36	10670	.193311A	v
10061-01-5	cis-1,3-Dichloropropene	< 1		ug/l	1	0.2	1		"	"	"	"	
108-20-3	di-Isopropyl ether	< 1		ug/l	1	0.2	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 1		ug/l	1	0.2	1	"	"	"	"	"	
74-95-3	Dibromomethane	< 1		ug/l	1	0.2	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane	< 1		ug/l	1	0.2	1	"	"	"	"	"	
64-17-5	Ethanol	< 750		ug/l	750	280	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 5		ug/l	5	0.2	1	"	"	"	"	"	
637-92-3	Ethyl t-butyl ether	< 1		ug/l	1	0.2	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 1		ug/l	1	0.4	1	"	"	"	"	"	
76-13-1	Freon 113	< 10		ug/l	10	0.2	1	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 5		ug/l	5	2	1	"	"	"	"	"	
98-82-8	Isopropylbenzene	< 5		ug/l	5	0.2	1	"	"	"	"	"	
179601-23-1	m+p-Xylene	< 5		ug/l	5	1	1	"	"	"	"	"	
1634-04-4	Methyl Tertiary Butyl Ether	< 1		ug/l	1	0.2	1	"	"	"	"	"	
75-09-2	Methylene Chloride	< 1		ug/l	1	0.3	1	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 5		ug/l	5	0.2	1	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 5		ug/l	5	0.2	1	"	"	"	"	"	
91-20-3	Naphthalene	< 5		ug/l	5	1	1	"	"	"	"	"	
95-47-6	o-Xylene	< 1		ug/l	1	0.4	1	II .	"	"	"	"	
99-87-6	p-Isopropyltoluene	< 5		ug/l	5	0.2	1	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 5		ug/l	5	0.2	1	II .	"	"	"	"	
100-42-5	Styrene	< 5		ug/l	5	0.2	1	"	"	"	"	"	
994-05-8	t-Amyl methyl ether	< 5		ug/l	5	8.0	1	"	"	"	"	"	
75-65-0	t-Butyl alcohol	23	J	ug/l	50	12	1	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 5		ug/l	5	0.3	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 1		ug/l	1	0.2	1	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 10		ug/l	10	0.7	1	"	"	"	"	"	
108-88-3	Toluene	< 1		ug/l	1	0.2	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 1		ug/l	1	0.2	1	II .	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 1		ug/l	1	0.2	1	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 50		ug/l	50	6	1	"	"	"	"	"	
79-01-6	Trichloroethene	< 1		ug/l	1	0.2	1	II .	"	"	"	"	
75-69-4	Trichlorofluoromethane	< 1		ug/l	1	0.2	1	· ·	"	"	"	"	
75-01-4	Vinyl Chloride	< 1		ug/l	1	0.2	1	"	"	"	"	"	
Surrogate r	recoveries:												
17060-07-0	1,2-Dichloroethane-d4	101			80-12	0 %		"	"	"	"	"	
460-00-4	4-Bromofluorobenzene	101			80-12	0 %		·	"	"	"	"	
1868-53-7	Dibromofluoromethane	97			80-12	0 %		·	"	"	"	"	
2037-26-5	Toluene-d8	98			80-12	0 %			"	"	"	"	

05-Dec-19 16:36 Page 24 of 33

Analyte(s)	Result	Flag Unit	s *RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SM 2540D-11									
Batch 507309A - SM 2540D-11									
Blank (CE64159-BLK)				<u>Pr</u>	epared & Ar	nalyzed: 21	-Nov-19		
Total Suspended Solids	< 2.5	mg/	1 2.5	48		BRL	-		
LCS (CE64159-LCS)				<u>Pr</u>	epared & Ar	nalyzed: 21	-Nov-19		
Total Suspended Solids	52.00	mg/	1 2.5	48		108	85-115		20
SM2540C-11									
Batch 507289A - SM2540C-11									
Blank (CE64328-BLK)				<u>Pr</u>	epared & Ar	nalyzed: 21	-Nov-19		
Tot. Diss. Solids	< 10	mg/	I 10	602		BRL	-		
Duplicate (CE64328-DUP)		Source	: SC56816-01	<u>Pr</u>	epared & Ar	nalyzed: 21	-Nov-19		
Tot. Diss. Solids	310	mg/	I 10	602			-	3.3	20
LCS (CE64328-LCS)				<u>Pr</u>	epared & Ar	nalyzed: 21	-Nov-19		
Tot. Diss. Solids	596.0	mg/	l 10	602		99	85-115		20
SW9010C/SW9012B									
Batch 507594A - SM 4500 CN									
Blank (CE64369-BLK)				Pr	epared: 22-l	Nov-19 Ar	nalyzed: 25-N	Nov-19	
Total Cyanide	< 0.010	mg/	0.010			BRL	-		
LCS (CE64369-LCS)				Pr	epared: 22-l	Nov-19 Ar	nalyzed: 25-N	Nov-19	
Total Cyanide	0.4130	mg/	0.010	0.429		96.3	90-110		20

05-Dec-19 16:36 Page 25 of 33

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
EPA 1664B										
Batch 19329807901A - General Preparation										
Blank (B329101B)					Pre	epared & Ar	nalyzed: 25	-Nov-19		
HEM (oil & grease)	< 5.0		mg/l	5.0						
LCS (L329101Q)			Ü		Pre	epared & Ar	nalvzed: 25	-Nov-19		
HEM (oil & grease)	37.1		mg/l	5.0	40.0	<del>, , , , , , , , , , , , , , , , , , , </del>	93	78-114		
LCS Dup (L329101Y)						epared & Ar				
HEM (oil & grease)	38.0		mg/l	5.0	40.0	pared & Ar	95	78-114	2	13
SW-846 6020B			_							
Batch 193261404703A - SW-846 3020A										
Blank (P32604CBB)					Pre	epared: 25-l	Nov-19 An	alyzed: 26-N	lov-19	
Copper	< 0.0010		mg/l	0.0010				-		
Iron	< 0.0500		mg/l	0.0500				-		
Chromium	0.00056		mg/l	0.0020				-		
Zinc	< 0.0100		mg/l	0.0100				-		
Arsenic	< 0.0020		mg/l	0.0020				-		
Aluminum	< 0.0250		mg/l	0.0250				-		
Nickel	< 0.0010		mg/l	0.0010				-		
Barium	< 0.0020		mg/l	0.0020				-		
Manganese	< 0.0020		mg/l	0.0020				-		
LCS (P32604CQQ)					Pre	epared: 25-l	Nov-19 An	alyzed: 27-N	lov-19	
Iron	0.303		mg/l	0.0500	0.300		101	87-114		
Barium	0.0485		mg/l	0.0020	0.0500		97	80-120		
Copper	0.0519		mg/l	0.0010	0.0500		104	89-120		
Zinc	0.531		mg/l	0.0100	0.500		106	90-115		
Chromium	0.0510		mg/l	0.0020	0.0500		102	90-115		
Nickel	0.0506		mg/l	0.0010	0.0500		101	90-114		
Manganese	0.0489		mg/l	0.0020	0.0500		98	89-120		
Arsenic	0.0102		mg/l	0.0020	0.0100		102	85-120		
Aluminum	0.212		mg/l	0.0250	0.200		106	88-114		
Batch 193261404704A - SW-846 3020A										
Blank (P32604DBB)					Pre	epared: 23-l	Nov-19 An	alyzed: 27-N	lov-19	
Zinc	< 0.0100		mg/l	0.0100				-		
Chromium	< 0.0020		mg/l	0.0020				-		
Copper	< 0.0010		mg/l	0.0010				-		
Iron	< 0.0500		mg/l	0.0500				-		
Aluminum	< 0.0250		mg/l	0.0250				-		
Manganese	< 0.0020		mg/l	0.0020				-		
Arsenic	< 0.0020		mg/l	0.0020				-		
Nickel	< 0.0010		mg/l	0.0010				-		
Barium	< 0.0020		mg/l	0.0020				-		
LCS (P32604DQQ)						epared: 23-l		alyzed: 02-E	<u>ec-19</u>	
Aluminum	0.198		mg/l	0.0250	0.200		99	88-114		
Nickel	0.0511		mg/l	0.0010	0.0500		102	90-114		
Manganese	0.0557		mg/l	0.0020	0.0500		111	89-120		
Copper	0.0521		mg/l	0.0010	0.0500		104	89-120		
Chromium	0.0537		mg/l	0.0020	0.0500		107	90-115		
Barium	0.0489		mg/l	0.0020	0.0500		98	80-120		
Iron	0.308		mg/l	0.0500	0.300		103	87-114		
Arsenic	0.0098		mg/l	0.0020	0.0100		98	85-120		
Zinc	0.511		mg/l	0.0100	0.500		102	90-115		
<u>SW-846 7470A</u>										

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limi
SW-846 7470A										
Batch 193270571302 - METHOD										
Duplicate (P207433D220953)			Source: S	C56816-02	Pre	epared: 23-N	lov-19 An	alyzed: 25-N	lov-19	
Mercury	< 0.00020		mg/l	0.00020		BDL		-	0	20
Matrix Spike Dup (P207433M220957)			_	C56816-02	Pre		Jov-19 An	alyzed: 25-N		
Mercury	0.00099		mg/l	0.00020	0.0010	BDL	99	80-120	2	20
	0.00033		ū							20
Matrix Spike (P207433R220955)	0.00007			0.00020	0.0010	BDL	97	alyzed: 25-N 80-120	10V-19	
Mercury	0.00097		mg/l	0.00020						
Blank (P32771BBB)					Pre	epared: 23-N	10v-19 An	alyzed: 25-N	<u>10v-19</u>	
Mercury	0.000058		mg/l	0.00020				-		
LCS (P32771BQQ)					<u>Pre</u>	epared: 23-N	lov-19 An	alyzed: 25-N	lov-19	
Mercury	0.0010		mg/l	0.00020	0.0010		100	80-110		
<u>SW-846 8260C</u>										
Batch L193311AA - SW-846 5030C										
LCS (LCSL94Q)					Pre	epared & An	alvzed: 27-	-Nov-19		
m+p-Xylene	42		ug/l	5	40	<del>2,50.00 0.7 11.</del>	105	80-120		
Chloromethane	17		ug/l	1	20		84	56-121		
Chloroform	21		ug/l	1	20		105	80-120		
Chloroethane	17		ug/l	1	20		86	55-123		
Chlorobenzene	21		ug/l	1	20		103	80-120		
Bromobenzene	20		-	5	20		100	80-120		
Carbon Tetrachloride			ug/l	1	20		97	64-134		
	19		ug/l							
Carbon Disulfide	17		ug/l	5	20		86	65-128		
cis-1,2-Dichloroethene	22		ug/l	1	20		110	80-125		
Bromomethane	16		ug/l	1	20		82	53-128		
Bromoform	17		ug/l	4	20		84	51-120		
Bromodichloromethane	20		ug/l	1	20		102	71-120		
Bromochloromethane	19		ug/l	5	20		94	80-120		
cis-1,3-Dichloropropene	21		ug/l	1	20		104	75-120		
Dibromochloromethane	20		ug/l	1	20		98	71-120		
Dibromomethane	20		ug/l	1	20		102	80-120		
Dichlorodifluoromethane	14		ug/l	1	20		70	41-127		
di-Isopropyl ether	19		ug/l	1	20		96	70-124		
Ethyl ether	20		ug/l	5	20		99	59-141		
Ethyl t-butyl ether	19		ug/l	1	20		94	68-121		
Ethylbenzene	21		ug/l	1	20		104	80-120		
Freon 113	18		ug/l	10	20		91	73-139		
Isopropylbenzene	21		ug/l	5	20		106	80-120		
Methyl Tertiary Butyl Ether	18		ug/l	1	20		91	69-122		
Methylene Chloride	21		ug/l	1	20		106	80-120		
Benzene	21		ug/l	1	20		105	80-120		
1,1,2-Trichloroethane	21		ug/l	1	20		105	80-120		
Hexachlorobutadiene	16		ug/l	5	20		82	63-120		
1,2-Dichloroethane	21		ug/l	1	20		103	73-124		
1,1,1,2-Tetrachloroethane	20		ug/l	1	20		98	78-120		
1,1,1-Trichloroethane	20		ug/l	1	20		100	67-126		
1,1,2,2-Tetrachloroethane	20		ug/l	1	20		102	72-120		
1,4-Dioxane	510		ug/l	250	500		102	63-146		
1,1-Dichloroethane	20		ug/l	1	20		102	80-120		
Naphthalene	20		ug/l	5	20		99	53-124		
1,1-Dichloropropene	20		ug/l	5	20		102	78-120		
1,2,3-Trichlorobenzene	19		ug/l	5	20		93	66-120		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limi
SW-846 8260C										
Batch L193311AA - SW-846 5030C										
LCS (LCSL94Q)					Pre	epared & Ar	nalyzed: 27-	-Nov-19		
1,2,3-Trichloropropane	20		ug/l	5	20		100	75-124		
1,2,4-Trichlorobenzene	19		ug/l	5	20		93	63-120		
1,2,4-Trimethylbenzene	21		ug/l	5	20		104	75-120		
1,2-Dibromo-3-chloropropane	19		ug/l	5	20		96	47-131		
1,1-Dichloroethene	21		ug/l	1	20		103	80-131		
1,2-Dichlorobenzene	20		ug/l	5	20		102	80-120		
Acrylonitrile	100		ug/l	20	100		100	60-129		
1,2-Dichloropropane	21		ug/l	1	20		107	80-120		
1,3,5-Trichlorobenzene	19		ug/l	5	20		95	66-123		
1,3,5-Trimethylbenzene	21		ug/l	5	20		107	75-120		
1,3-Dichlorobenzene	20		ug/l	5	20		102	80-120		
1,4-Dichlorobenzene	20		ug/l	5	20		102	80-120		
2,2-Dichloropropane	20		ug/l	1	20		100	55-142		
2-Butanone	140		ug/l	10	150		96	59-135		
2-Chlorotoluene	20		ug/l	5	20		102	80-120		
2-Hexanone	92		ug/l	10	100		92	56-135		
4-Chlorotoluene	21		ug/l	5	20		103	80-120		
4-Methyl-2-pentanone	95		ug/l	10	100		95	62-133		
Acetone	150		ug/l	20	150		102	54-157		
1,2-Dibromoethane	20		ug/l	1	20		102	77-120		
1,3-Dichloropropane	20		ug/l	1	20		100	80-120		
n-Butylbenzene	20		ug/l	5	20		102	76-120		
Vinyl Chloride	17		ug/l	1	20		84	56-120		
Trichlorofluoromethane	19		ug/l	1	20		93	55-135		
Trichloroethene	21		ug/l	1	20		104	80-120		
trans-1,4-Dichloro-2-butene	95		ug/l	50	100		95	33-143		
trans-1,3-Dichloropropene	20		ug/l	1	20		99	67-120		
trans-1,2-Dichloroethene	21		ug/l	1	20		104	80-126		
Toluene	21		ug/l	1	20		105	80-120		
Tetrahydrofuran	100		ug/l	10	100		104	54-144		
o-Xylene	21		ug/l	1	20		103	80-120		
tert-Butylbenzene	21		ug/l	5	20		103	78-120		
Tetrachloroethene	20		ug/l	1	20		100	80-120		
t-Butyl alcohol	200		ug/l	50	200		99	60-130		
t-Amyl methyl ether	19		ug/l	5	20		96	66-120		
Styrene	21		ug/l	5	20		104	80-120		
sec-Butylbenzene	21		ug/l	5	20		106	77-120		
p-Isopropyltoluene	21		ug/l	5	20		105	76-120		
n-Propylbenzene	22		ug/l	5	20		109	79-121		
Surrogate: 4-Bromofluorobenzene	51		ug/l		50		102	80-120		
Surrogate: 1,2-Dichloroethane-d4	51		ug/l		50		102	80-120		
Surrogate: Dibromofluoromethane	49		ug/l		50		97	80-120		
Surrogate: Toluene-d8	50		ug/l		50		99	80-120		
LCS Dup (LCSL94Y)					<u>P</u> re	epared & Ar	nalyzed: 27-	-Nov-19		
Tetrahydrofuran	110		ug/l	10	100		112	54-144	7	30
n-Butylbenzene	21		ug/l	5	20		105	76-120	3	30
n-Propylbenzene	23		ug/l	5	20		113	79-121	4	30
o-Xylene	22		ug/l	1	20		109	80-120	6	30
p-Isopropyltoluene	22		ug/l	5	20		108	76-120	3	30
sec-Butylbenzene	22		ug/l	5	20		110	77-120	3	30

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limi
SW-846 8260C										
Batch L193311AA - SW-846 5030C										
LCS Dup (LCSL94Y)					Pre	epared & Ai	nalyzed: 27-	-Nov-19		
Naphthalene	20		ug/l	5	20		101	53-124	2	30
Styrene	22		ug/l	5	20		109	80-120	5	30
t-Amyl methyl ether	20		ug/l	5	20		99	66-120	4	30
t-Butyl alcohol	210		ug/l	50	200		104	60-130	4	30
Methylene Chloride	22		ug/l	1	20		111	80-120	5	30
Tetrachloroethene	22		ug/l	1	20		108	80-120	7	30
Ethyl ether	21		ug/l	5	20		107	59-141	8	30
Toluene	22		ug/l	1	20		109	80-120	4	30
trans-1,2-Dichloroethene	21		ug/l	1	20		107	80-126	3	30
trans-1,3-Dichloropropene	20		ug/l	1	20		102	67-120	3	30
trans-1,4-Dichloro-2-butene	97		ug/l	50	100		97	33-143	2	30
Trichloroethene	22		ug/l	1	20		109	80-120	4	30
tert-Butylbenzene	21		ug/l	5	20		105	78-120	2	30
Bromomethane	18		ug/l	1	20		88	53-128	6	30
Carbon Disulfide	18		ug/l	5	20		90	65-128	5	30
Carbon Tetrachloride	20		ug/l	1	20		101	64-134	4	30
Chlorobenzene	22		ug/l	1	20		108	80-120	5	30
Chloroethane	18		ug/l	1	20		91	55-123	6	30
Chloroform	22		ug/l	1	20		109	80-120	4	30
Chloromethane	17		ug/l	1	20		86	56-121	3	30
cis-1,2-Dichloroethene	23		ug/l	1	20		115	80-125	5	30
cis-1,3-Dichloropropene	22		ug/l	1	20		108	75-120	4	30
Ethylbenzene	22		ug/l	1	20		109	80-120	5	30
Dibromomethane	22		ug/l	1	20		108	80-120	5	30
Methyl Tertiary Butyl Ether	19		ug/l	1	20		94	69-122	3	30
Trichlorofluoromethane	19		ug/l	1	20		97	55-135	4	30
di-Isopropyl ether	20		ug/l	1	20		100	70-124	5	30
Ethyl t-butyl ether	20		ug/l	1	20		98	68-121	3	30
Dichlorodifluoromethane	15		ug/l	1	20		74	41-127	6	30
Freon 113	19		ug/l	10	20		96	73-139	6	30
Hexachlorobutadiene	17		ug/l	5	20		83	63-120	1	30
Isopropylbenzene	22		ug/l	5	20		111	80-120	5	30
m+p-Xylene	44		ug/l	5	40		111	80-120	5	30
Dibromochloromethane	20		ug/l	1	20		101	71-120	3	30
1,2,3-Trichlorobenzene	19		ug/l	5	20		93	66-120	0	30
1,3-Dichlorobenzene	21		ug/l	5	20		105	80-120	2	30
1,3,5-Trimethylbenzene	22		-	5	20		111	75-120	4	30
1,3,5-Trichlorobenzene	19		ug/l ug/l	5	20		96	66-123	1	30
1,2-Dichloropropane				1	20		112	80-120	4	30
1,2-Dichloroptopane	22 22		ug/l		20		108	73-124		
			ug/l	1					4	30 30
1,2-Dichlorobenzene	21		ug/l	5	20		106	80-120	4	
1,2-Dibromoethane	21		ug/l	1	20		106	77-120	5	30
1,3-Dichloropropane	21		ug/l	1	20		106	80-120	5	30
1,2,3-Trichloropropane	21		ug/l	5	20		104	75-124	3	30
1,2-Dibromo-3-chloropropane	20		ug/l	5	20		99	47-131	4	30
1,1-Dichloropropene	21		ug/l	5	20		107	78-120	5	30
1,1-Dichloroethene	21		ug/l	1	20		107	80-131	3	30
1,1-Dichloroethane	22		ug/l	1	20		108	80-120	5	30
1,1,2-Trichloroethane	22		ug/l	1	20		110	80-120	5	30
1,1,2,2-Tetrachloroethane	22		ug/l	1	20		109	72-120	6	30

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW-846 8260C										
Batch L193311AA - SW-846 5030C										
LCS Dup (LCSL94Y)					Pre	epared & A	nalyzed: 27-	Nov-19		
1,1,1-Trichloroethane	21		ug/l	1	20		104	67-126	4	30
1,1,1,2-Tetrachloroethane	21		ug/l	1	20		104	78-120	6	30
1,2,4-Trimethylbenzene	22		ug/l	5	20		108	75-120	4	30
Bromodichloromethane	21		ug/l	1	20		106	71-120	4	30
Vinyl Chloride	18		ug/l	1	20		90	56-120	6	30
1,2,4-Trichlorobenzene	19		ug/l	5	20		94	63-120	1	30
Bromoform	18		ug/l	4	20		88	51-120	5	30
1,4-Dichlorobenzene	21		ug/l	5	20		106	80-120	4	30
Bromochloromethane	19		ug/l	5	20		96	80-120	2	30
Bromobenzene	20		ug/l	5	20		102	80-120	3	30
Benzene	22		ug/l	1	20		110	80-120	5	30
Acrylonitrile	100		-	20	100		105	60-129	4	30
•			ug/l							
Acetone	160		ug/l	20 10	150 150		109	54-157 50 135	7 4	30 30
2-Butanone	150		ug/l				101	59-135		
2,2-Dichloropropane	21		ug/l	1	20		104	55-142	5	30
2-Chlorotoluene	21		ug/l	5	20		106	80-120	4	30
2-Hexanone	95		ug/l	10	100		95	56-135	4	30
4-Chlorotoluene	21		ug/l	5	20		106	80-120	3	30
4-Methyl-2-pentanone	99		ug/l	10	100		99	62-133	4	30
1,4-Dioxane	540		ug/l	250	500		108	63-146	6	30
Surrogate: 4-Bromofluorobenzene	51		ug/l		50		102	80-120		
Surrogate: 1,2-Dichloroethane-d4	51		ug/l		50		102	80-120		
Surrogate: Toluene-d8	50		ug/l		50		100	80-120		
Surrogate: Dibromofluoromethane	49		ug/l		50		97	80-120		
LCS (LCSL95Q)					Pre	epared & A	nalyzed: 27-	Nov-19		
Ethanol	410		ug/l	750	500		83	31-180		
LCS Dup (LCSL95Y)			- 3			anared & A	nalyzed: 27-			
Ethanol	420		ug/l	750	500	spared & A	83	31-180	1	30
	420		ug/i	730					ı	30
Blank (VBLKL94B)	_			_	Pre	epared & A	nalyzed: 27-	-Nov-19		
1,2,4-Trichlorobenzene	< 5		ug/l	5				-		
1,2,4-Trimethylbenzene	< 5		ug/l	5				-		
1,2-Dibromo-3-chloropropane	< 5		ug/l	5				-		
1,2-Dibromoethane	< 1		ug/l	1				-		
1,2-Dichlorobenzene	< 5		ug/l	5				-		
1,2-Dichloroethane	< 1		ug/l	1				-		
1,2,3-Trichloropropane	< 5		ug/l	5				-		
1,1,1,2-Tetrachloroethane	< 1		ug/l	1				-		
1,2-Dichloropropane	< 1		ug/l	1				-		
1,2,3-Trichlorobenzene	< 5		ug/l	5				-		
1,1-Dichloropropene	< 5		ug/l	5				-		
1,1-Dichloroethene	< 1		ug/l	1				-		
1,1-Dichloroethane	< 1		ug/l	1				-		
1,1,2-Trichloroethane	< 1		ug/l	1				-		
Dichlorodifluoromethane	< 1		ug/l	1				-		
1,1,1-Trichloroethane	< 1		ug/l	1				-		
1,3,5-Trichlorobenzene	< 5		ug/l	5				_		
1,1,2,2-Tetrachloroethane	< 1		ug/l	1				_		
sec-Butylbenzene	< 5		ug/l	5				_		
Ethyl ether	< 5		ug/l	5				_		
Lary I Guioi	<b>\</b> 0		uy/I	5				-		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW-846 8260C										
Batch L193311AA - SW-846 5030C										
Blank (VBLKL94B)					Pre	epared & A	nalyzed: 27-	-Nov-19		
Ethylbenzene	< 1		ug/l	1			•	_		
Freon 113	< 10		ug/l	10				_		
Hexachlorobutadiene	< 5		ug/l	5				_		
Isopropylbenzene	< 5		ug/l	5				_		
m+p-Xylene	< 5		ug/l	5				_		
Methyl Tertiary Butyl Ether	< 1		ug/l	1				_		
Methylene Chloride	· < 1		ug/l	1				_		
Naphthalene	< 5		ug/l	5				_		
n-Butylbenzene	< 5		ug/l	5				_		
n-Propylbenzene	< 5		ug/l	5				_		
di-Isopropyl ether	< 1		ug/l	1				-		
• • •	< 5		-	5				-		
p-Isopropyltoluene Dibromomethane			ug/l					-		
	< 1		ug/l	1				-		
Styrene	< 5		ug/l	5				-		
t-Amyl methyl ether	< 5		ug/l	5				-		
t-Butyl alcohol	< 50		ug/l	50				-		
tert-Butylbenzene	< 5		ug/l	5				-		
Tetrachloroethene	< 1		ug/l	1				-		
Tetrahydrofuran	< 10		ug/l	10				-		
Toluene	< 1		ug/l	1				-		
trans-1,2-Dichloroethene	< 1		ug/l	1				-		
trans-1,3-Dichloropropene	< 1		ug/l	1				-		
trans-1,4-Dichloro-2-butene	< 50		ug/l	50				-		
Trichloroethene	< 1		ug/l	1				-		
Trichlorofluoromethane	< 1		ug/l	1				-		
Vinyl Chloride	< 1		ug/l	1				-		
o-Xylene	< 1		ug/l	1				-		
Bromobenzene	< 5		ug/l	5				-		
1,3-Dichlorobenzene	< 5		ug/l	5				-		
1,3-Dichloropropane	< 1		ug/l	1				-		
1,4-Dichlorobenzene	< 5		ug/l	5				-		
1,4-Dioxane	< 250		ug/l	250				-		
2,2-Dichloropropane	< 1		ug/l	1				-		
2-Butanone	< 10		ug/l	10				-		
2-Chlorotoluene	< 5		ug/l	5				-		
2-Hexanone	< 10		ug/l	10				-		
4-Chlorotoluene	< 5		ug/l	5				_		
4-Methyl-2-pentanone	< 10		ug/l	10				_		
Acetone	< 20		ug/l	20				_		
Ethanol	< 750		ug/l	750				_		
Benzene	< 1		ug/l	1				_		
1,3,5-Trimethylbenzene	< 5		ug/l	5				_		
Chloroethane	< 1		ug/l	1				-		
Dibromochloromethane	< 1			1				-		
			ug/l					-		
cis-1,3-Dichloropropene	< 1		ug/l	1				-		
cis-1,2-Dichloroethene	< 1		ug/l	1				-		
Chloromethane	< 1		ug/l	1				-		
Acrylonitrile	< 20		ug/l	20				-		
Chloroform	< 1		ug/l	1				-		
Bromochloromethane	< 5		ug/l	5				-		

					Spike	Source		%REC		RPD
Analyte(s)	Result	Flag	Units	*RDL	Level	Result	%REC	Limits	RPD	Limit
<u>SW-846 8260C</u>										
Batch L193311AA - SW-846 5030C										
Blank (VBLKL94B)					Pre	epared & A	nalyzed: 27	-Nov-19		
Chlorobenzene	< 1		ug/l	1				-		
Carbon Tetrachloride	< 1		ug/l	1				-		
Carbon Disulfide	< 5		ug/l	5				-		
Bromomethane	< 1		ug/l	1				-		
Bromoform	< 4		ug/l	4				-		
Bromodichloromethane	< 1		ug/l	1				-		
Surrogate: 4-Bromofluorobenzene	51		ug/l		50		101	80-120		
Surrogate: 1,2-Dichloroethane-d4	51		ug/l		50		102	80-120		
Surrogate: Dibromofluoromethane	49		ug/l		50		98	80-120		
Surrogate: Toluene-d8	49		ug/l		50		98	80-120		

05-Dec-19 16:36 Page 32 of 33

#### **Notes and Definitions**

E. Exceeded calibration range of the instrument

J Estimated value

K4 Continuing Calibration Verification is above QC limit and sample result is ND

dry Sample results reported on a dry weight basis

NR Not Reported

RPD Relative Percent Difference

OG The required Matrix Spike and Matrix Spike Duplicate (MS/MSD) for Oil & Grease method 1664B can only be analyzed when the client has submitted sufficient sample volume. An extra liter per MS/MSD is required to fulfill the method QC criteria. Please refer to Chain of Custody and QC Summary (MS/MSD) of the Laboratory Report to verify ample sample

volume was submitted to fulfill the requirement.

<u>Laboratory Control Sample (LCS)</u>: A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

<u>Matrix Spike</u>: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

<u>Method Blank</u>: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

<u>Surrogate</u>: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

<u>Continuing Calibration Verification:</u> The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

05-Dec-19 16:36 Page 33 of 33

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Special Handling and Delivery Signature Options

SATURDAY Delivery NOT available for FedEx Star

HOLD Weekday
FedEx location address
REQUIRED. NOTevailable for
FedEx First Overnight.

Does this shipment contain dangerous goods?

No Signature Required Package may be left without obtaining a signature for delivery.

Direct Signature Someone at recipient's address may sign for delivery. Fee applies.

Dept/Floor/Suite/Room

N N

Yes
As per attached
Shipper's Declaration.

Yes Shipper's Declaration not required.

Dry Ice Dry Ice, 9, UN 1845

Cargo Aircraft Only

HOLD Saturday
Fedix location address
REQUIRED. Available ONLY for
Fedix Priority Overnight and
Fedix 2Day to select locations.

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

Payment Bill to:

Enter FedEx Acct. No. or Credit Card No. below.

Obtain recip.
Acct. No. Cash/Check

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fotal Packages

Total Weight

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Packages up to 150 lbs. For packages over 150 lbs., use the FedEx Express Freight US Airbill.

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Next business morning.\* Friday shipments will be delivered on Monday unless SATURDAY Delivery

FedEx Standard Overnight Next business afternoon.\* Saturday Delivery NOT available.

FedEx 2Day A.M.
Second business morning.\*
Saturday Delivery NOT available. 2 or 3 Business Days

FedEx 2Day
Second business afternoon.\* Thursday shipment
will be delivered on Monday unless SATURDAY
Delivery is selected. FedEx Express Saver Third business day.\* Saturday Delivery NOT available

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address, someone at a neighboring
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urrent FedEx Service Guide for details

### **Batch Summary**

#### 193261404703A

Subcontracted Analyses

P32604CBB P32604CQQ

SC56816-01 (EFF55 111919)

#### 193261404704A

Subcontracted Analyses

P32604DBB P32604DQQ

SC56816-02 (INF 111919)

#### 193270571302

Subcontracted Analyses

P207433D220953 P207433M220957 P207433R220955 P32771BBB P32771BQQ

SC56816-01 (EFF55 111919) SC56816-02 (INF 111919)

#### 19329807901A

Subcontracted Analyses

B329101B L329101Q L329101Y SC56816-01 (EF

SC56816-01 (EFF55 111919) SC56816-02 (INF 111919)

#### 507289A

Subcontracted Analyses

CE64328-BLK CE64328-DUP

CE64328-LCS

SC56816-01 (EFF55 111919) SC56816-02 (INF 111919)

#### 507309A

Subcontracted Analyses

CE64159-BLK CE64159-LCS SC56816-01 (EFF55 111919) SC56816-02 (INF 111919)

#### 507594A

Subcontracted Analyses

CE64369-BLK CE64369-LCS SC56816-01 (EFF55 111919)

SC56816-02 (INF 111919)

#### L193311AA

Subcontracted Analyses

LCSL94Q LCSL94Y LCSL95Q LCSL95Y

SC56816-01 (EFF55 111919) SC56816-02 (INF 111919) SC56816-02RE01 (INF 111919) SC56816-03 (TW-1 111919) SC56816-04 (TW-2A 111919) SC56816-04RE01 (TW-2A 111919) SC56816-05 (TW-3 111919) SC56816-06 (Trip Blank)

VBLKL94B