



Groundwater Monitoring Report-Plant Area  
New-Indy Catawba Pulp and Paper Mill  
5300 Cureton Ferry Road  
Catawba, York County, South Carolina  
SCDHEC No. 18-6120-VOC  
S&ME Project No. 4213-18-087

PREPARED FOR:

**New Indy-Catawba, LLC**  
**3500 Porsche Way, Suite 150**  
**Ontario, California 91764**

PREPARED BY:

**S&ME, Inc.**  
**301 Zima Park Drive**  
**Spartanburg, SC 29301**

**June 15, 2022**



June 15, 2022

New-Indy Catawba LLC  
3500 Porsche Way, Suite 150  
Ontario, California 91764

Attention: Mr. Richard Hartman

Reference: **Groundwater Monitoring Report**  
**New-Indy Catawba Pulp and Paper Mill – Plant Area**  
Catawba, South Carolina  
SCDHEC No. 18-6120-VOC  
S&ME Project No. 4213-18-087

Dear Mr. Hartman:

S&ME is pleased to submit this *Groundwater Monitoring Report* for the above referenced project. Our work was conducted in general accordance with the *Work Plan* (S&ME, February 1, 2019) and to our April 12, 2018 Agreement for Services.

We appreciate the opportunity to be of service to you. Should you have any questions or when we may be of further service, please do not hesitate to contact us at 864.574.2360.

Sincerely,

**S&ME, Inc.**

A handwritten signature in blue ink, appearing to read 'S. E. Dacus'.

Scott E. Dacus, P.G.  
Project Geologist  
[sdacus@smeinc.com](mailto:sdacus@smeinc.com)

A handwritten signature in blue ink, appearing to read 'Stanford Lummus'.

Stanford Lummus, P.E.  
Principal Engineer  
[slummus@smeinc.com](mailto:slummus@smeinc.com)

t:\projects\2018\env\4213-18-087 New Indy JV LLC\vcc\VCC GW Monitoring-Plant Area\April 2022



## Table of Contents

<b>1.0</b>	<b>Introduction .....</b>	<b>1</b>
<b>2.0</b>	<b>Groundwater Sampling .....</b>	<b>1</b>
2.1	Groundwater Level Measurements .....	1
2.2	Sample Collection.....	1
2.3	Field Quality Control .....	2
2.4	Sampling Equipment Decontamination.....	2
<b>3.0</b>	<b>Groundwater Analysis.....</b>	<b>2</b>
<b>4.0</b>	<b>Laboratory Analytical Results .....</b>	<b>2</b>
4.1	Summary of Laboratory Analytical Data.....	2
4.2	Data Quality Review.....	2
<b>5.0</b>	<b>Conclusions.....</b>	<b>3</b>

## Appendices

Appendix I – Figure

Appendix II – Tables

Appendix III - Laboratory Reports



## 1.0 Introduction

This Report details the groundwater sampling activities performed according to the *Plant Area Work Plan-Supplemental Assessment II*, dated August 27, 2021. The Work Plan includes an annual groundwater sampling event at specified monitoring wells. This Report discusses the monitoring wells sampled, sampling procedures, and laboratory analytical results for the April 2022 sampling event.

## 2.0 Groundwater Sampling

On April 4<sup>th</sup> and 5<sup>th</sup>, 2022, groundwater samples were collected from the following monitoring wells:

WYLF-MW-3	GW-16
GW-9	GW-18
R29-MW-1	R16-MW-1A
DF-MW-2	R18-MW-2
DF-MW-4	R19-MW-2A
GW-11	R6-MW-1
GW-15R	R1-MW-2

Groundwater samples were not collected from monitoring wells DF-MW-1, DF-MW-3, R4-MW-2 due to the wells either being dry or not containing enough water to collect a sample. The well locations are shown on **Figure 1**.

### 2.1 Groundwater Level Measurements

During sample collection activities, the depth to groundwater was measured in the above wells. These measurements are included on **Table 1**. The water level measurements were subtracted from the top of casing elevations, resulting in groundwater level elevations. The elevations are also included on **Table 1**. The groundwater elevations for wells R6-MW-1, R16-MW-1A, R18-MW-2, and R19-MW-2A (near the paper machine buildings) were contoured and plotted as a group on **Figure 1**. The groundwater elevations for wells WYLF-MW-3, GW-9, R29-MW-1, DF-MW-1, DF-MW-2, DF-MW-3, DF-MW-4, GW-11, GW-15R, GW-16, GW-18, and R1-MW-2 (near the south-southeast portion of the plant area) were contoured and plotted as a separate group on **Figure 1**.

### 2.2 Sample Collection

The wells were sampled using a peristaltic pump and low flow techniques. For wells with a low volume of water, samples were collected with a disposable bailer. Temperature, pH, specific conductivity, and turbidity were measured prior to sample collection. The field parameter measurements are included on the *Sample Collection Summary Sheets* in **Appendix III**.

Upon field parameter stabilization, groundwater samples were collected by filling laboratory-supplied sample containers directly from the pump tubing or bailer. Sample-specific analyses and containers filled are included on the *Sample Collection Summary Sheets* in **Appendix III**. The sample containers were placed on ice within coolers and transported via courier to Pace Analytical in Mt. Juliet, Tennessee. Sample containers were labeled and managed according to the Work Plan.



## 2.3 Field Quality Control

Two duplicate samples, Duplicate-1 and Duplicate-2 were collected during sampling activities. Duplicate-1 was collected at monitoring well GW-11 (dioxin/furan analyses) and Duplicate-2 was collected at monitoring well R6-MW-1 (volatile organic compound analyses). One field blank was collected during sampling of wells for dioxin/furan analyses and one field blank was collected during sampling of wells for volatile organic compounds (VOCs) analyses. One equipment blank was collected during sampling of wells for dioxin/furan analyses and one field blank was collected during sampling of wells for VOCs analyses. A trip blank was included in the cooler of samples for VOC analyses.

## 2.4 Sampling Equipment Decontamination

Sampling equipment was decontaminated with phosphate free laboratory detergent, tap water, deionized water, and organic-free water. Water generated during decontamination activities and well purging was disposed of in the aeration stabilization basin at the site. Disposable gloves, used tubing, etc. was placed in onsite waste disposal containers.

## 3.0 Groundwater Analysis

Groundwater samples collected from monitoring wells WYLF-MW-3, GW-9, R29-MW-1, DF-MW-2, DF-MW-4, GW-11, GW-15R, GW-16 and GW-18 were analyzed for dioxins/furans by Method 8290. Groundwater samples collected from monitoring wells R16-MW-1A, R18-MW-2, R19-MW-2A, and R6-MW-1 were analyzed for VOCs by Method 8260. Groundwater samples collected from monitoring wells GW-9 and R1-MW-2 were analyzed for chloroform by Method 8260.

## 4.0 Laboratory Analytical Results

### 4.1 Summary of Laboratory Analytical Data

Laboratory analysis of the samples for dioxins/furans reported a 2,3,7,8-TCDD concentration of 2.1 picograms per liter (pg/L) in sample R29-MW-1. Toxic equivalency (TEQ) was reported at concentrations ranging from 0.021 pg/L (sample GW-18) to 5.0 pg/L (R29-MW-1). The concentrations of these compounds are included on **Table 2**.

Several VOCs were reported above their respective laboratory detection limits in the samples analyzed. The VOCs detected are benzene, bromodichloromethane, carbon tetrachloride, chlorobenzene, chloroform, 1,2-dichlorobenzene, 1,4-dichlorobenzene, 1,1-dichloroethene, ethylbenzene, 1,2,4-trichlorobenzene, and trichloroethene. The concentrations of these compounds are included on **Table 3**.

A copy of the laboratory analytical reports for groundwater samples is included in **Appendix III**.

### 4.2 Data Quality Review

The Sample Condition Upon Receipt (SCUR) reports, the analytical data presented in the laboratory reports,

- the laboratory-assigned data qualifiers, the laboratory quality control data provided, and the field QC sample data were reviewed. No data or conditions that do not meet acceptable performance criteria were noted.



## 5.0 Conclusions

The concentrations of 2,3,7,8-TCDD and TEQ reported in the groundwater samples are below the South Carolina State Primary Drinking Water Regulations, R.61-58 (SCDHEC 2014a) Maximum Contaminant Level (MCL) of 30 pg/L for 2,3,7,8-TCDD and 30 pg/L for TEQ.

The following VOC concentrations exceed their respective MCL:

- 0.776 mg/L of chlorobenzene exceeds the MCL of 0.1 mg/L in sample R18-MW-2,
- 1.15 mg/L of 1,2-dichlorobenzene exceeds the MCL of 0.6 mg/L in sample R18-MW-2,
- 0.179 mg/L of 1,4-dichlorobenzene exceeds the MCL of 0.075 mg/L in sample R18-MW-2,
- 0.0211 mg/L of 1,1-dichloroethene exceeds the MCL of 0.007 mg/L in sample R16-MW-1A, and

0.0764 mg/L of 1,1-dichloroethene exceeds the MCL of 0.007 mg/L in sample R19-MW-2A.

## **Appendices**

## Appendix I– Figure



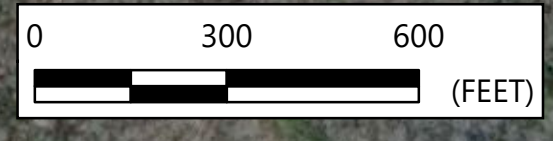


NO.	DATE	DESCRIPTION	BY	CHK	APP

NO.	DATE	DESCRIPTION	BY	CHK	APP

**Legend**

- Monitoring Well Location
- Potentiometric Surface Contour - April 2022



Drawing Path: C:\Users\jstark\OneDrive\Documents\2022\2022\4213-18-087.mxd

## **Appendix II – Tables**

Table 1  
Groundwater Level Measurements  
Bowater - Catawba Pulp and Paper Mill  
Catawba, York County, South Carolina  
SCDHEC No. 18-6120-VOC  
S&ME Project No. 4213-18-087

Well ID	Total Well Depth	Screen Interval	Ground Surface Elevation	Top of Casing Elevation	Date	Depth to Water <sup>1</sup>	Groundwater Elevation
R1-MW-2	20	10-20	528.60	528.30	10/14/2019	17.40	510.90
					3/16/2021	14.55	513.75
					4/5/2022	15.31	512.99
R4-MW-2	18	8-18	532.53	531.94	3/16/2021	17.64	514.30
					4/5/2022	Dry	--
R6-MW-1	18	8-18	535.00	534.60	10/16/2019	15.12	519.48
					4/5/2022	14.11	520.49
R16-MW-1	14	4-14	530.60	530.30	10/17/2019	6.98	523.32
R16-MW-1A	15	5-15	530.64	530.42	3/15/2021	5.49	524.93
					4/5/2022	5.52	524.90
R18-MW-2	13	3-13	531.00	530.40	10/16/2019	4.62	525.78
					3/15/2021	3.87	526.53
					4/5/2022	3.90	526.50
R19-MW-2	15	5-15	531.10	530.10	10/16/2019	5.62	524.48
R19-MW-2A	15	5-15	531.19	530.98	3/15/2021	3.40	527.58
					4/5/2022	4.28	526.70
R29-MW-1	28	18-28	524.20	524.00	10/16/2019	21.74	502.26
					3/16/2021	19.50	504.50
					4/4/2022	19.73	504.27
WYLF-MW-3	28	18-28	508.80	508.60	10/16/2019	27.81	480.79
					3/16/2021	22.40	486.20
					4/4/2022	23.67	484.93
GW-9	44	24-44	514.77	516.77	7/10/2019	11.01	505.76
					3/17/2021	15.13	501.64
					4/4/2022	15.63	501.14
GW-11	27	17-27	464.98	467.08	7/9/2019	15.60	451.48
					4/4/2022	15.85	451.23
GW-15R	27	17-27	509.92	512.08	7/12/2019	14.16	497.92
					4/4/2022	14.53	497.55
GW-16	18	--	--	512.43	7/10/2019	8.31	504.12
					4/4/2022	8.63	503.80
GW-18	22	--	--	468.22	7/11/2019	13.60	454.62
					4/4/2022	12.46	455.76
DF-MW-1	37	22-37	524.74	527.82	3/17/2021	33.54	494.28
					4/4/2022	37.15	490.67
DF-MW-2	39	24-39	514.62	517.95	3/17/2021	31.24	486.71
					4/4/2022	32.79	485.16
DF-MW-3	23	13-23	22.65	523.62	3/15/2021	17.46	506.16
					4/4/2022	22.58	501.04
DF-MW-4	25	15-25	524.20	527.34	3/16/2021	17.82	509.52
					4/4/2022	19.57	507.77

Notes: 1 - measured from top of casing  
- measurements are in feet

**Table 2**  
**Summary of Dioxins Analytical Data**  
**Bowater - Catawba Pulp and Paper Mill**  
**Catawba, York County, South Carolina**  
**SCDHEC No. 18-6120-VOC**  
**S&ME Project No. 4213-18-087**

Well ID	Date Sampled	2,3,7,8-TCDD pg/L	TEQ pg/L
WYLF-MW-3	10/16/2019	<10	<b>0.37</b>
	3/16/2021	<10	0
	4/4/2022	<0.84	<b>0.23</b>
GW-9	7/10/2019	<10	0
	3/17/2021	<10	0
	4/4/2022	<0.75	<b>0.26</b>
R29-MW-1	3/16/2021	<10	<b>4.7</b>
	4/4/2022	<b>2.1</b>	<b>5.0</b>
DF-MW-1	3/17/2021	<10	<b>0.07</b>
	4/4/2022	dry	dry
DF-MW-2	3/17/2021	<10	0
	4/4/2022	<0.49	<b>0.30</b>
DF-MW-3	3/15/2021	<10	0
	4/4/2022	dry	dry
DF-MW-4	3/16/2021	<10	0
	4/4/2022	<0.71	<b>0.54</b>
GW-11	7/9/2019	<10	0
	4/4/2022	<0.56	<b>0.21</b>
GW-15R	7/12/2019	<10	0
	4/4/2022	<0.8	<b>0.18</b>
GW-16	7/10/2019	<10	0
	4/4/2022	<0.58	<b>1.1</b>
GW-18	7/11/2019	<10	0
	4/4/2022	<2.8	<b>0.021</b>
MCL		30	30

pg/L - picogram per liter

MCL - maximum contaminant level; South Carolina State Primary Drinking Water Regulations, R.61-58 (SCDHEC 2014a).

Table 3  
 Summary of Volatile Organic Compounds Analytical Data  
 Bowater - Catawba Pulp and Paper Mill  
 Catawba, York County, South Carolina  
 SCDHEC No. 18-6120-VOC  
 S&ME Project No. 4213-18-087

Well ID	Location	Date Sampled	Benzene mg/L	Bromo dichloro methane mg/L	Carbon Tetrachloride mg/L	Chloro benzene mg/L	Chloroform mg/L	1,2-Dichloro benzene mg/L	1,4-Dichloro benzene mg/L	1,1-Dichloro ethene mg/L	Ethyl benzene mg/L	1,2,4-Trichloro benzene mg/L	Trichloro ethene mg/L
R16-MW-1 R16-MW-1A	Paper Machines 1,2,&3	10/17/2019	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	0.0093	0.014	<0.001	<0.001	<0.001
		3/15/2021	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	0.0287	<0.001	<0.001	<0.001
		4/5/2022	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	0.0211	<0.001	<0.001	<0.001
R18-MW-2		10/16/2019	0.00594	<0.001	<0.001	0.34	<0.005	0.228	0.0354	<0.001	<0.001	<0.001	<0.001
		3/15/2021	0.0196	<0.001	<0.001	0.825	<0.005	1.19	0.178	<0.001	<0.001	<0.001	<0.001
		4/5/2022	<0.050	<0.050	<0.050	0.776	<0.250	1.15	0.179	<0.050	<0.050	<0.050	<0.050
R19-MW-2 R19-MW-2A		10/16/2019	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	0.0824	<0.001	<0.001	<0.001
		3/15/2021	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	0.101	<0.001	<0.001	<0.001
		4/5/2022	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	0.0764	<0.001	<0.001	<0.001
R6-MW-1		10/16/2019	0.0119	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	0.0599	<0.001	<0.001
		4/5/2022	0.0046	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	0.0025	<0.001	<0.001
DF-MW-3		Wastewater Clarifier and Water Treatment Area	3/15/2021	<0.001	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001
	4/4/2022		dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
GW-9	7/10/2019		<0.001	<0.001	<0.001	0.00169	0.078	<0.001	0.00161	0.00205	<0.001	0.00143	0.00136
	3/17/2021		<0.001	<0.001	<0.001	0.00511	0.178	<0.001	0.00329	<0.001	<0.001	0.00456	<0.001
	4/4/2022		na	na	na	na	0.056	na	na	na	na	na	na
R1-MW-2	10/14/2019		<0.001	0.00658	0.00445	<0.001	0.522	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	3/16/2021		<0.001	<0.001	<0.001	<0.001	0.0264	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	4/5/2022		na	na	na	na	0.0203	na	na	na	na	na	na
R4-MW-2	3/16/2021	<0.001	<0.001	<0.001	<0.001	0.0389	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
	4/5/2022	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	
MCL			0.005	0.08	0.005	0.1	0.08	0.6	0.075	0.007	0.7	0.07	0.005

mg/L - milligrams per liter

na - not analyzed

MCL - maximum contaminant level; South Carolina State Primary Drinking Water Regulations, R.61-58 (SCDHEC 2014a).

## **Appendix III- Laboratory Reports**

## S&ME Inc. - Spartanburg SC

Sample Delivery Group: L1479143  
Samples Received: 04/06/2022  
Project Number: 4213-18-087  
Description: New Indy - Catawba

Report To: R. Bonds / S. Dacus / S. Lummus  
301 Zima Park Drive  
Spartanburg, SC 29301

Entire Report Reviewed By:



Tom Mellette  
Project Manager

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

# TABLE OF CONTENTS

<b>Cp: Cover Page</b>	<b>1</b>	<sup>1</sup> Cp
<b>Tc: Table of Contents</b>	<b>2</b>	
<b>Ss: Sample Summary</b>	<b>3</b>	<sup>2</sup> Tc
<b>Cn: Case Narrative</b>	<b>5</b>	<sup>3</sup> Ss
<b>Gl: Glossary of Terms</b>	<b>6</b>	<sup>4</sup> Cn
<b>Al: Accreditations &amp; Locations</b>	<b>7</b>	<sup>5</sup> Gl
<b>Sc: Sample Chain of Custody</b>	<b>8</b>	<sup>6</sup> Al
		<sup>7</sup> Sc



# SAMPLE SUMMARY

## WYLF-MW-3 L1479143-01 GW

Collected by  
Scott Dacus

Collected date/time  
04/04/22 14:20

Received date/time  
04/06/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1844569	1	04/18/22 00:00	04/18/22 00:00	-	Minneapolis, MN 55414

## GW-9 L1479143-02 GW

Collected by  
Scott Dacus

Collected date/time  
04/04/22 10:11

Received date/time  
04/06/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1844569	1	04/18/22 00:00	04/18/22 00:00	-	Minneapolis, MN 55414

## R29-MW-1 L1479143-03 GW

Collected by  
Scott Dacus

Collected date/time  
04/04/22 13:57

Received date/time  
04/06/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1844569	1	04/18/22 00:00	04/18/22 00:00	-	Minneapolis, MN 55414

## DF-MW-2 L1479143-04 GW

Collected by  
Scott Dacus

Collected date/time  
04/04/22 14:30

Received date/time  
04/06/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1844569	1	04/18/22 00:00	04/18/22 00:00	-	Minneapolis, MN 55414

## DF-MW-4 L1479143-05 GW

Collected by  
Scott Dacus

Collected date/time  
04/04/22 10:35

Received date/time  
04/06/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1844569	1	04/18/22 00:00	04/18/22 00:00	-	Minneapolis, MN 55414

## GW-11 L1479143-06 GW

Collected by  
Scott Dacus

Collected date/time  
04/04/22 11:35

Received date/time  
04/06/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1844569	1	04/18/22 00:00	04/18/22 00:00	-	Minneapolis, MN 55414

## GW-15R L1479143-07 GW

Collected by  
Scott Dacus

Collected date/time  
04/04/22 15:20

Received date/time  
04/06/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1844569	1	04/18/22 00:00	04/18/22 00:00	-	Minneapolis, MN 55414

## GW-16 L1479143-08 GW

Collected by  
Scott Dacus

Collected date/time  
04/04/22 15:17

Received date/time  
04/06/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1844569	1	04/18/22 00:00	04/18/22 00:00	-	Minneapolis, MN 55414



# SAMPLE SUMMARY

## GW-18 L1479143-09 GW

Collected by: Scott Dacus  
 Collected date/time: 04/04/22 13:45  
 Received date/time: 04/06/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1844569	1	04/18/22 00:00	04/18/22 00:00	-	Minneapolis, MN 55414

## DUPLICATE-1 L1479143-10 GW

Collected by: Scott Dacus  
 Collected date/time: 04/04/22 00:00  
 Received date/time: 04/06/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1844569	1	04/18/22 00:00	04/18/22 00:00	-	Minneapolis, MN 55414

## FIELD BLANK L1479143-11 GW

Collected by: Scott Dacus  
 Collected date/time: 04/05/22 12:00  
 Received date/time: 04/06/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1844569	1	04/18/22 00:00	04/18/22 00:00	-	Minneapolis, MN 55414

## EQUIP BLANK L1479143-12 GW

Collected by: Scott Dacus  
 Collected date/time: 04/05/22 12:15  
 Received date/time: 04/06/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Subcontracted Analyses	WG1844569	1	04/18/22 00:00	04/18/22 00:00	-	Minneapolis, MN 55414

1  
Cp

2  
Tc

3  
Ss

4  
Cn


5  
Gl

6  
Al

7  
Sc

# CASE NARRATIVE

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

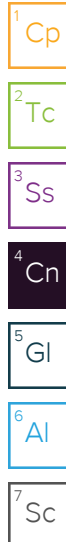


Tom Mellette  
Project Manager

## Project Narrative

---

L1479143 -01, -02, -03, -04, -05, -06, -07, -08, -09, -10, -11, -12 contains subout data that is included after the chain of custody.



# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

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

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

### Abbreviations and Definitions

SDG	Sample Delivery Group.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

### Qualifier Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.



# ACCREDITATIONS & LOCATIONS

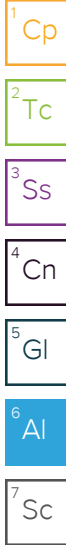
## Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

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

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



Company Name/Address:  
**S&ME Inc. - Spartanburg SC**  
 301 Zima Park Drive  
 Spartanburg, SC 29301

Billing Information:  
**Scott Dacus**  
 301 Zima Park Drive  
 Spartanburg, SC 29301

Report to:  
**Richard Bonds**

Email To:  
 rbonds@smeinc.com;SDacus@smeinc.com

Project Description:  
**New Indy - Catawba**

City/State Collected: **SC**

Please Circle:  
 PT MT CT ET

Phone: **864-574-2360**

Client Project #  
**4213-18-087**

Lab Project #  
**SMESPAR-4213-18-087**

Collected by (print):  
**SCOTT DACUS**

Site/Facility ID #

P.O. #  
**4213-18-087**

Collected by (signature):  
*[Signature]*

**Rush?** (Lab MUST Be Notified)  
 \_\_\_ Same Day \_\_\_ Five Day  
 \_\_\_ Next Day \_\_\_ 5 Day (Rad Only)  
 \_\_\_ Two Day \_\_\_ 10 Day (Rad Only)  
 \_\_\_ Three Day

Quote #

Immediately Packed on Ice N \_\_\_ Y

Date Results Needed

No. of Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
-----------	-----------	----------	-------	------	------	--------------

WYLF-MW-3	GRAB	GW		4/4/22	1420	2
GW-9	GRAB	GW		4/4/22	1011	2
R29-MW-1	GRAB	GW		4/4/22	1357	2
DF-MW-2	GRAB	GW		4/4/22	1430	2
DF-MW-4	GRAB	GW		4/4/22	1035	2
GW-11	GRAB	GW		4/4/22	1135	2
GW-15R	GRAB	GW		4/4/22	1520	2
GW-16	GRAB	GW		4/4/22	1517	2
GW-18	GRAB	GW		4/4/22	1345	2
DUPLICATE-1	GRAB	GW				2

Analysis / Container / Preservative										
SV8290	1L-Amb	NoPres								

Chain of Custody Page 1 of 2



**MT JULIET, TN**  
 12065 Lebanon Rd Mount Juliet, TN 37122  
 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/hubs/pas-standard-terms.pdf>

SDG # **1979193**  
**L-242**

Acctnum: **SMESPAR**  
 Template: **T206237**  
 Prelogin: **P914688**  
 PM: 690- Tom Mellette  
 PB: *[Signature]*  
 Shipped Via: **FedEx Ground**

Remarks	Sample # (lab only)
	-01
	-02
	-03
	-04
	-05
	-06
	-07
	-08
	-09
	-10

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

Remarks:

pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_

Samples returned via:  
 \_\_\_ UPS \_\_\_ FedEx \_\_\_ Courier

Tracking # **5719 6174 7386**

**Sample Receipt Checklist**

COC Seal Present/Intact:	NP	Y	N
COC Signed/Accurate:		Y	N
Bottles arrive intact:		Y	N
Correct bottles used:		Y	N
Sufficient volume sent:		Y	N
<b>If Applicable</b>			
VOA Zero Headspace:		Y	N
Preservation Correct/Checked:		Y	N
RAD Screen <0.5 mR/hr:		Y	N

Relinquished by (Signature):  
*[Signature]*

Date: **4/5/22** Time: **1700**

Received by: (Signature)

Trip Blank Received: Yes (No)  
 HCL/MeOH  
 TBR

Relinquished by: (Signature)

Date: Time:

Received by: (Signature)

Temp: **msA6°C** Bottles Received:  
**4.2 to = 4.2 24**

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date: Time:

Received for lab by: (Signature)  
*[Signature]*

Date: **4/6/22** Time: **0900**

Hold: Condition: **NCF / OK**

Company Name/Address:  
**S&ME Inc. - Spartanburg SC**  
 301 Zima Park Drive  
 Spartanburg, SC 29301

Billing Information:  
 Scott Dacus  
 301 Zima Park Drive  
 Spartanburg, SC 29301

Pres  
 Chk

Analysis / Container / Preservative

Chain of Custody Page 01



MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122  
 Submitting a sample via this chain of custody  
 constitutes acknowledgment and acceptance of the  
 Pace Terms and Conditions found at:  
<https://info.pacelabs.com/hubfs/pas-standard-terms.pdf>

Report to:  
 Richard Bonds

Email To:  
 rbonds@smeinc.com;SDacus@smeinc.com

Project Description:  
 New Indy - Catawba

City/State  
 Collected: **SC**

Please Circle:  
 PT MT CT ET

Phone: 864-574-2360

Client Project #  
**4213-18-087**

Lab Project #  
**SMESPAR-4213-18-087**

Collected by (print):  
**SCOTT DACUS**

Site/Facility ID #

P.O. #  
**4213-18-087**

Collected by (signature):  
*[Signature]*

Rush? (Lab MUST Be Notified)

\_\_\_ Same Day \_\_\_ Five Day  
 \_\_\_ Next Day \_\_\_ 5 Day (Rad Only)  
 \_\_\_ Two Day \_\_\_ 10 Day (Rad Only)  
 \_\_\_ Three Day

Quote #

Date Results Needed

Immediately Packed on Ice N \_\_\_ Y

No. of  
 Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs
-----------	-----------	----------	-------	------	------	--------------

SV8290 1L-Amb-NoPres

FIELD BLANK	GRAB	GW		4/5/22	1200	2
EQUIP BLANK	GRAB	GW		4/5/22	1215	2
		<del>GW</del>				
		<del>GW</del>				
		<del>GW</del>				

SDG # **1479143**  
 Table #  
 Acctnum: **SMESPAR**  
 Template: **T206237**  
 Prelogin: **P914688**  
 PM: **690 - Tom Mellette**  
 PB: **32562 ted**  
 Shipped Via: **FedEX Ground**  
 Remarks | Sample # (lab only)

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

Remarks:  
 pH \_\_\_\_\_ Temp \_\_\_\_\_  
 Flow \_\_\_\_\_ Other \_\_\_\_\_

Sample Receipt Checklist

COC Seal Present/intact:	NP	<input checked="" type="checkbox"/>	N
COC Signed/Accurate:		<input checked="" type="checkbox"/>	N
Bottles arrive intact:		<input checked="" type="checkbox"/>	N
Correct bottles used:		<input checked="" type="checkbox"/>	N
Sufficient volume sent:		<input checked="" type="checkbox"/>	N
If Applicable			
VOA Zero Headspace:		<input checked="" type="checkbox"/>	N
Preservation Correct/Checked:		<input checked="" type="checkbox"/>	N
RAD Screen <0.5 mR/hr:		<input checked="" type="checkbox"/>	N

Samples returned via:  
 \_\_\_ UPS \_\_\_ FedEx \_\_\_ Courier

Tracking # **5719 6174 7386**

Relinquished by: (Signature)  
*[Signature]*

Date: **4/5/22** Time: **1700**

Received by: (Signature)

Trip Blank Received: Yes/(No)  
 HCL / MeOH  
 TBR

Relinquished by: (Signature)

Date: Time:

Received by: (Signature)

Temp: **ms 16°C** Bottles Received:  
**4.2 ± 0 = 4.2 24**

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date: Time:

Received for lab by: (Signature)  
*[Signature]*

Date: **4/6/22** Time: **0900**

Hold: Condition:  
 NCF / **OK**

**Report Prepared for:**

Client Services  
Pace Analytical National  
12065 Lebanon Road  
Mount Juliet TN 37122

**REPORT OF  
LABORATORY  
ANALYSIS FOR  
PCDD/PCDF**

**Report Information:**

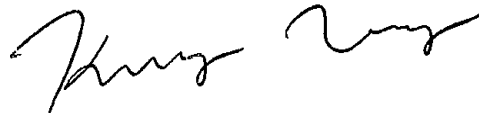
**Pace Project #: 10603827**  
**Sample Receipt Date: 04/08/2022**  
**Client Project #: L1479143 WG1844569**  
**Client Sub PO #: L1479143**  
**State Cert #: 74003**

**Invoicing & Reporting Options:**

The report provided has been invoiced as a Level 2 PCDD/PCDF Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Kongmeng Vang, your Pace Project Manager.

**This report has been reviewed by:**



April 18, 2022

Kongmeng Vang, Project Manager  
(612) 607-6382  
(612) 607-6333 (fax)

**Report Prepared Date:**

April 18, 2022



**Report of Laboratory Analysis**

This report should not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

The results relate only to the samples included in this report.





## **DISCUSSION**

This report presents the results from the analyses performed on twelve samples submitted by a representative of Pace Analytical National. The samples were analyzed for the presence or absence of polychlorodibenzo-p-dioxins (PCDDs) and polychlorodibenzofurans (PCDFs) using USEPA Method 1613B. The estimated detection limits (EDLs) were based on signal-to-noise measurements. Estimated maximum possible concentration (EMPC) values were treated as positives in the toxic equivalence calculations.

Second column confirmation analyses of 2,3,7,8-TCDF values obtained from the primary (DB5-MS) column are performed only when specifically requested for a project and only when the values are above the concentration of the lowest calibration standard. Typical resolution for this isomer using the DB5-MS column ranges from 25-30%.

The recoveries of the isotopically-labeled PCDD/PCDF internal standards in the sample extracts ranged from 17-104%. Except for seven low values, which were flagged "R" on the results tables, the labeled standard recoveries obtained for this project were within the target ranges specified in Method 1613B. Also, since the quantification of the native 2,3,7,8-substituted congeners was based on isotope dilution, the data were automatically corrected for recovery and accurate values were obtained.

Values were flagged "I" where incorrect isotope ratios were obtained. Concentrations below the calibration range were flagged "J" and should be regarded as estimates.

A laboratory method blank was prepared and analyzed with the sample batch as part of our routine quality control procedures. The results show that PCDDs and PCDFs were not detected.

Laboratory spike samples were also prepared with the sample batch using clean reference matrix that had been fortified with native standard materials. The results show that the spiked native compounds were recovered at 67-118% with relative percent differences of 0.0-10.4%. The recovery values obtained for the spiked native OCDD in the laboratory spike samples were below the target range, flagged "R" on the results tables, and may indicate a low bias for this congener in these determinations. Matrix spikes were not prepared with the sample batch.

## **REPORT OF LABORATORY ANALYSIS**

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc.



## Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
A2LA	2926.01	Missouri	10100
Alabama	40770	Montana	CERT0092
Alaska-DW	MN00064	Nebraska	NE-OS-18-06
Alaska-UST	17-009	Nevada	MN00064
Arizona	AZ0014	New Hampshire	2081
Arkansas - WW	88-0680	New Jersey	MN002
Arkansas-DW	MN00064	New York	11647
California	2929	North Carolina-	27700
Colorado	MN00064	North Carolina-	530
Connecticut	PH-0256	North Dakota	R-036
Florida	E87605	Ohio-DW	41244
Georgia	959	Ohio-VAP (170	CL101
Hawaii	MN00064	Ohio-VAP (180	CL110
Idaho	MN00064	Oklahoma	9507
Illinois	200011	Oregon- rimary	MN300001
Indiana	C-MN-01	Oregon-Second	MN200001
Iowa	368	Pennsylvania	68-00563
Kansas	E-10167	Puerto Rico	MN00064
Kentucky-DW	90062	South Carolina	74003
Kentucky-WW	90062	Tennessee	TN02818
Louisiana-DEQ	AI-84596	Texas	T104704192
Louisiana-DW	MN00064	Utah	MN00064
Maine	MN00064	Vermont	VT-027053137
Maryland	322	Virginia	460163
Michigan	9909	Washington	C486
Minnesota	027-053-137	West Virginia-D	382
Minnesota-Ag	via MN 027-053	West Virginia-D	9952C
Minnesota-Petr	1240	Wisconsin	999407970
Mississippi	MN00064	Wyoming-UST	via A2LA 2926.

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc.

Report No.....10603827

# **Appendix A**

## Sample Management



<b>Sample Condition Upon Receipt</b>	<b>Client Name:</b> <u>Pace</u>	<b>Project #:</b>	<b>WO# : 10603827</b>
<b>Courier:</b>	<input checked="" type="checkbox"/> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> USPS <input type="checkbox"/> Client <input type="checkbox"/> Pace <input type="checkbox"/> SpeedDee <input type="checkbox"/> Commercial		<b>PM: KV</b> <b>Due Date: 04/19/22</b>
<b>Tracking Number:</b>	<u>4 coolers</u>	<b>See Exceptions</b> <input type="checkbox"/> ENV-FRM-MIN4-0142	<b>CLIENT: ESC_TN</b>

**Custody Seal on Cooler/Box Present?**  Yes     No    **Seals Intact?**  Yes     No    **Biological Tissue Frozen?**  Yes     No     N/A

**Packing Material:**  Bubble Wrap     Bubble Bags     None     Other: \_\_\_\_\_    **Temp Blank?**  Yes     No

**Thermometer:**  T1(0461)     T2(1336)     T3(0459)     T4(0254)     T5(0489)     01339252/1710     122639816     140792808    **Type of Ice:**  Wet     Blue     None     Dry     Melted

**Did Samples Originate in West Virginia?**  Yes     No    **Were All Container Temps Taken?**  Yes     No     N/A

Temp should be above freezing to 6°C    **Cooler Temp Read w/temp blank:** \_\_\_\_\_ °C    **Average Corrected Temp (no temp blank only):** \_\_\_\_\_ °C     See Exceptions ENV-FRM-MIN4-0142     1 Container

**Correction Factor:** -0.1    **Cooler Temp Corrected w/temp blank:** 4 coolers °C

**USDA Regulated Soil:** ( N/A, water sample/other: \_\_\_\_\_)    **Date/Initials of Person Examining Contents:** 4-8-22 RCF

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, IL, IN, IA, MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)?  Yes     No    Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)?  Yes     No

**If Yes to either question, fill out a Regulated Soil Checklist ENV-FRM-MIN4-0154 and include with SCUR/COC paperwork.**

Location (check one): <input type="checkbox"/> Duluth <input checked="" type="checkbox"/> Minneapolis <input type="checkbox"/> Virginia	COMMENTS:
Chain of Custody Present and Filled Out? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Relinquished? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2.
Sampler Name and/or Signature on COC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4. If Fecal: <input type="checkbox"/> <8 hrs <input type="checkbox"/> >8hr, <24 hrs, <input type="checkbox"/> >24 hrs
<b>Short Hold Time Analysis (&lt;72 hr)?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. <input type="checkbox"/> Fecal Coliform <input type="checkbox"/> HPC <input type="checkbox"/> Total Coliform/E coli <input type="checkbox"/> BOD/cBOD <input type="checkbox"/> Hex Chrome <input type="checkbox"/> Turbidity <input type="checkbox"/> Nitrate <input type="checkbox"/> Nitrite <input type="checkbox"/> Orthophos <input type="checkbox"/> Other
<b>Rush Turn Around Time Requested?</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No -Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
Field Filtered Volume Received for Dissolved Tests? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10. Is sediment visible in the dissolved container? <input type="checkbox"/> Yes <input type="checkbox"/> No
Is sufficient information available to reconcile the samples to the COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Matrix: <input checked="" type="checkbox"/> Water <input type="checkbox"/> Soil <input type="checkbox"/> Oil <input type="checkbox"/> Other-	11. If no, write ID/ Date/Time on Container Below:    See Exception <input type="checkbox"/> ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A All containers needing preservation are found to be in compliance with EPA recommendation? (HNO <sub>3</sub> , H <sub>2</sub> SO <sub>4</sub> , <2pH, NaOH >9 Sulfide, NaOH >10 Cyanide) <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12. Sample # <input type="checkbox"/> NaOH <input type="checkbox"/> HNO <sub>3</sub> <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> Zinc Acetate Positive for Res. <input type="checkbox"/> Yes <input type="checkbox"/> No    See Exception <input type="checkbox"/> ENV-FRM-MIN4-0142 Chlorine? <input type="checkbox"/> No <b>pH Paper Lot#</b> Res. Chlorine    0-6 Roll    0-6 Strip    0-14 Strip
Headspace in Methyl Mercury Container? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Extra labels present on soil VOA or WIDRO containers? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Headspace in VOA Vials (greater than 6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13. See Exception <input type="checkbox"/> ENV-FRM-MIN4-0140
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14. Pace Trip Blank Lot # (if purchased): _____

**CLIENT NOTIFICATION/RESOLUTION**    **Field Data Required?**  Yes     No

Person Contacted: \_\_\_\_\_    Date/Time: \_\_\_\_\_

Comments/Resolution: \_\_\_\_\_

**Project Manager Review:** [Signature]    **Date:** 4/8/22

**SCUR Exceptions:**

**Workorder #:**

Out of Temp Sample IDs	Container Type	# of Containers	PM Notified? <input type="checkbox"/> Yes <input type="checkbox"/> No															
			If yes, indicate who was contacted/date/time. If no, indicate reason why.															
			<b>Multiple Cooler Project?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No If you answered yes, fill out information to the left.															
			<b>No Temp Blank</b>															
			<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 33%;">Read Temp</th> <th style="width: 33%;">Corrected Temp</th> <th style="width: 33%;">Average Temp</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	Read Temp	Corrected Temp	Average Temp												
Read Temp	Corrected Temp	Average Temp																

Tracking Number/Temperature	# of Containers
5719 6177 9050	0-7
5719 6177 9039	2-2
" 9040	2-3
" 9028	2-7

Issue Type:	Container Type	# of Containers
Sample ID		

**pH Adjustment Log for Preserved Samples**

Sample ID	Type of Preserv.	pH Upon Receipt	Date Adjusted	Time Adjusted	Amount Added (mL)	Lot # Added	pH After	In Compliance after addition?	Initials
								<input type="checkbox"/> Yes <input type="checkbox"/> No	
								<input type="checkbox"/> Yes <input type="checkbox"/> No	
								<input type="checkbox"/> Yes <input type="checkbox"/> No	
								<input type="checkbox"/> Yes <input type="checkbox"/> No	

**Comments:**

---



---



---



---

## Reporting Flags

- A = Reporting Limit based on signal to noise (EDL)
- B = Less than 10x higher than method blank level
- C = Result obtained from confirmation analysis
- D = Result obtained from analysis of diluted sample
- E = Exceeds calibration range
- I = Interference present
- J = Estimated value
- L = Suppressive interference, analyte may be biased low
- Nn = Value obtained from additional analysis
- P = PCDE Interference
- R = Recovery outside target range
- S = Peak saturated
- U = Analyte not detected
- V = Result verified by confirmation analysis
- X = %D Exceeds limits
- Y = Calculated using average of daily RFs
- \* = See Discussion

### REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc.

Report No.....10603827

# **Appendix B**

## **Sample Analysis Summary**





### Method 1613B Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	WYLF-MW-3			
Lab Sample ID	10603827001			
Filename	L220414A_12			
Injected By	MS4			
Total Amount Extracted	1020 mL	Matrix	Water	
% Moisture	NA	Dilution	NA	
Dry Weight Extracted	NA	Collected	04/04/2022 14:20	
ICAL ID	L220407	Received	04/08/2022 08:50	
CCal Filename(s)	L220414A_07	Extracted	04/08/2022 14:50	
Method Blank ID	BLANK-97974	Analyzed	04/14/2022 09:27	

Native Isomers	Conc pg/L	EMPC pg/L	EDL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	0.37	2,3,7,8-TCDF-13C	2.00	85
Total TCDF	ND	----	0.37	2,3,7,8-TCDD-13C	2.00	79
				1,2,3,7,8-PeCDF-13C	2.00	53
2,3,7,8-TCDD	ND	----	0.84	2,3,4,7,8-PeCDF-13C	2.00	58
Total TCDD	ND	----	0.84	1,2,3,7,8-PeCDD-13C	2.00	56
				1,2,3,4,7,8-HxCDF-13C	2.00	46
1,2,3,7,8-PeCDF	ND	----	0.32	1,2,3,6,7,8-HxCDF-13C	2.00	78
2,3,4,7,8-PeCDF	ND	----	0.27	2,3,4,6,7,8-HxCDF-13C	2.00	80
Total PeCDF	ND	----	0.27	1,2,3,7,8,9-HxCDF-13C	2.00	24 R
				1,2,3,4,7,8-HxCDD-13C	2.00	77
1,2,3,7,8-PeCDD	ND	----	1.1	1,2,3,6,7,8-HxCDD-13C	2.00	66
Total PeCDD	ND	----	1.1	1,2,3,4,6,7,8-HpCDF-13C	2.00	29
				1,2,3,4,7,8,9-HpCDF-13C	2.00	54
1,2,3,4,7,8-HxCDF	ND	----	0.34	1,2,3,4,6,7,8-HpCDD-13C	2.00	59
1,2,3,6,7,8-HxCDF	ND	----	0.35	OCDD-13C	4.00	46
2,3,4,6,7,8-HxCDF	ND	----	0.36			
1,2,3,7,8,9-HxCDF	ND	----	2.2	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	0.34	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	----	1.7	0.89 U	2,3,7,8-TCDD-37Cl4	0.20	83
1,2,3,6,7,8-HxCDD	ND	----	0.87			
1,2,3,7,8,9-HxCDD	ND	----	0.89			
Total HxCDD	ND	----	0.87			
1,2,3,4,6,7,8-HpCDF	ND	----	1.7	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	1.2	Equivalence: 0.23 pg/L		
Total HpCDF	ND	----	1.2	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	3.1	----	1.0 J			
Total HpCDD	6.1	----	1.0 J			
OCDF	----	1.6	1.6 U			
OCDD	110	----	1.5			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
EDL = Estimated Detection Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

J = Estimated value  
R = Recovery outside target range  
I = Interference present

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc.



### Method 1613B Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	GW-9			
Lab Sample ID	10603827002			
Filename	L220414A_13			
Injected By	MS4			
Total Amount Extracted	1030 mL	Matrix	Water	
% Moisture	NA	Dilution	NA	
Dry Weight Extracted	NA	Collected	04/04/2022 10:11	
ICAL ID	L220407	Received	04/08/2022 08:50	
CCal Filename(s)	L220414A_07	Extracted	04/08/2022 14:50	
Method Blank ID	BLANK-97974	Analyzed	04/14/2022 10:12	

Native Isomers	Conc pg/L	EMPC pg/L	EDL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	0.39	2,3,7,8-TCDF-13C	2.00	93
Total TCDF	ND	----	0.39	2,3,7,8-TCDD-13C	2.00	85
				1,2,3,7,8-PeCDF-13C	2.00	47
2,3,7,8-TCDD	ND	----	0.75	2,3,4,7,8-PeCDF-13C	2.00	65
Total TCDD	ND	----	0.75	1,2,3,7,8-PeCDD-13C	2.00	57
				1,2,3,4,7,8-HxCDF-13C	2.00	62
1,2,3,7,8-PeCDF	ND	----	0.25	1,2,3,6,7,8-HxCDF-13C	2.00	88
2,3,4,7,8-PeCDF	ND	----	0.18	2,3,4,6,7,8-HxCDF-13C	2.00	91
Total PeCDF	0.50	----	0.18 J	1,2,3,7,8,9-HxCDF-13C	2.00	32
				1,2,3,4,7,8-HxCDD-13C	2.00	86
1,2,3,7,8-PeCDD	ND	----	0.58	1,2,3,6,7,8-HxCDD-13C	2.00	76
Total PeCDD	ND	----	0.58	1,2,3,4,6,7,8-HpCDF-13C	2.00	34
				1,2,3,4,7,8,9-HpCDF-13C	2.00	65
1,2,3,4,7,8-HxCDF	ND	----	0.42	1,2,3,4,6,7,8-HpCDD-13C	2.00	70
1,2,3,6,7,8-HxCDF	ND	----	0.35	OCDD-13C	4.00	54
2,3,4,6,7,8-HxCDF	ND	----	0.40			
1,2,3,7,8,9-HxCDF	ND	----	1.6	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	0.35	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	1.8	----	0.59 J	2,3,7,8-TCDD-37Cl4	0.20	86
1,2,3,6,7,8-HxCDD	ND	----	0.65			
1,2,3,7,8,9-HxCDD	ND	----	0.55			
Total HxCDD	1.8	----	0.55 J			
1,2,3,4,6,7,8-HpCDF	ND	----	1.6	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	0.98	Equivalence: 0.26 pg/L		
Total HpCDF	ND	----	0.98	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	8.0	----	1.1 J			
Total HpCDD	10	----	1.1 J			
OCDF	ND	----	1.6			
OCDD	6.6	----	1.8 J			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 EDL = Estimated Detection Limit  
 J = Estimated value

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc.



### Method 1613B Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	R29-MW-1			
Lab Sample ID	10603827003			
Filename	L220414A_14			
Injected By	MS4			
Total Amount Extracted	1030 mL	Matrix	Water	
% Moisture	NA	Dilution	NA	
Dry Weight Extracted	NA	Collected	04/04/2022 13:57	
ICAL ID	L220407	Received	04/08/2022 08:50	
CCal Filename(s)	L220414A_07	Extracted	04/08/2022 14:50	
Method Blank ID	BLANK-97974	Analyzed	04/14/2022 10:56	

Native Isomers	Conc pg/L	EMPC pg/L	EDL pg/L		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	15	----	0.71		2,3,7,8-TCDF-13C	2.00	65
Total TCDF	17	----	0.71		2,3,7,8-TCDD-13C	2.00	58
					1,2,3,7,8-PeCDF-13C	2.00	38
2,3,7,8-TCDD	2.1	----	0.85	J	2,3,4,7,8-PeCDF-13C	2.00	43
Total TCDD	2.1	----	0.85	J	1,2,3,7,8-PeCDD-13C	2.00	40
					1,2,3,4,7,8-HxCDF-13C	2.00	39
1,2,3,7,8-PeCDF	ND	----	0.51		1,2,3,6,7,8-HxCDF-13C	2.00	55
2,3,4,7,8-PeCDF	----	0.54	0.44	U	2,3,4,6,7,8-HxCDF-13C	2.00	57
Total PeCDF	1.0	----	0.44	J	1,2,3,7,8,9-HxCDF-13C	2.00	23 R
					1,2,3,4,7,8-HxCDD-13C	2.00	55
1,2,3,7,8-PeCDD	ND	----	1.1		1,2,3,6,7,8-HxCDD-13C	2.00	47
Total PeCDD	ND	----	1.1		1,2,3,4,6,7,8-HpCDF-13C	2.00	21 R
					1,2,3,4,7,8,9-HpCDF-13C	2.00	40
1,2,3,4,7,8-HxCDF	ND	----	0.92		1,2,3,4,6,7,8-HpCDD-13C	2.00	44
1,2,3,6,7,8-HxCDF	ND	----	0.63		OCDD-13C	4.00	32
2,3,4,6,7,8-HxCDF	ND	----	0.62				
1,2,3,7,8,9-HxCDF	ND	----	2.7		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	0.62		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	----	1.7	1.4	U	2,3,7,8-TCDD-37Cl4	0.20	71
1,2,3,6,7,8-HxCDD	----	1.4	1.3	U			
1,2,3,7,8,9-HxCDD	ND	----	1.2				
Total HxCDD	4.7	----	1.2	J			
1,2,3,4,6,7,8-HpCDF	4.5	----	3.6	J	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	2.2		Equivalence: 5.0 pg/L		
Total HpCDF	4.5	----	2.2	J	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	67	----	1.7				
Total HpCDD	160	----	1.7				
OCDF	41	----	4.4	J			
OCDD	740	----	1.7				

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 EDL = Estimated Detection Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

J = Estimated value  
 R = Recovery outside target range  
 I = Interference present

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc.



### Method 1613B Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	DF-MW-2				
Lab Sample ID	10603827004				
Filename	L220414A_15				
Injected By	MS4				
Total Amount Extracted	1030 mL	Matrix	Water		
% Moisture	NA	Dilution	NA		
Dry Weight Extracted	NA	Collected	04/04/2022 14:30		
ICAL ID	L220407	Received	04/08/2022 08:50		
CCal Filename(s)	L220414A_07	Extracted	04/08/2022 14:50		
Method Blank ID	BLANK-97974	Analyzed	04/14/2022 11:41		

Native Isomers	Conc pg/L	EMPC pg/L	EDL pg/L		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	0.48	----	0.28	J	2,3,7,8-TCDF-13C	2.00	84
Total TCDF	1.2	----	0.28	J	2,3,7,8-TCDD-13C	2.00	77
					1,2,3,7,8-PeCDF-13C	2.00	54
2,3,7,8-TCDD	ND	----	0.49		2,3,4,7,8-PeCDF-13C	2.00	57
Total TCDD	ND	----	0.49		1,2,3,7,8-PeCDD-13C	2.00	55
					1,2,3,4,7,8-HxCDF-13C	2.00	38
1,2,3,7,8-PeCDF	ND	----	0.20		1,2,3,6,7,8-HxCDF-13C	2.00	75
2,3,4,7,8-PeCDF	0.23	----	0.16	J	2,3,4,6,7,8-HxCDF-13C	2.00	81
Total PeCDF	0.23	----	0.16	J	1,2,3,7,8,9-HxCDF-13C	2.00	17 R
					1,2,3,4,7,8-HxCDD-13C	2.00	80
1,2,3,7,8-PeCDD	ND	----	0.63		1,2,3,6,7,8-HxCDD-13C	2.00	68
Total PeCDD	ND	----	0.63		1,2,3,4,6,7,8-HpCDF-13C	2.00	28
					1,2,3,4,7,8,9-HpCDF-13C	2.00	51
1,2,3,4,7,8-HxCDF	ND	----	0.23		1,2,3,4,6,7,8-HpCDD-13C	2.00	56
1,2,3,6,7,8-HxCDF	ND	----	0.24		OCDD-13C	4.00	45
2,3,4,6,7,8-HxCDF	ND	----	0.21				
1,2,3,7,8,9-HxCDF	ND	----	1.3		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	0.21		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	1.8	----	0.60	J	2,3,7,8-TCDD-37Cl4	0.20	82
1,2,3,6,7,8-HxCDD	ND	----	0.59				
1,2,3,7,8,9-HxCDD	ND	----	0.54				
Total HxCDD	1.8	----	0.54	J			
1,2,3,4,6,7,8-HpCDF	ND	----	1.3		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	1.1		Equivalence: 0.30 pg/L		
Total HpCDF	ND	----	1.1		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	1.4				
Total HpCDD	ND	----	1.4				
OCDF	ND	----	1.4				
OCDD	15	----	1.5	J			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
EDL = Estimated Detection Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

J = Estimated value  
R = Recovery outside target range

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc.



### Method 1613B Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	DF-MW-4			
Lab Sample ID	10603827005			
Filename	L220414A_16			
Injected By	MS4			
Total Amount Extracted	1030 mL	Matrix	Water	
% Moisture	NA	Dilution	NA	
Dry Weight Extracted	NA	Collected	04/04/2022 10:35	
ICAL ID	L220407	Received	04/08/2022 08:50	
CCal Filename(s)	L220414A_07	Extracted	04/08/2022 14:50	
Method Blank ID	BLANK-97974	Analyzed	04/14/2022 12:25	

Native Isomers	Conc pg/L	EMPC pg/L	EDL pg/L		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	0.26		2,3,7,8-TCDF-13C	2.00	87
Total TCDF	ND	----	0.26		2,3,7,8-TCDD-13C	2.00	78
					1,2,3,7,8-PeCDF-13C	2.00	58
2,3,7,8-TCDD	ND	----	0.71		2,3,4,7,8-PeCDF-13C	2.00	60
Total TCDD	ND	----	0.71		1,2,3,7,8-PeCDD-13C	2.00	58
					1,2,3,4,7,8-HxCDF-13C	2.00	67
1,2,3,7,8-PeCDF	----	0.51	0.31	J	1,2,3,6,7,8-HxCDF-13C	2.00	81
2,3,4,7,8-PeCDF	0.53	----	0.25	J	2,3,4,6,7,8-HxCDF-13C	2.00	85
Total PeCDF	0.53	----	0.25	J	1,2,3,7,8,9-HxCDF-13C	2.00	32
					1,2,3,4,7,8-HxCDD-13C	2.00	82
1,2,3,7,8-PeCDD	ND	----	0.70		1,2,3,6,7,8-HxCDD-13C	2.00	77
Total PeCDD	ND	----	0.70		1,2,3,4,6,7,8-HpCDF-13C	2.00	33
					1,2,3,4,7,8,9-HpCDF-13C	2.00	60
1,2,3,4,7,8-HxCDF	----	0.41	0.38	J	1,2,3,4,6,7,8-HpCDD-13C	2.00	65
1,2,3,6,7,8-HxCDF	----	0.53	0.29	J	OCDD-13C	4.00	50
2,3,4,6,7,8-HxCDF	----	0.37	0.32	J			
1,2,3,7,8,9-HxCDF	ND	----	1.8		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	0.29		1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	2.1	----	0.89	J	2,3,7,8-TCDD-37Cl4	0.20	83
1,2,3,6,7,8-HxCDD	ND	----	0.87				
1,2,3,7,8,9-HxCDD	ND	----	0.68				
Total HxCDD	2.1	----	0.68	J			
1,2,3,4,6,7,8-HpCDF	ND	----	1.3		Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	----	1.7	1.2	J	Equivalence: 0.54 pg/L		
Total HpCDF	ND	----	1.2		(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	1.3				
Total HpCDD	ND	----	1.3				
OCDF	ND	----	1.5				
OCDD	11	----	2.3	J			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
EDL = Estimated Detection Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

J = Estimated value  
I = Interference present

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc.



### Method 1613B Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	GW-11		
Lab Sample ID	10603827006		
Filename	L220414A_17		
Injected By	MS4		
Total Amount Extracted	1020 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	04/04/2022 11:35
ICAL ID	L220407	Received	04/08/2022 08:50
CCal Filename(s)	L220414A_07	Extracted	04/08/2022 14:50
Method Blank ID	BLANK-97974	Analyzed	04/14/2022 13:10

Native Isomers	Conc pg/L	EMPC pg/L	EDL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	0.25	2,3,7,8-TCDF-13C	2.00	89
Total TCDF	ND	----	0.25	2,3,7,8-TCDD-13C	2.00	83
				1,2,3,7,8-PeCDF-13C	2.00	58
2,3,7,8-TCDD	ND	----	0.56	2,3,4,7,8-PeCDF-13C	2.00	63
Total TCDD	ND	----	0.56	1,2,3,7,8-PeCDD-13C	2.00	60
				1,2,3,4,7,8-HxCDF-13C	2.00	73
1,2,3,7,8-PeCDF	ND	----	0.21	1,2,3,6,7,8-HxCDF-13C	2.00	81
2,3,4,7,8-PeCDF	0.21	----	0.18 J	2,3,4,6,7,8-HxCDF-13C	2.00	86
Total PeCDF	0.21	----	0.18 J	1,2,3,7,8,9-HxCDF-13C	2.00	37
				1,2,3,4,7,8-HxCDD-13C	2.00	80
1,2,3,7,8-PeCDD	ND	----	0.59	1,2,3,6,7,8-HxCDD-13C	2.00	75
Total PeCDD	ND	----	0.59	1,2,3,4,6,7,8-HpCDF-13C	2.00	31
				1,2,3,4,7,8,9-HpCDF-13C	2.00	58
1,2,3,4,7,8-HxCDF	ND	----	0.39	1,2,3,4,6,7,8-HpCDD-13C	2.00	64
1,2,3,6,7,8-HxCDF	ND	----	0.30	OCDD-13C	4.00	44
2,3,4,6,7,8-HxCDF	ND	----	0.29			
1,2,3,7,8,9-HxCDF	ND	----	0.99	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	0.29	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	----	1.4	0.57 U	2,3,7,8-TCDD-37Cl4	0.20	90
1,2,3,6,7,8-HxCDD	ND	----	0.69			
1,2,3,7,8,9-HxCDD	ND	----	0.68			
Total HxCDD	ND	----	0.57			
1,2,3,4,6,7,8-HpCDF	ND	----	1.3	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	0.89	Equivalence: 0.21 pg/L		
Total HpCDF	ND	----	0.89	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	1.1			
Total HpCDD	ND	----	1.1			
OCDF	ND	----	1.5			
OCDD	----	5.1	2.4 U			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 EDL = Estimated Detection Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

J = Estimated value  
 I = Interference present

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc.



### Method 1613B Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	GW-15R		
Lab Sample ID	10603827007		
Filename	L220414A_18		
Injected By	MS4		
Total Amount Extracted	1030 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	04/04/2022 15:20
ICAL ID	L220407	Received	04/08/2022 08:50
CCal Filename(s)	L220414A_07	Extracted	04/08/2022 14:50
Method Blank ID	BLANK-97974	Analyzed	04/14/2022 13:54

Native Isomers	Conc pg/L	EMPC pg/L	EDL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	0.31	2,3,7,8-TCDF-13C	2.00	87
Total TCDF	ND	----	0.31	2,3,7,8-TCDD-13C	2.00	79
				1,2,3,7,8-PeCDF-13C	2.00	39
2,3,7,8-TCDD	ND	----	0.80	2,3,4,7,8-PeCDF-13C	2.00	58
Total TCDD	ND	----	0.80	1,2,3,7,8-PeCDD-13C	2.00	50
				1,2,3,4,7,8-HxCDF-13C	2.00	57
1,2,3,7,8-PeCDF	ND	----	0.24	1,2,3,6,7,8-HxCDF-13C	2.00	80
2,3,4,7,8-PeCDF	ND	----	0.17	2,3,4,6,7,8-HxCDF-13C	2.00	83
Total PeCDF	ND	----	0.17	1,2,3,7,8,9-HxCDF-13C	2.00	22 R
				1,2,3,4,7,8-HxCDD-13C	2.00	77
1,2,3,7,8-PeCDD	ND	----	0.70	1,2,3,6,7,8-HxCDD-13C	2.00	69
Total PeCDD	ND	----	0.70	1,2,3,4,6,7,8-HpCDF-13C	2.00	29
				1,2,3,4,7,8,9-HpCDF-13C	2.00	54
1,2,3,4,7,8-HxCDF	ND	----	0.36	1,2,3,4,6,7,8-HpCDD-13C	2.00	58
1,2,3,6,7,8-HxCDF	ND	----	0.25	OCDD-13C	4.00	44
2,3,4,6,7,8-HxCDF	ND	----	0.25			
1,2,3,7,8,9-HxCDF	ND	----	2.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	0.25	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	----	1.8	0.57 U	2,3,7,8-TCDD-37Cl4	0.20	79
1,2,3,6,7,8-HxCDD	ND	----	0.49			
1,2,3,7,8,9-HxCDD	ND	----	0.51			
Total HxCDD	ND	----	0.49			
1,2,3,4,6,7,8-HpCDF	ND	----	1.2	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	0.99	Equivalence: 0.18 pg/L		
Total HpCDF	ND	----	0.99	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	1.5			
Total HpCDD	ND	----	1.5			
OCDF	ND	----	2.4			
OCDD	4.2	----	2.1 J			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
EDL = Estimated Detection Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

J = Estimated value  
R = Recovery outside target range  
I = Interference present

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc.



### Method 1613B Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	GW-16				
Lab Sample ID	10603827008				
Filename	L220414A_19				
Injected By	MS4				
Total Amount Extracted	1020 mL	Matrix	Water		
% Moisture	NA	Dilution	NA		
Dry Weight Extracted	NA	Collected	04/04/2022 15:17		
ICAL ID	L220407	Received	04/08/2022 08:50		
CCal Filename(s)	L220414A_07	Extracted	04/08/2022 14:50		
Method Blank ID	BLANK-97974	Analyzed	04/14/2022 14:39		

Native Isomers	Conc pg/L	EMPC pg/L	EDL pg/L		Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	1.8	----	0.34	J	2,3,7,8-TCDF-13C	2.00	86
Total TCDF	1.8	----	0.34	J	2,3,7,8-TCDD-13C	2.00	76
					1,2,3,7,8-PeCDF-13C	2.00	51
2,3,7,8-TCDD	ND	----	0.58		2,3,4,7,8-PeCDF-13C	2.00	58
Total TCDD	ND	----	0.58		1,2,3,7,8-PeCDD-13C	2.00	53
					1,2,3,4,7,8-HxCDF-13C	2.00	59
1,2,3,7,8-PeCDF	0.74	----	0.31	J	1,2,3,6,7,8-HxCDF-13C	2.00	72
2,3,4,7,8-PeCDF	----	0.66	0.24	IJ	2,3,4,6,7,8-HxCDF-13C	2.00	76
Total PeCDF	0.74	----	0.24	J	1,2,3,7,8,9-HxCDF-13C	2.00	21 R
					1,2,3,4,7,8-HxCDD-13C	2.00	71
1,2,3,7,8-PeCDD	ND	----	1.0		1,2,3,6,7,8-HxCDD-13C	2.00	64
Total PeCDD	ND	----	1.0		1,2,3,4,6,7,8-HpCDF-13C	2.00	25 R
					1,2,3,4,7,8,9-HpCDF-13C	2.00	48
1,2,3,4,7,8-HxCDF	----	0.76	0.41	IJ	1,2,3,4,6,7,8-HpCDD-13C	2.00	51
1,2,3,6,7,8-HxCDF	0.89	----	0.31	J	OCDD-13C	4.00	34
2,3,4,6,7,8-HxCDF	----	0.73	0.26	IJ			
1,2,3,7,8,9-HxCDF	ND	----	1.7		1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	0.89	----	0.26	J	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	2.8	----	0.81	J	2,3,7,8-TCDD-37Cl4	0.20	87
1,2,3,6,7,8-HxCDD	ND	----	0.89				
1,2,3,7,8,9-HxCDD	1.1	----	0.65	J			
Total HxCDD	3.9	----	0.65	J			
1,2,3,4,6,7,8-HpCDF	2.2	----	1.7	J	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	1.5		Equivalence: 1.1 pg/L		
Total HpCDF	2.2	----	1.5	J	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	1.6				
Total HpCDD	ND	----	1.6				
OCDF	2.4	----	2.3	J			
OCDD	8.6	----	2.6	J			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
EDL = Estimated Detection Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

J = Estimated value  
R = Recovery outside target range  
I = Interference present

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc.





### Method 1613B Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	GW-18		
Lab Sample ID	10603827009		
Filename	U220414A_13		
Injected By	MS4		
Total Amount Extracted	1010 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	04/04/2022 13:45
ICAL ID	U220123	Received	04/08/2022 08:50
CCal Filename(s)	U220413B_16	Extracted	04/08/2022 14:50
Method Blank ID	BLANK-97974	Analyzed	04/14/2022 17:48

Native Isomers	Conc pg/L	EMPC pg/L	EDL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	0.73	2,3,7,8-TCDF-13C	2.00	79
Total TCDF	ND	----	0.73	2,3,7,8-TCDD-13C	2.00	83
				1,2,3,7,8-PeCDF-13C	2.00	79
2,3,7,8-TCDD	ND	----	2.8	2,3,4,7,8-PeCDF-13C	2.00	76
Total TCDD	ND	----	2.8	1,2,3,7,8-PeCDD-13C	2.00	88
				1,2,3,4,7,8-HxCDF-13C	2.00	88
1,2,3,7,8-PeCDF	ND	----	0.84	1,2,3,6,7,8-HxCDF-13C	2.00	43
2,3,4,7,8-PeCDF	ND	----	0.56	2,3,4,6,7,8-HxCDF-13C	2.00	77
Total PeCDF	ND	----	0.56	1,2,3,7,8,9-HxCDF-13C	2.00	73
				1,2,3,4,7,8-HxCDD-13C	2.00	84
1,2,3,7,8-PeCDD	ND	----	2.2	1,2,3,6,7,8-HxCDD-13C	2.00	93
Total PeCDD	ND	----	2.2	1,2,3,4,6,7,8-HpCDF-13C	2.00	62
				1,2,3,4,7,8,9-HpCDF-13C	2.00	40
1,2,3,4,7,8-HxCDF	ND	----	2.0	1,2,3,4,6,7,8-HpCDD-13C	2.00	69
1,2,3,6,7,8-HxCDF	ND	----	3.3	OCDD-13C	4.00	36
2,3,4,6,7,8-HxCDF	ND	----	2.8			
1,2,3,7,8,9-HxCDF	ND	----	2.7	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	2.0	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	2.4	2,3,7,8-TCDD-37Cl4	0.20	93
1,2,3,6,7,8-HxCDD	ND	----	2.8			
1,2,3,7,8,9-HxCDD	ND	----	2.6			
Total HxCDD	2.5	----	2.4 J			
1,2,3,4,6,7,8-HpCDF	ND	----	5.4	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	15	Equivalence: 0.021 pg/L		
Total HpCDF	ND	----	5.4	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	4.3			
Total HpCDD	9.6	----	4.3 J			
OCDF	ND	----	9.2			
OCDD	71	----	20 J			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 EDL = Estimated Detection Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

J = Estimated value

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc.



### Method 1613B Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	DUPLICATE-1		
Lab Sample ID	10603827010		
Filename	U220414A_14		
Injected By	MS4		
Total Amount Extracted	1020 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	04/04/2022 00:01
ICAL ID	U220123	Received	04/08/2022 08:50
CCal Filename(s)	U220413B_16	Extracted	04/08/2022 14:50
Method Blank ID	BLANK-97974	Analyzed	04/14/2022 18:35

Native Isomers	Conc pg/L	EMPC pg/L	EDL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	0.83	2,3,7,8-TCDF-13C	2.00	86
Total TCDF	ND	----	0.83	2,3,7,8-TCDD-13C	2.00	91
				1,2,3,7,8-PeCDF-13C	2.00	83
2,3,7,8-TCDD	ND	----	3.6	2,3,4,7,8-PeCDF-13C	2.00	83
Total TCDD	ND	----	3.6	1,2,3,7,8-PeCDD-13C	2.00	93
				1,2,3,4,7,8-HxCDF-13C	2.00	96
1,2,3,7,8-PeCDF	ND	----	1.2	1,2,3,6,7,8-HxCDF-13C	2.00	42
2,3,4,7,8-PeCDF	ND	----	0.92	2,3,4,6,7,8-HxCDF-13C	2.00	88
Total PeCDF	ND	----	0.92	1,2,3,7,8,9-HxCDF-13C	2.00	84
				1,2,3,4,7,8-HxCDD-13C	2.00	97
1,2,3,7,8-PeCDD	ND	----	1.6	1,2,3,6,7,8-HxCDD-13C	2.00	104
Total PeCDD	ND	----	1.6	1,2,3,4,6,7,8-HpCDF-13C	2.00	70
				1,2,3,4,7,8,9-HpCDF-13C	2.00	39
1,2,3,4,7,8-HxCDF	ND	----	0.91	1,2,3,4,6,7,8-HpCDD-13C	2.00	73
1,2,3,6,7,8-HxCDF	ND	----	1.3	OCDD-13C	4.00	41
2,3,4,6,7,8-HxCDF	ND	----	1.9			
1,2,3,7,8,9-HxCDF	ND	----	2.0	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	0.91	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	2.4	2,3,7,8-TCDD-37Cl4	0.20	104
1,2,3,6,7,8-HxCDD	ND	----	2.5			
1,2,3,7,8,9-HxCDD	ND	----	2.5			
Total HxCDD	ND	----	2.4			
1,2,3,4,6,7,8-HpCDF	ND	----	6.4	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	21	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	6.4	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	5.2			
Total HpCDD	ND	----	5.2			
OCDF	ND	----	13			
OCDD	ND	----	17			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 EDL = Estimated Detection Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc.



### Method 1613B Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	FIELD BLANK		
Lab Sample ID	10603827011		
Filename	U220414B_12		
Injected By	MS4		
Total Amount Extracted	1020 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	04/05/2022 12:00
ICAL ID	U220123	Received	04/08/2022 08:50
CCal Filename(s)	U220414A_19	Extracted	04/08/2022 14:50
Method Blank ID	BLANK-97974	Analyzed	04/15/2022 07:45

Native Isomers	Conc pg/L	EMPC pg/L	EDL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	0.67	2,3,7,8-TCDF-13C	2.00	77
Total TCDF	ND	----	0.67	2,3,7,8-TCDD-13C	2.00	79
				1,2,3,7,8-PeCDF-13C	2.00	75
2,3,7,8-TCDD	ND	----	3.9	2,3,4,7,8-PeCDF-13C	2.00	71
Total TCDD	ND	----	3.9	1,2,3,7,8-PeCDD-13C	2.00	82
				1,2,3,4,7,8-HxCDF-13C	2.00	84
1,2,3,7,8-PeCDF	ND	----	1.2	1,2,3,6,7,8-HxCDF-13C	2.00	41
2,3,4,7,8-PeCDF	ND	----	1.0	2,3,4,6,7,8-HxCDF-13C	2.00	76
Total PeCDF	ND	----	1.0	1,2,3,7,8,9-HxCDF-13C	2.00	70
				1,2,3,4,7,8-HxCDD-13C	2.00	86
1,2,3,7,8-PeCDD	ND	----	2.7	1,2,3,6,7,8-HxCDD-13C	2.00	86
Total PeCDD	ND	----	2.7	1,2,3,4,6,7,8-HpCDF-13C	2.00	63
				1,2,3,4,7,8,9-HpCDF-13C	2.00	44
1,2,3,4,7,8-HxCDF	ND	----	1.5	1,2,3,4,6,7,8-HpCDD-13C	2.00	70
1,2,3,6,7,8-HxCDF	ND	----	1.4	OCDD-13C	4.00	38
2,3,4,6,7,8-HxCDF	ND	----	2.2			
1,2,3,7,8,9-HxCDF	ND	----	2.3	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	1.4	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	2.0	2,3,7,8-TCDD-37Cl4	0.20	90
1,2,3,6,7,8-HxCDD	ND	----	2.2			
1,2,3,7,8,9-HxCDD	ND	----	2.0			
Total HxCDD	ND	----	2.0			
1,2,3,4,6,7,8-HpCDF	ND	----	5.1	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	9.4	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	5.1	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	4.3			
Total HpCDD	ND	----	4.3			
OCDF	ND	----	18			
OCDD	ND	----	16			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 EDL = Estimated Detection Limit

ND = Not Detected  
 NA = Not Applicable  
 NC = Not Calculated

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc.



### Method 1613B Sample Analysis Results

Client - Pace Analytical National

Client's Sample ID	EQUIP BLANK		
Lab Sample ID	10603827012		
Filename	U220414B_06		
Injected By	MS4		
Total Amount Extracted	1030 mL	Matrix	Water
% Moisture	NA	Dilution	NA
Dry Weight Extracted	NA	Collected	04/05/2022 12:15
ICAL ID	U220123	Received	04/08/2022 08:50
CCal Filename(s)	U220414A_19	Extracted	04/08/2022 14:50
Method Blank ID	BLANK-97974	Analyzed	04/15/2022 03:06

Native Isomers	Conc pg/L	EMPC pg/L	EDL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	1.1	2,3,7,8-TCDF-13C	2.00	76
Total TCDF	ND	----	1.1	2,3,7,8-TCDD-13C	2.00	79
				1,2,3,7,8-PeCDF-13C	2.00	77
2,3,7,8-TCDD	ND	----	3.7	2,3,4,7,8-PeCDF-13C	2.00	75
Total TCDD	ND	----	3.7	1,2,3,7,8-PeCDD-13C	2.00	82
				1,2,3,4,7,8-HxCDF-13C	2.00	88
1,2,3,7,8-PeCDF	ND	----	1.0	1,2,3,6,7,8-HxCDF-13C	2.00	56
2,3,4,7,8-PeCDF	ND	----	1.0	2,3,4,6,7,8-HxCDF-13C	2.00	78
Total PeCDF	ND	----	1.0	1,2,3,7,8,9-HxCDF-13C	2.00	73
				1,2,3,4,7,8-HxCDD-13C	2.00	85
1,2,3,7,8-PeCDD	ND	----	1.9	1,2,3,6,7,8-HxCDD-13C	2.00	88
Total PeCDD	ND	----	1.9	1,2,3,4,6,7,8-HpCDF-13C	2.00	64
				1,2,3,4,7,8,9-HpCDF-13C	2.00	51
1,2,3,4,7,8-HxCDF	ND	----	1.4	1,2,3,4,6,7,8-HpCDD-13C	2.00	73
1,2,3,6,7,8-HxCDF	ND	----	2.4	OCDD-13C	4.00	40
2,3,4,6,7,8-HxCDF	ND	----	2.0			
1,2,3,7,8,9-HxCDF	ND	----	2.4	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	1.4	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	2.7	2,3,7,8-TCDD-37Cl4	0.20	88
1,2,3,6,7,8-HxCDD	ND	----	2.5			
1,2,3,7,8,9-HxCDD	ND	----	2.3			
Total HxCDD	ND	----	2.3			
1,2,3,4,6,7,8-HpCDF	ND	----	3.1	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	6.4	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	3.1	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	3.0			
Total HpCDD	ND	----	3.0			
OCDF	ND	----	7.2			
OCDD	ND	----	9.3			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
EMPC = Estimated Maximum Possible Concentration  
EDL = Estimated Detection Limit

ND = Not Detected  
NA = Not Applicable  
NC = Not Calculated

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc.



### Method 1613B Blank Analysis Results

Lab Sample Name	DFBLKJB	Matrix	Water
Lab Sample ID	BLANK-97974	Dilution	NA
Filename	U220413B_11	Extracted	04/08/2022 14:50
Total Amount Extracted	976 mL	Analyzed	04/14/2022 03:45
ICAL ID	U220123	Injected By	SMT
CCal Filename(s)	U220413B_01		

Native Isomers	Conc pg/L	EMPC pg/L	EDL pg/L	Internal Standards	ng's Added	Percent Recovery
2,3,7,8-TCDF	ND	----	0.37	2,3,7,8-TCDF-13C	2.00	85
Total TCDF	ND	----	0.37	2,3,7,8-TCDD-13C	2.00	90
				1,2,3,7,8-PeCDF-13C	2.00	79
2,3,7,8-TCDD	ND	----	2.1	2,3,4,7,8-PeCDF-13C	2.00	87
Total TCDD	ND	----	2.1	1,2,3,7,8-PeCDD-13C	2.00	104
				1,2,3,4,7,8-HxCDF-13C	2.00	94
1,2,3,7,8-PeCDF	ND	----	0.99	1,2,3,6,7,8-HxCDF-13C	2.00	34
2,3,4,7,8-PeCDF	ND	----	1.1	2,3,4,6,7,8-HxCDF-13C	2.00	88
Total PeCDF	ND	----	0.99	1,2,3,7,8,9-HxCDF-13C	2.00	88
				1,2,3,4,7,8-HxCDD-13C	2.00	94
1,2,3,7,8-PeCDD	ND	----	2.4	1,2,3,6,7,8-HxCDD-13C	2.00	99
Total PeCDD	ND	----	2.4	1,2,3,4,6,7,8-HpCDF-13C	2.00	76
				1,2,3,4,7,8,9-HpCDF-13C	2.00	37
1,2,3,4,7,8-HxCDF	ND	----	1.2	1,2,3,4,6,7,8-HpCDD-13C	2.00	85
1,2,3,6,7,8-HxCDF	ND	----	3.4	OCDD-13C	4.00	55
2,3,4,6,7,8-HxCDF	ND	----	0.94			
1,2,3,7,8,9-HxCDF	ND	----	1.7	1,2,3,4-TCDD-13C	2.00	NA
Total HxCDF	ND	----	0.94	1,2,3,7,8,9-HxCDD-13C	2.00	NA
1,2,3,4,7,8-HxCDD	ND	----	1.7	2,3,7,8-TCDD-37Cl4	0.20	100
1,2,3,6,7,8-HxCDD	ND	----	1.1			
1,2,3,7,8,9-HxCDD	ND	----	1.7			
Total HxCDD	ND	----	1.1			
1,2,3,4,6,7,8-HpCDF	ND	----	4.3	Total 2,3,7,8-TCDD		
1,2,3,4,7,8,9-HpCDF	ND	----	23	Equivalence: 0.00 pg/L		
Total HpCDF	ND	----	4.3	(Lower-bound - Using 2005 WHO Factors)		
1,2,3,4,6,7,8-HpCDD	ND	----	3.3			
Total HpCDD	ND	----	3.3			
OCDF	ND	----	5.8			
OCDD	ND	----	2.8			

Conc = Concentration (Totals include 2,3,7,8-substituted isomers).  
 EMPC = Estimated Maximum Possible Concentration  
 EDL = Estimated Detection Limit

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc.



## Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCS-97975	Matrix	Water
Filename	U220413B_14	Dilution	NA
Total Amount Extracted	952 mL	Extracted	04/08/2022 14:50
ICAL ID	U220123	Analyzed	04/14/2022 06:04
CCal Filename	U220413B_01	Injected By	SMT
Method Blank ID	BLANK-97974		

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDF	10	11	7.5	15.8	107
2,3,7,8-TCDD	10	12	6.7	15.8	118
1,2,3,7,8-PeCDF	50	47	40.0	67.0	94
2,3,4,7,8-PeCDF	50	48	34.0	80.0	97
1,2,3,7,8-PeCDD	50	49	35.0	71.0	97
1,2,3,4,7,8-HxCDF	50	47	36.0	67.0	94
1,2,3,6,7,8-HxCDF	50	51	42.0	65.0	101
2,3,4,6,7,8-HxCDF	50	50	35.0	78.0	100
1,2,3,7,8,9-HxCDF	50	48	39.0	65.0	96
1,2,3,4,7,8-HxCDD	50	51	35.0	82.0	101
1,2,3,6,7,8-HxCDD	50	46	38.0	67.0	92
1,2,3,7,8,9-HxCDD	50	48	32.0	81.0	95
1,2,3,4,6,7,8-HpCDF	50	42	41.0	61.0	83
1,2,3,4,7,8,9-HpCDF	50	46	39.0	69.0	92
1,2,3,4,6,7,8-HpCDD	50	39	35.0	70.0	77
OCDF	100	69	63.0	170.0	69
OCDD	100	76	78.0	144.0	76 R
2,3,7,8-TCDD-37Cl4	10	10	3.1	19.1	102
2,3,7,8-TCDF-13C	100	77	22.0	152.0	77
2,3,7,8-TCDD-13C	100	78	20.0	175.0	78
1,2,3,7,8-PeCDF-13C	100	82	21.0	192.0	82
2,3,4,7,8-PeCDF-13C	100	80	13.0	328.0	80
1,2,3,7,8-PeCDD-13C	100	92	21.0	227.0	92
1,2,3,4,7,8-HxCDF-13C	100	83	19.0	202.0	83
1,2,3,6,7,8-HxCDF-13C	100	35	21.0	159.0	35
2,3,4,6,7,8-HxCDF-13C	100	75	22.0	176.0	75
1,2,3,7,8,9-HxCDF-13C	100	76	17.0	205.0	76
1,2,3,4,7,8-HxCDD-13C	100	83	21.0	193.0	83
1,2,3,6,7,8-HxCDD-13C	100	91	25.0	163.0	91
1,2,3,4,6,7,8-HpCDF-13C	100	71	21.0	158.0	71
1,2,3,4,7,8,9-HpCDF-13C	100	47	20.0	186.0	47
1,2,3,4,6,7,8-HpCDD-13C	100	79	26.0	166.0	79
OCDD-13C	200	100	26.0	397.0	50

Cs = Concentration Spiked (ng/mL)  
 Cr = Concentration Recovered (ng/mL)  
 Rec. = Recovery (Expressed as Percent)  
 Control Limit Reference: Method 1613, Table 6, 10/94 Revision  
 R = Recovery outside of control limits  
 Nn = Value obtained from additional analysis  
 \* = See Discussion

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc.



## Method 1613B Laboratory Control Spike Results

Lab Sample ID	LCSD-97976	Matrix	Water
Filename	U220413B_15	Dilution	NA
Total Amount Extracted	1000 mL	Extracted	04/08/2022 14:50
ICAL ID	U220123	Analyzed	04/14/2022 06:51
CCal Filename	U220413B_01	Injected By	SMT
Method Blank ID	BLANK-97974		

Compound	Cs	Cr	Lower Limit	Upper Limit	% Rec.
2,3,7,8-TCDF	10	9.9	7.5	15.8	99
2,3,7,8-TCDD	10	11	6.7	15.8	109
1,2,3,7,8-PeCDF	50	47	40.0	67.0	94
2,3,4,7,8-PeCDF	50	46	34.0	80.0	92
1,2,3,7,8-PeCDD	50	46	35.0	71.0	92
1,2,3,4,7,8-HxCDF	50	46	36.0	67.0	91
1,2,3,6,7,8-HxCDF	50	49	42.0	65.0	97
2,3,4,6,7,8-HxCDF	50	47	35.0	78.0	94
1,2,3,7,8,9-HxCDF	50	46	39.0	65.0	92
1,2,3,4,7,8-HxCDD	50	45	35.0	82.0	91
1,2,3,6,7,8-HxCDD	50	50	38.0	67.0	99
1,2,3,7,8,9-HxCDD	50	47	32.0	81.0	94
1,2,3,4,6,7,8-HpCDF	50	43	41.0	61.0	86
1,2,3,4,7,8,9-HpCDF	50	44	39.0	69.0	88
1,2,3,4,6,7,8-HpCDD	50	39	35.0	70.0	79
OCDF	100	67	63.0	170.0	67
OCDD	100	76	78.0	144.0	76 R
2,3,7,8-TCDD-37Cl4	10	11	3.1	19.1	107
2,3,7,8-TCDF-13C	100	81	22.0	152.0	81
2,3,7,8-TCDD-13C	100	83	20.0	175.0	83
1,2,3,7,8-PeCDF-13C	100	81	21.0	192.0	81
2,3,4,7,8-PeCDF-13C	100	84	13.0	328.0	84
1,2,3,7,8-PeCDD-13C	100	97	21.0	227.0	97
1,2,3,4,7,8-HxCDF-13C	100	91	19.0	202.0	91
1,2,3,6,7,8-HxCDF-13C	100	36	21.0	159.0	36
2,3,4,6,7,8-HxCDF-13C	100	84	22.0	176.0	84
1,2,3,7,8,9-HxCDF-13C	100	85	17.0	205.0	85
1,2,3,4,7,8-HxCDD-13C	100	98	21.0	193.0	98
1,2,3,6,7,8-HxCDD-13C	100	90	25.0	163.0	90
1,2,3,4,6,7,8-HpCDF-13C	100	74	21.0	158.0	74
1,2,3,4,7,8,9-HpCDF-13C	100	53	20.0	186.0	53
1,2,3,4,6,7,8-HpCDD-13C	100	87	26.0	166.0	87
OCDD-13C	200	110	26.0	397.0	54

Cs = Concentration Spiked (ng/mL)  
Cr = Concentration Recovered (ng/mL)  
Rec. = Recovery (Expressed as Percent)  
Control Limit Reference: Method 1613, Table 6, 10/94 Revision  
R = Recovery outside of control limits  
Nn = Value obtained from additional analysis  
\* = See Discussion

## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
without the written consent of Pace Analytical Services, Inc.

**Method 1613B**

**Spike Recovery Relative Percent Difference (RPD) Results**

Client Pace Analytical National

Spike 1 ID LCS-97975  
 Spike 1 Filename U220413B\_14

Spike 2 ID LCSD-97976  
 Spike 2 Filename U220413B\_15

Compound	Spike 1 %REC	Spike 2 %REC	%RPD
2,3,7,8-TCDF	107	99	7.8
2,3,7,8-TCDD	118	109	7.9
1,2,3,7,8-PeCDF	94	94	0.0
2,3,4,7,8-PeCDF	97	92	5.3
1,2,3,7,8-PeCDD	97	92	5.3
1,2,3,4,7,8-HxCDF	94	91	3.2
1,2,3,6,7,8-HxCDF	101	97	4.0
2,3,4,6,7,8-HxCDF	100	94	6.2
1,2,3,7,8,9-HxCDF	96	92	4.3
1,2,3,4,7,8-HxCDD	101	91	10.4
1,2,3,6,7,8-HxCDD	92	99	7.3
1,2,3,7,8,9-HxCDD	95	94	1.1
1,2,3,4,6,7,8-HpCDF	83	86	3.6
1,2,3,4,7,8,9-HpCDF	92	88	4.4
1,2,3,4,6,7,8-HpCDD	77	79	2.6
OCDF	69	67	2.9
OCDD	76	76	0.0

%REC = Percent Recovered

RPD = The difference between the two values divided by the mean value

**REPORT OF LABORATORY ANALYSIS**

This report shall not be reproduced, except in full,  
 without the written consent of Pace Analytical Services, Inc.



**S&ME Inc. - Spartanburg SC**

Sample Delivery Group: L1479361  
Samples Received: 04/07/2022  
Project Number: 4213-18-087  
Description: New Indy - Catawba

Report To: R. Bonds / S. Dacus / S. Lummus  
301 Zima Park Drive  
Spartanburg, SC 29301

Entire Report Reviewed By:



Tom Mellette  
Project Manager

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

**Pace Analytical National**12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 [www.pacenational.com](http://www.pacenational.com)

# TABLE OF CONTENTS

<b>Cp: Cover Page</b>	<b>1</b>
<b>Tc: Table of Contents</b>	<b>2</b>
<b>Ss: Sample Summary</b>	<b>3</b>
<b>Cn: Case Narrative</b>	<b>5</b>
<b>Sr: Sample Results</b>	<b>6</b>
R16-MW-1A L1479361-01	6
R18-MW-2 L1479361-02	7
R19-MW-2A L1479361-03	8
R6-MW-1 L1479361-04	9
GW-9 L1479361-05	10
R1-MW-2 L1479361-06	11
DUPLICATE-2 L1479361-07	12
FIELD BLANK L1479361-08	13
EQUIP BLANK L1479361-09	14
TRIP BLANK L1479361-10	15
<b>Qc: Quality Control Summary</b>	<b>16</b>
<b>Volatile Organic Compounds (GC/MS) by Method 8260D</b>	<b>16</b>
<b>Gl: Glossary of Terms</b>	<b>19</b>
<b>Al: Accreditations &amp; Locations</b>	<b>20</b>
<b>Sc: Sample Chain of Custody</b>	<b>21</b>

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

# SAMPLE SUMMARY

## R16-MW-1A L1479361-01 GW

Collected by Scott Davis      Collected date/time 04/05/22 10:46      Received date/time 04/07/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1845079	1	04/08/22 05:39	04/08/22 05:39	ADM	Mt. Juliet, TN

## R18-MW-2 L1479361-02 GW

Collected by Scott Davis      Collected date/time 04/05/22 11:36      Received date/time 04/07/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1845079	50	04/08/22 08:22	04/08/22 08:22	ADM	Mt. Juliet, TN

## R19-MW-2A L1479361-03 GW

Collected by Scott Davis      Collected date/time 04/05/22 11:45      Received date/time 04/07/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1845079	1	04/08/22 05:59	04/08/22 05:59	ADM	Mt. Juliet, TN

## R6-MW-1 L1479361-04 GW

Collected by Scott Davis      Collected date/time 04/05/22 09:57      Received date/time 04/07/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1845079	1	04/08/22 06:19	04/08/22 06:19	ADM	Mt. Juliet, TN

## GW-9 L1479361-05 GW

Collected by Scott Davis      Collected date/time 04/05/22 10:11      Received date/time 04/07/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1845079	1	04/08/22 06:40	04/08/22 06:40	ADM	Mt. Juliet, TN

## R1-MW-2 L1479361-06 GW

Collected by Scott Davis      Collected date/time 04/05/22 10:49      Received date/time 04/07/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1845079	1	04/08/22 07:00	04/08/22 07:00	ADM	Mt. Juliet, TN

## DUPLICATE-2 L1479361-07 GW

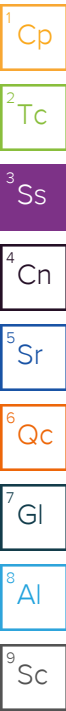
Collected by Scott Davis      Collected date/time 04/05/22 00:00      Received date/time 04/07/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1845079	1	04/08/22 07:21	04/08/22 07:21	ADM	Mt. Juliet, TN

## FIELD BLANK L1479361-08 GW

Collected by Scott Davis      Collected date/time 04/05/22 12:00      Received date/time 04/07/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1845079	1	04/08/22 03:15	04/08/22 03:15	ADM	Mt. Juliet, TN



# SAMPLE SUMMARY

## EQUIP BLANK L1479361-09 GW

Collected by: Scott Davis  
 Collected date/time: 04/05/22 12:15  
 Received date/time: 04/07/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1845079	1	04/08/22 02:55	04/08/22 02:55	ADM	Mt. Juliet, TN

## TRIP BLANK L1479361-10 GW

Collected by: Scott Davis  
 Collected date/time: 04/05/22 00:00  
 Received date/time: 04/07/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1845079	1	04/08/22 02:35	04/08/22 02:35	ADM	Mt. Juliet, TN

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc

# CASE NARRATIVE

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



Tom Mellette  
Project Manager

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Acetone	ND		50.0	1	04/08/2022 05:39	WG1845079
Benzene	ND		1.00	1	04/08/2022 05:39	WG1845079
Bromochloromethane	ND		1.00	1	04/08/2022 05:39	WG1845079
Bromodichloromethane	ND		1.00	1	04/08/2022 05:39	WG1845079
Bromoform	ND		1.00	1	04/08/2022 05:39	WG1845079
Bromomethane	ND	C3	5.00	1	04/08/2022 05:39	WG1845079
Carbon disulfide	ND		1.00	1	04/08/2022 05:39	WG1845079
Carbon tetrachloride	ND		1.00	1	04/08/2022 05:39	WG1845079
Chlorobenzene	ND		1.00	1	04/08/2022 05:39	WG1845079
Chlorodibromomethane	ND		1.00	1	04/08/2022 05:39	WG1845079
Chloroethane	ND		5.00	1	04/08/2022 05:39	WG1845079
Chloroform	ND		5.00	1	04/08/2022 05:39	WG1845079
Chloromethane	ND		2.50	1	04/08/2022 05:39	WG1845079
Cyclohexane	ND		1.00	1	04/08/2022 05:39	WG1845079
1,2-Dibromo-3-Chloropropane	ND		5.00	1	04/08/2022 05:39	WG1845079
1,2-Dibromoethane	ND		1.00	1	04/08/2022 05:39	WG1845079
1,2-Dichlorobenzene	ND		1.00	1	04/08/2022 05:39	WG1845079
1,3-Dichlorobenzene	ND		1.00	1	04/08/2022 05:39	WG1845079
1,4-Dichlorobenzene	ND		1.00	1	04/08/2022 05:39	WG1845079
Dichlorodifluoromethane	ND	C3	5.00	1	04/08/2022 05:39	WG1845079
1,1-Dichloroethane	12.4		1.00	1	04/08/2022 05:39	WG1845079
1,2-Dichloroethane	ND		1.00	1	04/08/2022 05:39	WG1845079
1,1-Dichloroethene	21.1		1.00	1	04/08/2022 05:39	WG1845079
cis-1,2-Dichloroethene	ND		1.00	1	04/08/2022 05:39	WG1845079
trans-1,2-Dichloroethene	ND		1.00	1	04/08/2022 05:39	WG1845079
1,2-Dichloropropane	ND		1.00	1	04/08/2022 05:39	WG1845079
cis-1,3-Dichloropropene	ND		1.00	1	04/08/2022 05:39	WG1845079
trans-1,3-Dichloropropene	ND		1.00	1	04/08/2022 05:39	WG1845079
Ethylbenzene	ND		1.00	1	04/08/2022 05:39	WG1845079
2-Hexanone	ND		10.0	1	04/08/2022 05:39	WG1845079
Isopropylbenzene	ND		1.00	1	04/08/2022 05:39	WG1845079
2-Butanone (MEK)	ND		10.0	1	04/08/2022 05:39	WG1845079
Methyl Acetate	ND		20.0	1	04/08/2022 05:39	WG1845079
Methyl Cyclohexane	ND		1.00	1	04/08/2022 05:39	WG1845079
Methylene Chloride	ND		5.00	1	04/08/2022 05:39	WG1845079
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	04/08/2022 05:39	WG1845079
Methyl tert-butyl ether	ND		1.00	1	04/08/2022 05:39	WG1845079
Styrene	ND		1.00	1	04/08/2022 05:39	WG1845079
1,1,2,2-Tetrachloroethane	ND		1.00	1	04/08/2022 05:39	WG1845079
Tetrachloroethene	ND		1.00	1	04/08/2022 05:39	WG1845079
Toluene	ND		1.00	1	04/08/2022 05:39	WG1845079
1,2,3-Trichlorobenzene	ND		1.00	1	04/08/2022 05:39	WG1845079
1,2,4-Trichlorobenzene	ND		1.00	1	04/08/2022 05:39	WG1845079
1,1,1-Trichloroethane	ND		1.00	1	04/08/2022 05:39	WG1845079
1,1,2-Trichloroethane	ND		1.00	1	04/08/2022 05:39	WG1845079
Trichloroethene	ND		1.00	1	04/08/2022 05:39	WG1845079
Trichlorofluoromethane	ND		5.00	1	04/08/2022 05:39	WG1845079
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	04/08/2022 05:39	WG1845079
Vinyl chloride	ND	C3	1.00	1	04/08/2022 05:39	WG1845079
Xylenes, Total	ND		3.00	1	04/08/2022 05:39	WG1845079
(S) Toluene-d8	107		80.0-120		04/08/2022 05:39	WG1845079
(S) 4-Bromofluorobenzene	94.8		77.0-126		04/08/2022 05:39	WG1845079
(S) 1,2-Dichloroethane-d4	95.7		70.0-130		04/08/2022 05:39	WG1845079

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	ND		2500	50	04/08/2022 08:22	WG1845079
Benzene	ND		50.0	50	04/08/2022 08:22	WG1845079
Bromochloromethane	ND		50.0	50	04/08/2022 08:22	WG1845079
Bromodichloromethane	ND		50.0	50	04/08/2022 08:22	WG1845079
Bromoform	ND		50.0	50	04/08/2022 08:22	WG1845079
Bromomethane	ND	C3	250	50	04/08/2022 08:22	WG1845079
Carbon disulfide	ND		50.0	50	04/08/2022 08:22	WG1845079
Carbon tetrachloride	ND		50.0	50	04/08/2022 08:22	WG1845079
Chlorobenzene	776		50.0	50	04/08/2022 08:22	WG1845079
Chlorodibromomethane	ND		50.0	50	04/08/2022 08:22	WG1845079
Chloroethane	ND		250	50	04/08/2022 08:22	WG1845079
Chloroform	ND		250	50	04/08/2022 08:22	WG1845079
Chloromethane	ND		125	50	04/08/2022 08:22	WG1845079
Cyclohexane	ND		50.0	50	04/08/2022 08:22	WG1845079
1,2-Dibromo-3-Chloropropane	ND		250	50	04/08/2022 08:22	WG1845079
1,2-Dibromoethane	ND		50.0	50	04/08/2022 08:22	WG1845079
1,2-Dichlorobenzene	1150		50.0	50	04/08/2022 08:22	WG1845079
1,3-Dichlorobenzene	63.6		50.0	50	04/08/2022 08:22	WG1845079
1,4-Dichlorobenzene	179		50.0	50	04/08/2022 08:22	WG1845079
Dichlorodifluoromethane	ND	C3	250	50	04/08/2022 08:22	WG1845079
1,1-Dichloroethane	ND		50.0	50	04/08/2022 08:22	WG1845079
1,2-Dichloroethane	ND		50.0	50	04/08/2022 08:22	WG1845079
1,1-Dichloroethene	ND		50.0	50	04/08/2022 08:22	WG1845079
cis-1,2-Dichloroethene	ND		50.0	50	04/08/2022 08:22	WG1845079
trans-1,2-Dichloroethene	ND		50.0	50	04/08/2022 08:22	WG1845079
1,2-Dichloropropane	ND		50.0	50	04/08/2022 08:22	WG1845079
cis-1,3-Dichloropropene	ND		50.0	50	04/08/2022 08:22	WG1845079
trans-1,3-Dichloropropene	ND		50.0	50	04/08/2022 08:22	WG1845079
Ethylbenzene	ND		50.0	50	04/08/2022 08:22	WG1845079
2-Hexanone	ND		500	50	04/08/2022 08:22	WG1845079
Isopropylbenzene	ND		50.0	50	04/08/2022 08:22	WG1845079
2-Butanone (MEK)	ND		500	50	04/08/2022 08:22	WG1845079
Methyl Acetate	ND		1000	50	04/08/2022 08:22	WG1845079
Methyl Cyclohexane	ND		50.0	50	04/08/2022 08:22	WG1845079
Methylene Chloride	ND		250	50	04/08/2022 08:22	WG1845079
4-Methyl-2-pentanone (MIBK)	ND		500	50	04/08/2022 08:22	WG1845079
Methyl tert-butyl ether	ND		50.0	50	04/08/2022 08:22	WG1845079
Styrene	ND		50.0	50	04/08/2022 08:22	WG1845079
1,1,2,2-Tetrachloroethane	ND		50.0	50	04/08/2022 08:22	WG1845079
Tetrachloroethene	ND		50.0	50	04/08/2022 08:22	WG1845079
Toluene	ND		50.0	50	04/08/2022 08:22	WG1845079
1,2,3-Trichlorobenzene	ND		50.0	50	04/08/2022 08:22	WG1845079
1,2,4-Trichlorobenzene	ND		50.0	50	04/08/2022 08:22	WG1845079
1,1,1-Trichloroethane	ND		50.0	50	04/08/2022 08:22	WG1845079
1,1,2-Trichloroethane	ND		50.0	50	04/08/2022 08:22	WG1845079
Trichloroethene	ND		50.0	50	04/08/2022 08:22	WG1845079
Trichlorofluoromethane	ND		250	50	04/08/2022 08:22	WG1845079
1,1,2-Trichlorotrifluoroethane	ND		50.0	50	04/08/2022 08:22	WG1845079
Vinyl chloride	ND	C3	50.0	50	04/08/2022 08:22	WG1845079
Xylenes, Total	ND		150	50	04/08/2022 08:22	WG1845079
(S) Toluene-d8	109		80.0-120		04/08/2022 08:22	WG1845079
(S) 4-Bromofluorobenzene	103		77.0-126		04/08/2022 08:22	WG1845079
(S) 1,2-Dichloroethane-d4	98.8		70.0-130		04/08/2022 08:22	WG1845079

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND		50.0	1	04/08/2022 05:59	WG1845079
Benzene	ND		1.00	1	04/08/2022 05:59	WG1845079
Bromochloromethane	ND		1.00	1	04/08/2022 05:59	WG1845079
Bromodichloromethane	ND		1.00	1	04/08/2022 05:59	WG1845079
Bromoform	ND		1.00	1	04/08/2022 05:59	WG1845079
Bromomethane	ND	C3	5.00	1	04/08/2022 05:59	WG1845079
Carbon disulfide	ND		1.00	1	04/08/2022 05:59	WG1845079
Carbon tetrachloride	ND		1.00	1	04/08/2022 05:59	WG1845079
Chlorobenzene	ND		1.00	1	04/08/2022 05:59	WG1845079
Chlorodibromomethane	ND		1.00	1	04/08/2022 05:59	WG1845079
Chloroethane	ND		5.00	1	04/08/2022 05:59	WG1845079
Chloroform	ND		5.00	1	04/08/2022 05:59	WG1845079
Chloromethane	ND		2.50	1	04/08/2022 05:59	WG1845079
Cyclohexane	ND		1.00	1	04/08/2022 05:59	WG1845079
1,2-Dibromo-3-Chloropropane	ND		5.00	1	04/08/2022 05:59	WG1845079
1,2-Dibromoethane	ND		1.00	1	04/08/2022 05:59	WG1845079
1,2-Dichlorobenzene	ND		1.00	1	04/08/2022 05:59	WG1845079
1,3-Dichlorobenzene	ND		1.00	1	04/08/2022 05:59	WG1845079
1,4-Dichlorobenzene	ND		1.00	1	04/08/2022 05:59	WG1845079
Dichlorodifluoromethane	ND	C3	5.00	1	04/08/2022 05:59	WG1845079
1,1-Dichloroethane	67.5		1.00	1	04/08/2022 05:59	WG1845079
1,2-Dichloroethane	ND		1.00	1	04/08/2022 05:59	WG1845079
1,1-Dichloroethene	76.4		1.00	1	04/08/2022 05:59	WG1845079
cis-1,2-Dichloroethene	ND		1.00	1	04/08/2022 05:59	WG1845079
trans-1,2-Dichloroethene	ND		1.00	1	04/08/2022 05:59	WG1845079
1,2-Dichloropropane	ND		1.00	1	04/08/2022 05:59	WG1845079
cis-1,3-Dichloropropene	ND		1.00	1	04/08/2022 05:59	WG1845079
trans-1,3-Dichloropropene	ND		1.00	1	04/08/2022 05:59	WG1845079
Ethylbenzene	ND		1.00	1	04/08/2022 05:59	WG1845079
2-Hexanone	ND		10.0	1	04/08/2022 05:59	WG1845079
Isopropylbenzene	ND		1.00	1	04/08/2022 05:59	WG1845079
2-Butanone (MEK)	ND		10.0	1	04/08/2022 05:59	WG1845079
Methyl Acetate	ND		20.0	1	04/08/2022 05:59	WG1845079
Methyl Cyclohexane	ND		1.00	1	04/08/2022 05:59	WG1845079
Methylene Chloride	ND		5.00	1	04/08/2022 05:59	WG1845079
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	04/08/2022 05:59	WG1845079
Methyl tert-butyl ether	ND		1.00	1	04/08/2022 05:59	WG1845079
Styrene	ND		1.00	1	04/08/2022 05:59	WG1845079
1,1,2,2-Tetrachloroethane	ND		1.00	1	04/08/2022 05:59	WG1845079
Tetrachloroethene	ND		1.00	1	04/08/2022 05:59	WG1845079
Toluene	ND		1.00	1	04/08/2022 05:59	WG1845079
1,2,3-Trichlorobenzene	ND		1.00	1	04/08/2022 05:59	WG1845079
1,2,4-Trichlorobenzene	ND		1.00	1	04/08/2022 05:59	WG1845079
1,1,1-Trichloroethane	ND		1.00	1	04/08/2022 05:59	WG1845079
1,1,2-Trichloroethane	ND		1.00	1	04/08/2022 05:59	WG1845079
Trichloroethene	ND		1.00	1	04/08/2022 05:59	WG1845079
Trichlorofluoromethane	ND		5.00	1	04/08/2022 05:59	WG1845079
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	04/08/2022 05:59	WG1845079
Vinyl chloride	ND	C3	1.00	1	04/08/2022 05:59	WG1845079
Xylenes, Total	ND		3.00	1	04/08/2022 05:59	WG1845079
(S) Toluene-d8	110		80.0-120		04/08/2022 05:59	WG1845079
(S) 4-Bromofluorobenzene	95.5		77.0-126		04/08/2022 05:59	WG1845079
(S) 1,2-Dichloroethane-d4	94.4		70.0-130		04/08/2022 05:59	WG1845079

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



## Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	ND		50.0	1	04/08/2022 06:19	<a href="#">WG1845079</a>
Benzene	4.60		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
Bromochloromethane	ND		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
Bromodichloromethane	ND		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
Bromoform	ND		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
Bromomethane	ND	<u>C3</u>	5.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
Carbon disulfide	ND		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
Carbon tetrachloride	ND		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
Chlorobenzene	ND		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
Chlorodibromomethane	ND		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
Chloroethane	ND		5.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
Chloroform	ND		5.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
Chloromethane	ND		2.50	1	04/08/2022 06:19	<a href="#">WG1845079</a>
Cyclohexane	3.73		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
1,2-Dibromo-3-Chloropropane	ND		5.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
1,2-Dibromoethane	ND		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
1,2-Dichlorobenzene	ND		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
1,3-Dichlorobenzene	ND		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
1,4-Dichlorobenzene	ND		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
Dichlorodifluoromethane	ND	<u>C3</u>	5.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
1,1-Dichloroethane	ND		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
1,2-Dichloroethane	ND		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
1,1-Dichloroethene	ND		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
cis-1,2-Dichloroethene	ND		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
trans-1,2-Dichloroethene	ND		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
1,2-Dichloropropane	ND		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
cis-1,3-Dichloropropene	ND		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
trans-1,3-Dichloropropene	ND		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
Ethylbenzene	2.50		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
2-Hexanone	ND		10.0	1	04/08/2022 06:19	<a href="#">WG1845079</a>
Isopropylbenzene	7.81		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
2-Butanone (MEK)	ND		10.0	1	04/08/2022 06:19	<a href="#">WG1845079</a>
Methyl Acetate	ND		20.0	1	04/08/2022 06:19	<a href="#">WG1845079</a>
Methyl Cyclohexane	5.87		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
Methylene Chloride	ND		5.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	04/08/2022 06:19	<a href="#">WG1845079</a>
Methyl tert-butyl ether	11.0		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
Styrene	ND		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
1,1,2,2-Tetrachloroethane	ND		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
Tetrachloroethene	ND		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
Toluene	ND		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
1,2,3-Trichlorobenzene	ND		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
1,2,4-Trichlorobenzene	ND		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
1,1,1-Trichloroethane	ND		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
1,1,2-Trichloroethane	ND		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
Trichloroethene	ND		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
Trichlorofluoromethane	ND		5.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
Vinyl chloride	ND	<u>C3</u>	1.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
Xylenes, Total	ND		3.00	1	04/08/2022 06:19	<a href="#">WG1845079</a>
(S) Toluene-d8	104		80.0-120		04/08/2022 06:19	<a href="#">WG1845079</a>
(S) 4-Bromofluorobenzene	100		77.0-126		04/08/2022 06:19	<a href="#">WG1845079</a>
(S) 1,2-Dichloroethane-d4	92.9		70.0-130		04/08/2022 06:19	<a href="#">WG1845079</a>

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloroform	56.0		5.00	1	04/08/2022 06:40	<a href="#">WG1845079</a>
(S) Toluene-d8	114		80.0-120		04/08/2022 06:40	<a href="#">WG1845079</a>
(S) 4-Bromofluorobenzene	99.9		77.0-126		04/08/2022 06:40	<a href="#">WG1845079</a>
(S) 1,2-Dichloroethane-d4	94.8		70.0-130		04/08/2022 06:40	<a href="#">WG1845079</a>

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Chloroform	20.3		5.00	1	04/08/2022 07:00	<a href="#">WG1845079</a>
(S) Toluene-d8	111		80.0-120		04/08/2022 07:00	<a href="#">WG1845079</a>
(S) 4-Bromofluorobenzene	101		77.0-126		04/08/2022 07:00	<a href="#">WG1845079</a>
(S) 1,2-Dichloroethane-d4	93.3		70.0-130		04/08/2022 07:00	<a href="#">WG1845079</a>

- <sup>1</sup> Cp
- <sup>2</sup> Tc
- <sup>3</sup> Ss
- <sup>4</sup> Cn
- <sup>5</sup> Sr
- <sup>6</sup> Qc
- <sup>7</sup> Gl
- <sup>8</sup> Al
- <sup>9</sup> Sc

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Acetone	ND		50.0	1	04/08/2022 07:21	WG1845079
Benzene	4.73		1.00	1	04/08/2022 07:21	WG1845079
Bromochloromethane	ND		1.00	1	04/08/2022 07:21	WG1845079
Bromodichloromethane	ND		1.00	1	04/08/2022 07:21	WG1845079
Bromoform	ND		1.00	1	04/08/2022 07:21	WG1845079
Bromomethane	ND	C3	5.00	1	04/08/2022 07:21	WG1845079
Carbon disulfide	ND		1.00	1	04/08/2022 07:21	WG1845079
Carbon tetrachloride	ND		1.00	1	04/08/2022 07:21	WG1845079
Chlorobenzene	ND		1.00	1	04/08/2022 07:21	WG1845079
Chlorodibromomethane	ND		1.00	1	04/08/2022 07:21	WG1845079
Chloroethane	ND		5.00	1	04/08/2022 07:21	WG1845079
Chloroform	ND		5.00	1	04/08/2022 07:21	WG1845079
Chloromethane	ND		2.50	1	04/08/2022 07:21	WG1845079
Cyclohexane	3.55		1.00	1	04/08/2022 07:21	WG1845079
1,2-Dibromo-3-Chloropropane	ND		5.00	1	04/08/2022 07:21	WG1845079
1,2-Dibromoethane	ND		1.00	1	04/08/2022 07:21	WG1845079
1,2-Dichlorobenzene	ND		1.00	1	04/08/2022 07:21	WG1845079
1,3-Dichlorobenzene	ND		1.00	1	04/08/2022 07:21	WG1845079
1,4-Dichlorobenzene	ND		1.00	1	04/08/2022 07:21	WG1845079
Dichlorodifluoromethane	ND	C3	5.00	1	04/08/2022 07:21	WG1845079
1,1-Dichloroethane	ND		1.00	1	04/08/2022 07:21	WG1845079
1,2-Dichloroethane	ND		1.00	1	04/08/2022 07:21	WG1845079
1,1-Dichloroethene	ND		1.00	1	04/08/2022 07:21	WG1845079
cis-1,2-Dichloroethene	ND		1.00	1	04/08/2022 07:21	WG1845079
trans-1,2-Dichloroethene	ND		1.00	1	04/08/2022 07:21	WG1845079
1,2-Dichloropropane	ND		1.00	1	04/08/2022 07:21	WG1845079
cis-1,3-Dichloropropene	ND		1.00	1	04/08/2022 07:21	WG1845079
trans-1,3-Dichloropropene	ND		1.00	1	04/08/2022 07:21	WG1845079
Ethylbenzene	3.41		1.00	1	04/08/2022 07:21	WG1845079
2-Hexanone	ND		10.0	1	04/08/2022 07:21	WG1845079
Isopropylbenzene	8.34		1.00	1	04/08/2022 07:21	WG1845079
2-Butanone (MEK)	ND		10.0	1	04/08/2022 07:21	WG1845079
Methyl Acetate	ND		20.0	1	04/08/2022 07:21	WG1845079
Methyl Cyclohexane	5.69		1.00	1	04/08/2022 07:21	WG1845079
Methylene Chloride	ND		5.00	1	04/08/2022 07:21	WG1845079
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	04/08/2022 07:21	WG1845079
Methyl tert-butyl ether	11.0		1.00	1	04/08/2022 07:21	WG1845079
Styrene	ND		1.00	1	04/08/2022 07:21	WG1845079
1,1,2,2-Tetrachloroethane	ND		1.00	1	04/08/2022 07:21	WG1845079
Tetrachloroethene	ND		1.00	1	04/08/2022 07:21	WG1845079
Toluene	ND		1.00	1	04/08/2022 07:21	WG1845079
1,2,3-Trichlorobenzene	ND		1.00	1	04/08/2022 07:21	WG1845079
1,2,4-Trichlorobenzene	ND		1.00	1	04/08/2022 07:21	WG1845079
1,1,1-Trichloroethane	ND		1.00	1	04/08/2022 07:21	WG1845079
1,1,2-Trichloroethane	ND		1.00	1	04/08/2022 07:21	WG1845079
Trichloroethene	ND		1.00	1	04/08/2022 07:21	WG1845079
Trichlorofluoromethane	ND		5.00	1	04/08/2022 07:21	WG1845079
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	04/08/2022 07:21	WG1845079
Vinyl chloride	ND	C3	1.00	1	04/08/2022 07:21	WG1845079
Xylenes, Total	ND		3.00	1	04/08/2022 07:21	WG1845079
(S) Toluene-d8	111		80.0-120		04/08/2022 07:21	WG1845079
(S) 4-Bromofluorobenzene	104		77.0-126		04/08/2022 07:21	WG1845079
(S) 1,2-Dichloroethane-d4	90.7		70.0-130		04/08/2022 07:21	WG1845079

1 Cp  
2 Tc  
3 Ss  
4 Cn  
5 Sr  
6 Qc  
7 Gl  
8 Al  
9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Acetone	ND		50.0	1	04/08/2022 03:15	WG1845079
Benzene	ND		1.00	1	04/08/2022 03:15	WG1845079
Bromochloromethane	ND		1.00	1	04/08/2022 03:15	WG1845079
Bromodichloromethane	ND		1.00	1	04/08/2022 03:15	WG1845079
Bromoform	ND		1.00	1	04/08/2022 03:15	WG1845079
Bromomethane	ND	C3	5.00	1	04/08/2022 03:15	WG1845079
Carbon disulfide	ND		1.00	1	04/08/2022 03:15	WG1845079
Carbon tetrachloride	ND		1.00	1	04/08/2022 03:15	WG1845079
Chlorobenzene	ND		1.00	1	04/08/2022 03:15	WG1845079
Chlorodibromomethane	ND		1.00	1	04/08/2022 03:15	WG1845079
Chloroethane	ND		5.00	1	04/08/2022 03:15	WG1845079
Chloroform	ND		5.00	1	04/08/2022 03:15	WG1845079
Chloromethane	ND		2.50	1	04/08/2022 03:15	WG1845079
Cyclohexane	ND		1.00	1	04/08/2022 03:15	WG1845079
1,2-Dibromo-3-Chloropropane	ND		5.00	1	04/08/2022 03:15	WG1845079
1,2-Dibromoethane	ND		1.00	1	04/08/2022 03:15	WG1845079
1,2-Dichlorobenzene	ND		1.00	1	04/08/2022 03:15	WG1845079
1,3-Dichlorobenzene	ND		1.00	1	04/08/2022 03:15	WG1845079
1,4-Dichlorobenzene	ND		1.00	1	04/08/2022 03:15	WG1845079
Dichlorodifluoromethane	ND	C3	5.00	1	04/08/2022 03:15	WG1845079
1,1-Dichloroethane	ND		1.00	1	04/08/2022 03:15	WG1845079
1,2-Dichloroethane	ND		1.00	1	04/08/2022 03:15	WG1845079
1,1-Dichloroethene	ND		1.00	1	04/08/2022 03:15	WG1845079
cis-1,2-Dichloroethene	ND		1.00	1	04/08/2022 03:15	WG1845079
trans-1,2-Dichloroethene	ND		1.00	1	04/08/2022 03:15	WG1845079
1,2-Dichloropropane	ND		1.00	1	04/08/2022 03:15	WG1845079
cis-1,3-Dichloropropene	ND		1.00	1	04/08/2022 03:15	WG1845079
trans-1,3-Dichloropropene	ND		1.00	1	04/08/2022 03:15	WG1845079
Ethylbenzene	ND		1.00	1	04/08/2022 03:15	WG1845079
2-Hexanone	ND		10.0	1	04/08/2022 03:15	WG1845079
Isopropylbenzene	ND		1.00	1	04/08/2022 03:15	WG1845079
2-Butanone (MEK)	ND		10.0	1	04/08/2022 03:15	WG1845079
Methyl Acetate	ND		20.0	1	04/08/2022 03:15	WG1845079
Methyl Cyclohexane	ND		1.00	1	04/08/2022 03:15	WG1845079
Methylene Chloride	ND		5.00	1	04/08/2022 03:15	WG1845079
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	04/08/2022 03:15	WG1845079
Methyl tert-butyl ether	ND		1.00	1	04/08/2022 03:15	WG1845079
Styrene	ND		1.00	1	04/08/2022 03:15	WG1845079
1,1,2,2-Tetrachloroethane	ND		1.00	1	04/08/2022 03:15	WG1845079
Tetrachloroethene	ND		1.00	1	04/08/2022 03:15	WG1845079
Toluene	ND		1.00	1	04/08/2022 03:15	WG1845079
1,2,3-Trichlorobenzene	ND		1.00	1	04/08/2022 03:15	WG1845079
1,2,4-Trichlorobenzene	ND		1.00	1	04/08/2022 03:15	WG1845079
1,1,1-Trichloroethane	ND		1.00	1	04/08/2022 03:15	WG1845079
1,1,2-Trichloroethane	ND		1.00	1	04/08/2022 03:15	WG1845079
Trichloroethene	ND		1.00	1	04/08/2022 03:15	WG1845079
Trichlorofluoromethane	ND		5.00	1	04/08/2022 03:15	WG1845079
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	04/08/2022 03:15	WG1845079
Vinyl chloride	ND	C3	1.00	1	04/08/2022 03:15	WG1845079
Xylenes, Total	ND		3.00	1	04/08/2022 03:15	WG1845079
(S) Toluene-d8	112		80.0-120		04/08/2022 03:15	WG1845079
(S) 4-Bromofluorobenzene	101		77.0-126		04/08/2022 03:15	WG1845079
(S) 1,2-Dichloroethane-d4	92.0		70.0-130		04/08/2022 03:15	WG1845079

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

## Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	ug/l		ug/l		date / time	
Acetone	ND		50.0	1	04/08/2022 02:55	WG1845079
Benzene	ND		1.00	1	04/08/2022 02:55	WG1845079
Bromochloromethane	ND		1.00	1	04/08/2022 02:55	WG1845079
Bromodichloromethane	ND		1.00	1	04/08/2022 02:55	WG1845079
Bromoform	ND		1.00	1	04/08/2022 02:55	WG1845079
Bromomethane	ND	C3	5.00	1	04/08/2022 02:55	WG1845079
Carbon disulfide	ND		1.00	1	04/08/2022 02:55	WG1845079
Carbon tetrachloride	ND		1.00	1	04/08/2022 02:55	WG1845079
Chlorobenzene	ND		1.00	1	04/08/2022 02:55	WG1845079
Chlorodibromomethane	ND		1.00	1	04/08/2022 02:55	WG1845079
Chloroethane	ND		5.00	1	04/08/2022 02:55	WG1845079
Chloroform	ND		5.00	1	04/08/2022 02:55	WG1845079
Chloromethane	ND		2.50	1	04/08/2022 02:55	WG1845079
Cyclohexane	ND		1.00	1	04/08/2022 02:55	WG1845079
1,2-Dibromo-3-Chloropropane	ND		5.00	1	04/08/2022 02:55	WG1845079
1,2-Dibromoethane	ND		1.00	1	04/08/2022 02:55	WG1845079
1,2-Dichlorobenzene	ND		1.00	1	04/08/2022 02:55	WG1845079
1,3-Dichlorobenzene	ND		1.00	1	04/08/2022 02:55	WG1845079
1,4-Dichlorobenzene	ND		1.00	1	04/08/2022 02:55	WG1845079
Dichlorodifluoromethane	ND	C3	5.00	1	04/08/2022 02:55	WG1845079
1,1-Dichloroethane	ND		1.00	1	04/08/2022 02:55	WG1845079
1,2-Dichloroethane	ND		1.00	1	04/08/2022 02:55	WG1845079
1,1-Dichloroethene	ND		1.00	1	04/08/2022 02:55	WG1845079
cis-1,2-Dichloroethene	ND		1.00	1	04/08/2022 02:55	WG1845079
trans-1,2-Dichloroethene	ND		1.00	1	04/08/2022 02:55	WG1845079
1,2-Dichloropropane	ND		1.00	1	04/08/2022 02:55	WG1845079
cis-1,3-Dichloropropene	ND		1.00	1	04/08/2022 02:55	WG1845079
trans-1,3-Dichloropropene	ND		1.00	1	04/08/2022 02:55	WG1845079
Ethylbenzene	ND		1.00	1	04/08/2022 02:55	WG1845079
2-Hexanone	ND		10.0	1	04/08/2022 02:55	WG1845079
Isopropylbenzene	ND		1.00	1	04/08/2022 02:55	WG1845079
2-Butanone (MEK)	ND		10.0	1	04/08/2022 02:55	WG1845079
Methyl Acetate	ND		20.0	1	04/08/2022 02:55	WG1845079
Methyl Cyclohexane	ND		1.00	1	04/08/2022 02:55	WG1845079
Methylene Chloride	ND		5.00	1	04/08/2022 02:55	WG1845079
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	04/08/2022 02:55	WG1845079
Methyl tert-butyl ether	ND		1.00	1	04/08/2022 02:55	WG1845079
Styrene	ND		1.00	1	04/08/2022 02:55	WG1845079
1,1,2,2-Tetrachloroethane	ND		1.00	1	04/08/2022 02:55	WG1845079
Tetrachloroethene	ND		1.00	1	04/08/2022 02:55	WG1845079
Toluene	ND		1.00	1	04/08/2022 02:55	WG1845079
1,2,3-Trichlorobenzene	ND		1.00	1	04/08/2022 02:55	WG1845079
1,2,4-Trichlorobenzene	ND		1.00	1	04/08/2022 02:55	WG1845079
1,1,1-Trichloroethane	ND		1.00	1	04/08/2022 02:55	WG1845079
1,1,2-Trichloroethane	ND		1.00	1	04/08/2022 02:55	WG1845079
Trichloroethene	ND		1.00	1	04/08/2022 02:55	WG1845079
Trichlorofluoromethane	ND		5.00	1	04/08/2022 02:55	WG1845079
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	04/08/2022 02:55	WG1845079
Vinyl chloride	ND	C3	1.00	1	04/08/2022 02:55	WG1845079
Xylenes, Total	ND		3.00	1	04/08/2022 02:55	WG1845079
(S) Toluene-d8	108		80.0-120		04/08/2022 02:55	WG1845079
(S) 4-Bromofluorobenzene	102		77.0-126		04/08/2022 02:55	WG1845079
(S) 1,2-Dichloroethane-d4	93.5		70.0-130		04/08/2022 02:55	WG1845079

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	RDL	Dilution	Analysis date / time	Batch
Acetone	ND		50.0	1	04/08/2022 02:35	WG1845079
Benzene	ND		1.00	1	04/08/2022 02:35	WG1845079
Bromochloromethane	ND		1.00	1	04/08/2022 02:35	WG1845079
Bromodichloromethane	ND		1.00	1	04/08/2022 02:35	WG1845079
Bromoform	ND		1.00	1	04/08/2022 02:35	WG1845079
Bromomethane	ND	C3	5.00	1	04/08/2022 02:35	WG1845079
Carbon disulfide	ND		1.00	1	04/08/2022 02:35	WG1845079
Carbon tetrachloride	ND		1.00	1	04/08/2022 02:35	WG1845079
Chlorobenzene	ND		1.00	1	04/08/2022 02:35	WG1845079
Chlorodibromomethane	ND		1.00	1	04/08/2022 02:35	WG1845079
Chloroethane	ND		5.00	1	04/08/2022 02:35	WG1845079
Chloroform	ND		5.00	1	04/08/2022 02:35	WG1845079
Chloromethane	ND		2.50	1	04/08/2022 02:35	WG1845079
Cyclohexane	ND		1.00	1	04/08/2022 02:35	WG1845079
1,2-Dibromo-3-Chloropropane	ND		5.00	1	04/08/2022 02:35	WG1845079
1,2-Dibromoethane	ND		1.00	1	04/08/2022 02:35	WG1845079
1,2-Dichlorobenzene	ND		1.00	1	04/08/2022 02:35	WG1845079
1,3-Dichlorobenzene	ND		1.00	1	04/08/2022 02:35	WG1845079
1,4-Dichlorobenzene	ND		1.00	1	04/08/2022 02:35	WG1845079
Dichlorodifluoromethane	ND	C3	5.00	1	04/08/2022 02:35	WG1845079
1,1-Dichloroethane	ND		1.00	1	04/08/2022 02:35	WG1845079
1,2-Dichloroethane	ND		1.00	1	04/08/2022 02:35	WG1845079
1,1-Dichloroethene	ND		1.00	1	04/08/2022 02:35	WG1845079
cis-1,2-Dichloroethene	ND		1.00	1	04/08/2022 02:35	WG1845079
trans-1,2-Dichloroethene	ND		1.00	1	04/08/2022 02:35	WG1845079
1,2-Dichloropropane	ND		1.00	1	04/08/2022 02:35	WG1845079
cis-1,3-Dichloropropene	ND		1.00	1	04/08/2022 02:35	WG1845079
trans-1,3-Dichloropropene	ND		1.00	1	04/08/2022 02:35	WG1845079
Ethylbenzene	ND		1.00	1	04/08/2022 02:35	WG1845079
2-Hexanone	ND		10.0	1	04/08/2022 02:35	WG1845079
Isopropylbenzene	ND		1.00	1	04/08/2022 02:35	WG1845079
2-Butanone (MEK)	ND		10.0	1	04/08/2022 02:35	WG1845079
Methyl Acetate	ND		20.0	1	04/08/2022 02:35	WG1845079
Methyl Cyclohexane	ND		1.00	1	04/08/2022 02:35	WG1845079
Methylene Chloride	ND		5.00	1	04/08/2022 02:35	WG1845079
4-Methyl-2-pentanone (MIBK)	ND		10.0	1	04/08/2022 02:35	WG1845079
Methyl tert-butyl ether	ND		1.00	1	04/08/2022 02:35	WG1845079
Styrene	ND		1.00	1	04/08/2022 02:35	WG1845079
1,1,2,2-Tetrachloroethane	ND		1.00	1	04/08/2022 02:35	WG1845079
Tetrachloroethene	ND		1.00	1	04/08/2022 02:35	WG1845079
Toluene	ND		1.00	1	04/08/2022 02:35	WG1845079
1,2,3-Trichlorobenzene	ND		1.00	1	04/08/2022 02:35	WG1845079
1,2,4-Trichlorobenzene	ND		1.00	1	04/08/2022 02:35	WG1845079
1,1,1-Trichloroethane	ND		1.00	1	04/08/2022 02:35	WG1845079
1,1,2-Trichloroethane	ND		1.00	1	04/08/2022 02:35	WG1845079
Trichloroethene	ND		1.00	1	04/08/2022 02:35	WG1845079
Trichlorofluoromethane	ND		5.00	1	04/08/2022 02:35	WG1845079
1,1,2-Trichlorotrifluoroethane	ND		1.00	1	04/08/2022 02:35	WG1845079
Vinyl chloride	ND	C3	1.00	1	04/08/2022 02:35	WG1845079
Xylenes, Total	ND		3.00	1	04/08/2022 02:35	WG1845079
(S) Toluene-d8	107		80.0-120		04/08/2022 02:35	WG1845079
(S) 4-Bromofluorobenzene	97.7		77.0-126		04/08/2022 02:35	WG1845079
(S) 1,2-Dichloroethane-d4	94.4		70.0-130		04/08/2022 02:35	WG1845079

1 Cp  
2 Tc  
3 Ss  
4 Cn  
5 Sr  
6 Qc  
7 Gl  
8 Al  
9 Sc

Method Blank (MB)

(MB) R3778953-2 04/08/22 01:53

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		11.3	50.0
Benzene	U		0.0941	1.00
Bromochloromethane	U		0.128	1.00
Bromodichloromethane	U		0.136	1.00
Bromoform	U		0.129	1.00
Bromomethane	U		0.605	5.00
Carbon disulfide	U		0.0962	1.00
Carbon tetrachloride	U		0.128	1.00
Chlorobenzene	U		0.116	1.00
Chlorodibromomethane	U		0.140	1.00
Chloroethane	U		0.192	5.00
Chloroform	U		0.111	5.00
Chloromethane	U		0.960	2.50
Cyclohexane	U		0.188	1.00
1,2-Dibromo-3-Chloropropane	U		0.276	5.00
1,2-Dibromoethane	U		0.126	1.00
1,2-Dichlorobenzene	U		0.107	1.00
1,3-Dichlorobenzene	U		0.110	1.00
1,4-Dichlorobenzene	U		0.120	1.00
Dichlorodifluoromethane	U		0.374	5.00
1,1-Dichloroethane	U		0.100	1.00
1,2-Dichloroethane	U		0.0819	1.00
1,1-Dichloroethene	U		0.188	1.00
cis-1,2-Dichloroethene	U		0.126	1.00
trans-1,2-Dichloroethene	U		0.149	1.00
1,2-Dichloropropane	U		0.149	1.00
cis-1,3-Dichloropropene	U		0.111	1.00
trans-1,3-Dichloropropene	U		0.118	1.00
Ethylbenzene	U		0.137	1.00
2-Hexanone	U		0.787	10.0
Isopropylbenzene	U		0.105	1.00
2-Butanone (MEK)	U		1.19	10.0
Methyl Acetate	U		1.29	20.0
Methyl Cyclohexane	U		0.660	1.00
Methylene Chloride	U		0.430	5.00
4-Methyl-2-pentanone (MIBK)	U		0.478	10.0
Methyl tert-butyl ether	U		0.101	1.00
Styrene	U		0.118	1.00
1,1,2,2-Tetrachloroethane	U		0.133	1.00
Tetrachloroethene	U		0.300	1.00

<sup>1</sup>Cp

<sup>2</sup>Tc

<sup>3</sup>Ss

<sup>4</sup>Cn

<sup>5</sup>Sr

<sup>6</sup>Qc

<sup>7</sup>Gl

<sup>8</sup>Al

<sup>9</sup>Sc



Method Blank (MB)

(MB) R3778953-2 04/08/22 01:53

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Toluene	U		0.278	1.00
1,2,3-Trichlorobenzene	0.512	U	0.230	1.00
1,2,4-Trichlorobenzene	U		0.481	1.00
1,1,1-Trichloroethane	U		0.149	1.00
1,1,2-Trichloroethane	U		0.158	1.00
Trichloroethene	U		0.190	1.00
Trichlorofluoromethane	U		0.160	5.00
1,1,2-Trichlorotrifluoroethane	U		0.180	1.00
Vinyl chloride	U		0.234	1.00
Xylenes, Total	U		0.174	3.00
(S) Toluene-d8	112			80.0-120
(S) 4-Bromofluorobenzene	102			77.0-126
(S) 1,2-Dichloroethane-d4	91.8			70.0-130

Laboratory Control Sample (LCS)

(LCS) R3778953-1 04/08/22 01:12

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	25.0	26.0	104	70.0-130	
Benzene	5.00	4.74	94.8	70.0-130	
Bromochloromethane	5.00	4.91	98.2	70.0-130	
Bromodichloromethane	5.00	4.56	91.2	70.0-130	
Bromoform	5.00	4.93	98.6	70.0-130	
Bromomethane	5.00	3.99	79.8	70.0-130	
Carbon disulfide	5.00	4.39	87.8	70.0-130	
Carbon tetrachloride	5.00	4.56	91.2	70.0-130	
Chlorobenzene	5.00	5.35	107	70.0-130	
Chlorodibromomethane	5.00	4.73	94.6	70.0-130	
Chloroethane	5.00	3.83	76.6	70.0-130	
Chloroform	5.00	4.64	92.8	70.0-130	
Chloromethane	5.00	4.68	93.6	70.0-130	
Cyclohexane	5.00	4.61	92.2	71.0-124	
1,2-Dibromo-3-Chloropropane	5.00	5.65	113	70.0-130	
1,2-Dibromoethane	5.00	5.25	105	70.0-130	
1,2-Dichlorobenzene	5.00	5.25	105	70.0-130	
1,3-Dichlorobenzene	5.00	4.63	92.6	70.0-130	
1,4-Dichlorobenzene	5.00	5.08	102	70.0-130	
Dichlorodifluoromethane	5.00	3.53	70.6	70.0-130	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3778953-1 04/08/22 01:12

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
1,1-Dichloroethane	5.00	4.54	90.8	70.0-130	
1,2-Dichloroethane	5.00	4.62	92.4	70.0-130	
1,1-Dichloroethene	5.00	4.38	87.6	70.0-130	
cis-1,2-Dichloroethene	5.00	4.94	98.8	70.0-130	
trans-1,2-Dichloroethene	5.00	5.23	105	70.0-130	
1,2-Dichloropropane	5.00	4.85	97.0	70.0-130	
cis-1,3-Dichloropropene	5.00	4.19	83.8	70.0-130	
trans-1,3-Dichloropropene	5.00	5.02	100	70.0-130	
Ethylbenzene	5.00	5.19	104	70.0-130	
2-Hexanone	25.0	26.6	106	70.0-130	
Isopropylbenzene	5.00	4.57	91.4	70.0-130	
2-Butanone (MEK)	25.0	26.4	106	70.0-130	
Methyl Acetate	25.0	27.7	111	57.0-148	
Methyl Cyclohexane	5.00	4.53	90.6	68.0-126	
Methylene Chloride	5.00	5.03	101	70.0-130	
4-Methyl-2-pentanone (MIBK)	25.0	27.7	111	70.0-130	
Methyl tert-butyl ether	5.00	4.77	95.4	70.0-130	
Styrene	5.00	4.61	92.2	70.0-130	
1,1,2,2-Tetrachloroethane	5.00	5.20	104	70.0-130	
Tetrachloroethene	5.00	5.76	115	70.0-130	
Toluene	5.00	5.05	101	70.0-130	
1,2,3-Trichlorobenzene	5.00	4.75	95.0	70.0-130	
1,2,4-Trichlorobenzene	5.00	4.67	93.4	70.0-130	
1,1,1-Trichloroethane	5.00	4.28	85.6	70.0-130	
1,1,2-Trichloroethane	5.00	5.02	100	70.0-130	
Trichloroethene	5.00	4.60	92.0	70.0-130	
Trichlorofluoromethane	5.00	4.04	80.8	70.0-130	
1,1,2-Trichlorotrifluoroethane	5.00	4.63	92.6	70.0-130	
Vinyl chloride	5.00	3.51	70.2	70.0-130	
Xylenes, Total	15.0	15.5	103	70.0-130	
<i>(S) Toluene-d8</i>			108	80.0-120	
<i>(S) 4-Bromofluorobenzene</i>			102	77.0-126	
<i>(S) 1,2-Dichloroethane-d4</i>			93.7	70.0-130	

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

# GLOSSARY OF TERMS

## Guide to Reading and Understanding Your Laboratory Report

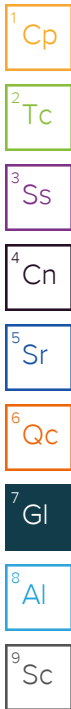
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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

### Abbreviations and Definitions

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

Qualifier	Description
C3	The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Method sensitivity check is acceptable.
J	The identification of the analyte is acceptable; the reported value is an estimate.



# ACCREDITATIONS & LOCATIONS

## Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky <sup>1,6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	AI30792	Tennessee <sup>1,4</sup>	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

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

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

<sup>1</sup> Cp

<sup>2</sup> Tc

<sup>3</sup> Ss

<sup>4</sup> Cn

<sup>5</sup> Sr

<sup>6</sup> Qc

<sup>7</sup> Gl

<sup>8</sup> Al

<sup>9</sup> Sc

Company Name/Address:  
**S&ME Inc. - Spartanburg SC**  
 301 Zima Park Drive  
 Spartanburg, SC 29301

Billing Information:  
**Scott Dacus**  
 301 Zima Park Drive  
 Spartanburg, SC 29301

Pres Chk	Analysis / Container / Preservative										
	V8260SC - Chloroform 40mlAmb-NoPres	V8260TCLSC 40mlAmb-NoPres									

Chain of Custody Page 1 of 1

**Pace**  
 PEOPLE ADVANCING SCIENCE

**MT JULIET, TN**  
 12065 Lebanon Rd Mount Juliet, TN 37122  
 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: <https://info.pacelabs.com/hubs/pas-standard-terms.pdf>

SDG # 4479961  
**G217**

Tat

Acctnum: SMESPAR  
 Template: T206235  
 Prelogin: P914687  
 PM: 690 - Tom Mellette  
 PB: [Signature]

Shipped Via: **FedEX Ground**

Remarks Sample # (lab only)

Report to:  
**Richard Bonds**

Email To:  
 rbonds@smeinc.com;SDacus@smeinc.com

Project Description:  
**New Indy - Catawba**

City/State Collected:  
**SC**

Please Circle:  
 PT MT CT ET

Phone: **864-574-2360**

Client Project #  
**4213-18-087**

Lab Project #  
**SMESPAR-4213-18-087**

Collected by (print):  
**SCOTT DACUS**

Site/Facility ID #

P.O. #  
**4213-18-087**

Collected by (signature):  
[Signature]

**Rush?** (Lab MUST Be Notified)  
 \_\_\_ Same Day \_\_\_ Five Day  
 \_\_\_ Next Day \_\_\_ 5 Day (Rad Only)  
 \_\_\_ Two Day \_\_\_ 10 Day (Rad Only)  
 \_\_\_ Three Day

Quote #

Immediately Packed on Ice N \_\_\_ Y

Date Results Needed

No. of Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs
R16-MW-1A	GRAB	GW		4/5/22	1046	3
R18-MW-2	GRAB	GW		4/5/22	1136	3
R19-MW-2A	GRAB	GW		4/5/22	1145	3
R6-MW-1	GRAB	GW		4/5/22	0957	3
GW-9	GRAB	GW		4/4/22	1011	3
R1-MW-2	GRAB	GW		4/5/22	1049	3
DUPLICATE-2	GRAB	GW				3
FIELD BLANK	GRAB	GW		4/5/22	1200	3
EQUIP BLANK	GRAB	GW		4/5/22	1215	3
TRIP BLANK		GW				1

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

Remarks:

pH \_\_\_ Temp \_\_\_  
 Flow \_\_\_ Other \_\_\_

Samples returned via:  
 \_\_\_ UPS \_\_\_ FedEx \_\_\_ Courier

Tracking # **5719 6674 7309**

**Sample Receipt Checklist**

COC Seal Present/Intact: NP  Y  N  
 COC Signed/Accurate:  Y  N  
 Bottles arrive intact:  Y  N  
 Correct bottles used:  Y  N  
 Sufficient volume sent:  Y  N  
**If Applicable**  
 VOA Zero Headspace:  Y  N  
 Preservation Correct/Checked:  Y  N  
 RAD Screen <0.5 mR/hr:  Y  N

Relinquished by: (Signature)  
[Signature]

Date: **4/5/22** Time: **1700**

Received by: (Signature)

Trip Blank Received:  Yes  No  
 HCL/MeOH  
 FBR

Relinquished by: (Signature)

Date: Time:

Received by: (Signature)

Temp: **2.3-10.23** Bottles Received: **27**

If preservation required by Login: Date/Time

Relinquished by: (Signature)

Date: Time:

Received for lab by: (Signature)  
[Signature]

Date: **4/10/22** Time: **0900**

Hold: Condition: NCF /  OK

**LOW FLOW  
SAMPLE COLLECTION  
SUMMARY SHEET**

General

1. Job Name: Project Columbia - Catawba Plant Area 2. Project No.: 4213-18-087  
 3. Sampled By: L. Lowery 4. Weather: Sunny / Mild  
 5. Location: Catawba, S.C. 6. Well #: R16-MW-1A

Water Level Information:

1. Date: 4/5/2022 2. Time: 1020 3. Static WL: 5.52 Ft. Below MP  
 4. Description of Measuring Point (MP): Top of Casing  
 5. Height of MP above/below Land Surface: 3" below  
 6. Method of Water Level Measurement: Electric Water Level Tape

Evacuation Procedure:

1. Date: 4/5/2022 2. Time Evac Started: 1030 3. Time Evac. Finished: 1045  
 4. Method of Evacuation: Low Flow Pump 5. Tot. Depth: 15.00 Ft. Below M. P.  
 6. Casing Diameter (in.): 2 7. Height of water Column (Ft.): 9.48  
 8. Decon Procedure: Alconox/DI

Meter Callibration:

Meter S/N: 12K 100753  
 Buffer pH 7.00: 6.91 Buffer pH 4.01: 4.02 Buffer Check: 10.03 Cond. 1000: 1006  
                   Actual                    Actual                    10.01                    Actual  
 Buffer Lot #: CC728020 Buffer Lot #: CC724299 Buffer Lot #: CC717131

Record of Well Development:

Time	1035	1040	1045		
Water Temp (C)	19	19	19		
pH (Standard Units)	5.47	5.47	5.41		
Spec. Cond. (umhos)	149	151	151		
Turbidity (NTU)	8	6	5		
Odor (subjective)	None	None	None		
Other:					

Time					
Water Temp (C)					
pH (Standard Units)					
Spec. Cond. (umhos)					
Turbidity (NTU)					
Odor (subjective)					
Other:					

Total Volume Purged (gal.): 1/2

Sampling Information

1. Date: 4/5/2022 2. Time: 1046  
 3. Sample Containers(No./Size/Type): 3/40ml/G  
 4. Analysis Required: TCL VOCs  
 5. Samples Preserved: Yes 6. Preservative: Ice  
 9. Lab Performing Analysis: Pace Analytical

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**LOW FLOW  
SAMPLE COLLECTION  
SUMMARY SHEET**

General

1. Job Name: Project Columbia - Catawba Plant Area 2. Project No.: 4213-18-087  
 3. Sampled By: L. Lowery 4. Weather: Sunny / Mild  
 5. Location: Catawba, S.C. 6. Well #: R18-MW-2

Water Level Information:

1. Date: 4/5/2022 2. Time: 1115 3. Static WL: 3.90 Ft. Below MP  
 4. Description of Measuring Point (MP): Top of Casing  
 5. Height of MP above/below Land Surface: 3" below  
 6. Method of Water Level Measurement: Electric Water Level Tape

Evacuation Procedure:

1. Date: 4/5/2022 2. Time Evac Started: 1120 3. Time Evac. Finished: 1135  
 4. Method of Evacuation: Low Flow Pump 5. Tot. Depth: 13.00 Ft. Below M. P.  
 6. Casing Diameter (in.): 2 7. Height of water Column (Ft.): 9.10  
 8. Decon Procedure: Alconox/DI

Meter Callibration:

Meter S/N: 12K 100753  
 Buffer pH 7.00: 6.91 Buffer pH 4.01: 4.02 Buffer Check: 10.03 Cond. 1000: 1006  
                   Actual                   Actual                   10.01                   Actual  
 Buffer Lot #: CC728020 Buffer Lot #: CC724299 Buffer Lot #: CC717131

Record of Well Development:

Time	1125	1130	1135		
Water Temp (C)	18	18	17		
pH (Standard Units)	6.70	6.77	6.80		
Spec. Cond. (umhos)	390	393	397		
Turbidity (NTU)	8	7	5		
Odor (subjective)	None	None	None		
Other:					

Time					
Water Temp (C)					
pH (Standard Units)					
Spec. Cond. (umhos)					
Turbidity (NTU)					
Odor (subjective)					
Other:					

Total Volume Purged (gal.): 1

Sampling Information

1. Date: 4/5/2022 2. Time: 1136  
 3. Sample Containers(No./Size/Type): 3/40ml/G

4. Analysis Required: TCL VOCs  
 5. Samples Preserved: Yes 6. Preservative: Ice  
 9. Lab Performing Analysis: Pace Analytical

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**LOW FLOW  
SAMPLE COLLECTION  
SUMMARY SHEET**

General

1. Job Name: Project Columbia - Catawba Plant Area 2. Project No.: 4213-18-087  
 3. Sampled By: S. Dacus 4. Weather: Sunny / Mild  
 5. Location: Catawba, S.C. 6. Well #: R19-MW-2A

Water Level Information:

1. Date: 4/5/2022 2. Time: 1120 3. Static WL: 4.28 Ft. Below MP  
 4. Description of Measuring Point (MP): Top of Casing  
 5. Height of MP above/below Land Surface: \_\_\_\_\_  
 6. Method of Water Level Measurement: Electric Water Level Tape

Evacuation Procedure:

1. Date: 4/5/2022 2. Time Evac Started: 1126 3. Time Evac. Finished: 1141  
 4. Method of Evacuation: Low Flow Pump 5. Tot. Depth: 15.00 Ft. Below M. P.  
 6. Casing Diameter (in.): 2 7. Height of water Column (Ft.): 10.72  
 8. Decon Procedure: Alconox/DI

Meter Callibration:

Meter S/N: 19E 101408  
 Buffer pH 7.00: 7.04 Buffer pH 4.01: 4.03 Buffer Check: 10.02 Cond. 1000: 998  
                   Actual                   Actual                   10.01                   Actual  
 Buffer Lot #: CC728020 Buffer Lot #: CC724299 Buffer Lot #: CC717131

Record of Well Development:

Time	1131	1136	1141		
Water Temp (C)	28	29	29		
pH (Standard Units)	4.01	4.00	4.03		
Spec. Cond. (umhos)	420	417	414		
Turbidity (NTU)	2	1	2		
Odor (subjective)	None	None	None		
Other:					

Time					
Water Temp (C)					
pH (Standard Units)					
Spec. Cond. (umhos)					
Turbidity (NTU)					
Odor (subjective)					
Other:					

Total Volume Purged (gal.): 1

Sampling Information

1. Date: 4/5/2022 2. Time: 1145  
 3. Sample Containers(No./Size/Type): 3/40ml/G  
 4. Analysis Required: TCL VOCs  
 5. Samples Preserved: Yes 6. Preservative: Ice  
 9. Lab Performing Analysis: Pace Analytical

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



**LOW FLOW  
SAMPLE COLLECTION  
SUMMARY SHEET**

General

1. Job Name: Project Columbia - Catawba Plant Area 2. Project No.: 4213-18-087  
 3. Sampled By: L. Lowery 4. Weather: Sunny / Mild  
 5. Location: Catawba, S.C. 6. Well #: R6-MW-1

Water Level Information:

1. Date: 4/5/2022 2. Time: 0907 3. Static WL: 14.11 Ft. Below MP  
 4. Description of Measuring Point (MP): Top of Casing  
 5. Height of MP above/below Land Surface: \_\_\_\_\_  
 6. Method of Water Level Measurement: Electric Water Level Tape

Evacuation Procedure:

1. Date: 4/5/2022 2. Time Evac Started: 0940 3. Time Evac. Finished: 0955  
 4. Method of Evacuation: Low Flow Pump 5. Tot. Depth: 18 Ft. Below M. P.  
 6. Casing Diameter (in.): 2 7. Height of water Column (Ft.): 3.89  
 8. Decon Procedure: Alconox/DI

Meter Callibration:

Meter S/N: 12K 100753  
 Buffer pH 7.00: 6.91 Buffer pH 4.01: 4.02 Buffer Check: 10.03 Cond. 1000: 1006  
                   Actual                   Actual                   10.01                   Actual                   Actual  
 Buffer Lot #: CC728020 Buffer Lot #: CC724299 Buffer Lot #: CC717131

Record of Well Development:

Time	0945	0950	0955		
Water Temp (C)	22	22	21		
pH (Standard Units)	7.15	7.15	7.17		
Spec. Cond. (umhos)	716	704	693		
Turbidity (NTU)	20	14	10		
Odor (subjective)	None	None	None		
Other:					

Time					
Water Temp (C)					
pH (Standard Units)					
Spec. Cond. (umhos)					
Turbidity (NTU)					
Odor (subjective)					
Other:					

Total Volume Purged (gal.): 3/4

Sampling Information

1. Date: 4/5/2022 2. Time: 0957  
 3. Sample Containers(No./Size/Type): 3/40ml/G  
 4. Analysis Required: TCL VOCs  
 5. Samples Preserved: Yes 6. Preservative: Ice  
 9. Lab Performing Analysis: Pace Analytical

Comments: Duplicate 2 collected. Well damaged and needs new vault and pad.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**LOW FLOW  
SAMPLE COLLECTION  
SUMMARY SHEET**

General

1. Job Name: Project Columbia - Catawba Plant Area 2. Project No.: 4213-18-087  
 3. Sampled By: S. Dacus 4. Weather: Sunny / Mild  
 5. Location: Catawba, S.C. 6. Well #: DF-MW-3

Water Level Information:

1. Date: 4/4/2022 2. Time: 0925 3. Static WL: 22.58 Ft. Below MP  
 4. Description of Measuring Point (MP): Top of Casing  
 5. Height of MP above/below Land Surface: 3' above  
 6. Method of Water Level Measurement: Electric Water Level Tape

Evacuation Procedure:

1. Date: ~~~ 2. Time Evac Started: ~~~ 3. Time Evac. Finished: ~~~  
 4. Method of Evacuation: Low Flow Pump 5. Tot. Depth: 22.65 Ft. Below M. P.  
 6. Casing Diameter (in.): 2 7. Height of water Column (Ft.): 0.07  
 8. Decon Procedure: Alconox/DI

Meter Callibration:

Meter S/N: 19E 101408  
 Buffer pH 7.00: 7.04 Buffer pH 4.01: 4.03 Buffer Check: 10.02 Cond. 1000: 998  
                   Actual                   Actual                   10.01                   Actual  
 Buffer Lot #: CC728020 Buffer Lot #: CC724299 Buffer Lot #: CC717131

Record of Well Development:

Time						
Water Temp (C)						
pH (Standard Units)						
Spec. Cond. (umhos)						
Turbidity (NTU)						
Odor (subjective)						
Other:						

Time						
Water Temp (C)						
pH (Standard Units)						
Spec. Cond. (umhos)						
Turbidity (NTU)						
Odor (subjective)						
Other:						

Total Volume Purged (gal.): \_\_\_\_\_

Sampling Information

1. Date: ~~~ 2. Time: ~~~  
 3. Sample Containers(No./Size/Type): 2/ 1L amber / glass  
 4. Analysis Required: Chloroform, Dioxins/Furans  
 5. Samples Preserved: Yes 6. Preservative: \_\_\_\_\_  
 9. Lab Performing Analysis: Pace Analytical

Comments: Not enough water in well to sample.

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**LOW FLOW  
SAMPLE COLLECTION  
SUMMARY SHEET**

General

1. Job Name: Project Columbia - Catawba Plant Area 2. Project No.: 4213-18-087  
 3. Sampled By: L. Lowery 4. Weather: Sunny / Mild  
 5. Location: Catawba, S.C. 6. Well #: GW-9

Water Level Information:

1. Date: 4/4/2022 2. Time: 0940 3. Static WL: 15.63 Ft. Below MP  
 4. Description of Measuring Point (MP): Top of Casing  
 5. Height of MP above/below Land Surface: \_\_\_\_\_  
 6. Method of Water Level Measurement: Electric Water Level Tape

Evacuation Procedure:

1. Date: 4/4/2022 2. Time Evac Started: 0955 3. Time Evac. Finished: 1010  
 4. Method of Evacuation: Low Flow Pump 5. Tot. Depth: 43.60 Ft. Below M. P.  
 6. Casing Diameter (in.): 2 7. Height of water Column (Ft.): 27.97  
 8. Decon Procedure: Alconox/DI

Meter Callibration:

Meter S/N: 12K 100753  
 Buffer pH 7.00: 6.91 Buffer pH 4.01: 4.02 Buffer Check: 10.03 Cond. 1000: 1006  
                   Actual                    Actual                    10.01                    Actual  
 Buffer Lot #: CC728020 Buffer Lot #: CC724299 Buffer Lot #: CC717131

Record of Well Development:

Time	1000	1005	1010		
Water Temp (C)	24	24	24		
pH (Standard Units)	4.82	4.72	4.69		
Spec. Cond. (umhos)	822	822	822		
Turbidity (NTU)	7	6	5		
Odor (subjective)	Slight	Slight	Slight		
Other:					

Time					
Water Temp (C)					
pH (Standard Units)					
Spec. Cond. (umhos)					
Turbidity (NTU)					
Odor (subjective)					
Other:					

Total Volume Purged (gal.): 1

Sampling Information

1. Date: 4/4/2022 2. Time: 1011  
 3. Sample Containers(No./Size/Type): 3/40ml/G, 2/1L amber /G

4. Analysis Required: Chloroform, Dioxins/Furans  
 5. Samples Preserved: Yes 6. Preservative: Ice  
 9. Lab Performing Analysis: Pace Analytical

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**LOW FLOW  
SAMPLE COLLECTION  
SUMMARY SHEET**

General

1. Job Name: Project Columbia - Catawba Plant Area 2. Project No.: 4213-18-087  
 3. Sampled By: S. Dacus 4. Weather: Sunny / Mild  
 5. Location: Catawba, S.C. 6. Well #: R1-MW-2

Water Level Information:

1. Date: 4/5/2022 2. Time: 1010 3. Static WL: 15.31 Ft. Below MP  
 4. Description of Measuring Point (MP): Top of Casing  
 5. Height of MP above/below Land Surface: \_\_\_\_\_  
 6. Method of Water Level Measurement: Electric Water Level Tape

Evacuation Procedure:

1. Date: 4/8/2022 2. Time Evac Started: 1019 3. Time Evac. Finished: 1034  
 4. Method of Evacuation: Low Flow Pump 5. Tot. Depth: 20 Ft. Below M. P.  
 6. Casing Diameter (in.): 2 7. Height of water Column (Ft.): 4.69  
 8. Decon Procedure: Alconox/DI

Meter Callibration:

Meter S/N: 19E 101408  
 Buffer pH 7.00: 7.04 Buffer pH 4.01: 4.03 Buffer Check: 10.02 Cond. 1000: 998  
                   Actual                   Actual                   10.01                   Actual  
 Buffer Lot #: CC728020 Buffer Lot #: CC724299 Buffer Lot #: CC717131

Record of Well Development:

Time	1024	1029	1034		
Water Temp (C)	19	19	19		
pH (Standard Units)	3.61	3.81	3.89		
Spec. Cond. (umhos)	3764	3732	3734		
Turbidity (NTU)	711	186	130		
Odor (subjective)	None	None	None		
Other:					

Time					
Water Temp (C)					
pH (Standard Units)					
Spec. Cond. (umhos)					
Turbidity (NTU)					
Odor (subjective)					
Other:					

Total Volume Purged (gal.): 1

Sampling Information

1. Date: 4/5/2022 2. Time: 1049  
 3. Sample Containers(No./Size/Type): 3/40ml/G  
 4. Analysis Required: Chloroform  
 5. Samples Preserved: Yes 6. Preservative: Ice  
 9. Lab Performing Analysis: Pace Analytical

Comments:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**LOW FLOW  
SAMPLE COLLECTION  
SUMMARY SHEET**

General

1. Job Name: Project Columbia - Catawba Plant Area 2. Project No.: 4213-18-087  
 3. Sampled By: S. Dacus 4. Weather: Sunny / Mild  
 5. Location: Catawba, S.C. 6. Well #: R4-MW-2

Water Level Information:

1. Date: 4/5/2022 2. Time: 0920 3. Static WL: Dry Ft. Below MP  
 4. Description of Measuring Point (MP): Top of Casing  
 5. Height of MP above/below Land Surface: 3" below  
 6. Method of Water Level Measurement: Electric Water Level Tape

Evacuation Procedure:

1. Date: \_\_\_\_\_ 2. Time Evac Started: \_\_\_\_\_ 3. Time Evac. Finished: \_\_\_\_\_  
 4. Method of Evacuation: Low Flow Pump 5. Tot. Depth: 18.00 Ft. Below M. P.  
 6. Casing Diameter (in.): 2 7. Height of water Column (Ft.): \_\_\_\_\_  
 8. Decon Procedure: Alconox/DI

Meter Callibration:

Meter S/N: 19E 101408  
 Buffer pH 7.00: 7.04 Buffer pH 4.01: 4.03 Buffer Check: 10.02 Cond. 1000: 998  
                   Actual                    Actual                    10.01                    Actual  
 Buffer Lot #: CC728020 Buffer Lot #: CC724299 Buffer Lot #: CC717131

Record of Well Development:

Time						
Water Temp (C)						
pH (Standard Units)						
Spec. Cond. (umhos)						
Turbidity (NTU)						
Odor (subjective)						
Other:						

Time						
Water Temp (C)						
pH (Standard Units)						
Spec. Cond. (umhos)						
Turbidity (NTU)						
Odor (subjective)						
Other:						

Total Volume Purged (gal.): \_\_\_\_\_

Sampling Information

1. Date: \_\_\_\_\_ 2. Time: \_\_\_\_\_  
 3. Sample Containers(No./Size/Type): 3/40ml/G  
 4. Analysis Required: Chloroform  
 5. Samples Preserved: Yes 6. Preservative: \_\_\_\_\_  
 9. Lab Performing Analysis: Pace Analytical

Comments: Dry - no sample  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**LOW FLOW  
SAMPLE COLLECTION  
SUMMARY SHEET**

General

1. Job Name: Project Columbia - Catawba Plant Area 2. Project No.: 4213-18-087  
 3. Sampled By: \_\_\_\_\_ 4. Weather: Sunny / Mild  
 5. Location: Catawba, S.C. 6. Well #: WYLF-MW-3

Water Level Information:

1. Date: 4/4/2022 2. Time: 1200 3. Static WL: 23.67 Ft. Below MP  
 4. Description of Measuring Point (MP): Top of Casing  
 5. Height of MP above/below Land Surface: 3' above  
 6. Method of Water Level Measurement: Electric Water Level Tape

Evacuation Procedure:

1. Date: 4/4/2022 2. Time Evac Started: 1202 3. Time Evac. Finished: 1207  
 4. Method of Evacuation: New disposable bailer 5. Tot. Depth: 27.81 Ft. Below M. P.  
 6. Casing Diameter (in.): 2 7. Height of water Column (Ft.): 4.14  
 8. Decon Procedure: New bailer

Meter Callibration:

Meter S/N: 12K 100753  
 Buffer pH 7.00: 6.91 Buffer pH 4.01: 4.02 Buffer Check: 10.03 Cond. 1000: 1006  
                   Actual                   Actual                   10.01                   Actual  
 Buffer Lot #: CC728020 Buffer Lot #: CC724299 Buffer Lot #: CC717131

Record of Well Development:

Time	1	2	3			
Water Temp (C)	17	~~~	~~~			
pH (Standard Units)	8.20	~~~	~~~			
Spec. Cond. (umhos)	1715	Dry	Dry			
Turbidity (NTU)	55	~~~	~~~			
Odor (subjective)	None	~~~	~~~			
Other:						

Time						
Water Temp (C)						
pH (Standard Units)						
Spec. Cond. (umhos)						
Turbidity (NTU)						
Odor (subjective)						
Other:						

Total Volume Purged (gal.): 1

Sampling Information

1. Date: 4/4/2022 2. Time: 1420  
 3. Sample Containers(No./Size/Type): 2/1L amber /G  
 4. Analysis Required: Dioxins/Furans  
 5. Samples Preserved: Yes 6. Preservative: Ice  
 9. Lab Performing Analysis: Pace Analytical

Comments: Used a bailer because well goes dry.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**LOW FLOW  
SAMPLE COLLECTION  
SUMMARY SHEET**

General

1. Job Name: Project Columbia - Catawba Plant Area 2. Project No.: 4213-18-087  
 3. Sampled By: \_\_\_\_\_ 4. Weather: Sunny / Mild  
 5. Location: Catawba, S.C. 6. Well #: R29-MW-1

Water Level Information:

1. Date: 4/4/2022 2. Time: 1240 3. Static WL: 19.73 Ft. Below MP  
 4. Description of Measuring Point (MP): Top of Casing  
 5. Height of MP above/below Land Surface: \_\_\_\_\_  
 6. Method of Water Level Measurement: Electric Water Level Tape

Evacuation Procedure:

1. Date: 4/4/2022 2. Time Evac Started: 1250 3. Time Evac. Finished: 1355  
 4. Method of Evacuation: Low Flow Pump 5. Tot. Depth: 28.00 Ft. Below M. P.  
 6. Casing Diameter (in.): 2 7. Height of water Column (Ft.): 8.27  
 8. Decon Procedure: Alconox/DI

Meter Callibration:

Meter S/N: 12K 100753  
 Buffer pH 7.00: 6.91 Buffer pH 4.01: 4.02 Buffer Check: 10.03 Cond. 1000: 1006  
                   Actual                    Actual                    10.01                    Actual  
 Buffer Lot #: CC728020 Buffer Lot #: CC724299 Buffer Lot #: CC717131

Record of Well Development:

Time	1255	1300	1305	1315	1325	1335
Water Temp (C)	19	19	19	19	19	19
pH (Standard Units)	7.48	7.35	7.40	7.37	7.40	7.44
Spec. Cond. (umhos)	3334	3259	3125	3133	3109	3077
Turbidity (NTU)	220	200	385	305	308	310
Odor (subjective)	None	None	None	None	None	None
Other:						

Time	1345	1355				
Water Temp (C)	19	19				
pH (Standard Units)	7.44	7.46				
Spec. Cond. (umhos)	2019	2988				
Turbidity (NTU)	315	315				
Odor (subjective)	None	None				
Other:						

Total Volume Purged (gal.): 2

Sampling Information

1. Date: 4/4/2022 2. Time: 1357  
 3. Sample Containers(No./Size/Type): 2/1L amber /G  
 4. Analysis Required: Dioxins/Furans  
 5. Samples Preserved: Yes 6. Preservative: Ice  
 9. Lab Performing Analysis: Pace Analytical

Comments: Well would not clear up.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**LOW FLOW  
SAMPLE COLLECTION  
SUMMARY SHEET**

General

1. Job Name: Project Columbia - Catawba Plant Area 2. Project No.: 4213-18-087  
 3. Sampled By: \_\_\_\_\_ 4. Weather: Sunny / Mild  
 5. Location: Catawba, S.C. 6. Well #: DF-MW-1

Water Level Information:

1. Date: 4/4/2022 2. Time: 1225 3. Static WL: 37.15 Ft. Below MP  
 4. Description of Measuring Point (MP): Top of Casing  
 5. Height of MP above/below Land Surface: \_\_\_\_\_  
 6. Method of Water Level Measurement: Electric Water Level Tape

Evacuation Procedure:

1. Date: \_\_\_\_\_ 2. Time Evac Started: \_\_\_\_\_ 3. Time Evac. Finished: \_\_\_\_\_  
 4. Method of Evacuation: Low Flow Pump 5. Tot. Depth: 37.38 Ft. Below M. P.  
 6. Casing Diameter (in.): 2 7. Height of water Column (Ft.): 0.23  
 8. Decon Procedure: Alconox/DI

Meter Calibration:

Meter S/N: 12K 100753  
 Buffer pH 7.00: 6.91 Buffer pH 4.01: 4.02 Buffer Check: 10.03 Cond. 1000: 1006  
                   Actual                    Actual                    10.01                    Actual  
 Buffer Lot #: CC728020 Buffer Lot #: CC724299 Buffer Lot #: CC717131

Record of Well Development:

Time					
Water Temp (C)					
pH (Standard Units)					
Spec. Cond. (umhos)					
Turbidity (NTU)					
Odor (subjective)					
Other:					

Time					
Water Temp (C)					
pH (Standard Units)					
Spec. Cond. (umhos)					
Turbidity (NTU)					
Odor (subjective)					
Other:					

Total Volume Purged (gal.): \_\_\_\_\_

Sampling Information

1. Date: \_\_\_\_\_ 2. Time: \_\_\_\_\_  
 3. Sample Containers(No./Size/Type): 2/ 1L amber / glass  
 4. Analysis Required: Dioxins/Furans  
 5. Samples Preserved: Yes 6. Preservative: \_\_\_\_\_  
 9. Lab Performing Analysis: Pace Analytical

Comments: Not enough water to sample.

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



**LOW FLOW  
SAMPLE COLLECTION  
SUMMARY SHEET**

General

1. Job Name: Project Columbia - Catawba Plant Area 2. Project No.: 4213-18-087  
 3. Sampled By: \_\_\_\_\_ 4. Weather: Sunny / Mild  
 5. Location: Catawba, S.C. 6. Well #: DF-MW-2

Water Level Information:

1. Date: 4/4/2022 2. Time: 1032 3. Static WL: 32.79 Ft. Below MP  
 4. Description of Measuring Point (MP): Top of Casing  
 5. Height of MP above/below Land Surface: \_\_\_\_\_  
 6. Method of Water Level Measurement: Electric Water Level Tape

Evacuation Procedure:

1. Date: 4/4/2022 2. Time Evac Started: 1145 3. Time Evac. Finished: 1150  
 4. Method of Evacuation: New disposable bailer 5. Tot. Depth: 39 Ft. Below M. P.  
 6. Casing Diameter (in.): 2 7. Height of water Column (Ft.): 6.21  
 8. Decon Procedure: New bailer

Meter Callibration:

Meter S/N: 12K 100753  
 Buffer pH 7.00: 6.91 Buffer pH 4.01: 4.02 Buffer Check: 10.03 Cond. 1000: 1006  
                   Actual                   Actual                   10.01                   Actual  
 Buffer Lot #: CC728020 Buffer Lot #: CC724299 Buffer Lot #: CC717131

Record of Well Development:

Time	1	2	3			
Water Temp (C)	19	~~~	~~~			
pH (Standard Units)	7.01	~~~	~~~			
Spec. Cond. (umhos)	643	Dry	Dry			
Turbidity (NTU)	>1000	~~~	~~~			
Odor (subjective)	None	~~~	~~~			
Other:						

Time						
Water Temp (C)						
pH (Standard Units)						
Spec. Cond. (umhos)						
Turbidity (NTU)						
Odor (subjective)						
Other:						

Total Volume Purged (gal.): 1

Sampling Information

1. Date: 4/4/2022 2. Time: 1430  
 3. Sample Containers(No./Size/Type): 2/1L amber /G  
 4. Analysis Required: Dioxins/Furans  
 5. Samples Preserved: Yes 6. Preservative: Ice  
 9. Lab Performing Analysis: Pace Analytical

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**LOW FLOW  
SAMPLE COLLECTION  
SUMMARY SHEET**

General

1. Job Name: Project Columbia - Catawba Plant Area 2. Project No.: 4213-18-087  
 3. Sampled By: \_\_\_\_\_ 4. Weather: Sunny / Mild  
 5. Location: Catawba, S.C. 6. Well #: DF-MW-4

Water Level Information:

1. Date: 4/4/2022 2. Time: 0955 3. Static WL: 19.57 Ft. Below MP  
 4. Description of Measuring Point (MP): Top of Casing  
 5. Height of MP above/below Land Surface: 3' above  
 6. Method of Water Level Measurement: Electric Water Level Tape

Evacuation Procedure:

1. Date: 4/4/2022 2. Time Evac Started: 1000 3. Time Evac. Finished: 1030  
 4. Method of Evacuation: Low Flow Pump 5. Tot. Depth: 25 Ft. Below M. P.  
 6. Casing Diameter (in.): 2 7. Height of water Column (Ft.): 5.43  
 8. Decon Procedure: Alconox/DI

Meter Callibration:

Meter S/N: 19E 101408  
 Buffer pH 7.00: 7.04 Buffer pH 4.01: 4.03 Buffer Check: 10.02 Cond. 1000: 998  
                   Actual                   Actual                   10.01                   Actual                   Actual  
 Buffer Lot #: CC728020 Buffer Lot #: CC724299 Buffer Lot #: CC717131

Record of Well Development:

Time	1015	1020	1025	1030		
Water Temp (C)	20	20	19	19		
pH (Standard Units)	6.48	6.58	6.61	6.62		
Spec. Cond. (umhos)	1033	1038	1037	1036		
Turbidity (NTU)	221	34	31	9		
Odor (subjective)	None	None	None	None		
Other:						

Time						
Water Temp (C)						
pH (Standard Units)						
Spec. Cond. (umhos)						
Turbidity (NTU)						
Odor (subjective)						
Other:						

Total Volume Purged (gal.): 2

Sampling Information

1. Date: 4/4/2022 2. Time: 1035  
 3. Sample Containers(No./Size/Type): 2/1L amber /G  
 4. Analysis Required: Dioxins/Furans  
 5. Samples Preserved: Yes 6. Preservative: Ice  
 9. Lab Performing Analysis: Pace Analytical

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**LOW FLOW  
SAMPLE COLLECTION  
SUMMARY SHEET**

General

1. Job Name: Project Columbia - Catawba Plant Area 2. Project No.: 4213-18-087  
 3. Sampled By: \_\_\_\_\_ 4. Weather: Sunny / Mild  
 5. Location: Catawba, S.C. 6. Well #: GW-11

Water Level Information:

1. Date: 4/4/2022 2. Time: 1105 3. Static WL: 15.85 Ft. Below MP  
 4. Description of Measuring Point (MP): Top of Casing  
 5. Height of MP above/below Land Surface: 3' above  
 6. Method of Water Level Measurement: Electric Water Level Tape

Evacuation Procedure:

1. Date: 4/4/2022 2. Time Evac Started: 1110 3. Time Evac. Finished: 1130  
 4. Method of Evacuation: Low Flow Pump 5. Tot. Depth: 27.25 Ft. Below M. P.  
 6. Casing Diameter (in.): 2 7. Height of water Column (Ft.): 11.40  
 8. Decon Procedure: Alconox/DI

Meter Calibration:

Meter S/N: 19E 101408  
 Buffer pH 7.00: 7.04 Buffer pH 4.01: 4.03 Buffer Check: 10.02 Cond. 1000: 998  
                   Actual                   Actual                   10.01                   Actual  
 Buffer Lot #: CC728020 Buffer Lot #: CC724299 Buffer Lot #: CC717131

Record of Well Development:

Time	1115	1120	1130			
Water Temp (C)	18	18	18			
pH (Standard Units)	5.58	5.54	5.56			
Spec. Cond. (umhos)	119	118	119			
Turbidity (NTU)	8	10	9			
Odor (subjective)	None	None	None			
Other:						

Time						
Water Temp (C)						
pH (Standard Units)						
Spec. Cond. (umhos)						
Turbidity (NTU)						
Odor (subjective)						
Other:						

Total Volume Purged (gal.): 1

Sampling Information

1. Date: 4/4/2022 2. Time: 1135  
 3. Sample Containers(No./Size/Type): 2/1L amber /G  
 4. Analysis Required: Dioxins/Furans  
 5. Samples Preserved: Yes 6. Preservative: Ice  
 9. Lab Performing Analysis: Pace Analytical

Comments: Collected duplicate: 23/1L amber glass unpreserved. Well went dry, waited to recharge to collect duplicate.

\_\_\_\_\_  
 \_\_\_\_\_

**LOW FLOW  
SAMPLE COLLECTION  
SUMMARY SHEET**

General

1. Job Name: Project Columbia - Catawba Plant Area 2. Project No.: 4213-18-087  
 3. Sampled By: \_\_\_\_\_ 4. Weather: Sunny / Mild  
 5. Location: Catawba, S.C. 6. Well #: GW-15R

Water Level Information:

1. Date: 4/4/2022 2. Time: 1440 3. Static WL: 14.53 Ft. Below MP  
 4. Description of Measuring Point (MP): Top of Casing  
 5. Height of MP above/below Land Surface: \_\_\_\_\_  
 6. Method of Water Level Measurement: Electric Water Level Tape

Evacuation Procedure:

1. Date: 4/4/2022 2. Time Evac Started: 1450 3. Time Evac. Finished: 1515  
 4. Method of Evacuation: Low Flow Pump 5. Tot. Depth: 26.75 Ft. Below M. P.  
 6. Casing Diameter (in.): 2 7. Height of water Column (Ft.): 12.22  
 8. Decon Procedure: Alconox/DI

Meter Callibration:

Meter S/N: 19E 101408  
 Buffer pH 7.00: 7.04 Buffer pH 4.01: 4.03 Buffer Check: 10.02 Cond. 1000: 998  
                   Actual                   Actual                   10.01                   Actual  
 Buffer Lot #: CC728020 Buffer Lot #: CC724299 Buffer Lot #: CC717131

Record of Well Development:

Time	1455	1500	1505	1510	1515	
Water Temp (C)	20	20	20	20	20	
pH (Standard Units)	5.18	5.13	5.18	5.16	5.19	
Spec. Cond. (umhos)	1047	1044	1037	1041	1043	
Turbidity (NTU)	45	34	17	12	10	
Odor (subjective)	None	None	None	None	None	
Other:						

Time						
Water Temp (C)						
pH (Standard Units)						
Spec. Cond. (umhos)						
Turbidity (NTU)						
Odor (subjective)						
Other:						

Total Volume Purged (gal.): 1.5

Sampling Information

1. Date: 4/4/2022 2. Time: 1520  
 3. Sample Containers(No./Size/Type): 2/1L amber /G  
 4. Analysis Required: Dioxins/Furans  
 5. Samples Preserved: Yes 6. Preservative: Ice  
 9. Lab Performing Analysis: Pace Analytical

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**LOW FLOW  
SAMPLE COLLECTION  
SUMMARY SHEET**

General

1. Job Name: Project Columbia - Catawba Plant Area 2. Project No.: 4213-18-087  
 3. Sampled By: \_\_\_\_\_ 4. Weather: Sunny / Mild  
 5. Location: Catawba, S.C. 6. Well #: GW-16

Water Level Information:

1. Date: 4/4/2022 2. Time: 1454 3. Static WL: 8.63 Ft. Below MP  
 4. Description of Measuring Point (MP): Top of Casing  
 5. Height of MP above/below Land Surface: 3' above  
 6. Method of Water Level Measurement: Electric Water Level Tape

Evacuation Procedure:

1. Date: 4/4/2022 2. Time Evac Started: 1500 3. Time Evac. Finished: 1515  
 4. Method of Evacuation: Low Flow Pump 5. Tot. Depth: 18.22 Ft. Below M. P.  
 6. Casing Diameter (in.): 2 7. Height of water Column (Ft.): 9.59  
 8. Decon Procedure: Alconox/DI

Meter Callibration:

Meter S/N: 12K 100753  
 Buffer pH 7.00: 6.91 Buffer pH 4.01: 4.02 Buffer Check: 10.03 Cond. 1000: 1006  
                   Actual                   Actual                   10.01                   Actual                   Actual  
 Buffer Lot #: CC728020 Buffer Lot #: CC724299 Buffer Lot #: CC717131

Record of Well Development:

Time	1505	1510	1515		
Water Temp (C)	19	19	19		
pH (Standard Units)	7.18	7.09	7.04		
Spec. Cond. (umhos)	1232	1233	1245		
Turbidity (NTU)	12	8	8		
Odor (subjective)	Slight	Slight	Slight		
Other:					

Time					
Water Temp (C)					
pH (Standard Units)					
Spec. Cond. (umhos)					
Turbidity (NTU)					
Odor (subjective)					
Other:					

Total Volume Purged (gal.): 1

Sampling Information

1. Date: 4/4/2022 2. Time: 1517  
 3. Sample Containers(No./Size/Type): 2/1L amber /G  
 4. Analysis Required: Dioxins/Furans  
 5. Samples Preserved: Yes 6. Preservative: Ice  
 9. Lab Performing Analysis: Pace Analytical

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**LOW FLOW  
SAMPLE COLLECTION  
SUMMARY SHEET**

General

1. Job Name: Project Columbia - Catawba Plant Area 2. Project No.: 4213-18-087  
 3. Sampled By: \_\_\_\_\_ 4. Weather: Sunny / Mild  
 5. Location: Catawba, S.C. 6. Well #: GW-18

Water Level Information:

1. Date: 4/4/2022 2. Time: 1320 3. Static WL: 12.46 Ft. Below MP  
 4. Description of Measuring Point (MP): Top of Casing  
 5. Height of MP above/below Land Surface: 3' above  
 6. Method of Water Level Measurement: Electric Water Level Tape

Evacuation Procedure:

1. Date: 4/4/2022 2. Time Evac Started: 1325 3. Time Evac. Finished: 1340  
 4. Method of Evacuation: Low Flow Pump 5. Tot. Depth: 21.85 Ft. Below M. P.  
 6. Casing Diameter (in.): 2 7. Height of water Column (Ft.): 9.39  
 8. Decon Procedure: Alconox/DI

Meter Calibration:

Meter S/N: 19E 101408  
 Buffer pH 7.00: 7.04 Buffer pH 4.01: 4.03 Buffer Check: 10.02 Cond. 1000: 998  
                   Actual                   Actual                   10.01                   Actual                   Actual  
 Buffer Lot #: CC728020 Buffer Lot #: CC724299 Buffer Lot #: CC717131

Record of Well Development:

Time	1325	1330	1335	1340		
Water Temp (C)	16	16	16	16		
pH (Standard Units)	6.35	6.45	6.45	6.44		
Spec. Cond. (umhos)	605	605	608	609		
Turbidity (NTU)	27	23	11	9		
Odor (subjective)	None	None	None	None		
Other:						

Time						
Water Temp (C)						
pH (Standard Units)						
Spec. Cond. (umhos)						
Turbidity (NTU)						
Odor (subjective)						
Other:						

Total Volume Purged (gal.): 2

Sampling Information

1. Date: 4/4/2022 2. Time: 1345  
 3. Sample Containers(No./Size/Type): 2/1L amber/G  
 4. Analysis Required: Dioxins/Furans  
 5. Samples Preserved: Yes 6. Preservative: Ice  
 9. Lab Performing Analysis: Pace Analytical

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_