

SPS TECHNOLOGIES - ABINGTON PA DAILY SURFACE WATER AND OUTFALL SAMPLING RESULTS REPORT FOR MARCH 15, 2025

PREPARED FOR:

SPS TECHNOLOGIES

PREPARED BY:

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1.0 EXECUTIVE SUMMARY

TRC Environmental Corporation, on behalf of SPS Technologies Abington PA (SPS), collected five surface water samples accordance with WSP USA Inc. Surface Water and Outfall Sampling Plan revised on March 5, 2025 (Sampling Plan). The samples were collected on March 15, 2025 and submitted to a Pennsylvania-certified analytical laboratory for analysis. The sample locations are shown in the attached **Figures 1** and **2** and the results of the analysis are shown below. Please note, outfalls were not sampled during this sampling event because there was no precipitation.

Surface Wa	ter	Upstream Offsite SW Sample Location 1	Upstream Offsite SW Sample Location 2	SW Sample Location 3	SW Sample Location 3 (Duplicate)	High School Road Sample Location 4	Downstream SW Sample Location 5
Parameter	Units	Result	Result	Result	Result	Result	Result
Volatile Organic Compounds							
Toluene	mg/L	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	mg/L	ND	ND	ND	ND	ND	ND UJ
General Chemistry	_						
Chromium, Trivalent	mg/L	ND	ND	ND	ND	ND	ND
Chromium, Hexavalent	mg/L	ND	ND	ND	ND	ND	ND
Total Cyanide	mg/L	ND	ND	ND	ND	ND	ND
Free Cyanide	mg/L	ND	ND	ND	ND	ND	ND
Oil & Grease	mg/L	ND	ND	ND	ND	ND	ND
Total Metals							
Total Chromium	mg/L	0.00027 J	0.00042 J	0.00032 J	0.00034 J	ND	0.00024 J
Total Nickel	mg/L	0.00167 J	0.00104 J	0.00110 J	0.00103 J	0.00290	0.00111 J
Dissolved Metals							
Dissolved Chromium	mg/L	0.0003 J	0.0004 J	0.0003 J	0.0003 J	ND	0.0003 J
Dissolved Nickel	mg/L	0.0016 J	0.0009 J	0.0011 J	0.0011 J	0.0030	0.0011 J
Total Hardness							
Hardness	mg/L	280.5	223.7	219.4	214.7	202.8	194.6
Field Parameters							
pН	SU	7.34	7.52	7.52	7.52	6.90	6.60

A detailed description of the sampling procedure, results, and data evaluation are included in this Sampling Report. The laboratory data validation reports and the complete laboratory analytical reports, including Quality Assurance/Quality Control (QA/QC) are attached.



2.0 INTRODUCTION

This Daily Surface Water and Outfall Sampling Results Report for March 15, 2025 (Sampling Report) was prepared by TRC Environmental Corporation, Inc., (TRC) on behalf of SPS Technologies Abington PA (SPS). The SPS facility is located at 301 Highland Avenue, Jenkintown, PA 19046 (Site). This Sampling Report was prepared to provide the off-Site surface water sampling results from March 15, 2025, which were collected in accordance with WSP USA Inc. Surface Water and Outfall Sampling Plan revised on March 5, 2025.

2.1 Background

The Site is currently owned by SPS Technologies. On February 17, 2025, a fire broke out at the facility causing major damage and a cessation of operation. Prior to the fire, facility operations consisted of manufacturing of bolts, nuts, screws, rivets, washers, furniture, and fixtures.



3.0 OFF-SITE SURFACE WATER INVESTIGATION

TRC collected five surface water samples at the approved upstream and downstream sampling locations along the Tookany and Tacony Creeks on March 15, 2025. The locations are located northeast and west from the facility, and downstream from the conjoined stream south from the facility. Outfalls were not sampled during this event because there was no precipitation.

3.1 Surface Water Sampling Methodology

TRC collected the surface water samples in accordance with the Sampling Plan. Field data collected from each surface water during the sampling include:

- Water depth
- Weather conditions
- Physical characteristics (clarity, appearance, odor)
- Water Quality (DO, pH, OPR, turbidity, conductivity, and temperature)
- Water velocity (visibly moving)
- Additional observations (e.g. wildlife sightings)

The field data is documented in the daily field sampling form included as **Appendix A**, except for the infield pH measurement, which is summarized in **Table 1**.

3.2 Surface Water Sampling

All samples were submitted to Pace Analytical in Westborough, Massachusetts (Certification No. 68-03671) and Pace Analytical in Mansfield, Massachusetts (Certification No. 68-02089), following chain-of-custody protocols.

3.3 Surface Water Sampling Results

Surface water samples were collected from the five approved locations in accordance with Sampling Plan for the following parameters:

- Oil & Grease
- Free Cyanide
- Total Cyanide
- Total Nickel
- Dissolved Nickel
- Total Chromium
- Dissolved Chromium
- Hexavalent Chromium (calculated for Trivalent Chromium)
- Methyl ethyl ketone (2-Butanone)
- Toluene
- Total Hardness



The validated analytical results are summarized in **Table 1**. The sampling locations are shown on **Figures 1** and **2**. 4



4.0 DATA QUALITY ASSURANCE/QUALITY CONTROL MANAGEMENT

4.1 Field Quality Assurance/Quality Control Requirements.

Field personnel performed data quality control (QC) verification of field measurements. This process includes equipment calibration, reviewing calibration records, and duplicate readings to ensure data accuracy. Field measurements were documented in the field information form included as **Appendix A** and pH readings are summarized in **Table 1**.

All hand equipment used during the sampling event was cleaned with Alconox and distilled water. Disposable equipment was used for sample collection and processing as appropriate. Field personnel wore disposable nitrile sampling gloves during sampling activities. Sampling gloves were discarded following collection at each sample location and replaced before handling decontaminated equipment or work surfaces.

4.2 Analytical QA/QC Samples

All quality assurance and quality control (QA/QC), field duplicates and matrix spikes/matrix spike duplicates (MS/MSD) were collected in accordance with the Sampling Plan at a rate of 1 per 20 samples per day. A trip blank was included daily for volatile organic compounds (VOCs). A field blank was not collected because single-use disposable ladles were used to collect samples.

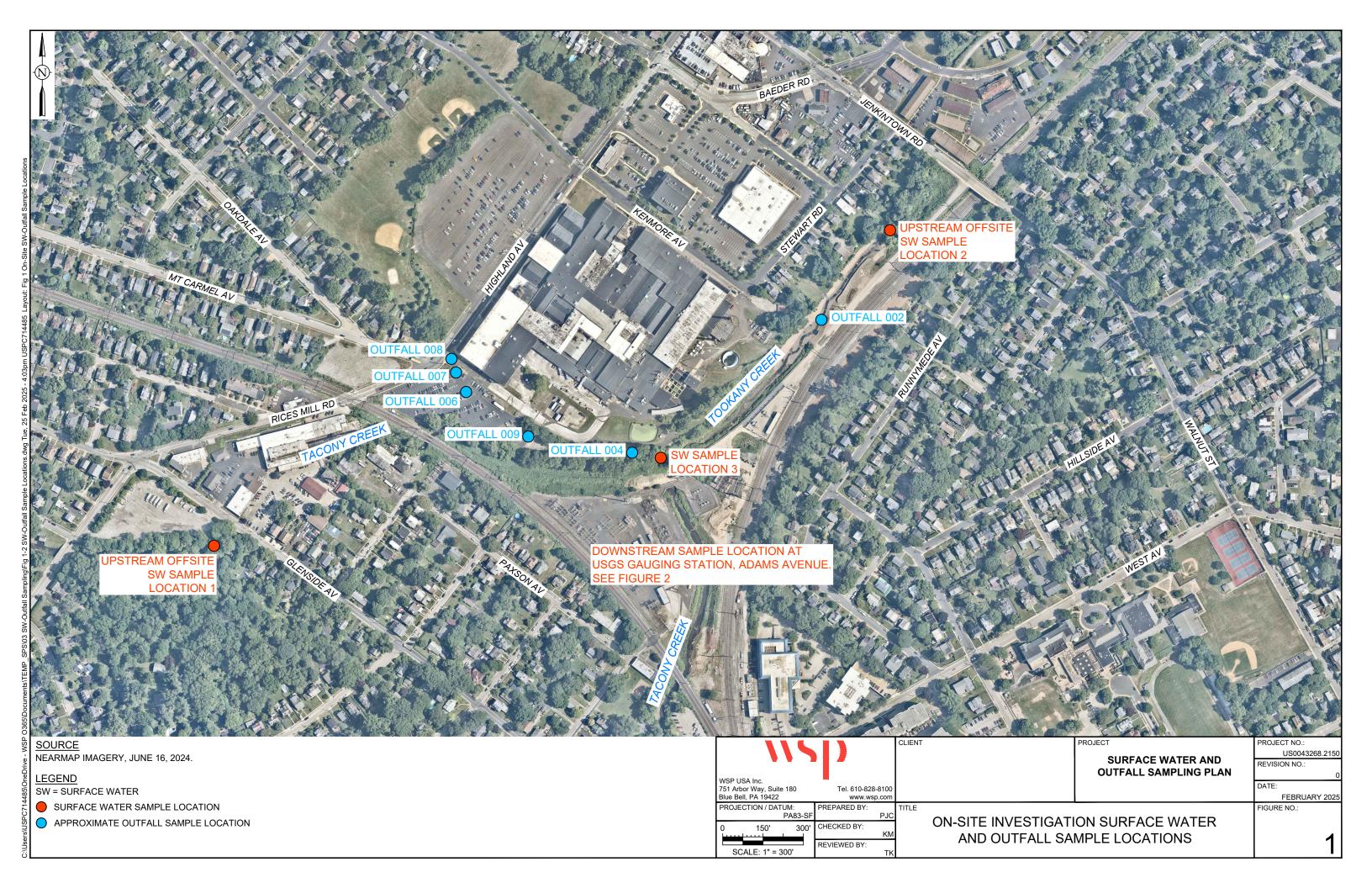
4.3 Data Evaluation

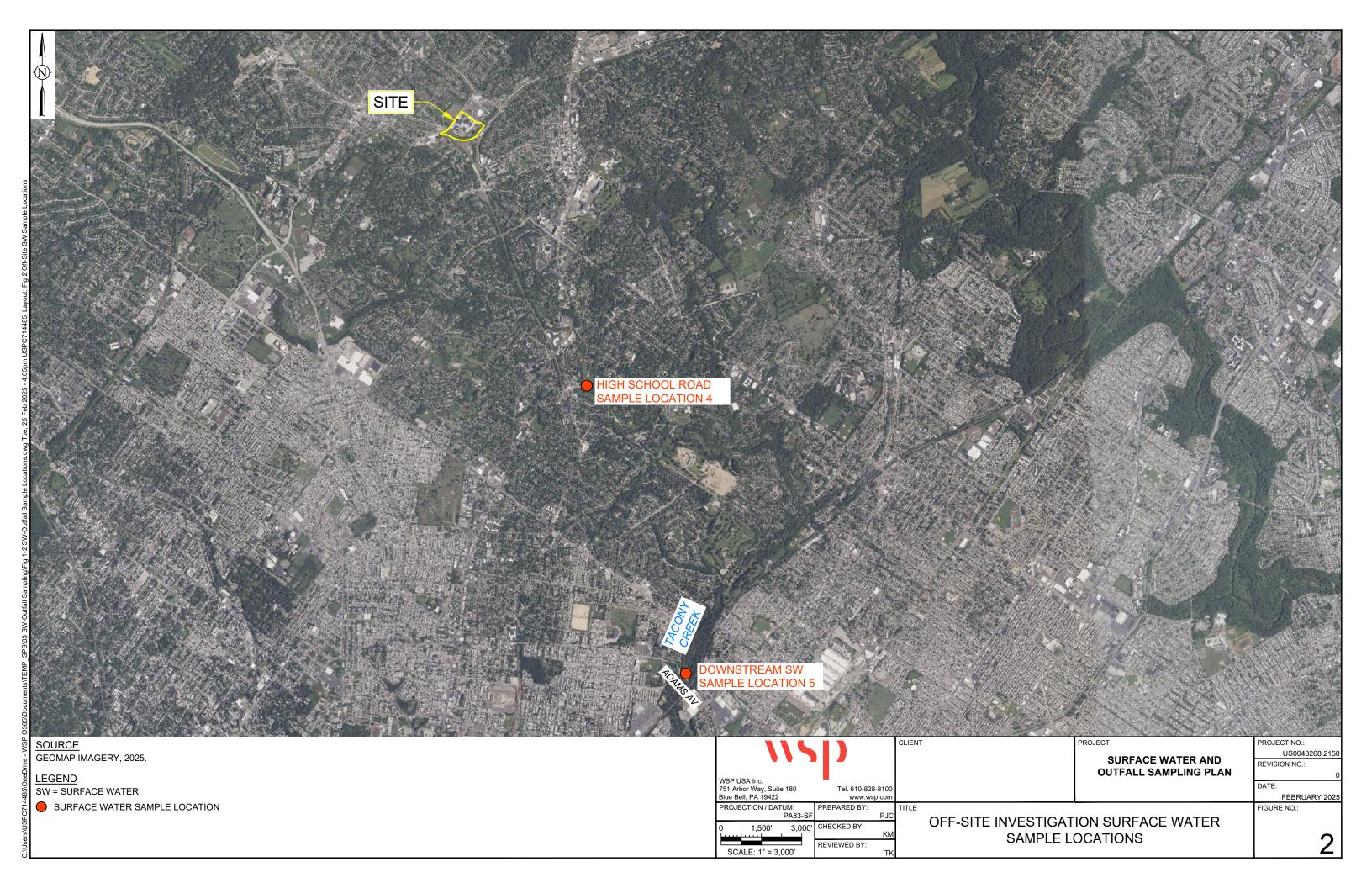
The reliability of the analytical data was evaluated to assess its suitability for use in off-Site surface water monitoring. In particular, the data's precision, accuracy, and sensitivity were evaluated based on field sampling documentation, adherence to sample holding times, and analysis of the QC samples (duplicates, spikes, and blanks). Data validation was performed in accordance with the Sampling Plan. The data validation report is included as **Appendix B**. The laboratory analytical report is included as **Appendix C**.

4.4 References

SPS Technologies Sampling Plan, revised on March 5, 2025







March 2025

Surface Water Analytical Results Daily Surface Water Sampling Results Report SPS Technologies Jenkintown, Pennsylvania

Upstream Offsite SW Sample Downstream SW Sample Upstream Offsite SW Sample SW Sample SW Sample High School Road Sample Sample Location Location 3 (Duplicate) Location 1 Location 2 Location 3 Location 4 Location 5 Field Sample ID SW2-031525 SW1-031525 SW3-031525 DUP-031525 SW4-031525 SW5-031525 Lab Sample ID L2515019-05 L2515019-02 L2515019-01 L2515019-03 L2515019-06 L2515019-04 Sampling Date 3/15/2025 3/15/2025 3/15/2025 3/15/2025 3/15/2025 3/15/2025 Matrix Water Water Water Water Water Water Parameter Units Q Result Q RL Result Q Result Q Result Q RL Result Q RL Result RL RL RL Volatile Organic Compounds Toluene ND 0.0010 ND 0.0010 ND 0.0010 ND 0.0010 ND 0.0010 ND 0.0010 ma/L 2-Butanone (MEK) mg/L ND 0.010 ND 0.010 ND 0.010 ND 0.010 ND 0.010 ND UJ 0.010 General Chemistry Chromium, Trivalent mg/L ND 0.010 ND 0.010 ND 0.010 ND 0.010 ND 0.010 ND 0.010 Chromium, Hexavalent 0.010 ND 0.010 ND 0.010 ND 0.010 ND 0.010 ND 0.010 mg/L ND Total Cyanide mg/L ND 0.005 ND 0.005 ND 0.005 ND 0.005 ND 0.005 ND 0.005 Free Cyanide mg/L ND 0.010 ND 0.010 ND 0.010 ND 0.010 ND 0.010 ND 0.010 Oil & Grease ND 4.0 ND 4.0 ND 4.0 ND 4.0 ND 4.0 ND 4.0 mg/L Total Metals Total Chromium 0.00027 0.00100 0.00042 0.00100 0.00032 0.00100 0.00034 0.00100 ND 0.00100 0.00024 0.00100 mg/L Total Nickel mg/L 0.00167 0.00200 0.00104 0.00200 0.00110 0.00200 0.00103 0.00200 0.00290 0.00200 0.00111 0.00200 Dissolved Metals Dissolved Chromium mg/L 0.0003 0.0010 0.0004 0.0010 0.0003 0.0010 0.0003 0.0010 ND 0.0010 0.0003 0.0010 Dissolved Nickel 0.0016 0.0020 0.0009 0.0020 0.0020 0.0011 0.0020 0.0020 0.0011 0.0011 0.0030 0.0020 ma/L Total Hardness Hardness mg/L 280.5 0.5400 223.7 0.5400 219.4 0.5400 214.7 0.5400 202.8 0.5400 194.6 0.5400 Field Parameters pH¹ SU 7.34 7.52 7.52 7.52 6.90 6.60 Notes:

1.) Field measurements for pH were performed by TRC field personnel prior to sample collection using a Horiba U-52. Field measurements were not validated.

Abbreviations:

mg/L: milligrams per liter

ND: Non-Detect

Q: Qualifier

RL: Reporting Limit

SU: Standard Units

Qualifiers: J : Estimated Result

U: Estimated RL

Created By: JM 3/18/2025 Checked By: MO 3/18/2025

Project Number: 658978

SURFACE WATER/OUTFALL SAMPLE FIELD INFORMATION FORM

Site	585			
Location	Alinatan, PA			
Project Number:	1158978	-		
Water Quality Meter:	Honba U-50		110315X	
Meter Calibrated &:	3119125 8 0810			
	OTT HE DO	5/N: 3	36387	
Sampling Date/Time:		SW4 0 1000		040
	SM 2 B 1130	SW3 @ 1200		0100-0
Sample(s):	Amber Farhma	a Frank D	015117	
Sampling Device:	Telescoping dip	7/00 179		
mple Characteristics:	Clear, no oder			
nalytical Parameters:				

SWS - callect MS/MSD

SWS - sheen present

SWS - callect Bup - 031525

PID 0-0 at all lacations

Whilted single use disposable sampling
method (caps) for each location so
no held blanks were collected.

Weather Conditions Oxercast/mist H49 L43 wind & mpH NWN

SAMPLE/STATION	STATION DESCRIPTION (stream) ske river)	DATE	TIME	TOTAL DEPTH	SAMPLE DEPTH	WATER TEMP	SALINITY	pH Sti	COND m5/cm	ORP INV	TURBIDITY	DO mg/L	VELOCITY ff/sec
SW5 - 031525	CICCK	3115115	09:00		8.25	8.67	4.0	6.60	0.878	353	0.0	4.95	0.374
	Sample Characteristics:												
SW4-031525	arrk	3115125	10:05	49.5	24.75	8.31	0.5	6.90	0.997	319	3.7	6.58	0.308
	Sample Characteristics:	7				the second secon		Contract of		-	The second second		
SW1-031525	CLECK	3115125	10:40	7	3.5	8.28	0.4	7.52	0.843	267	0.0	9.24	0.133
	Sample Characteristics :												
SW2-031525	CIETY	3115125	11:30	17.5	8.75	8.11	0.6	7.34	1.17	276	0-0	8.90	0.038
	Sample Characteristics:												
SW3-031525	creek	3115125	15:00	27	13.5	8.30	0.4	7.52	0.858	218	0.0	8.05	0-050
	Sample Characteristics :												
	Sample Characteristics												
												The same of	



Data Validation Report

Site: SPS Technologies, Surface Water Sampling Laboratory: Pace Analytical, Westborough and Mansfield, MA

SDG No.: L2515019

Parameters: Select Volatile Organic Compounds (VOCs), Select Metals, Hardness, Total

Cyanide, Free Cyanide, Oil & Grease, Hexavalent Chromium, Trivalent

Chromium

Data Reviewer: Jessica Esser/TRC
Peer Reviewer: Kristen Morin/TRC
Date: March 17, 2025

Samples Reviewed and Evaluation Summary

6 Surface Water Samples: SW1-031525, SW2-031525, SW3-031525, SW4-031525,

SW5-031525, DUP-031525¹

1 Trip Blank: TBSW-031525

The above-listed samples were collected on March 15, 2025 and were analyzed for one or more of the following parameters.

- Select VOCs (toluene, 2-butanone) using EPA Method 624.1
- Select total and dissolved metals (chromium, nickel) using EPA Method 200.8
- Total hardness (by calculation) using EPA Method 200.8
- Total cyanide using Standard Methods (SM) 4500 CN-CE
- Free cyanide using SM 4500 CN-E (M)
- Oil and grease using EPA Method 1664B
- Hexavalent chromium using SM 3500 CR-B
- Trivalent chromium by calculation

Limited data validation was performed in accordance with USEPA National Functional Guidelines for Organic Superfund Methods Data Review (EPA-540-R-20-005), November 2020 and USEPA National Functional Guidelines for Inorganic Superfund Methods Data Review (EPA-542-R-20-006), November 2020, modified for the methodologies utilized.

The data were evaluated based on the following parameters:

- Overall Evaluation of Data and Potential Usability Issues
- Data Completeness
- Holding Times and Sample Preservation
 - Blanks
- Surrogate Recoveries (VOCs only)
 - Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- Laboratory Duplicate Results
- Laboratory Control Sample (LCS) Results
- Field Duplicate Results
 - Sample Results and Reported Quantitation Limits (QLs)
- * All criteria were met.

¹Field duplicate of SW3-031525



Overall Evaluation of Data and Potential Usability Issues

All results are usable for project objectives. Qualification of the data as a result of sampling error was not required. Qualifications applied to the data as a result of analytical error are discussed below.

- Potential uncertainty exists for select metals results that were below the lowest calibration standard and QL. These results were qualified as estimated (J) by the laboratory in the associated samples. These results can be used for project objectives as estimated values, which may have a minor impact on the data usability.
- The positive results for total cyanide in all samples in this data set were qualified as nondetect
 (U) due to method blank contamination. These results can be used for project objectives as
 nondetects, which should not have an impact on the data usability.
- The nondetect result for 2-butanone in sample SW5-031525 was qualified as estimated (UJ) due to low MS/MSD percent recoveries (%Rs). This result can be used for project objectives as a nondetect with an estimated QL, which may have a minor impact on the data usability.

Data Completeness

The data package was a complete Level 2 data package. It should be noted that the date of collection for the trip blank was listed as 3/11/25 on the chain-of-custody; the laboratory logged in the collection date for this sample as 3/15/25 (i.e., the same date of collection as the associated samples). For purposes of this assessment, it was assumed the date of collection was the same as the associated samples and the laboratory was not contacted about this discrepancy.

Holding Times and Sample Preservation

All holding time and preservation criteria were met for all parameters.

Blanks

Target VOCs were not detected in the trip blank. A field blank was not submitted with the data set. With the exception of total cyanide, target analytes were not detected in the associated laboratory method blanks. Total cyanide was detected in the laboratory method blank associated with all samples in this data set at a concentration of 0.002 J mg/L. The positive results for total cyanide in all samples in this data set were qualified as nondetect (U) at the QL since the results were < the QL.

Surrogate Recoveries (VOCs only)

All criteria were met.

MS/MSD Results

MS/MSD analyses were performed on sample SW5-031525 for VOCs, total and dissolved metals, hardness, total cyanide, free cyanide, oil and grease, and hexavalent chromium. With the exception of 2-butanone, all criteria were met. The %Rs for 2-butanone in the MS/MSD (52%/56%) performed on sample SW5-031525 were below the laboratory acceptance criteria (60-140%). Therefore, the nondetect result for 2-butanone in sample SW5-031525 was qualified as estimated (UJ).



Laboratory Duplicate Results

Laboratory duplicate analyses were performed on sample SW5-031525 for total cyanide, free cyanide, and hexavalent chromium. All criteria were met.

LCS Results

All criteria were met for all parameters.

Field Duplicate Results

Samples SW3-031525 and DUP-031525 were submitted as the field duplicate pair with this sample set. The following table summarizes the relative percent differences (RPDs) and/or absolute differences (AbsDs), where applicable, of the detected analytes after validation. All criteria were met.

Analyte	QLs (mg/L)	SW3-031525 (mg/L)	DUP-031525 (mg/L)	RPD (%) or AbsD (mg/L)	Validation Action
Total Chromium	0.001	0.00032 J	0.00034 J	AbsD = 0.00002	
Total Nickel	0.002	0.0011 J	0.00103 J	AbsD = 0.00007	
Hardness	0.54	219.4	214.7	RPD = 2.2	None; all criteria were met.
Dissolved Chromium	0.001	0.0003 J	0.0003 J	AbsD = 0	
Dissolved Nickel	0.002	0.0011 J	0.0011 J	AbsD = 0	

Field duplicate criteria are as follows:

- RPD ≤ 30 when positive results for both samples are ≥ 5x QL
- AbsD ≤ QL when one or both results are < 5x QL

Sample Results and Reported Quantitation Limits

Select metals and total cyanide results were reported that were below the lowest calibration standard level and QL. These results were qualified as estimated (J) in the associated samples by the laboratory. Note that positive results for total cyanide were subsequently qualified as nondetect (U) due to method blank contamination as noted above.

There were no dilutions performed on the samples in this data set.

The total and dissolved metal results were evaluated during data validation to identify any dissolved concentrations that were significantly higher than the associated total concentration. The evaluation was based on the following criteria to determine significance: percent difference (%D) should be \leq 20% when dissolved results are greater than total results and both results are \geq 5x the QL. If the dissolved result was > the total and one or both results were \leq 5x the QL, then the AbsD should be \leq 2x the QL. These criteria were met for all results.

QUALIFIED FORM 1s

VOLATILES



L2515019

Project Name: Lab Number: SPS TECHNOLOGIES

Project Number: Report Date: 658978 03/17/25

SAMPLE RESULTS

Lab ID: L2515019-01 Date Collected: 03/15/25 10:40

Client ID: Date Received: 03/15/25 SW1-031525 Field Prep: Sample Location: Refer to COC JENKINTOWN, PA

Sample Depth:

Matrix: Water Analytical Method: 128,624.1 Analytical Date: 03/16/25 11:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS -	Westborough Lab					
Toluene	ND		mg/l	0.0010	0.00031	1
2-Butanone	ND		mg/l	0.010	0.0010	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
Pentafluorobenzene	77		60-140	
Fluorobenzene	68		60-140	
4-Bromofluorobenzene	129		60-140	



03/15/25 11:30

Project Name: SPS TECHNOLOGIES

Project Number: 658978

SAMPLE RESULTS

L2515019

Lab Number:

Date Collected:

Report Date: 03/17/25

Lab ID: L2515019-02

Client ID: SW2-031525 Sample Location: JENKINTOWN, PA Date Received: 03/15/25 Field Prep: Refer to COC

Sample Depth:

Matrix: Water Analytical Method: 128,624.1 Analytical Date: 03/16/25 10:52

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough	Lab					
Toluene	ND		mg/l	0.0010	0.00031	1
2-Butanone	ND		mg/l	0.010	0.0010	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	77		60-140
Fluorobenzene	71		60-140
4-Bromofluorobenzene	124		60-140



L2515019

Project Name: SPS TECHNOLOGIES Lab Number:

Project Number: 658978 Report Date: 03/17/25

SAMPLE RESULTS

Lab ID: L2515019-03 Date Collected: 03/15/25 12:00

Client ID: SW3-031525 Date Received: 03/15/25 Sample Location: JENKINTOWN, PA Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 03/16/25 10:21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS -	Westborough Lab					
Toluene	ND		mg/l	0.0010	0.00031	1
2-Butanone	ND		mg/l	0.010	0.0010	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
Pentafluorobenzene	75		60-140	
Fluorobenzene	69		60-140	
4-Bromofluorobenzene	121		60-140	



Project Name: Lab Number: SPS TECHNOLOGIES

Project Number: 658978

Report Date:

Date Collected:

L2515019

03/15/25 10:05

03/17/25

SAMPLE RESULTS

Lab ID: L2515019-04

Client ID: SW4-031525 Sample Location: JENKINTOWN, PA Date Received: 03/15/25 Field Prep: Refer to COC

Sample Depth:

Matrix: Water Analytical Method: 128,624.1 Analytical Date: 03/16/25 09:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough I	₋ab					
Toluene	ND		mg/l	0.0010	0.00031	1
2-Butanone	ND		mg/l	0.010	0.0010	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	78		60-140
Fluorobenzene	72		60-140
4-Bromofluorobenzene	122		60-140



L2515019

03/15/25 09:00

Project Name: SPS TECHNOLOGIES

Project Number: 658978

SAMPLE RESULTS

Report Date: 03/17/25

Lab Number:

Date Collected:

Lab ID: L2515019-05

Client ID: SW5-031525 Sample Location: JENKINTOWN, PA Date Received: 03/15/25 Field Prep: Refer to COC

Sample Depth:

Matrix: Water Analytical Method: 128,624.1 Analytical Date: 03/16/25 09:18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor						
Volatile Organics by GC/MS - Westborough Lab												
Toluene	ND		mg/l	0.0010	0.00031	1						
2-Butanone	ND UJ		mg/l	0.010	0.0010	1						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	79		60-140
Fluorobenzene	71		60-140
4-Bromofluorobenzene	116		60-140



L2515019

Project Name: Lab Number: SPS TECHNOLOGIES

Project Number: Report Date: 658978 03/17/25

SAMPLE RESULTS

Lab ID: L2515019-06 Date Collected: 03/15/25 12:30

Client ID: Date Received: 03/15/25 DUP-031525 Field Prep: Sample Location: Refer to COC JENKINTOWN, PA

Sample Depth:

Matrix: Water Analytical Method: 128,624.1 Analytical Date: 03/16/25 08:47

Parameter	Result	Result Qualifier		RL	MDL	Dilution Factor		
Volatile Organics by GC/MS - Westborough Lab								
Toluene	ND		mg/l	0.0010	0.00031	1		
2-Butanone	ND		mg/l	0.010	0.0010	1		

Surrogate	% Recovery	Acceptance Qualifier Criteria	
Pentafluorobenzene	82	60-140	
Fluorobenzene	73	60-140	
4-Bromofluorobenzene	121	60-140	



L2515019

03/15/25 00:00

Project Name: SPS TECHNOLOGIES

Project Number: 658978

SAMPLE RESULTS

Report Date: 03/17/25

Lab Number:

Date Collected:

Lab ID: L2515019-07

Client ID: TBSW-031525 Sample Location: JENKINTOWN, PA Date Received: 03/15/25 Field Prep: None

Sample Depth:

Matrix: Water Analytical Method: 128,624.1 Analytical Date: 03/16/25 08:15

Parameter	Result	Result Qualifier		RL	MDL	Dilution Factor				
Volatile Organics by GC/MS - Westborough Lab										
Toluene	ND		mg/l	0.0010	0.00031	1				
2-Butanone	ND		mg/l	0.010	0.0010	1				

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	80		60-140
Fluorobenzene	73		60-140
4-Bromofluorobenzene	117		60-140



METALS



Project Number: 658978 Report Date: 03/17/25

SAMPLE RESULTS

 Lab ID:
 L2515019-01
 Date Collected:
 03/15/25 10:40

 Client ID:
 SW1-031525
 Date Received:
 03/15/25

 Sample Location:
 JENKINTOWN, PA
 Field Prep:
 Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansf	field Lab										
Chromium, Total	0.00042	J	mg/l	0.00100	0.00017	1	03/17/25 07:46	03/17/25 11:59	EPA 3005A	3,200.8	BLR
Nickel, Total	0.00104	J	mg/l	0.00200	0.00055	1	03/17/25 07:46	03/17/25 11:59	EPA 3005A	3,200.8	BLR
Total Hardness (by	calculation	n) - Mansfie	eld Lab								
Hardness	223.7		mg/l	0.5400	NA	1	03/17/25 07:46	03/17/25 11:59	EPA 3005A	3,200.8	BLR
General Chemistry -	Mansfield	d Lab									
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/17/25 11:59	NA	107,-	
Dissolved Metals - N	/lansfield l	_ab									
Chromium, Dissolved	0.0004	J	mg/l	0.0010	0.0002	1	03/17/25 07:55	03/17/25 11:47	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0009	J	mg/l	0.0020	0.0006	1	03/17/25 07:55	03/17/25 11:47	EPA 3005A	3,200.8	NTB



Project Number: 658978 Report Date: 03/17/25

SAMPLE RESULTS

 Lab ID:
 L2515019-02
 Date Collected:
 03/15/25 11:30

 Client ID:
 SW2-031525
 Date Received:
 03/15/25

 Sample Location:
 JENKINTOWN, PA
 Field Prep:
 Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
	resuit	Quanner	Onito		WIDE		<u> </u>				Allalyst
Total Metals - Mans	field Lab										
Chromium, Total	0.00027	J	mg/l	0.00100	0.00017	1	03/17/25 07:46	03/17/25 12:04	EPA 3005A	3,200.8	BLR
Nickel, Total	0.00167	J	mg/l	0.00200	0.00055	1	03/17/25 07:46	03/17/25 12:04	EPA 3005A	3,200.8	BLR
Total Hardness (by	calculatior	n) - Mansfie	eld Lab								
Hardness	280.5		mg/l	0.5400	NA	1	03/17/25 07:46	03/17/25 12:04	EPA 3005A	3,200.8	BLR
General Chemistry -	Mansfield	d Lab									
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/17/25 12:04	NA	107,-	
Dissolved Metals - N	/lansfield l	_ab									
Chromium, Dissolved	0.0003	J	mg/l	0.0010	0.0002	1	03/17/25 07:55	03/17/25 11:52	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0016	J	mg/l	0.0020	0.0006	1	03/17/25 07:55	03/17/25 11:52	EPA 3005A	3,200.8	NTB



Project Number: 658978 Report Date: 03/17/25

SAMPLE RESULTS

 Lab ID:
 L2515019-03
 Date Collected:
 03/15/25 12:00

 Client ID:
 SW3-031525
 Date Received:
 03/15/25

 Sample Location:
 JENKINTOWN, PA
 Field Prep:
 Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
	TOSUIT	Qualifier	Omio		MDL		·				
Total Metals - Manst	field Lab										
Chromium, Total	0.00032	J	mg/l	0.00100	0.00017	1	03/17/25 07:46	03/17/25 12:08	EPA 3005A	3,200.8	BLR
Nickel, Total	0.00110	J	mg/l	0.00200	0.00055	1	03/17/25 07:46	03/17/25 12:08	EPA 3005A	3,200.8	BLR
Total Hardness (by	calculation	n) - Mansfie	eld Lab								
Hardness	219.4		mg/l	0.5400	NA	1	03/17/25 07:46	03/17/25 12:08	EPA 3005A	3,200.8	BLR
General Chemistry -	Mansfield	d Lab									
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/17/25 12:08	NA	107,-	
Dissolved Metals - N	/lansfield l	Lab									
Chromium, Dissolved	0.0003	J	mg/l	0.0010	0.0002	1	03/17/25 07:55	03/17/25 11:56	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0011	J	mg/l	0.0020	0.0006	1	03/17/25 07:55	03/17/25 11:56	EPA 3005A	3,200.8	NTB



Project Number: 658978 Report Date: 03/17/25

SAMPLE RESULTS

Lab ID:L2515019-04Date Collected:03/15/25 10:05Client ID:SW4-031525Date Received:03/15/25Sample Location:JENKINTOWN, PAField Prep:Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansf	field Lab										
Chromium, Total	ND		mg/l	0.00100	0.00017	1	03/17/25 07:46	03/17/25 12:13	EPA 3005A	3,200.8	BLR
Nickel, Total	0.00290		mg/l	0.00200	0.00055	1	03/17/25 07:46	03/17/25 12:13	EPA 3005A	3,200.8	BLR
Total Hardness (by	calculation	n) - Mansfie	ld Lab								
Hardness	202.8		mg/l	0.5400	NA	1	03/17/25 07:46	03/17/25 12:13	EPA 3005A	3,200.8	BLR
General Chemistry -	Mansfield	d Lab									
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/17/25 12:13	NA	107,-	
Dissolved Metals - M	/lansfield l	_ab									
Chromium, Dissolved	ND		mg/l	0.0010	0.0002	1	03/17/25 07:55	03/17/25 12:01	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0030		mg/l	0.0020	0.0006	1	03/17/25 07:55	03/17/25 12:01	EPA 3005A	3,200.8	NTB



Project Number: 658978 Report Date: 03/17/25

SAMPLE RESULTS

 Lab ID:
 L2515019-05
 Date Collected:
 03/15/25 09:00

 Client ID:
 SW5-031525
 Date Received:
 03/15/25

 Sample Location:
 JENKINTOWN, PA
 Field Prep:
 Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansi	field Lab										
Chromium, Total	0.00024	J	mg/l	0.00100	0.00017	1	03/17/25 07:46	03/17/25 11:20	EPA 3005A	3,200.8	BLR
Nickel, Total	0.00111	J	mg/l	0.00200	0.00055	1	03/17/25 07:46	03/17/25 11:20	EPA 3005A	3,200.8	BLR
Total Hardness (by	calculation	n) - Mansfie	eld Lab								
Hardness	194.6		mg/l	0.5400	NA	1	03/17/25 07:46	03/17/25 11:20	EPA 3005A	3,200.8	BLR
General Chemistry -	Mansfield	d Lab									
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/17/25 11:20	NA	107,-	
Dissolved Metals - N	/lansfield l	Lab									
Chromium, Dissolved	0.0003	J	mg/l	0.0010	0.0002	1	03/17/25 07:55	03/17/25 11:29	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0011	J	mg/l	0.0020	0.0006	1	03/17/25 07:55	03/17/25 11:29	EPA 3005A	3,200.8	NTB



Project Number: 658978 Report Date: 03/17/25

SAMPLE RESULTS

Lab ID:L2515019-06Date Collected:03/15/25 12:30Client ID:DUP-031525Date Received:03/15/25Sample Location:JENKINTOWN, PAField Prep:Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Chromium, Total	0.00034	J	mg/l	0.00100	0.00017	1	03/17/25 07:46	03/17/25 12:18	EPA 3005A	3,200.8	BLR
Nickel, Total	0.00103	J	mg/l	0.00200	0.00055	1	03/17/25 07:46	03/17/25 12:18	EPA 3005A	3,200.8	BLR
Total Hardness (by calculation) - Mansfield Lab											
Hardness	214.7		mg/l	0.5400	NA	1	03/17/25 07:46	03/17/25 12:18	EPA 3005A	3,200.8	BLR
General Chemistry -	Mansfield	d Lab									
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/17/25 12:18	NA	107,-	
Dissolved Metals - N	/lansfield l	Lab									
Chromium, Dissolved	0.0003	J	mg/l	0.0010	0.0002	1	03/17/25 07:55	03/17/25 12:29	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0011	J	mg/l	0.0020	0.0006	1	03/17/25 07:55	03/17/25 12:29	EPA 3005A	3,200.8	NTB



INORGANICS & MISCELLANEOUS



Project Name: SPS TECHNOLOGIES Lab Number: L2515019

Project Number: 658978 Report Date: 03/17/25

SAMPLE RESULTS

Lab ID: L2515019-01 Date Collected: 03/15/25 10:40

Client ID: SW1-031525 Date Received: 03/15/25 Sample Location: JENKINTOWN, PA Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst	
General Chemistry - Westborough Lab											
Cyanide, Total	0.001 ND	Ą	mg/l	0.005	0.001	1	03/16/25 07:25	03/16/25 10:15	121,4500CN-CE	JER	
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/16/25 02:25	121,4500CN- E(M)	KAF	
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/16/25 14:11	03/16/25 20:22	140,1664B	IYM	
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/16/25 02:55	03/16/25 03:08	121,3500CR-B	KAF	



Project Name: SPS TECHNOLOGIES Lab Number: L2515019

Project Number: 658978 Report Date: 03/17/25

SAMPLE RESULTS

Lab ID: L2515019-02 Date Collected: 03/15/25 11:30

Client ID: SW2-031525 Date Received: 03/15/25 Sample Location: JENKINTOWN, PA Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Wes	tborough Lal	b								
Cyanide, Total	0.002 ND	Ą	mg/l	0.005	0.001	1	03/16/25 07:25	03/16/25 10:16	121,4500CN-CE	JER
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/16/25 02:25	121,4500CN- E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/16/25 14:11	03/16/25 20:23	140,1664B	IYM
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/16/25 02:55	03/16/25 03:09	121,3500CR-B	KAF



L2515019

Project Name: SPS TECHNOLOGIES Lab Number:

Project Number: 658978 Report Date: 03/17/25

SAMPLE RESULTS

Lab ID: L2515019-03 Date Collected: 03/15/25 12:00

Client ID: SW3-031525 Date Received: 03/15/25 Sample Location: JENKINTOWN, PA Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Wes	stborough La	b								
Cyanide, Total	0.002 NC) 1	mg/l	0.005	0.001	1	03/16/25 07:25	03/16/25 10:17	121,4500CN-CE	JER
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/16/25 02:25	121,4500CN- E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/16/25 14:11	03/16/25 20:24	140,1664B	IYM
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/16/25 02:55	03/16/25 03:09	121,3500CR-B	KAF



Project Name: SPS TECHNOLOGIES Lab Number: L2515019

Project Number: 658978 Report Date: 03/17/25

SAMPLE RESULTS

Lab ID: L2515019-04 Date Collected: 03/15/25 10:05

Client ID: SW4-031525 Date Received: 03/15/25 Sample Location: JENKINTOWN, PA Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Wes	stborough Lal)								
Cyanide, Total	0.002 ND	Ą	mg/l	0.005	0.001	1	03/16/25 07:25	03/16/25 10:18	121,4500CN-CE	JER
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/16/25 02:25	121,4500CN- E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/16/25 14:11	03/16/25 20:26	140,1664B	IYM
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/16/25 02:55	03/16/25 03:10	121,3500CR-B	KAF



Project Name: SPS TECHNOLOGIES Lab Number: L2515019

Project Number: 658978 Report Date: 03/17/25

SAMPLE RESULTS

Lab ID: L2515019-05 Date Collected: 03/15/25 09:00

Client ID: SW5-031525 Date Received: 03/15/25 Sample Location: JENKINTOWN, PA Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Wes	stborough La	b								
Cyanide, Total	0.001 ND	Ą	mg/l	0.005	0.001	1	03/16/25 07:25	03/16/25 10:21	121,4500CN-CE	JER
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/16/25 02:25	121,4500CN- E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/16/25 14:11	03/16/25 20:27	140,1664B	IYM
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/16/25 02:55	03/16/25 03:10	121,3500CR-B	KAF



Project Name: SPS TECHNOLOGIES Lab Number: L2515019

Project Number: 658978 Report Date: 03/17/25

SAMPLE RESULTS

Lab ID: L2515019-06 Date Collected: 03/15/25 12:30

Client ID: DUP-031525 Date Received: 03/15/25 Sample Location: JENKINTOWN, PA Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Wes	stborough La	b								
Cyanide, Total	0.002 NC) 1	mg/l	0.005	0.001	1	03/16/25 07:25	03/16/25 10:25	121,4500CN-CE	JER
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/16/25 02:25	121,4500CN- E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/16/25 14:11	03/16/25 20:28	140,1664B	IYM
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/16/25 02:55	03/16/25 03:12	121,3500CR-B	KAF





ANALYTICAL REPORT

Lab Number: L2515019

Client: TRC Environmental

1617 JFK Blvd.

Suite 510

Philadelphia, PA 19103

ATTN: Julie Acton
Phone: (215) 563-2122

Project Name: SPS TECHNOLOGIES

Project Number: 658978 Report Date: 03/17/25

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930A1).

Pace

Project Name: SPS TECHNOLOGIES

Project Number: 658978

 Lab Number:
 L2515019

 Report Date:
 03/17/25

Lab Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2515019-01	SW1-031525	WATER	JENKINTOWN, PA	03/15/25 10:40	03/15/25
L2515019-02	SW2-031525	WATER	JENKINTOWN, PA	03/15/25 11:30	03/15/25
L2515019-03	SW3-031525	WATER	JENKINTOWN, PA	03/15/25 12:00	03/15/25
L2515019-04	SW4-031525	WATER	JENKINTOWN, PA	03/15/25 10:05	03/15/25
L2515019-05	SW5-031525	WATER	JENKINTOWN, PA	03/15/25 09:00	03/15/25
L2515019-06	DUP-031525	WATER	JENKINTOWN, PA	03/15/25 12:30	03/15/25
L2515019-07	TBSW-031525	WATER	JENKINTOWN, PA	03/15/25 00:00	03/15/25



L2515019

Lab Number:

Project Name: SPS TECHNOLOGIES

Project Number: 658978 Report Date: 03/17/25

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Pace Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments and solids are reported on a dry weight basis unless otherwise noted. Tissues are reported "as received" or on a wet weight basis, unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Pace's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Pace Project Manager and made arrangements for Pace to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.



Project Name:SPS TECHNOLOGIESLab Number:L2515019Project Number:658978Report Date:03/17/25

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics by Method 624

The WG2041435-5/-6 MS/MSD recoveries performed on L2515019-05 are below the acceptance criteria for 2-butanone (52%/56%); however, the associated LCS recovery is within overall method allowances. The results of the native sample are considered to have a potentially low bias for this compound.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

Title: Technical Director/Representative Date: 03/17/25

Melissa Sturgis Melissa Sturgis

Pace

ORGANICS



VOLATILES



L2515019

Project Name: Lab Number: SPS TECHNOLOGIES

Project Number: Report Date: 658978

03/17/25

SAMPLE RESULTS

Lab ID: L2515019-01 Date Collected: 03/15/25 10:40

Client ID: Date Received: 03/15/25 SW1-031525 Field Prep: Sample Location: Refer to COC JENKINTOWN, PA

Sample Depth:

Matrix: Water Analytical Method: 128,624.1 Analytical Date: 03/16/25 11:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS -	Westborough Lab					
Toluene	ND		mg/l	0.0010	0.00031	1
2-Butanone	ND		mg/l	0.010	0.0010	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
Pentafluorobenzene	77		60-140	
Fluorobenzene	68		60-140	
4-Bromofluorobenzene	129		60-140	



03/15/25 11:30

Project Name: SPS TECHNOLOGIES

Project Number: 658978

SAMPLE RESULTS

Lab Number: L2515019

Report Date: 03/17/25

Lab ID: L2515019-02

Client ID: SW2-031525 Sample Location: JENKINTOWN, PA Date Received: 03/15/25 Field Prep: Refer to COC

Date Collected:

Sample Depth:

Matrix: Water Analytical Method: 128,624.1 Analytical Date: 03/16/25 10:52

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westboroug	ıh Lab					
Toluene	ND		mg/l	0.0010	0.00031	1
2-Butanone	ND		mg/l	0.010	0.0010	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
Pentafluorobenzene	77		60-140	
Fluorobenzene	71		60-140	
4-Bromofluorobenzene	124		60-140	



L2515019

Project Name: Lab Number: SPS TECHNOLOGIES

Project Number: Report Date: 658978

03/17/25

SAMPLE RESULTS

Lab ID: L2515019-03 Date Collected: 03/15/25 12:00

Client ID: Date Received: 03/15/25 SW3-031525 Field Prep: Sample Location: Refer to COC JENKINTOWN, PA

Sample Depth:

Matrix: Water Analytical Method: 128,624.1 Analytical Date: 03/16/25 10:21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS -	Westborough Lab					
Toluene	ND		mg/l	0.0010	0.00031	1
2-Butanone	ND		mg/l	0.010	0.0010	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
Pentafluorobenzene	75		60-140	
Fluorobenzene	69		60-140	
4-Bromofluorobenzene	121		60-140	



L2515019

03/17/25

Project Name: SPS TECHNOLOGIES Lab Number:

Project Number: 658978

L2515019-04

SW4-031525

JENKINTOWN, PA

SAMPLE RESULTS

Date Collected: 03/15/25 10:05

Report Date:

Date Received: 03/15/25
Field Prep: Refer to COC

Sample Depth:

Sample Location:

Lab ID:

Client ID:

Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 03/16/25 09:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - W	estborough Lab					
Toluene	ND		mg/l	0.0010	0.00031	1
2-Butanone	ND		mg/l	0.010	0.0010	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
Pentafluorobenzene	78		60-140	
Fluorobenzene	72		60-140	
4-Bromofluorobenzene	122		60-140	



L2515019

Project Name: SPS TECHNOLOGIES Lab Number:

Project Number: 658978 Report Date: 03/17/25

SAMPLE RESULTS

Lab ID: L2515019-05 Date Collected: 03/15/25 09:00

Client ID: SW5-031525 Date Received: 03/15/25 Sample Location: JENKINTOWN, PA Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 03/16/25 09:18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS -	Westborough Lab					
Toluene	ND		mg/l	0.0010	0.00031	1
2-Butanone	ND		mg/l	0.010	0.0010	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
Pentafluorobenzene	79		60-140	
Fluorobenzene	71		60-140	
4-Bromofluorobenzene	116		60-140	



L2515019

Project Name: Lab Number: SPS TECHNOLOGIES

Project Number: Report Date: 658978 03/17/25

SAMPLE RESULTS

Lab ID: L2515019-06 Date Collected: 03/15/25 12:30

Client ID: Date Received: 03/15/25 DUP-031525 Field Prep: Sample Location: Refer to COC JENKINTOWN, PA

Sample Depth:

Matrix: Water Analytical Method: 128,624.1 Analytical Date: 03/16/25 08:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS -	Westborough Lab					
Toluene	ND		mg/l	0.0010	0.00031	1
2-Butanone	ND		mg/l	0.010	0.0010	1

Surrogate	% Recovery	Acceptance Qualifier Criteria	
Pentafluorobenzene	82	60-140	
Fluorobenzene	73	60-140	
4-Bromofluorobenzene	121	60-140	



Project Name: SPS TECHNOLOGIES

Project Number: 658978

SAMPLE RESULTS

Report Date:

Lab Number:

Field Prep:

03/17/25

L2515019

Lab ID: L2515019-07

Client ID: TBSW-031525 Sample Location: JENKINTOWN, PA Date Collected: 03/15/25 00:00 Date Received: 03/15/25

None

Sample Depth:

Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 03/16/25 08:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor				
Volatile Organics by GC/MS - Westborough Lab										
Toluene	ND		mg/l	0.0010	0.00031	1				
2-Butanone	ND		mg/l	0.010	0.0010	1				

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	80		60-140
Fluorobenzene	73		60-140
4-Bromofluorobenzene	117		60-140



Project Number: 658978 Report Date: 03/17/25

Method Blank Analysis Batch Quality Control

Analytical Method: 128,624.1 Analytical Date: 03/16/25 07:44

Parameter	Result	Qualifier	Units	RL	MDL	
Volatile Organics by GC/MS - West	borough Lat	o for sample	e(s): 01-07	Batch:	WG2041435-4	
Toluene	ND		mg/l	0.0010	0.00031	
2-Butanone	ND		mg/l	0.010	0.0010	

		Acceptance			
Surrogate	%Recovery (Qualifier Criteria			
			_		
Pentafluorobenzene	82	60-140			
Fluorobenzene	72	60-140			
4-Bromofluorobenzene	114	60-140			



Lab Control Sample Analysis Batch Quality Control

Project Name: SPS TECHNOLOGIES

Project Number: 658978

Lab Number:

L2515019

Report Date:

03/17/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	
Volatile Organics by GC/MS - Westbord	ough Lab Associat	ed sample(s)	: 01-07 Batch	n: WG204	11435-3				
Toluene	105		-		70-130	-		41	
2-Butanone	68		-		60-140	-		30	

Surrogate	LCS %Recovery Qual	LCSD %Recovery Qual	Acceptance Criteria
Pentafluorobenzene	91		60-140
Fluorobenzene	88		60-140
4-Bromofluorobenzene	111		60-140



Matrix Spike Analysis Batch Quality Control

Project Name: SPS TECHNOLOGIES

Project Number: 658978

Lab Number:

L2515019

Report Date:

03/17/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery		Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS Client ID: SW5-031525	- Westborou	ıgh Lab Ass	sociated sar	mple(s): 01-07	QC Bat	ch ID: WO	G2041435-5 V	VG204	1435-6 QC	C Samp	le: L251	15019-05
Toluene	ND	0.00002	0.023	115		0.025	125		47-150	8		41
2-Butanone	ND	0.00005	0.026	52	Q	0.028	56	Q	60-140	7		30

	MS	MSD	Acceptance
Surrogate	% Recovery Qualifier	% Recovery Qualifier	Criteria
4-Bromofluorobenzene	120	120	60-140
Fluorobenzene	75	83	60-140
Pentafluorobenzene	85	86	60-140



METALS



Project Number: 658978 Report Date: 03/17/25

SAMPLE RESULTS

 Lab ID:
 L2515019-01
 Date Collected:
 03/15/25 10:40

 Client ID:
 SW1-031525
 Date Received:
 03/15/25

 Sample Location:
 JENKINTOWN, PA
 Field Prep:
 Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mans	field Lab										
Chromium, Total	0.00042	J	mg/l	0.00100	0.00017	1	03/17/25 07:46	03/17/25 11:59	EPA 3005A	3,200.8	BLR
Nickel, Total	0.00104	J	mg/l	0.00200	0.00055	1	03/17/25 07:46	03/17/25 11:59	EPA 3005A	3,200.8	BLR
Total Hardness (by	calculation	n) - Mansfie	eld Lab								
Hardness	223.7		mg/l	0.5400	NA	1	03/17/25 07:46	03/17/25 11:59	EPA 3005A	3,200.8	BLR
General Chemistry -	Mansfield	d Lab									
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/17/25 11:59	NA	107,-	
Dissolved Metals - N	/lansfield l	Lab									
Chromium, Dissolved	0.0004	J	mg/l	0.0010	0.0002	1	03/17/25 07:55	03/17/25 11:47	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0009	J	mg/l	0.0020	0.0006	1	03/17/25 07:55	03/17/25 11:47	EPA 3005A	3,200.8	NTB



Project Number: 658978 Report Date: 03/17/25

SAMPLE RESULTS

 Lab ID:
 L2515019-02
 Date Collected:
 03/15/25 11:30

 Client ID:
 SW2-031525
 Date Received:
 03/15/25

 Sample Location:
 JENKINTOWN, PA
 Field Prep:
 Refer to COC

Sample Depth:

_						Dilution Factor	Date	Date	Prep	Analytical Method	
Parameter	Result	Qualifier	Units	RL	MDL	ractor	Prepared	Analyzed	Method	Welliou	Analyst
Total Metals - Mans	field Lab										
Chromium, Total	0.00027	J	mg/l	0.00100	0.00017	1	03/17/25 07:46	03/17/25 12:04	EPA 3005A	3,200.8	BLR
Nickel, Total	0.00167	J	mg/l	0.00200	0.00055	1	03/17/25 07:46	03/17/25 12:04	EPA 3005A	3,200.8	BLR
Total Hardness (by	calculatior	n) - Mansfi	eld Lab								
Hardness	280.5		mg/l	0.5400	NA	1	03/17/25 07:46	03/17/25 12:04	EPA 3005A	3,200.8	BLR
General Chemistry	- Mansfield	d Lab									
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/17/25 12:04	NA	107,-	
Dissolved Metals - N	Mansfield I	Lab									
Chromium, Dissolved	0.0003	J	mg/l	0.0010	0.0002	1	03/17/25 07:55	03/17/25 11:52	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0016	J	mg/l	0.0020	0.0006	1	03/17/25 07:55	03/17/25 11:52	EPA 3005A	3,200.8	NTB



Project Number: 658978 Report Date: 03/17/25

SAMPLE RESULTS

 Lab ID:
 L2515019-03
 Date Collected:
 03/15/25 12:00

 Client ID:
 SW3-031525
 Date Received:
 03/15/25

 Sample Location:
 JENKINTOWN, PA
 Field Prep:
 Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
								-			
Total Metals - Mans	field Lab										
Chromium, Total	0.00032	J	mg/l	0.00100	0.00017	1	03/17/25 07:46	03/17/25 12:08	EPA 3005A	3,200.8	BLR
Nickel, Total	0.00110	J	mg/l	0.00200	0.00055	1	03/17/25 07:46	03/17/25 12:08	EPA 3005A	3,200.8	BLR
Total Hardness (by	calculation	n) - Mansfie	eld Lab								
Hardness	219.4		mg/l	0.5400	NA	1	03/17/25 07:46	03/17/25 12:08	EPA 3005A	3,200.8	BLR
General Chemistry -	Mansfield	d Lab									
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/17/25 12:08	NA	107,-	
Dissolved Metals - N	/lansfield l	Lab									
Chromium, Dissolved	0.0003	J	mg/l	0.0010	0.0002	1	03/17/25 07:55	03/17/25 11:56	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0011	J	mg/l	0.0020	0.0006	1	03/17/25 07:55	03/17/25 11:56	EPA 3005A	3,200.8	NTB



Project Number: 658978 Report Date: 03/17/25

SAMPLE RESULTS

Lab ID:L2515019-04Date Collected:03/15/25 10:05Client ID:SW4-031525Date Received:03/15/25Sample Location:JENKINTOWN, PAField Prep:Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mans	field Lab										
Chromium, Total	ND		mg/l	0.00100	0.00017	1	03/17/25 07:46	03/17/25 12:13	EPA 3005A	3,200.8	BLR
Nickel, Total	0.00290		mg/l	0.00200	0.00055	1	03/17/25 07:46	03/17/25 12:13	EPA 3005A	3,200.8	BLR
Total Hardness (by	calculation	n) - Mansfie	ld Lab								
Hardness	202.8		mg/l	0.5400	NA	1	03/17/25 07:46	03/17/25 12:13	EPA 3005A	3,200.8	BLR
General Chemistry -	Mansfield	d Lab									
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/17/25 12:13	NA	107,-	
Dissolved Metals - N	/lansfield l	_ab									
Chromium, Dissolved	ND		mg/l	0.0010	0.0002	1	03/17/25 07:55	03/17/25 12:01	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0030		mg/l	0.0020	0.0006	1	03/17/25 07:55	03/17/25 12:01	EPA 3005A	3,200.8	NTB



Project Number: 658978 Report Date: 03/17/25

SAMPLE RESULTS

 Lab ID:
 L2515019-05
 Date Collected:
 03/15/25 09:00

 Client ID:
 SW5-031525
 Date Received:
 03/15/25

 Sample Location:
 JENKINTOWN, PA
 Field Prep:
 Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
	Nesun	Qualifici	Onito		MIDL		•				Allalyst
Total Metals - Mans	field Lab										
Chromium, Total	0.00024	J	mg/l	0.00100	0.00017	1	03/17/25 07:46	03/17/25 11:20	EPA 3005A	3,200.8	BLR
Nickel, Total	0.00111	J	mg/l	0.00200	0.00055	1	03/17/25 07:46	03/17/25 11:20	EPA 3005A	3,200.8	BLR
Total Hardness (by	calculatior	n) - Mansfie	eld Lab								
Hardness	194.6		mg/l	0.5400	NA	1	03/17/25 07:46	03/17/25 11:20	EPA 3005A	3,200.8	BLR
General Chemistry -	Mansfield	d Lab									
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/17/25 11:20	NA	107,-	
Dissolved Metals - N	/lansfield l	Lab									
Chromium, Dissolved	0.0003	J	mg/l	0.0010	0.0002	1	03/17/25 07:55	03/17/25 11:29	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0011	J	mg/l	0.0020	0.0006	1	03/17/25 07:55	03/17/25 11:29	EPA 3005A	3,200.8	NTB



Project Number: 658978 Report Date: 03/17/25

SAMPLE RESULTS

Lab ID:L2515019-06Date Collected:03/15/25 12:30Client ID:DUP-031525Date Received:03/15/25Sample Location:JENKINTOWN, PAField Prep:Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mans	field Lab										
Chromium, Total	0.00034	J	mg/l	0.00100	0.00017	1	03/17/25 07:46	03/17/25 12:18	EPA 3005A	3,200.8	BLR
Nickel, Total	0.00103	J	mg/l	0.00200	0.00055	1	03/17/25 07:46	03/17/25 12:18	EPA 3005A	3,200.8	BLR
Total Hardness (by	calculation	n) - Mansfie	eld Lab								
Hardness	214.7		mg/l	0.5400	NA	1	03/17/25 07:46	03/17/25 12:18	EPA 3005A	3,200.8	BLR
General Chemistry -	Mansfield	d Lab									
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		03/17/25 12:18	NA	107,-	
Dissolved Metals - N	/lansfield l	Lab									
Chromium, Dissolved	0.0003	J	mg/l	0.0010	0.0002	1	03/17/25 07:55	03/17/25 12:29	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0011	J	mg/l	0.0020	0.0006	1	03/17/25 07:55	03/17/25 12:29	EPA 3005A	3,200.8	NTB



Project Name: SPS TECHNOLOGIES

Project Number: 658978

Lab Number:

L2515019

Report Date:

03/17/25

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfie	eld Lab for sample(s):	01-06 E	Batch: WO	320412	44-1				
Chromium, Total	ND	mg/l	0.00100	0.00017	7 1	03/17/25 07:46	03/17/25 11:10	3,200.8	BLR
Nickel, Total	ND	mg/l	0.00200	0.00055	5 1	03/17/25 07:46	03/17/25 11:10	3,200.8	BLR

Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifie	er Units	RL	MDL	Dilution Factor		Date Analyzed	Analytical Method	Analyst
Total Hardness (by calcu	ulation) - Mansfiel	d Lab for sai	mple(s):	01-06	Batch: V	NG2041244-1			
Hardness	ND	mg/l	0.5400	NA	1	03/17/25 07:46	03/17/25 11:10	3,200.8	BLR

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Ma	ansfield Lab	for sample	e(s): 01-06	Batch	: WG2	041246-1				
Chromium, Dissolved	ND		mg/l	0.0010	0.0002	1	03/17/25 07:55	03/17/25 11:21	3,200.8	NTB
Nickel, Dissolved	ND		mg/l	0.0020	0.0006	1	03/17/25 07:55	03/17/25 11:21	3,200.8	NTB

Prep Information

Digestion Method: EPA 3005A



Lab Control Sample Analysis Batch Quality Control

Project Name: SPS TECHNOLOGIES

Project Number: 658978

Lab Number:

L2515019

03/17/25

Report Date:

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sam	ple(s): 01-06	Batch: W	G2041244-2					
Chromium, Total	101		-		85-115	-		
Nickel, Total	106		-		85-115	-		
Total Hardness (by calculation) - Mansfield La	ab Associated	sample(s)	: 01-06 Batch: V	VG204124	4-2 85-115	-		
Dissolved Metals - Mansfield Lab Associated	sample(s): 01-	·06 Batc	h: WG2041246-2					
Chromium, Dissolved	100		-		85-115	-		
Nickel, Dissolved	105		-		85-115	-		



Matrix Spike Analysis Batch Quality Control

Project Name: SPS TECHNOLOGIES

Project Number: 658978

Lab Number:

L2515019

Report Date: 03/17/25

arameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery		Recovery Limits	RPD	RPD Qual Limits
Total Metals - Mansfield La	ab Associated sam	ple(s): 01-0	6 QC Bate	ch ID: WG204	1244-3	WG2041244	-4 QC Sam	ple: L25	515019-05	Clien	t ID: SW5-031525
Chromium, Total	0.00024J	0.2	0.2059	103		0.1929	96		70-130	7	20
Nickel, Total	0.00111J	0.5	0.5447	109		0.5166	103		70-130	5	20
Fotal Hardness (by calcula D: SW5-031525	ation) - Mansfield L	ab Associat	ed sample(s): 01-06 QC	Batch	D: WG20412	44-3 WG20	41244-4	4 QC Sam	ple: L2	515019-05 Clier
Hardness	194.6	66.2	268.2	111		259.0	97		70-130	3	20
Γotal Metals - Mansfield La	ab Associated sam	ple(s): 01-0	6 QC Bate	ch ID: WG204	1244-5	WG2041244	-6 QC Sam	ple: L25	15044-05	Clien	t ID: MS Sample
Chromium, Total	0.00031J	0.2	0.2145	107		0.2043	102		70-130	5	20
Nickel, Total	0.00125J	0.5	0.5269	105		0.5355	107		70-130	2	20
Fotal Hardness (by calcula D: MS Sample	ation) - Mansfield L	ab Associat	ed sample(s): 01-06 QC	Batch	D: WG20412	44-5 WG20	41244-6	6 QC Sam	ple: L2	515044-05 Clier
Hardness	192.8	66.2	257.8	98		260.5	102		70-130	1	20
Dissolved Metals - Mansfi 031525	eld Lab Associated	sample(s):	01-06 QC	Batch ID: WO	920412 <i>4</i>	16-3 WG204 ⁻	1246-4 QC	Sample	: L2515019	-05 (Client ID: SW5-
Chromium, Dissolved	0.0003J	0.2	0.2093	105		0.2060	103		70-130	2	20
Nickel, Dissolved	0.0011J	0.5	0.5444	109		0.5275	106		70-130	3	20
Dissolved Metals - Mansfi Sample	eld Lab Associated	sample(s):	01-06 QC	Batch ID: WO	G204124	16-5 WG204 ⁻	1246-6 QC	Sample	: L2515044	-05 (Client ID: MS
Chromium, Dissolved	ND	0.2	0.2026	101		0.2039	102		70-130	1	20



INORGANICS & MISCELLANEOUS



Project Name: SPS TECHNOLOGIES Lab Number: L2515019

Project Number: 658978 Report Date: 03/17/25

SAMPLE RESULTS

Lab ID: L2515019-01 Date Collected: 03/15/25 10:40

Client ID: SW1-031525 Date Received: 03/15/25 Sample Location: JENKINTOWN, PA Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Wes	stborough La	b								
Cyanide, Total	0.001	J	mg/l	0.005	0.001	1	03/16/25 07:25	03/16/25 10:15	121,4500CN-CE	JER
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/16/25 02:25	121,4500CN- E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/16/25 14:11	03/16/25 20:22	140,1664B	IYM
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/16/25 02:55	03/16/25 03:08	121,3500CR-B	KAF



Project Name: SPS TECHNOLOGIES Lab Number: L2515019

Project Number: 658978 Report Date: 03/17/25

SAMPLE RESULTS

Lab ID: L2515019-02 Date Collected: 03/15/25 11:30

Client ID: SW2-031525 Date Received: 03/15/25 Sample Location: JENKINTOWN, PA Field Prep: Refer to COC

Sample Depth:

Parameter	Resul	t Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Wes	stborough La	ab								
Cyanide, Total	0.002	J	mg/l	0.005	0.001	1	03/16/25 07:25	03/16/25 10:16	121,4500CN-CE	JER
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/16/25 02:25	121,4500CN- E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/16/25 14:11	03/16/25 20:23	140,1664B	IYM
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/16/25 02:55	03/16/25 03:09	121,3500CR-B	KAF



Project Name: SPS TECHNOLOGIES Lab Number: L2515019

Project Number: 658978 Report Date: 03/17/25

SAMPLE RESULTS

Lab ID: L2515019-03 Date Collected: 03/15/25 12:00

Client ID: SW3-031525 Date Received: 03/15/25 Sample Location: JENKINTOWN, PA Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Wes	stborough La	ıb								
Cyanide, Total	0.002	J	mg/l	0.005	0.001	1	03/16/25 07:25	03/16/25 10:17	121,4500CN-CE	JER
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/16/25 02:25	121,4500CN- E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/16/25 14:11	03/16/25 20:24	140,1664B	IYM
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/16/25 02:55	03/16/25 03:09	121,3500CR-B	KAF



Project Name: SPS TECHNOLOGIES Lab Number: L2515019

Project Number: 658978 Report Date: 03/17/25

SAMPLE RESULTS

Lab ID: L2515019-04 Date Collected: 03/15/25 10:05

Client ID: SW4-031525 Date Received: 03/15/25 Sample Location: JENKINTOWN, PA Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Wes	stborough La	b								
Cyanide, Total	0.002	J	mg/l	0.005	0.001	1	03/16/25 07:25	03/16/25 10:18	121,4500CN-CE	JER
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/16/25 02:25	121,4500CN- E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/16/25 14:11	03/16/25 20:26	140,1664B	IYM
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/16/25 02:55	03/16/25 03:10	121,3500CR-B	KAF



L2515019

Project Name: SPS TECHNOLOGIES Lab Number:

Project Number: 658978 Report Date: 03/17/25

SAMPLE RESULTS

Lab ID: L2515019-05 Date Collected: 03/15/25 09:00

Client ID: SW5-031525 Date Received: 03/15/25 Sample Location: JENKINTOWN, PA Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Wes	tborough Lal	b								
Cyanide, Total	0.001	J	mg/l	0.005	0.001	1	03/16/25 07:25	03/16/25 10:21	121,4500CN-CE	JER
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/16/25 02:25	121,4500CN- E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/16/25 14:11	03/16/25 20:27	140,1664B	IYM
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/16/25 02:55	03/16/25 03:10	121,3500CR-B	KAF



Project Name: SPS TECHNOLOGIES Lab Number: L2515019

Project Number: 658978 Report Date: 03/17/25

SAMPLE RESULTS

Lab ID: L2515019-06 Date Collected: 03/15/25 12:30

Client ID: DUP-031525 Date Received: 03/15/25 Sample Location: JENKINTOWN, PA Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Wes	stborough La	ıb								
Cyanide, Total	0.002	J	mg/l	0.005	0.001	1	03/16/25 07:25	03/16/25 10:25	121,4500CN-CE	JER
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	03/16/25 02:25	121,4500CN- E(M)	KAF
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	03/16/25 14:11	03/16/25 20:28	140,1664B	IYM
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	03/16/25 02:55	03/16/25 03:12	121,3500CR-B	KAF



L2515019

Lab Number:

Project Name: SPS TECHNOLOGIES

Project Number: 658978 Report Date: 03/17/25

Method	Blank	Analysis
Batch	Quality	Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Wes	stborough Lab for sam	ple(s): 01	I-06 Bat	tch: WG	S2041029-	1			
Cyanide, Free	ND	mg/l	0.010	0.003	1	-	03/16/25 02:25	121,4500CN-E(N	1) KAF
General Chemistry - Wes	stborough Lab for sam	ple(s): 01	I-06 Bat	tch: WC	62041031-	1			
Chromium, Hexavalent	ND	mg/l	0.010	0.003	1	03/16/25 02:55	03/16/25 03:05	121,3500CR-B	KAF
General Chemistry - Wes	stborough Lab for sam	ple(s): 01	I-06 Bat	tch: WC	32041042-	1			
Cyanide, Total	0.002 J	mg/l	0.005	0.001	1	03/16/25 07:25	03/16/25 09:57	121,4500CN-CE	JER
General Chemistry - Wes	stborough Lab for sam	ple(s): 01	I-06 Bat	tch: WC	32041146-	1			
Oil & Grease, Hem-Grav	ND	mg/l	4.0	4.0	1	03/16/25 14:11	03/16/25 19:53	140,1664B	IYM



Lab Control Sample Analysis Batch Quality Control

Project Name: SPS TECHNOLOGIES

Project Number: 658978

Lab Number:

L2515019

Report Date:

03/17/25

Parameter	LCS %Recovery Qual	LCSD %Recovery Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab	Associated sample(s): 01-06	Batch: WG2041029-2				
Cyanide, Free	95	-	90-110	-		
General Chemistry - Westborough Lab	Associated sample(s): 01-06	Batch: WG2041031-2				
Chromium, Hexavalent	108	-	85-115	-		20
General Chemistry - Westborough Lab	Associated sample(s): 01-06	Batch: WG2041042-2				
Cyanide, Total	91	-	90-110	-		
General Chemistry - Westborough Lab	Associated sample(s): 01-06	Batch: WG2041146-2				
Oil & Grease, Hem-Grav	82	-	78-114	-		18



Matrix Spike Analysis Batch Quality Control

Project Name: SPS TECHNOLOGIES

Project Number: 658978

Lab Number:

L2515019

Report Date:

03/17/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual Found	MSD %Recovery	Recovery Qual Limits RPD	RPD Qual Limits
General Chemistry - Westbor SW5-031525	ough Lab Assoc	iated samp	ole(s): 01-06	QC Batch II	D: WG2041029-4	WG2041029-5	QC Sample: L2515019-05	5 Client ID:
Cyanide, Free	ND	0.25	0.261	104	0.257	103	80-120 2	20
General Chemistry - Westbor SW5-031525	ough Lab Assoc	iated samp	ole(s): 01-06	QC Batch II	D: WG2041031-4	WG2041031-5	QC Sample: L2515019-05	Client ID:
Chromium, Hexavalent	ND	0.1	0.102	102	0.101	101	85-115 1	20
General Chemistry - Westbor Sample	ough Lab Assoc	iated samp	ole(s): 01-06	QC Batch II	D: WG2041042-3	WG2041042-4	QC Sample: L2514870-05	Client ID: MS
Cyanide, Total	ND	0.2	0.198	99	0.190	95	90-110 3	30
General Chemistry - Westbor SW5-031525	ough Lab Assoc	iated samp	ole(s): 01-06	QC Batch II	D: WG2041042-6	WG2041042-7	QC Sample: L2515019-05	5 Client ID:
Cyanide, Total	0.001J	0.2	0.196	98	0.195	98	90-110 1	30
General Chemistry - Westbor Sample	ough Lab Assoc	iated samp	ole(s): 01-06	QC Batch II	D: WG2041146-4	WG2041146-5	QC Sample: L2514870-05	5 Client ID: MS
Oil & Grease, Hem-Grav	ND	38.8	33	84	33	84	78-114 2	18
General Chemistry - Westbor SW5-031525	ough Lab Assoc	iated samp	ole(s): 01-06	QC Batch II	D: WG2041146-6	WG2041146-7	QC Sample: L2515019-05	Client ID:
Oil & Grease, Hem-Grav	ND	40	34	84	33	82	78-114 1	18



Lab Duplicate Analysis Batch Quality Control

Project Name: SPS TECHNOLOGIES

Project Number: 658978

L2515019 03/17/25 Report Date:

Lab Number:

Parameter	Native Samp	ple D	uplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated samp	ole(s): 01-06	QC Batch ID:	WG2041029-3	QC Sample:	L2515019-05	Client ID:	SW5-031525
Cyanide, Free	ND		ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated samp	ole(s): 01-06	QC Batch ID:	WG2041031-3	QC Sample:	L2515019-05	Client ID:	SW5-031525
Chromium, Hexavalent	ND		ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated samp	ole(s): 01-06	QC Batch ID:	WG2041042-5	QC Sample:	L2514870-05	Client ID:	DUP Sample
Cyanide, Total	ND		ND	mg/l	NC		30
General Chemistry - Westborough Lab Associated samp	ole(s): 01-06	QC Batch ID:	WG2041042-8	QC Sample:	L2515019-05	Client ID:	SW5-031525
Cyanide, Total	0.001J		ND	mg/l	NC		30
General Chemistry - Westborough Lab Associated samp	ole(s): 01-06	QC Batch ID:	WG2041146-3	QC Sample:	L2514870-05	Client ID:	DUP Sample
Oil & Grease, Hem-Grav	ND		ND	mg/l	NC		18



Project Name: SPS TECHNOLOGIES

Project Number: 658978

Lab Number: L2515019
Report Date: 03/17/25

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
Α	Absent
В	Absent
С	Absent
D	Absent

Container Info	Container Information		Initial	Final	Temp			Frozen	
Container ID	Container Type	Cooler	рH	рН	deg C	Pres	Seal	Date/Time	Analysis(*)
L2515019-01A	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		624.1-PPM(7)
L2515019-01B	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		624.1-PPM(7)
L2515019-01C	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		624.1-PPM(7)
L2515019-01D	Plastic 250ml HNO3 preserved	С	<2	<2	4.1	Y	Absent		NI-2008T(180),HARDT-2008(180),CR- 2008T(180)
L2515019-01E	Plastic 250ml HNO3 preserved	С	<2	<2	4.1	Υ	Absent		CR-2008S(180),NI-2008S(180)
L2515019-01F	Plastic 250ml NaOH preserved	С	>12	>12	4.1	Υ	Absent		TCN-4500(14)
L2515019-01G	Plastic 500ml unpreserved	С	7	7	4.1	Υ	Absent		HEXCR-3500(1),FCN(1)
L2515019-01H	Amber 1L HCI preserved	С	NA		4.1	Υ	Absent		OG-1664(28)
L2515019-01J	Amber 1L HCI preserved	С	NA		4.1	Υ	Absent		OG-1664(28)
L2515019-02A	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		624.1-PPM(7)
L2515019-02B	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		624.1-PPM(7)
L2515019-02C	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		624.1-PPM(7)
L2515019-02D	Plastic 250ml HNO3 preserved	С	<2	<2	4.1	Υ	Absent		NI-2008T(180),HARDT-2008(180),CR- 2008T(180)
L2515019-02E	Plastic 250ml HNO3 preserved	С	<2	<2	4.1	Υ	Absent		CR-2008S(180),NI-2008S(180)
L2515019-02F	Plastic 250ml NaOH preserved	С	>12	>12	4.1	Υ	Absent		TCN-4500(14)
L2515019-02G	Plastic 500ml unpreserved	С	7	7	4.1	Υ	Absent		HEXCR-3500(1),FCN(1)
L2515019-02H	Amber 1L HCI preserved	С	NA		4.1	Υ	Absent		OG-1664(28)
L2515019-02J	Amber 1L HCl preserved	С	NA		4.1	Υ	Absent		OG-1664(28)
L2515019-03A	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		624.1-PPM(7)



Lab Number: L2515019

Report Date: 03/17/25

Project Name: SPS TECHNOLOGIES

Project Number: 658978

Container Info	ormation		Initial	Final	Temp			Frozen	
Container ID	Container Type	Cooler	рН	рН	deg C	Pres	Seal	Date/Time	Analysis(*)
L2515019-03B	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		624.1-PPM(7)
L2515019-03C	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		624.1-PPM(7)
L2515019-03D	Plastic 250ml HNO3 preserved	В	<2	<2	4.2	Υ	Absent		NI-2008T(180),HARDT-2008(180),CR- 2008T(180)
L2515019-03E	Plastic 250ml HNO3 preserved	В	<2	<2	4.2	Υ	Absent		CR-2008S(180),NI-2008S(180)
L2515019-03F	Plastic 250ml NaOH preserved	В	>12	>12	4.2	Υ	Absent		TCN-4500(14)
L2515019-03G	Plastic 500ml unpreserved	В	7	7	4.2	Υ	Absent		HEXCR-3500(1),FCN(1)
L2515019-03H	Amber 1L HCl preserved	В	NA		4.2	Υ	Absent		OG-1664(28)
L2515019-03J	Amber 1L HCl preserved	В	NA		4.2	Υ	Absent		OG-1664(28)
L2515019-04A	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		624.1-PPM(7)
L2515019-04B	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		624.1-PPM(7)
L2515019-04C	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		624.1-PPM(7)
L2515019-04D	Plastic 250ml HNO3 preserved	С	<2	<2	4.1	Υ	Absent		NI-2008T(180),HARDT-2008(180),CR- 2008T(180)
L2515019-04E	Plastic 250ml HNO3 preserved	С	<2	<2	4.1	Υ	Absent		CR-2008S(180),NI-2008S(180)
L2515019-04F	Plastic 250ml NaOH preserved	С	>12	>12	4.1	Υ	Absent		TCN-4500(14)
L2515019-04G	Plastic 500ml unpreserved	С	7	7	4.1	Υ	Absent		HEXCR-3500(1),FCN(1)
L2515019-04H	Amber 1L HCl preserved	С	NA		4.1	Υ	Absent		OG-1664(28)
L2515019-04J	Amber 1L HCl preserved	С	NA		4.1	Υ	Absent		OG-1664(28)
L2515019-05A	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		624.1-PPM(7)
L2515019-05A1	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		624.1-PPM(7)
L2515019-05A2	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		624.1-PPM(7)
L2515019-05B	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		624.1-PPM(7)
L2515019-05B1	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		624.1-PPM(7)
L2515019-05B2	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		624.1-PPM(7)
L2515019-05C	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		624.1-PPM(7)
L2515019-05C1	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		624.1-PPM(7)
L2515019-05C2	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		624.1-PPM(7)
L2515019-05D	Plastic 250ml HNO3 preserved	Α	<2	<2	2.7	Υ	Absent		NI-2008T(180),HARDT-2008(180),CR- 2008T(180)



Lab Number: L2515019

Report Date: 03/17/25

Project Name: SPS TECHNOLOGIES

Project Number: 658978

Container Info		Initial		Temp			Frozen		
Container ID	Container Type	Cooler	рН	рН	deg C	Pres	Seal	Date/Time	Analysis(*)
L2515019-05D1	Plastic 250ml HNO3 preserved	Α	<2	<2	2.7	Υ	Absent		NI-2008T(180),HARDT-2008(180),CR- 2008T(180)
L2515019-05D2	Plastic 250ml HNO3 preserved	Α	<2	<2	2.7	Y	Absent		NI-2008T(180),HARDT-2008(180),CR- 2008T(180)
L2515019-05E	Plastic 250ml HNO3 preserved	Α	<2	<2	2.7	Υ	Absent		CR-2008S(180),NI-2008S(180)
L2515019-05E1	Plastic 250ml HNO3 preserved	Α	<2	<2	2.7	Υ	Absent		CR-2008S(180),NI-2008S(180)
L2515019-05E2	Plastic 250ml HNO3 preserved	Α	<2	<2	2.7	Υ	Absent		CR-2008S(180),NI-2008S(180)
L2515019-05F	Plastic 250ml NaOH preserved	Α	>12	>12	2.7	Υ	Absent		TCN-4500(14)
L2515019-05F1	Plastic 250ml NaOH preserved	Α	>12	>12	2.7	Υ	Absent		TCN-4500(14)
L2515019-05F2	Plastic 250ml NaOH preserved	Α	>12	>12	2.7	Υ	Absent		TCN-4500(14)
L2515019-05G	Plastic 500ml unpreserved	Α	7	7	2.7	Υ	Absent		HEXCR-3500(1),FCN(1)
L2515019-05G1	Plastic 500ml unpreserved	Α	7	7	2.7	Υ	Absent		HEXCR-3500(1),FCN(1)
L2515019-05G2	Plastic 500ml unpreserved	Α	7	7	2.7	Υ	Absent		HEXCR-3500(1),FCN(1)
L2515019-05H	Amber 1L HCl preserved	Α	NA		2.7	Υ	Absent		OG-1664(28)
L2515019-05H1	Amber 1L HCl preserved	Α	NA		2.7	Υ	Absent		OG-1664(28)
L2515019-05H2	Amber 1L HCl preserved	Α	NA		2.7	Υ	Absent		OG-1664(28)
L2515019-05J	Amber 1L HCl preserved	Α	NA		2.7	Υ	Absent		OG-1664(28)
L2515019-05J1	Amber 1L HCl preserved	Α	NA		2.7	Υ	Absent		OG-1664(28)
L2515019-05J2	Amber 1L HCl preserved	Α	NA		2.7	Υ	Absent		OG-1664(28)
L2515019-06A	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		624.1-PPM(7)
L2515019-06B	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		624.1-PPM(7)
L2515019-06C	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		624.1-PPM(7)
L2515019-06D	Plastic 250ml HNO3 preserved	В	<2	<2	4.2	Y	Absent		NI-2008T(180),HARDT-2008(180),CR- 2008T(180)
L2515019-06E	Plastic 250ml HNO3 preserved	В	<2	<2	4.2	Υ	Absent		CR-2008S(180),NI-2008S(180)
L2515019-06F	Plastic 250ml NaOH preserved	В	>12	>12	4.2	Υ	Absent		TCN-4500(14)
L2515019-06G	Plastic 500ml unpreserved	В	7	7	4.2	Υ	Absent		HEXCR-3500(1),FCN(1)
L2515019-06H	Amber 1L HCl preserved	В	NA		4.2	Υ	Absent		OG-1664(28)
L2515019-06J	Amber 1L HCl preserved	В	NA		4.2	Υ	Absent		OG-1664(28)
L2515019-07A	Vial Na2S2O3 preserved	D	NA		2.7	Υ	Absent		624.1-PPM(7)



Lab Number: L2515019

Report Date: 03/17/25

624.1-PPM(7)

Container Information Initial Final Temp Frozen
Container ID Container Type Cooler pH pH deg C Pres Seal Date/Time Analysis(*)

2.7

Absent

NA

D



Project Name:

L2515019-07B

Project Number: 658978

SPS TECHNOLOGIES

Vial Na2S2O3 preserved

GLOSSARY

Acronyms

EDL

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

 Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis

of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content,

where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

MS

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's

reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile

Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL

includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the

values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the

associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers



Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'. Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyle ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benza(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
- H The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I The lower value for the two columns has been reported due to obvious interference.
- Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit
 (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers



Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

- M Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- **NJ** Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P The RPD between the results for the two columns exceeds the method-specified criteria.
- Q The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- **R** Analytical results are from sample re-analysis.
- **RE** Analytical results are from sample re-extraction.
- S Analytical results are from modified screening analysis.
- The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers



REFERENCES

- Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.
- 107 Calculation method.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.
- 128 Method 624.1: Purgeables by GC/MS, EPA 821-R-16-008, December 2016.
- Method 1664,Revision B: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-10-001, February 2010.

LIMITATION OF LIABILITIES

Pace Analytical Services performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Pace Analytical Services shall be to re-perform the work at it's own expense. In no event shall Pace Analytical Services be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Pace Analytical Services.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Pace Analytical Services LLC

Facility: Northeast

Department: Quality Assurance

Title: Certificate/Approval Program Summary

Revision 27

ID No.:17873

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Published Date: 01/24/2025

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility - 8 Walkup Dr. Westborough, MA 01581

EPA 624.1: m/p-xylene, o-xylene, Naphthalene

EPA 625.1: alpha-Terpineol

EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: lodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene. **EPA 8270E:** NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility - 320 Forbes Blvd. Mansfield, MA 02048

SM 2540D: TSS.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

MADEP-APH.

Nonpotable Water: EPA RSK-175 Dissolved Gases

Biological Tissue Matrix: EPA 3050B

Mansfield Facility - 120 Forbes Blvd. Mansfield, MA 02048

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Nonpotable Water: EPA RSK-175 Dissolved Gases

The following test method is not included in our New Jersey Secondary NELAP Scope of Accreditation:

Mansfield Facility - 320 Forbes Blvd. Mansfield, MA 02048

Determination of Selected Perfluorinated Alkyl Substances by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry Isotope Dilution (via Alpha SOP 23528)

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility - 8 Walkup Dr. Westborough, MA 01581

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE,

 ${\sf EPA~180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B}$

EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate. EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan II, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables)

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.

Mansfield Facility - 320 Forbes Blvd. Mansfield, MA 02048

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg. EPA 522, EPA 537.1.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

Document Type: Form Pre-Qualtrax Document ID: 08-113

Pace Analytical Services LLC

Facility: Northeast

Department: Quality Assurance Title: Certificate/Approval Program Summary

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ID No.:17873

Certification IDs:

Westborough Facility - 8 Walkup Dr. Westborough, MA 01581

CT PH-0826, IL 200077, IN C-MA-03, KY JY98045, ME MA00086, MD 348, MA M-MA086, NH 2064, NJ MA935, NY 11148, NC (DW) 25700, NC (NPW/SCM) 666, OR MA-1316, PA 68-03671, RI LAO00065, TX T104704476, VT VT-0935, VA 460195

Mansfield Facility - 320 Forbes Blvd. Mansfield, MA 02048

CT PH-0825, ANAB/DoD L2474, IL 200081, IN C-MA-04, KY KY98046, LA 3090, ME MA00030, MI 9110, MN 025-999-495, NH 2062, NJ MA015, NY 11627, NC (NPW/SCM) 685, OR MA-0262, PA 68-02089, RI LAO00299, TX T-104704419, VT VT-0015, VA 460194, WA C954

Mansfield Facility - 120 Forbes Blvd. Mansfield, MA 02048

ANAB/DoD L2474, ME MA01156, MN 025-999-498, NH 2249, NJ MA025, NY 12191, OR 4203, TX T104704583, VA 460311, WA C1104.

For a complete listing of analytes and methods, please contact your Project Manager.

Document Type: Form

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