SPS TECHNOLOGIES - ABINGTON PA
OUTFALL SAMPLING RESULTS REPORT FOR MAY 4, 2025

PREPARED FOR:
SPS TECHNOLOGIES

PREPARED BY:
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MAY 8, 2025

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1.0 EXECUTIVE SUMMARY

TRC Environmental Corporation (TRC), on behalf of SPS Technologies Abington PA (SPS), collected one outfall sample in accordance with TRC Surface Water and Outfall Sampling Plan revised on March 25, 2025 (Sampling Plan). The sample was collected on May 4, 2025 and submitted to a Pennsylvania-certified analytical laboratory for analysis. The sample location is shown in the attached **Figure 1** and the results of the analysis are shown below. Please note that surface water is sampled once weekly and was not sampled during this event. No sheet flow sample was collected due to lack of flow.

Outfall		Outfall 006	Outfall 006 (Duplicate)
Parameter	**Units**	Result	Result
Volatile Organic Compounds			
Toluene	mg/L	ND	ND
2-Butanone (MEK)	mg/L	ND	ND
General Chemistry			
Chromium, Trivalent	mg/L	ND	ND
Chromium, Hexavalent	mg/L	ND	ND
Total Cyanide	mg/L	ND	ND
Free Cyanide	mg/L	ND	ND
Oil & Grease	mg/L	ND	ND
Total Suspended Solids	mg/L	ND	ND
Nitrate/Nitrite as Nitrogen	mg/L	3.3	3.6
Chemical Oxygen Demand	mg/L	26 J+	ND
Total Metals			
Total Aluminum	mg/L	0.04902 J	0.03127 J
Total Chromium	mg/L	ND	ND
Total Copper	mg/L	0.00579	0.00581
Total Iron	mg/L	0.1678 J	0.1037 J
Total Lead	mg/L	0.00089 J	0.00054 J
Total Nickel	mg/L	0.00228	0.00157 J
Total Zinc	mg/L	0.01773	0.01864
Dissolved Metals			
Dissolved Chromium	mg/L	0.0003 J	0.0002 J
Dissolved Nickel	mg/L	0.0025	0.0015 J
Total Hardness			
Hardness	mg/L	191.1	189.8
Field Parameters			
pH	SU	6.31	6.31

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 report, including Quality Assurance/Quality Control (QA/QC) are attached.

2.0 INTRODUCTION

This Outfall Sampling Results Report for May 4, 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 outfall sampling results from May 4, 2025, which were collected in accordance with the TRC Surface Water and Outfall Sampling Plan revised on March 25, 2025 and approved by the PADEP on April 2, 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 STORMWATER INVESTIGATION

TRC collected one stormwater sample from one permitted outfall as a result of the qualifying precipitation event on May 4, 2025.

3.1 Outfall Sampling Methodology

TRC collected the outfall sample in accordance with the Sampling Plan. Field data collected from the location 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)

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

3.2 Outfall 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 Outfall Sampling Results

A stormwater sample was collected from one permitted outfall location in accordance with Sampling Plan for the following parameters:

- Chemical Oxygen Demand
- Total Suspended Solids
- Nitrate-Nitrite as N
- Hexavalent Chromium (calculated for Trivalent Chromium)
- Total Aluminum
- Total Copper
- Total Iron
- Total Lead
- Total Zinc
- Oil & Grease
- Free Cyanide
- Total Cyanide
- Total Nickel
- Dissolved Nickel
- Total Chromium
- Dissolved Chromium

- Methyl ethyl ketone (2-Butanone)
- Toluene
- Hardness

The validated analytical results are summarized in **Table 1**. The sampling location is shown on **Figure 1**.

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

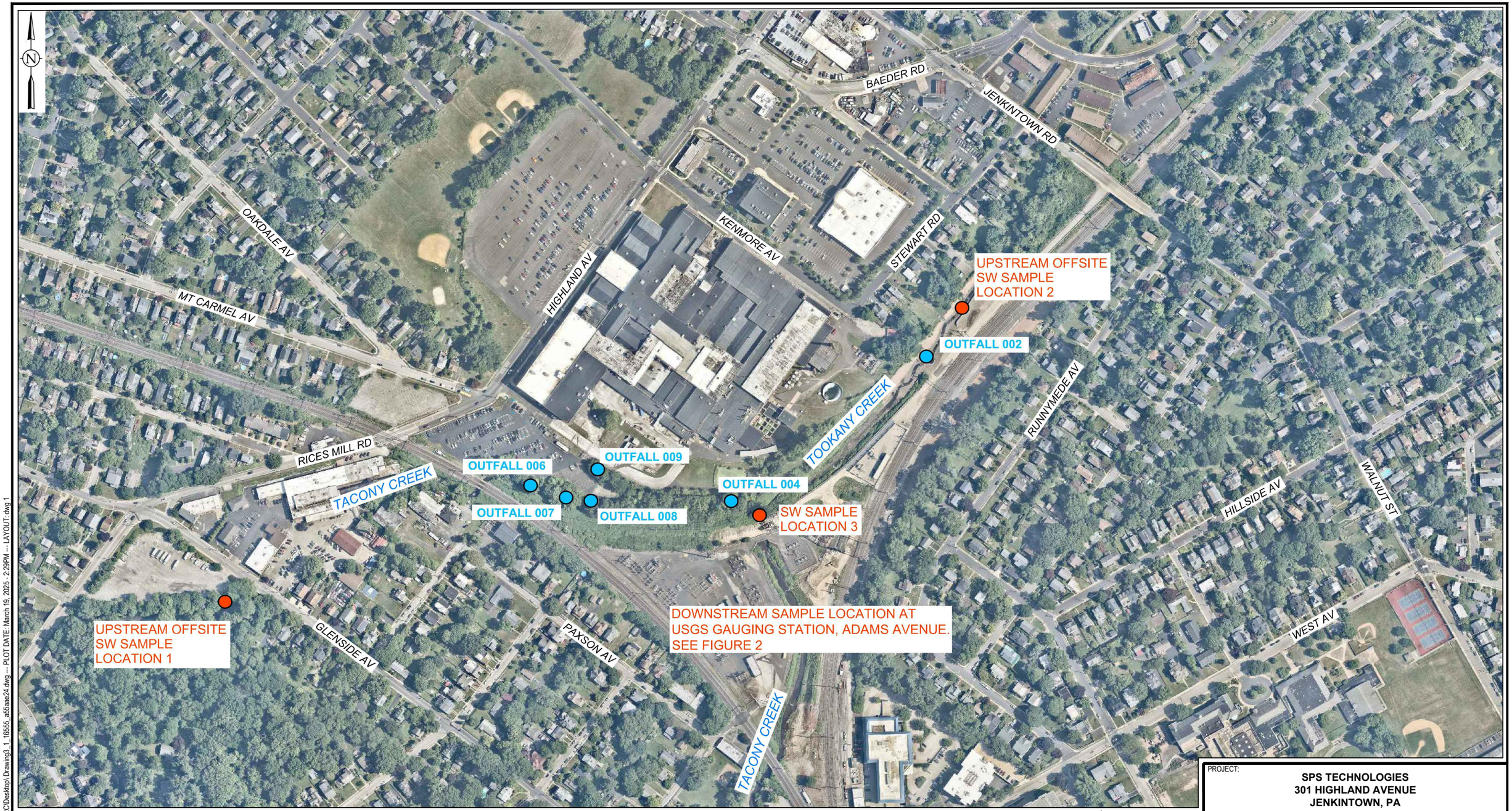
All quality assurance and quality control (QA/QC), field duplicates and matrix spikes/matrix spike duplicates (MS/MSD) were collected in accordance with the Sampling Plan at a rate of 1 per 20 samples per day. A trip blank was included daily for volatile organic compounds (VOCs). A field blank was not 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 Surface Water and Outfall Sampling Plan, revised on March 25, 2025



SOURCE
NEARMAP IMAGERY, JUNE 16, 2024.

LEGEND
SW = SURFACE WATER
- SURFACE WATER SAMPLE LOCATION
- APPROXIMATE OUTFALL SAMPLE LOCATION

0 300 600
SCALE IN FEET

PROJECT:
SPS TECHNOLOGIES
301 HIGHLAND AVENUE
JENKINTOWN, PA

TITLE:
ONSITE INVESTIGATION SURFACE WATER AND OUTFALL SAMPLING LOCATIONS

DRAWN BY:	M. GIAMBATTISTA	PROJ NO.:	658978.0000
CHECKED BY:	J. ACTON		
APPROVED BY:	D. CARLSON		**FIGURE 1**
DATE:	MARCH 2025		

TRC
1617 JOHN F. KENNEDY BLVD.
SUITE 510
PHILADELPHIA, PA 19103

FILE NO.: Drawing3_1_16555_a55aae24.dwg

11:47 - USER: MGiambattista - - ATTACHED XREFS: - - ATTACHED IMAGES:
DRAWING NAME: C:\Users\mgiambattista\OneDrive - TRC\Desktop\Drawing3_1_16555_a55aae24.dwg -- PLOT DATE: March 19, 2025 - 2:29PM -- LAYOUT: dwg 1
Version: 2017-10-21

May 2025

Table 1

Surface Water Analytical Results
Outfall and Sheet Flow Sampling Results Report SPS Technologies
Jenkintown, Pennsylvania

Project Number: 658978

Sample Location		Outfall 006				Outfall 006 (Duplicate)			
Field Sample ID		OF006-050425				DUP-050425			
Lab Sample ID		L2527452-01				L2527452-02			
Sampling Date		5/04/2025				5/04/2025			
Matrix		Water				Water			
Parameter	**Units**	Result	Q	RL	MDL	Result	Q	RL	MDL
Volatile Organic Compounds									
Toluene	mg/L	ND		0.0010	0.00031	ND		0.0010	0.00031
2-Butanone (MEK)	mg/L	ND		0.010	0.0010	ND		0.010	0.0010
General Chemistry									
Chromium, Trivalent	mg/L	ND		0.010	0.003	ND		0.010	0.003
Chromium, Hexavalent	mg/L	ND		0.010	0.003	ND		0.010	0.003
Total Cyanide	mg/L	ND		0.005	0.001	ND		0.005	0.001
Free Cyanide	mg/L	ND		0.010	0.003	ND		0.010	0.003
Oil & Grease	mg/L	ND		4.0	4.0	ND		4.0	4.0
Total Suspended Solids	mg/L	ND		5.0	NA	ND		5.0	NA
Nitrate/Nitrite as Nitrogen	mg/L	3.3		0.10	0.046	3.6		0.10	0.046
Chemical Oxygen Demand	mg/L	26	J+	20	6.0	ND		20	6.0
Total Metals									
Total Aluminum	mg/L	0.04902	J	0.01000	0.00327	0.03127	J	0.01000	0.00327
Total Chromium	mg/L	ND		0.00100	0.00017	ND		0.00100	0.00017
Total Copper	mg/L	0.00579		0.00100	0.00038	0.00581		0.00100	0.00038
Total Iron	mg/L	0.1678	J	0.05000	0.01910	0.1037	J	0.05000	0.01910
Total Lead	mg/L	0.00089	J	0.00100	0.00034	0.00054	J	0.00100	0.00034
Total Nickel	mg/L	0.00228		0.00200	0.00055	0.00157	J	0.00200	0.00055
Total Zinc	mg/L	0.01773		0.00500	0.00341	0.01864		0.00500	0.00341
Dissolved Metals									
Dissolved Chromium	mg/L	0.0003	J	0.0010	0.0002	0.0002	J	0.0010	0.0002
Dissolved Nickel	mg/L	0.0025		0.0020	0.0006	0.0015	J	0.0020	0.0006
Total Hardness									
Hardness	mg/L	191.1		0.5400	NA	189.8		0.5400	NA
Field Parameters									
pH[1]	SU	6.31				6.31			

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:
MDL: Method Detection Limit
mg/L: milligrams per liter
ND: Non-Detect
NA: Not Applicable
Q: Qualifier
RL: Reporting Limit
SU: Standard Units

Qualifiers:
Qualifiers:
J: Estimated Result
J+: Estimated Result, Potential High Bias

Created By: JA 5/7/25 Checked By: MO 5/8/25

Date: 5/19/25

Project Number: 658978

SURFACE WATER/OUTFALL SAMPLE FIELD INFORMATION FORM

Site: SPS Technologies
Location: Jenkintown, PA
Project Number: 658978
Water Quality Meter: Hydrolab V-5000 S/N:
Meter Calibrated @: 0845 5/19/25
Flow Meter: S/N:
Sampling Date/Time: OF-006 @ 0915
Sampler(s): J. Linser and M. O'Donnell
Sampling Device: Telescoping dipper pole w/ cup
Sample Characteristics: Clear, no odor
Analytical Parameters: See chain of custody

Additional Notes:
OF-002 - Could not collect sample due to no flow
OF-009 - Could not collect sample due to no flow
OF-006 - Collect MS/MSD and DUP-050425 (0930)

Weather Conditions: Overcast, 70°F, Wind 9.22 mph, Light - moderate rain @ 8:30 ending around 9:00 AM

SAMPLE / STATION	STATION DESCRIPTION (stream, lake river)	DATE MM/DD/YY	TIME hr:min	TOTAL DEPTH inches	SAMPLE DEPTH	WATER TEMP Celsius	SALINITY ppt	pH SU	COND mS/cm	ORP mV	TURBIDITY NTU	DO mg/L	VELOCITY ft/sec
OF-006	SW outfall	050425	0915	2	1"	17.85	0.3	6.31	0.626	358	1.4	6.90	0.4278
Sample Characteristics :													
Sample Characteristics :													
Sample Characteristics :													
Sample Characteristics :													
Sample Characteristics :													
Sample Characteristics :													

TRC

Data Validation Report

Site: SPS Technologies, Outfall Sampling
Laboratory: Pace Analytical, Westborough and Mansfield, MA
SDG No.: L2527452 (Revised 05/07/2025)
Parameters: Select Volatile Organic Compounds (VOCs), Select Metals, Hardness, Total Suspended Solids (TSS), Total Cyanide, Free Cyanide, Nitrate/Nitrite, Chemical Oxygen Demand (COD), Oil & Grease, Hexavalent Chromium, Trivalent Chromium
Data Reviewer: Jessica Esser/TRC
Peer Reviewer: Nancy Bergstrom/TRC
Date: May 7, 2025

Samples Reviewed and Evaluation Summary

2 Outfall Samples: OF006-050425, DUP-050425[1]

1 Trip Blank: TRIP BLANK-050425

[1]Field duplicate of OF006-050425

The above-listed samples were collected on May 4, 2025 and were analyzed for one or more of the following parameters.

- Select VOCs (toluene, 2-butanone) using EPA Method 624.1
- Select total metals (aluminum, chromium, copper, iron, lead, nickel, zinc) using EPA Method 200.8
- Select dissolved metals (chromium, nickel) using EPA Method 200.8
- Total hardness (by calculation) using EPA Method 200.8
- TSS using Standard Methods (SM) 2540D
- Total cyanide using SM 4500 CN-CE
- Free cyanide using SM 4500 CN-E (M)
- Nitrate/nitrite using EPA Method 353.2
- COD using EPA Method 410.4
- 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.

Overall Evaluation of Data and Potential Usability Issues

All results are usable for project objectives. Qualifications applied to the data as a result of sampling error are discussed below.

- The positive results for total aluminum and total iron in both outfall samples in this data set were qualified as estimated (J) due to field duplicate variability. These results can be used for project objectives as estimated values, which may have a minor impact on the data usability.

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 result for COD was qualified as estimated with a potential high bias (J+) in sample OF006-050425 due to method blank contamination. This result can be used for project objectives as an estimated value, which may have a minor impact on the data usability.

- The positive result for COD was qualified as nondetect (U) in sample DUP-050425 due to method blank contamination. This result can be used for project objectives as a nondetect, which should not have an impact on the data usability.

Data Completeness

The revised data package was a complete Level 2 data package with the following exceptions/notes.

- The date of collection for the trip blank was listed as 4/25/25 on the chain-of-custody (COC). For purposes of this assessment, it was assumed the date of collection was the same as the associated samples.
- The laboratory performed MS/laboratory duplicate analyses on sample OF006-050425 for nitrate/nitrite and COD rather than MS/MSD analyses as requested on the COC.
- MS/MSD analyses were not performed on sample OF006-050425 for TSS as requested on the COC; a laboratory duplicate analysis was performed instead due to the nature of the analysis.

There is no impact on the data usability due to these issues and no validation actions were taken on this basis.

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 COD, target analytes were not detected in the associated laboratory method blanks. COD was detected in the laboratory method blank associated with all samples in this data set at a concentration of 11 mg/L. The positive result for COD in sample OF006-050425 was qualified as estimated with a potential high bias (J+) since the result was ≥ the QL but < 10x the amount detected in the method blank. The positive result for COD in sample DUP-050425 was qualified as nondetect (U) at the QL since the result was < the QL.

Surrogate Recoveries (VOCs only)

All criteria were met.

MS/MSD Results

MS/MSD analyses were performed on sample OF006-050425 for VOCs, total and dissolved metals, hardness, total cyanide, free cyanide, oil and grease, and hexavalent chromium. MS analyses were performed on sample OF006-050425 for nitrate/nitrite and COD. With the exception of 2-butanone, all criteria were met. The %Rs for 2-butanone in the MS/MSD (148%/148%) performed on sample OF006-050425 were above the laboratory acceptance criteria (60-140%). No qualification was required on this basis since 2-butanone was nondetect (ND) in sample OF006-050425.

Laboratory Duplicate Results

Laboratory duplicate analyses were performed on sample OF006-050425 for TSS, total cyanide, free cyanide, nitrate/nitrite, COD, oil and grease, and hexavalent chromium. All criteria were met.

LCS Results

All criteria were met for all parameters.

Field Duplicate Results

Samples OF006-050425 and DUP-050425 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. The QL was used in the calculation of the AbsD for ND results. With the exceptions listed in the table below, all criteria were met.

Analyte	QLs (mg/L)	OF006-050425 (mg/L)	DUP-050425 (mg/L)	RPD (%) or AbsD (mg/L)	Validation Action
Total Aluminum	0.010	0.04902	0.03127	AbsD = 0.01775 (≥QL)	The positive results for total aluminum and total iron in both outfall samples in this data set were qualified as estimated (J).
Total Iron	0.050	0.1678	0.1037	AbsD = 0.0641 (≥QL)	

Analyte	QLs (mg/L)	OF006-050425 (mg/L)	DUP-050425 (mg/L)	RPD (%) or AbsD (mg/L)	Validation Action
Total Copper	0.001	0.00579	0.00581	RPD = 0.3	None; all criteria were met.
Total Lead	0.001	0.00089 J	0.00054 J	AbsD = 0.00035	
Total Nickel	0.002	0.00228	0.00157 J	AbsD = 0.00071	
Total Zinc	0.005	0.01773	0.01864	AbsD = 0.00091	
Hardness	0.54	191.1	189.8	RPD = 0.7	
Dissolved Chromium	0.001	0.0003 J	0.0002 J	AbsD = 0.0001	
Dissolved Nickel	0.002	0.0025	0.0015 J	AbsD = 0.001	
Nitrate/Nitrite	0.10	3.3	3.6	RPD = 8.7	
COD	20	26	ND	AbsD = 6	

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 COD 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 result for COD in sample DUP-050425 was 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 ≤ 20% when dissolved results are greater than total results and both results are ≥ 5x the QL. If the dissolved result was > the total and one or both results were < 5x the QL, then the AbsD should be ≤ 2x the QL. These criteria were met for all samples.

QUALIFIED FORM 1s

VOLATILES

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2527452
Report Date: 05/07/25

SAMPLE RESULTS

Lab ID: L2527452-01
Client ID: OF006-050425
Sample Location: JENKINTOWN, PA
Date Collected: 05/04/25 09:15
Date Received: 05/04/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 05/05/25 17:52
Analyst: GMT

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	98		60-140
Fluorobenzene	105		60-140
4-Bromofluorobenzene	82		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2527452
Report Date: 05/07/25

SAMPLE RESULTS

Lab ID: L2527452-02
Client ID: DUP-050425
Sample Location: JENKINTOWN, PA
Date Collected: 05/04/25 09:30
Date Received: 05/04/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 05/05/25 18:27
Analyst: GMT

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	97		60-140
Fluorobenzene	104		60-140
4-Bromofluorobenzene	82		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2527452
Report Date: 05/07/25

SAMPLE RESULTS

Lab ID: L2527452-03
Client ID: TRIP BLANK-050425
Sample Location: JENKINTOWN, PA

Date Collected: 04/25/25 00:00
Date Received: 05/04/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 05/05/25 17:18
Analyst: GMT

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	96		60-140
Fluorobenzene	104		60-140
4-Bromofluorobenzene	83		60-140

METALS

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2527452
Report Date: 05/07/25

SAMPLE RESULTS

Lab ID: L2527452-01
Client ID: OF006-050425
Sample Location: JENKINTOWN, PA
Date Collected: 05/04/25 09:15
Date Received: 05/04/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.04902	J	mg/l	0.01000	0.00327	1	05/05/25 13:33	05/06/25 08:01	EPA 3005A	3,200.8	BLR
Chromium, Total	ND		mg/l	0.00100	0.00017	1	05/05/25 13:33	05/06/25 08:01	EPA 3005A	3,200.8	BLR
Copper, Total	0.00579		mg/l	0.00100	0.00038	1	05/05/25 13:33	05/06/25 08:01	EPA 3005A	3,200.8	BLR
Iron, Total	0.1678	J	mg/l	0.05000	0.01910	1	05/05/25 13:33	05/06/25 08:01	EPA 3005A	3,200.8	BLR
Lead, Total	0.00089	J	mg/l	0.00100	0.00034	1	05/05/25 13:33	05/06/25 08:01	EPA 3005A	3,200.8	BLR
Nickel, Total	0.00228		mg/l	0.00200	0.00055	1	05/05/25 13:33	05/06/25 08:01	EPA 3005A	3,200.8	BLR
Zinc, Total	0.01773		mg/l	0.00500	0.00341	1	05/05/25 13:33	05/06/25 08:01	EPA 3005A	3,200.8	BLR
Total Hardness (by calculation) - Mansfield Lab											
Hardness	191.1		mg/l	0.5400	NA	1	05/05/25 13:33	05/06/25 08:01	EPA 3005A	3,200.8	BLR
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		05/06/25 08:01	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0003	J	mg/l	0.0010	0.0002	1	05/06/25 08:06	05/06/25 14:16	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0025		mg/l	0.0020	0.0006	1	05/06/25 08:06	05/06/25 14:16	EPA 3005A	3,200.8	NTB

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2527452
Report Date: 05/07/25

SAMPLE RESULTS

Lab ID: L2527452-02
Client ID: DUP-050425
Sample Location: JENKINTOWN, PA
Sample Depth:
Matrix: Water

Date Collected: 05/04/25 09:30
Date Received: 05/04/25
Field Prep: Refer to COC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.03127	J	mg/l	0.01000	0.00327	1	05/05/25 13:33	05/06/25 08:15	EPA 3005A	3,200.8	BLR
Chromium, Total	ND		mg/l	0.00100	0.00017	1	05/05/25 13:33	05/06/25 08:15	EPA 3005A	3,200.8	BLR
Copper, Total	0.00581		mg/l	0.00100	0.00038	1	05/05/25 13:33	05/06/25 08:15	EPA 3005A	3,200.8	BLR
Iron, Total	0.1037	J	mg/l	0.05000	0.01910	1	05/05/25 13:33	05/06/25 08:15	EPA 3005A	3,200.8	BLR
Lead, Total	0.00054	J	mg/l	0.00100	0.00034	1	05/05/25 13:33	05/06/25 08:15	EPA 3005A	3,200.8	BLR
Nickel, Total	0.00157	J	mg/l	0.00200	0.00055	1	05/05/25 13:33	05/06/25 08:15	EPA 3005A	3,200.8	BLR
Zinc, Total	0.01864		mg/l	0.00500	0.00341	1	05/05/25 13:33	05/06/25 08:15	EPA 3005A	3,200.8	BLR
Total Hardness (by calculation) - Mansfield Lab											
Hardness	189.8		mg/l	0.5400	NA	1	05/05/25 13:33	05/06/25 08:15	EPA 3005A	3,200.8	BLR
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		05/06/25 08:15	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0002	J	mg/l	0.0010	0.0002	1	05/06/25 08:06	05/06/25 12:11	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0015	J	mg/l	0.0020	0.0006	1	05/06/25 08:06	05/06/25 12:11	EPA 3005A	3,200.8	NTB

INORGANICS
&
MISCELLANEOUS

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2527452
Report Date: 05/07/25

SAMPLE RESULTS

Lab ID: L2527452-01
Client ID: OF006-050425
Sample Location: JENKINTOWN, PA

Date Collected: 05/04/25 09:15
Date Received: 05/04/25
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 - Westborough Lab										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	05/05/25 07:46	121,2540D	BAY
Cyanide, Total	ND		mg/l	0.005	0.001	1	05/05/25 15:10	05/06/25 11:51	121,4500CN-CE	JER
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	05/04/25 20:19	121,4500CN-E(M)	KAF
Nitrogen, Nitrate/Nitrite	3.3		mg/l	0.10	0.046	1	-	05/06/25 05:34	44,353.2	KAF
Chemical Oxygen Demand	26.	J+	mg/l	20	6.0	1	05/05/25 10:00	05/05/25 12:49	44,410.4	MRW
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	05/05/25 08:46	05/05/25 10:25	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	05/04/25 20:40	05/04/25 20:53	121,3500CR-B	KAF

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2527452
Report Date: 05/07/25

SAMPLE RESULTS

Lab ID: L2527452-02
Client ID: DUP-050425
Sample Location: JENKINTOWN, PA

Date Collected: 05/04/25 09:30
Date Received: 05/04/25
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 - Westborough Lab										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	05/05/25 07:46	121,2540D	BAY
Cyanide, Total	ND		mg/l	0.005	0.001	1	05/05/25 15:10	05/06/25 11:57	121,4500CN-CE	JER
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	05/04/25 20:19	121,4500CN-E(M)	KAF
Nitrogen, Nitrate/Nitrite	3.6		mg/l	0.10	0.046	1	-	05/06/25 05:38	44,353.2	KAF
Chemical Oxygen Demand	~~16.~~ ND	~~J~~	mg/l	20	6.0	1	05/05/25 10:00	05/05/25 12:49	44,410.4	MRW
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	05/05/25 08:46	05/05/25 13:26	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	05/04/25 20:40	05/04/25 20:53	121,3500CR-B	KAF

ANALYTICAL REPORT

Lab Number:	L2527452
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:	05/07/25

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).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2527452
Report Date: 05/07/25

Lab Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2527452-01	OF006-050425	WATER	JENKINTOWN, PA	05/04/25 09:15	05/04/25
L2527452-02	DUP-050425	WATER	JENKINTOWN, PA	05/04/25 09:30	05/04/25
L2527452-03	TRIP BLANK-050425	WATER	JENKINTOWN, PA	04/25/25 00:00	05/04/25

Project Name:	SPS TECHNOLOGIES	**Lab Number:**	L2527452
Project Number:	658978	**Report Date:**	05/07/25

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 TECHNOLOGIES	**Lab Number:**	L2527452
Project Number:	658978	**Report Date:**	05/07/25

Case Narrative (continued)

Report Revision

May 07, 2025: The Total Metals WG2062548-5/-6 MS/MSD has been amended to include Iron.

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 WG2063026-5/-6 MS/MSD recoveries performed on L2527452-01 are above the acceptance criteria for 2-butanone (148%/148%); however, the associated LCS recovery is within overall method allowances.

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: Melissa Sturgis Melissa Sturgis

Title: Technical Director/Representative Date: 05/07/25

ORGANICS

VOLATILES

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2527452
Report Date: 05/07/25

SAMPLE RESULTS

Lab ID: L2527452-01
Client ID: OF006-050425
Sample Location: JENKINTOWN, PA
Date Collected: 05/04/25 09:15
Date Received: 05/04/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 05/05/25 17:52
Analyst: GMT

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	98		60-140
Fluorobenzene	105		60-140
4-Bromofluorobenzene	82		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2527452
Report Date: 05/07/25

SAMPLE RESULTS

Lab ID: L2527452-02
Client ID: DUP-050425
Sample Location: JENKINTOWN, PA
Date Collected: 05/04/25 09:30
Date Received: 05/04/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 05/05/25 18:27
Analyst: GMT

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	97		60-140
Fluorobenzene	104		60-140
4-Bromofluorobenzene	82		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2527452
Report Date: 05/07/25

SAMPLE RESULTS

Lab ID: L2527452-03
Client ID: TRIP BLANK-050425
Sample Location: JENKINTOWN, PA

Date Collected: 04/25/25 00:00
Date Received: 05/04/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 05/05/25 17:18
Analyst: GMT

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	96		60-140
Fluorobenzene	104		60-140
4-Bromofluorobenzene	83		60-140

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2527452
Report Date: 05/07/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 05/05/25 13:36
Analyst: GMT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG2063026-4					
Toluene	ND		mg/l	0.0010	0.00031
2-Butanone	ND		mg/l	0.010	0.0010

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	99		60-140
Fluorobenzene	107		60-140
4-Bromofluorobenzene	87		60-140

Lab Control Sample Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2527452
Report Date: 05/07/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG2063026-3								
Toluene	95		-		70-130	-		41
2-Butanone	136		-		60-140	-		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Pentafluorobenzene	98				60-140
Fluorobenzene	105				60-140
4-Bromofluorobenzene	84				60-140

Matrix Spike Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2527452
Report Date: 05/07/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG2063026-5 WG2063026-6 QC Sample: L2527452-01 Client ID: OF006-050425												
Toluene	ND	0.02	0.020	100		0.019	95		47-150	5		41
2-Butanone	ND	0.05	0.074	**148**	Q	0.074	**148**	Q	60-140	0		30

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
4-Bromofluorobenzene	82		82		60-140
Fluorobenzene	105		106		60-140
Pentafluorobenzene	98		99		60-140

METALS

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2527452
Report Date: 05/07/25

SAMPLE RESULTS

Lab ID: L2527452-01
Client ID: OF006-050425
Sample Location: JENKINTOWN, PA
Date Collected: 05/04/25 09:15
Date Received: 05/04/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.04902		mg/l	0.01000	0.00327	1	05/05/25 13:33	05/06/25 08:01	EPA 3005A	3,200.8	BLR
Chromium, Total	ND		mg/l	0.00100	0.00017	1	05/05/25 13:33	05/06/25 08:01	EPA 3005A	3,200.8	BLR
Copper, Total	0.00579		mg/l	0.00100	0.00038	1	05/05/25 13:33	05/06/25 08:01	EPA 3005A	3,200.8	BLR
Iron, Total	0.1678		mg/l	0.05000	0.01910	1	05/05/25 13:33	05/06/25 08:01	EPA 3005A	3,200.8	BLR
Lead, Total	0.00089	J	mg/l	0.00100	0.00034	1	05/05/25 13:33	05/06/25 08:01	EPA 3005A	3,200.8	BLR
Nickel, Total	0.00228		mg/l	0.00200	0.00055	1	05/05/25 13:33	05/06/25 08:01	EPA 3005A	3,200.8	BLR
Zinc, Total	0.01773		mg/l	0.00500	0.00341	1	05/05/25 13:33	05/06/25 08:01	EPA 3005A	3,200.8	BLR
Total Hardness (by calculation) - Mansfield Lab											
Hardness	191.1		mg/l	0.5400	NA	1	05/05/25 13:33	05/06/25 08:01	EPA 3005A	3,200.8	BLR
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		05/06/25 08:01	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0003	J	mg/l	0.0010	0.0002	1	05/06/25 08:06	05/06/25 14:16	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0025		mg/l	0.0020	0.0006	1	05/06/25 08:06	05/06/25 14:16	EPA 3005A	3,200.8	NTB

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2527452
Report Date: 05/07/25

SAMPLE RESULTS

Lab ID: L2527452-02
Client ID: DUP-050425
Sample Location: JENKINTOWN, PA
Date Collected: 05/04/25 09:30
Date Received: 05/04/25
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.03127		mg/l	0.01000	0.00327	1	05/05/25 13:33	05/06/25 08:15	EPA 3005A	3,200.8	BLR
Chromium, Total	ND		mg/l	0.00100	0.00017	1	05/05/25 13:33	05/06/25 08:15	EPA 3005A	3,200.8	BLR
Copper, Total	0.00581		mg/l	0.00100	0.00038	1	05/05/25 13:33	05/06/25 08:15	EPA 3005A	3,200.8	BLR
Iron, Total	0.1037		mg/l	0.05000	0.01910	1	05/05/25 13:33	05/06/25 08:15	EPA 3005A	3,200.8	BLR
Lead, Total	0.00054	J	mg/l	0.00100	0.00034	1	05/05/25 13:33	05/06/25 08:15	EPA 3005A	3,200.8	BLR
Nickel, Total	0.00157	J	mg/l	0.00200	0.00055	1	05/05/25 13:33	05/06/25 08:15	EPA 3005A	3,200.8	BLR
Zinc, Total	0.01864		mg/l	0.00500	0.00341	1	05/05/25 13:33	05/06/25 08:15	EPA 3005A	3,200.8	BLR
Total Hardness (by calculation) - Mansfield Lab											
Hardness	189.8		mg/l	0.5400	NA	1	05/05/25 13:33	05/06/25 08:15	EPA 3005A	3,200.8	BLR
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.003	1		05/06/25 08:15	NA	107,-	
Dissolved Metals - Mansfield Lab											
Chromium, Dissolved	0.0002	J	mg/l	0.0010	0.0002	1	05/06/25 08:06	05/06/25 12:11	EPA 3005A	3,200.8	NTB
Nickel, Dissolved	0.0015	J	mg/l	0.0020	0.0006	1	05/06/25 08:06	05/06/25 12:11	EPA 3005A	3,200.8	NTB

Project Name: SPS TECHNOLOGIES **Lab Number:** L2527452

Project Number: 658978 **Report Date:** 05/07/25

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG2062548-1										
Aluminum, Total	ND		mg/l	0.01000	0.00327	1	05/05/25 13:33	05/05/25 17:10	3,200.8	NTB
Chromium, Total	ND		mg/l	0.00100	0.00017	1	05/05/25 13:33	05/05/25 17:10	3,200.8	NTB
Copper, Total	ND		mg/l	0.00100	0.00038	1	05/05/25 13:33	05/05/25 17:10	3,200.8	NTB
Iron, Total	ND		mg/l	0.05000	0.01910	1	05/05/25 13:33	05/05/25 17:10	3,200.8	NTB
Lead, Total	ND		mg/l	0.00100	0.00034	1	05/05/25 13:33	05/05/25 17:10	3,200.8	NTB
Nickel, Total	ND		mg/l	0.00200	0.00055	1	05/05/25 13:33	05/05/25 17:10	3,200.8	NTB
Zinc, Total	ND		mg/l	0.00500	0.00341	1	05/05/25 13:33	05/05/25 17:10	3,200.8	NTB

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Hardness (by calculation) - Mansfield Lab for sample(s): 01-02 Batch: WG2062548-1										
Hardness	ND		mg/l	0.5400	NA	1	05/05/25 13:33	05/05/25 17:10	3,200.8	NTB

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 01-02 Batch: WG2062811-1										
Chromium, Dissolved	ND		mg/l	0.0010	0.0002	1	05/06/25 08:06	05/06/25 11:48	3,200.8	NTB
Nickel, Dissolved	ND		mg/l	0.0020	0.0006	1	05/06/25 08:06	05/06/25 11:48	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: L2527452
Report Date: 05/07/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG2062548-2								
Aluminum, Total	102		-		85-115	-		
Chromium, Total	99		-		85-115	-		
Copper, Total	102		-		85-115	-		
Iron, Total	104		-		85-115	-		
Lead, Total	101		-		85-115	-		
Nickel, Total	101		-		85-115	-		
Zinc, Total	102		-		85-115	-		
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 01-02 Batch: WG2062548-2								
Hardness	95		-		85-115	-		
Dissolved Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG2062811-2								
Chromium, Dissolved	100		-		85-115	-		
Nickel, Dissolved	103		-		85-115	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2527452
Report Date: 05/07/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG2062548-3 QC Sample: L2526009-01 Client ID: MS Sample												
Aluminum, Total	5.992	2	9.234	**162**	Q	-	-		70-130	-		20
Chromium, Total	0.010	0.2	0.2164	103		-	-		70-130	-		20
Copper, Total	0.00649	0.25	0.2738	107		-	-		70-130	-		20
Iron, Total	4.431	1	5.829	**140**	Q	-	-		70-130	-		20
Lead, Total	0.00473	0.53	0.5511	103		-	-		70-130	-		20
Nickel, Total	0.0039	0.5	0.5308	105		-	-		70-130	-		20
Zinc, Total	0.00720	0.5	0.5371	106		-	-		70-130	-		20
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG2062548-3 QC Sample: L2526009-01 Client ID: MS Sample												
Hardness	175.3	66.2	235.3	91		-	-		70-130	-		20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG2062548-5 WG2062548-6 QC Sample: L2527452-01 Client ID: OF006-050425												
Aluminum, Total	0.04902	2	2.390	117		2.367	116		70-130	1		20
Chromium, Total	ND	0.2	0.2172	109		0.1966	98		70-130	10		20
Copper, Total	0.00579	0.25	0.2815	110		0.2656	104		70-130	6		20
Iron, Total	0.1678	1	1.322	115		1.270	110		70-130	4		20
Lead, Total	0.00089J	0.53	0.5516	104		0.5527	104		70-130	0		20
Nickel, Total	0.00228	0.5	0.5795	115		0.5202	104		70-130	11		20
Zinc, Total	0.01773	0.5	0.5733	111		0.5296	102		70-130	8		20
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG2062548-5 WG2062548-6 QC Sample: L2527452-01 Client ID: OF006-050425												
Hardness	191.1	66.2	276.7	129		247.1	85		70-130	11		20

Matrix Spike Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2527452
Report Date: 05/07/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG2062811-3 WG2062811-4 QC Sample: L2527509-03 Client ID: MS Sample									
Chromium, Dissolved	0.0002J	0.2	0.1967	98	0.1973	99	70-130	0	20
Nickel, Dissolved	0.0020	0.5	0.5108	102	0.5008	100	70-130	2	20
Dissolved Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG2062811-5 WG2062811-6 QC Sample: L2527452-01 Client ID: OF006-050425									
Chromium, Dissolved	0.0003J	0.2	0.2048	102	0.2087	104	70-130	2	20
Nickel, Dissolved	0.0025	0.5	0.5385	107	0.5446	108	70-130	1	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: SPS TECHNOLOGIES

Project Number: 658978

Lab Number: L2527452

Report Date: 05/07/25

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG2062548-4 QC Sample: L2526009-01 Client ID: DUP Sample						
Copper, Total	0.00649	0.00602	mg/l	8		20
Iron, Total	4.431	5.139	mg/l	15		20
Lead, Total	0.00473	0.00497	mg/l	5		20
Zinc, Total	0.00720	0.00833	mg/l	15		20

INORGANICS
&
MISCELLANEOUS

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2527452
Report Date: 05/07/25

SAMPLE RESULTS

Lab ID: L2527452-01
Client ID: OF006-050425
Sample Location: JENKINTOWN, PA

Date Collected: 05/04/25 09:15
Date Received: 05/04/25
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 - Westborough Lab										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	05/05/25 07:46	121,2540D	BAY
Cyanide, Total	ND		mg/l	0.005	0.001	1	05/05/25 15:10	05/06/25 11:51	121,4500CN-CE	JER
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	05/04/25 20:19	121,4500CN-E(M)	KAF
Nitrogen, Nitrate/Nitrite	3.3		mg/l	0.10	0.046	1	-	05/06/25 05:34	44,353.2	KAF
Chemical Oxygen Demand	26.		mg/l	20	6.0	1	05/05/25 10:00	05/05/25 12:49	44,410.4	MRW
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	05/05/25 08:46	05/05/25 10:25	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	05/04/25 20:40	05/04/25 20:53	121,3500CR-B	KAF

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2527452
Report Date: 05/07/25

SAMPLE RESULTS

Lab ID: L2527452-02
Client ID: DUP-050425
Sample Location: JENKINTOWN, PA

Date Collected: 05/04/25 09:30
Date Received: 05/04/25
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 - Westborough Lab										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	05/05/25 07:46	121,2540D	BAY
Cyanide, Total	ND		mg/l	0.005	0.001	1	05/05/25 15:10	05/06/25 11:57	121,4500CN-CE	JER
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	05/04/25 20:19	121,4500CN-E(M)	KAF
Nitrogen, Nitrate/Nitrite	3.6		mg/l	0.10	0.046	1	-	05/06/25 05:38	44,353.2	KAF
Chemical Oxygen Demand	16.	J	mg/l	20	6.0	1	05/05/25 10:00	05/05/25 12:49	44,410.4	MRW
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	05/05/25 08:46	05/05/25 13:26	140,1664B	TPR
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	05/04/25 20:40	05/04/25 20:53	121,3500CR-B	KAF

Project Name: SPS TECHNOLOGIES
Project Number: 658978
Lab Number: L2527452
Report Date: 05/07/25

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG2062244-1										
Cyanide, Free	ND		mg/l	0.010	0.003	1	-	05/04/25 20:19	121,4500CN-E(M)	KAF
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG2062245-1										
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	05/04/25 20:40	05/04/25 20:51	121,3500CR-B	KAF
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG2062356-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	05/05/25 07:46	121,2540D	BAY
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG2062422-1										
Oil & Grease, Hem-Grav	ND		mg/l	4.0	4.0	1	05/05/25 08:46	05/05/25 10:29	140,1664B	TPR
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG2062436-1										
Chemical Oxygen Demand	11.	J	mg/l	20	6.0	1	05/05/25 10:00	05/05/25 12:43	44,410.4	MRW
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG2062585-1										
Cyanide, Total	ND		mg/l	0.005	0.001	1	05/05/25 15:10	05/06/25 11:43	121,4500CN-CE	JER
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG2062763-1										
Nitrogen, Nitrate/Nitrite	ND		mg/l	0.10	0.046	1	-	05/06/25 05:14	44,353.2	KAF

Lab Control Sample Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2527452
Report Date: 05/07/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG2062244-2								
Cyanide, Free	104		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG2062245-2								
Chromium, Hexavalent	104		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG2062356-2								
Solids, Total Suspended	88		-		80-120	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG2062422-2								
Oil & Grease, Hem-Grav	96		-		78-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG2062436-2								
Chemical Oxygen Demand	101		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG2062585-2								
Cyanide, Total	91		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG2062763-2								
Nitrogen, Nitrate/Nitrite	98		-		90-110	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2527452
Report Date: 05/07/25

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG2062244-4 WG2062244-5 QC Sample: L2527452-01 Client ID: OF006-050425												
Cyanide, Free	ND	0.25	0.267	107		0.263	105		80-120	2		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG2062245-4 WG2062245-5 QC Sample: L2527452-01 Client ID: OF006-050425												
Chromium, Hexavalent	ND	0.1	0.096	96		0.097	97		85-115	1		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG2062422-4 WG2062422-5 QC Sample: L2527452-01 Client ID: OF006-050425												
Oil & Grease, Hem-Grav	ND	39.2	38	96		37	93		78-114	4		18
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG2062436-4 QC Sample: L2527452-01 Client ID: OF006-050425												
Chemical Oxygen Demand	26.	238	280	107		-	-		90-110	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG2062585-3 WG2062585-4 QC Sample: L2527452-01 Client ID: OF006-050425												
Cyanide, Total	ND	0.2	0.198	99		0.200	100		90-110	1		30
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG2062763-4 QC Sample: L2525532-02 Client ID: MS Sample												
Nitrogen, Nitrate/Nitrite	5.2	4	9.1	98		-	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG2062763-6 QC Sample: L2527452-01 Client ID: OF006-050425												
Nitrogen, Nitrate/Nitrite	3.3	4	7.3	100		-	-		80-120	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2527452
Report Date: 05/07/25

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG2062244-3 QC Sample: L2527452-01 Client ID: OF006-050425						
Cyanide, Free	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG2062245-3 QC Sample: L2527452-01 Client ID: OF006-050425						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG2062356-3 QC Sample: L2526658-03 Client ID: DUP Sample						
Solids, Total Suspended	520	470	mg/l	10		32
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG2062356-4 QC Sample: L2527452-01 Client ID: OF006-050425						
Solids, Total Suspended	ND	ND	mg/l	NC		32
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG2062422-3 QC Sample: L2527452-01 Client ID: OF006-050425						
Oil & Grease, Hem-Grav	ND	ND	mg/l	NC		18
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG2062436-3 QC Sample: L2527452-01 Client ID: OF006-050425						
Chemical Oxygen Demand	26.	26	mg/l	0		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG2062585-5 QC Sample: L2527452-01 Client ID: OF006-050425						
Cyanide, Total	ND	ND	mg/l	NC		30
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG2062763-3 QC Sample: L2525532-02 Client ID: DUP Sample						
Nitrogen, Nitrate/Nitrite	5.2	5.2	mg/l	0		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG2062763-5 QC Sample: L2527452-01 Client ID: OF006-050425						
Nitrogen, Nitrate/Nitrite	3.3	3.2	mg/l	3		20

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2527452
Report Date: 05/07/25

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent
C	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2527452-01A	Vial Na2S2O3 preserved	C	NA		2.1	Y	Absent		624.1-PPM(7)
L2527452-01A1	Vial Na2S2O3 preserved	C	NA		2.1	Y	Absent		624.1-PPM(7)
L2527452-01A2	Vial Na2S2O3 preserved	C	NA		2.1	Y	Absent		624.1-PPM(7)
L2527452-01B	Vial Na2S2O3 preserved	C	NA		2.1	Y	Absent		624.1-PPM(7)
L2527452-01B1	Vial Na2S2O3 preserved	C	NA		2.1	Y	Absent		624.1-PPM(7)
L2527452-01B2	Vial Na2S2O3 preserved	C	NA		2.1	Y	Absent		624.1-PPM(7)
L2527452-01C	Vial Na2S2O3 preserved	C	NA		2.1	Y	Absent		624.1-PPM(7)
L2527452-01C1	Vial Na2S2O3 preserved	C	NA		2.1	Y	Absent		624.1-PPM(7)
L2527452-01C2	Vial Na2S2O3 preserved	C	NA		2.1	Y	Absent		624.1-PPM(7)
L2527452-01D	Plastic 250ml HNO3 preserved	B	<2	<2	2.5	Y	Absent		CR-2008S(180),NI-2008S(180)
L2527452-01D1	Plastic 250ml HNO3 preserved	A	<2	<2	4.6	Y	Absent		CR-2008S(180),NI-2008S(180)
L2527452-01D2	Plastic 250ml HNO3 preserved	A	<2	<2	4.6	Y	Absent		CR-2008S(180),NI-2008S(180)
L2527452-01E	Plastic 250ml HNO3 preserved	B	<2	<2	2.5	Y	Absent		AL-2008T(180),NI-2008T(180),ZN-2008T(180),CU-2008T(180),HARDT-2008(180),FE-2008T(180),CR-2008T(180),PB-2008T(180)
L2527452-01E1	Plastic 250ml HNO3 preserved	A	<2	<2	4.6	Y	Absent		AL-2008T(180),NI-2008T(180),ZN-2008T(180),CU-2008T(180),HARDT-2008(180),FE-2008T(180),CR-2008T(180),PB-2008T(180)
L2527452-01E2	Plastic 250ml HNO3 preserved	A	<2	<2	4.6	Y	Absent		AL-2008T(180),NI-2008T(180),ZN-2008T(180),CU-2008T(180),HARDT-2008(180),FE-2008T(180),CR-2008T(180),PB-2008T(180)
L2527452-01F	Plastic 250ml H2SO4 preserved	B	<2	<2	2.5	Y	Absent		NO3/NO2-353(28),COD-410(28)

*Values in parentheses indicate holding time in days

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2527452-01F1	Plastic 250ml H2SO4 preserved	A	<2	<2	4.6	Y	Absent		NO3/NO2-353(28),COD-410(28)
L2527452-01F2	Plastic 250ml H2SO4 preserved	A	<2	<2	4.6	Y	Absent		NO3/NO2-353(28),COD-410(28)
L2527452-01G	Plastic 250ml NaOH preserved	B	>12	>12	2.5	Y	Absent		TCN-4500(14)
L2527452-01G1	Plastic 250ml NaOH preserved	A	>12	>12	4.6	Y	Absent		TCN-4500(14)
L2527452-01G2	Plastic 250ml NaOH preserved	A	>12	>12	4.6	Y	Absent		TCN-4500(14)
L2527452-01H	Plastic 950ml unpreserved	B	7	7	2.5	Y	Absent		HEXCR-3500(1),FCN(1)
L2527452-01H1	Plastic 950ml unpreserved	A	7	7	4.6	Y	Absent		HEXCR-3500(1),FCN(1)
L2527452-01H2	Plastic 950ml unpreserved	A	7	7	4.6	Y	Absent		HEXCR-3500(1),FCN(1)
L2527452-01J	Plastic 950ml unpreserved	B	7	7	2.5	Y	Absent		TSS-2540(7)
L2527452-01J1	Plastic 950ml unpreserved	A	7	7	4.6	Y	Absent		TSS-2540(7)
L2527452-01J2	Plastic 950ml unpreserved	A	7	7	4.6	Y	Absent		TSS-2540(7)
L2527452-01K	Amber 1L HCl preserved	B	NA		2.5	Y	Absent		OG-1664(28)
L2527452-01K1	Amber 1L HCl preserved	A	NA		4.6	Y	Absent		OG-1664(28)
L2527452-01K2	Amber 1L HCl preserved	A	NA		4.6	Y	Absent		OG-1664(28)
L2527452-01L	Amber 1L HCl preserved	B	NA		2.5	Y	Absent		OG-1664(28)
L2527452-01L1	Amber 1L HCl preserved	A	NA		4.6	Y	Absent		OG-1664(28)
L2527452-01L2	Amber 1L HCl preserved	A	NA		4.6	Y	Absent		OG-1664(28)
L2527452-02A	Vial Na2S2O3 preserved	C	NA		2.1	Y	Absent		624.1-PPM(7)
L2527452-02B	Vial Na2S2O3 preserved	C	NA		2.1	Y	Absent		624.1-PPM(7)
L2527452-02C	Vial Na2S2O3 preserved	C	NA		2.1	Y	Absent		624.1-PPM(7)
L2527452-02D	Plastic 250ml HNO3 preserved	B	<2	<2	2.5	Y	Absent		CR-2008S(180),NI-2008S(180)
L2527452-02E	Plastic 250ml HNO3 preserved	B	<2	<2	2.5	Y	Absent		AL-2008T(180),NI-2008T(180),ZN-2008T(180),CU-2008T(180),HARDT-2008(180),FE-2008T(180),PB-2008T(180),CR-2008T(180)
L2527452-02F	Plastic 250ml H2SO4 preserved	B	<2	<2	2.5	Y	Absent		NO3/NO2-353(28),COD-410(28)
L2527452-02G	Plastic 250ml NaOH preserved	B	>12	>12	2.5	Y	Absent		TCN-4500(14)
L2527452-02H	Plastic 950ml unpreserved	B	7	7	2.5	Y	Absent		HEXCR-3500(1),FCN(1)
L2527452-02J	Plastic 950ml unpreserved	B	7	7	2.5	Y	Absent		TSS-2540(7)
L2527452-02K	Amber 1L HCl preserved	B	NA		2.5	Y	Absent		OG-1664(28)

*Values in parentheses indicate holding time in days

Project Name: SPS TECHNOLOGIES
Project Number: 658978

Lab Number: L2527452
Report Date: 05/07/25

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2527452-02L	Amber 1L HCl preserved	B	NA		2.5	Y	Absent		OG-1664(28)
L2527452-03A	Vial Na2S2O3 preserved	C	NA		2.1	Y	Absent		624.1-PPM(7)
L2527452-03B	Vial Na2S2O3 preserved	C	NA		2.1	Y	Absent		624.1-PPM(7)

*Values in parentheses indicate holding time in days

Project Name:	SPS TECHNOLOGIES	**Lab Number:**	L2527452
Project Number:	658978	**Report Date:**	05/07/25

GLOSSARY

Acronyms

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.)
EDL	- 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.
MS	- 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.
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

Project Name:	SPS TECHNOLOGIES	**Lab Number:**	L2527452
Project Number:	658978	**Report Date:**	05/07/25

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 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, Benz(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.

B - 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).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - 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.

J - 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

Project Name:	SPS TECHNOLOGIES	**Lab Number:**	L2527452
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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.

V - 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.)

Project Name: SPS TECHNOLOGIES **Lab Number:** L2527452

Project Number: 658978 **Report Date:** 05/07/25

REFERENCES

3 Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.

44 Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.

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.

140 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.

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: Iodomethane (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, 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 I, 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

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.

CHAIN OF CUSTODY

PAGE 1 OF 1

Westborough, MA TEL: 508-898-9220 FAX: 508-898-9193
Mansfield, MA TEL: 508-822-9300 FAX: 508-822-3288

Date Rec'd in Lab: 5/4/25

ALPHA Job #: L2527452

Client Information

Client: TRC Environmental Corporation
Address: 1617 John F. Kennedy Blvd.
Suite 510, Philadelphia, PA 19103
Phone: 267-679-6728
Fax: 215-563-2339
Email: JActon@trccompanies.com

☐ These samples have been Previously analyzed by Alpha

Project Information

Project Name: SPS Technologies
Project Location: Jenkintown, PA
Project #: 559978
Project Manager: Julie Acton
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ Rush (ONLY IF PRE-APPROVED)

Due Date: Time: 1-Day

Report Information — Data Deliverables

☐ FAX ☒ EMAIL
☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO # 228588

Regulatory Requirements/Report Limits

State/Fed Program: PA
Criteria:

Other Project Specific Requirements/Comments/Detection Limits:

Attorney-Client Privileged & Confidential
All VOAs in 1 Cooler

Dissolved Metals - Field Filtered

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Oil and Grease E1664B	Free Cyanide SM4500CN-E(M)	Total Cyanide SM4500CN-CE	Speciated Hex Chrome SM3500-CrB	Total Chromium, Nickel E200.8	Dissolved Chromium, Nickel E200.8	Total Al, Fe, Pb, Zn, Cu E200.8	Chemical Oxygen Demand E410.4	MEK, Toluene E624.1	Nitrate-Nitrite as N E353.2	Total Hardness E200.8	Total Suspended Solids SM 2540 D	Sample Specific Comments	TOTAL # BOTTLES
	~~OF002~~			SW		☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒		
	~~OF004~~			SW		☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒		
27452-01	OF006-050425	5/4/25	0915	SW	SL	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	MS/MSD	33
	~~OF009~~			SW		☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒		
-02	DUP-050425	5/4/25	0730	SW	SL	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒		11
-03	TRIP BLANK-050425	5/5/25	—	W		☐	☐	☐	☐	☐	☐	☐	☐	☒	☐	☐	☐		2
	~~SF-~~			SW		☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒		
	~~SF-~~			SW		☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		
						☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐		

SAMPLE HANDLING
Filtration
☒ Done
☐ Not Needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Container Type	A	P	P	P	P	P	P	P	V	P	P	P	
Preservative	B	A	E	A	C	A	C	-	H	-	-	-	

Relinquished By:	Date/Time	Received By:	Date/Time
[signature] RMB	5/4/25 1150	RMB	5-4 1200
FED EX PACE	5/4/25 1834	FED EX PACE	5/4/25 5/4/25 1834 1425

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

FORM NO. 01-01(A)(I) (rev. 3-JAN-12)