SPS Technologies Abington PA

February 23, 2025 Daily Surface Water and Outfall Sampling Results Report

SPS Technologies

2025-02-27

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1. Executive Summary

WSP USA Inc. (WSP), on behalf of SPS Technologies Abington PA (SPS), collected five surface water samples in accordance with SPS's Sampling Plan, which was submitted to the Philadelphia Water Department (PWD), the Pennsylvania Department of Environmental Protection (PADEP), and the United States Environmental Protection Agency (EPA). The samples were 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.

Parameter	Units	Upstream Offsite SW Sample Location 1	Upstream Offsite SW Sample Location 2	SW Sample Location 3	High School Road Sample Location	Downstream SW Sample Location
		Result	Result	Result	Result	Result
Toluene	mg/L	ND	ND	ND	ND	ND
2-Butanone (MEK)	mg/L	ND	ND	0.0071	ND	ND
Chromium, Trivalent	mg/L	ND	ND	ND	ND	ND
Chromium, Hexavalent	mg/L	ND	0.003	ND	ND	0.003
Total Cyanide	mg/L	ND	0.00214	0.0515	0.0266	0.0361
Free Cyanide	mg/L	ND	ND	0.011	0.004	ND
Oil & Grease	mg/L	ND	ND	10	ND	ND
Total Chromium	mg/L	0.0003917	0.0003061	0.0005217	0.0003384	0.000375
Total Nickel	mg/L	0.0009273	0.00159	0.02339	0.015	0.008525
Hardness	mg/L	233	260.9	245.6	230.4	214.8
pH	SU	7.96	7.42	7.29	6.98	6.55

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

2. Introduction

This Daily Surface Water and Outfall Sampling Results Report (Report) has been prepared by WSP USA Inc. (WSP) on behalf of SPS Technologies Abington PA (SPS), which operates the facility located at 301 Highland Ave, Jenkintown, Pennsylvania, 19046 (the Facility). The purpose of the Report is to provide off-site surface water and outfall sampling results collected in accordance with SPS's Sampling Plan, as prepared by WSP, which was submitted to the Philadelphia Water Department (PWD), the Pennsylvania Department of Environmental Protection (PADEP), and the United States Environmental Protection Agency (EPA) on February 21, 2025 and revised on February 25, 2025 (Sampling Plan). Refer to Sampling Plan **Figures 1** and **2** for sampling locations.

Outfall sampling commenced on February 25, 2025 as requested by PADEP, therefore, no outfall data is included in this report for February 23, 2025.

3. Site Background

SPS Technologies currently owns the Site. Operations at the Site consist of manufacturing bolts, nuts, screws, rivets, washers, furniture, and fixtures. Tookany Creek is located south of the SPS building and north of Paxson Ave.

4. Tookany Creek Offsite Investigation

4.1 Sampling Locations

The sampling locations displayed on **Figure 1** and **Figure 2** were selected based on discussions with PWD and PADEP and were identified in the Sampling Plan.

4.2 Surface Water Sampling Field Methodology

The surface water sampling methodology was in accordance with the Sampling Plan.

The surface water field data collected for the surface water samples at each sampling location included the following:

- Water depth
- Weather conditions
- Water velocity (if visibly flowing)
- Sample characteristics (clarity, appearance, color, odor, clarity, pH, etc.)
- Water quality measurements (DO, pH, salinity, ORP, turbidity, conductivity, and temperature)
- Additional observations (e.g., wildlife sightings)

This data is documented on the daily surface water sampling form attached as **Appendix A**. The in-field measurement of pH is provided on **Table 1**.

4.3 Sample Analysis

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.

4.4 Surface Water Sampling Daily Results

In accordance with the Sampling Plan, surface water samples were analyzed for the following parameters.

- Oil & grease
- Free cyanide
- Total cyanide
- Total nickel
- Total chromium
- Hexavalent chromium (speciated)
- Methyl ethyl ketone (MEK)
- Toluene

The validated daily analytical results from surface water sampling are presented in **Table 1.**

4.5 Outfall Sampling Daily Results

On the date covered by this report, no outfall samples were collected.

5. Daily Quality Assurance/Quality Control and Management

5.1 Field Quality Assurance/Quality Control Requirements

Field personnel performed data quality control (QC) verification of field measurements in consultation with the Pennsylvania Department of Environmental Protection Sampling and Analysis Plan (PADEP,

2023). This process included reviewing calibration records and duplicate readings to ensure data accuracy. Field measurements were documented in notebooks or field information forms. pH readings are also summarized in **Table 1**.

All hand equipment used during the sampling event was cleaned with Alconox and distilled water. Disposable sampling cups were used to collect the samples. Field personnel wore disposable nitrile sampling gloves. Sampling gloves were discarded after processing at each sample location and replaced before handling decontaminated equipment or work surfaces.

5.2 Analytical QA/QC Samples

All quality assurance/quality control (QA/QC), field duplicates (FD), and matrix spikes/matrix spike duplicates (MS/MSD) were collected in accordance with the Sampling Plan.

Trip blanks (TBs) accompanied each shipment of toluene and MEK samples at a rate of one per day. The following QA/QC samples were collected at a rate of 1 per 20 primary samples during each monitoring event: field duplicates (FD) and matrix spikes/matrix spike duplicates (MS/MSD). No field (rinsate) blanks were collected because single-use sample cups were used to collect the samples.

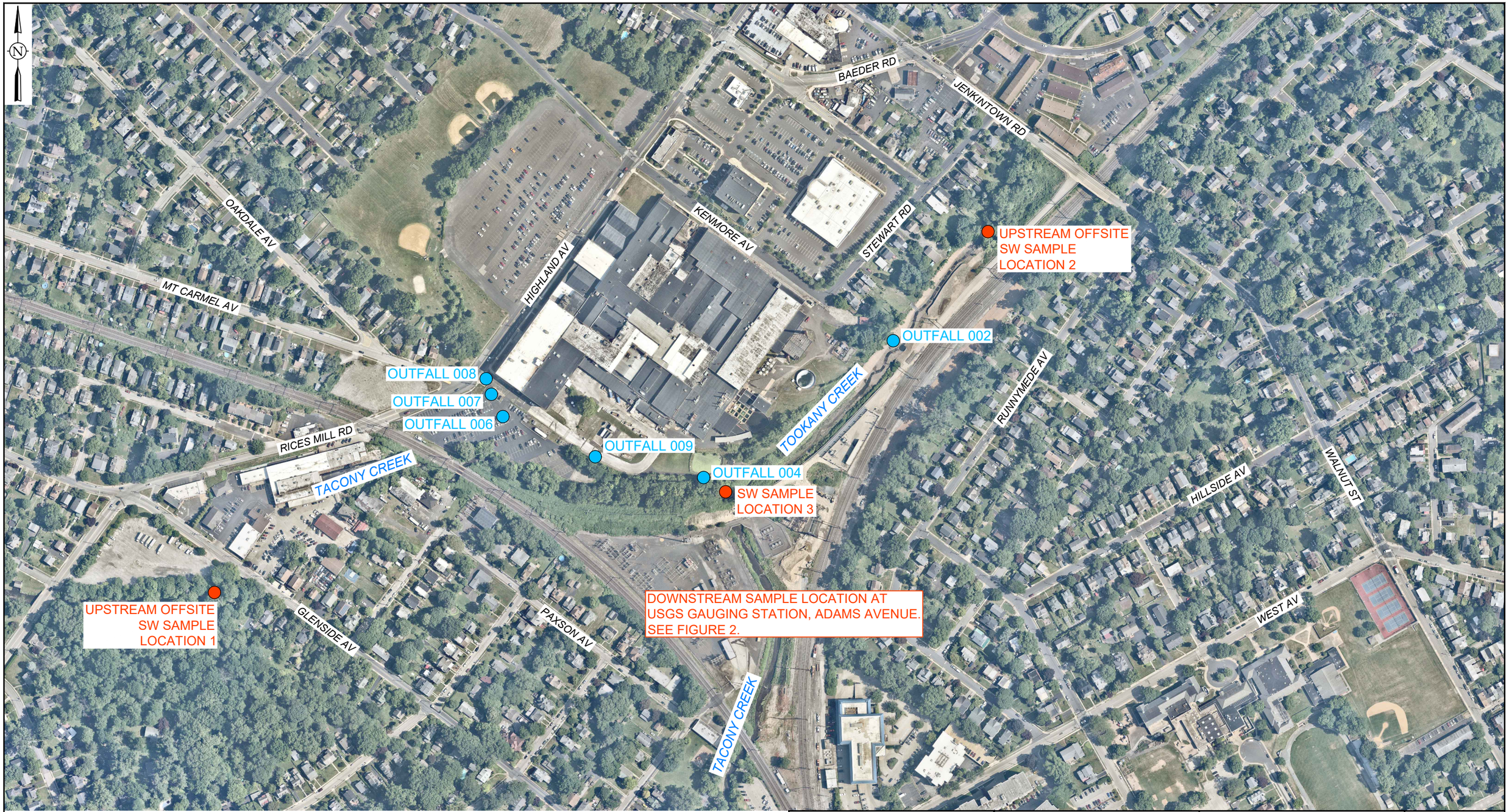
5.3 Data Evaluation

The reliability of the analytical data were evaluated to assess its suitability for use in the 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 of the laboratory data was in accordance with the Sampling Plan. The data validation report is attached as **Appendix B**.

6. References

1. SPS Technologies, Sampling Plan. 25 Feb. 2025.
2. Pennsylvania Department of Environmental Protection. Water Quality Monitoring Protocols for Surface Waters. 2023.

FIGURES & TABLES & APPENDICES



SOURCE

NEARMAP IMAGERY, JUNE 16, 2024.

LEGEND

SW = SURFACE WATER

- SURFACE WATER SAMPLE LOCATION
- APPROXIMATE OUTFALL SAMPLE LOCATION

WSP USA Inc.
751 Arbor Way, Suite 180
Blue Bell, PA 19422
Tel. 610-828-8100
www.wsp.com

PROJECTION / DATUM: PA83-SF

0 150' 300'

SCALE: 1" = 300'

PREPARED BY: PJC

CHECKED BY: KM

REVIEWED BY: TK

CLIENT

PROJECT

SURFACE WATER AND OUTFALL SAMPLING RESULTS REPORT

PROJECT NO.: US0043268.2150

REVISION NO.: 0

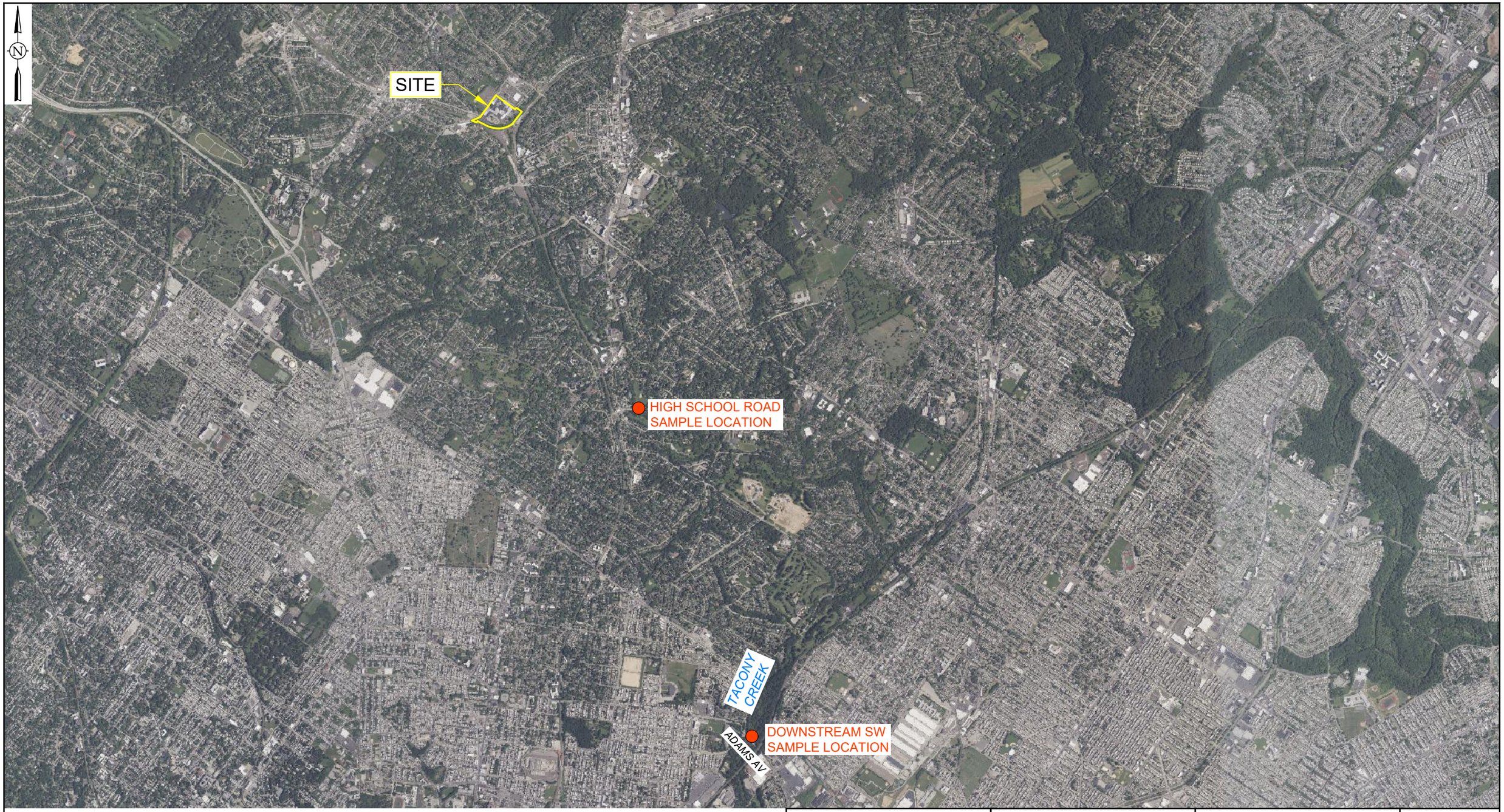
DATE: FEBRUARY 2025

TITLE

SURFACE WATER AND OUTFALL SAMPLE LOCATIONS

FIGURE NO.: 1

C:\Users\USPC714485\OneDrive - WSP O365\Documents\TEMP_SPS\05 Daily SW-OF Sampling Results Report\Fig 1-2 SW-OF Sampling Results Report.dwg Thu, 27 Feb 2025 - 6:05pm USPC714485 Layout: Fig 1 SW-OF Sampling Results Report



SOURCE

GEOMAP IMAGERY, 2025.

LEGEND

SW = SURFACE WATER

SURFACE WATER SAMPLE LOCATION

WSP USA Inc.
751 Arbor Way, Suite 180
Blue Bell, PA 19422
Tel. 610-828-8100
www.wsp.com

PROJECTION / DATUM: PA83-SF

0 1,500' 3,000'

SCALE: 1" = 3,000'

PREPARED BY: PJC

CHECKED BY: KM

REVIEWED BY: TK

CLIENT

PROJECT

SURFACE WATER AND OUTFALL SAMPLING RESULTS REPORT

PROJECT NO.: US0043268.2150

REVISION NO.: 0

DATE: FEBRUARY 2025

TITLE

OFF-SITE SURFACE WATER SAMPLE LOCATIONS

FIGURE NO.: 2

C:\Users\USPC714485\OneDrive - WSP O365\Documents\TEMP_SPS\05 Daily SW-OF Sampling Results Report\Fig 1-2 SW-OF Sampling Results Report.dwg Thu, 27 Feb 2025 - 6:06pm USPC714485 Layout: Fig 2 SW-OF Sampling Results Report

Table 1
Surface Water Analytical Results
Daily Surface Water Sampling Results Report
SPS Technologies
Jenkintown, Pennsylvania

Sample Location		Upstream Offsite SW Sample Location 1			Upstream Offsite SW Sample Location 2			SW Sample Location 3			High School Road Sample Location			Downstream SW Sample Location		
Field Sample ID		SW2_022325			SW1_022325			SW3_022325			SW4_022325			SW5_022325		
Lab Sample ID		L2509893-04			L2509893-05			L2509893-03			L2509893-02			L2509893-01		
Sampling Date		2/23/2025			2/23/2025			2/23/2025			2/23/2025			2/23/2025		
Matrix		Water			Water			Water			Water			Water		
Parameter	**Units**	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL	Result	Q	RL
Volatile Organic Compounds																
Toluene	mg/L	ND		0.001	ND		0.001	ND		0.001	ND		0.001	ND		0.001
2-Butanone (MEK)	mg/L	ND		0.01	ND		0.01	0.0071	J	0.01	ND		0.01	ND		0.01
General Chemistry																
Chromium, Trivalent	mg/L	ND	UJ	0.01	ND	UJ	0.01	ND	UJ	0.01	ND	UJ	0.01	ND	UJ	0.01
Chromium, Hexavalent	mg/L	ND	UJ	0.01	0.003	J	0.01	ND	UJ	0.01	ND	UJ	0.01	0.003	J	0.01
Total Cyanide	mg/L	ND		0.005	0.00214	J	0.005	0.0515		0.005	0.0266		0.005	0.0361	J	0.005
Free Cyanide	mg/L	ND	UJ	0.01	ND	UJ	0.01	0.011	J	0.01	0.004	J	0.01	ND	UJ	0.01
Oil & Grease	mg/L	ND		4	ND		4	10		4	ND		4	ND		4
Total Metals																
Total Chromium	mg/L	0.0003917	J	0.001	0.0003061	J	0.001	0.0005217	J	0.001	0.0003384	J	0.001	0.000375	J	0.001
Total Nickel	mg/L	0.0009273	J	0.002	0.00159	J	0.002	0.02339		0.002	0.015		0.002	0.008525		0.002
Total Hardness																
Hardness	mg/L	233		0.54	260.9		0.54	245.6		0.54	230.4		0.54	214.8	J-	0.54
Field Parameters																
pH[1]	SU	7.96			7.42			7.29			6.98			6.55		

Notes:
1.) Field measurements for pH were performed by WSP 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
J- - Estimated Result, Biased Low
UJ - Non-Detect Result, RL is Estimated

Created By: SNM 2/27/2025
Checked By: JKC 2/27/2025

APPENDIX A – DAILY SURFACE WATER SAMPLING LOG

2/23/2025

Project Number: TBD

-PID readings all day and at all locations 0.0 ppm

SURFACE WATER SAMPLE FIELD INFORMATION FORM

Site: SPS
Location: Abington
Project Number:
Meter/Type/Serial #: Horiba U-52 # S/N: 5V5H3JTG
Meter Calibrated @:
Flow Meter ~~FH950 Meter #~~ ~~S/N:~~ Visual Est (Metric stick and stopwatch
Sampling Date/Time: SWS-022325 @ 2/23/25 09:20, SW4-022325 10:15 2/23/25,
Sampler(s): JET, SNM
Sampling Device: Telescope pole + Dipper Bottle
Sample Characteristics: SW5-022325-clear, no odor; SW4-022325-clear, no odor; ~~SW3~~ SW3-022325-clear, no odor, sheen
SW2-022325-clear, no odor
SW1-022325-clear, no odor
Analytical Parameters:

Weather Conditions: clear 30°F

Additional Notes: -SW3-022325 visible sheen on water. Sheen located within the confines of the booned area. The booms were placed by Lewis Envir. Lewis Envir walking/wading through water way heavily disturbing the sediments.

STATION / SAMPLE	STATION DESCRIPTION (stream/lake/river)	DATE mm/dd/yy	TIME hr:min	TOTAL DEPTH inches	SAMPLE DEPTH inches	WATER TEMP Celsius	pH SU	COND mS/cm	ORP mV	TURBIDITY NTU	DO mg/L	VELOCITY ft/sec
SWS-022325	creek	2/23/25	9:20	14.5	7.25	4.59	6.55	0.778	+241	0.0	11.07	1.23 ft/sec
Sample Characteristics:	clear, no odor											
SW4-022325	Creek	2/23/25	1015	to 72	36	4.89	6.98	0.814	+230	0.0	13.61	0.93
Sample Characteristics:	clear, no odor											
SW3-022325	creek	2/23/25	1115	23.3	11.65	9.87	7.29	0.728	+156	9.0	10.21	0.11
Sample Characteristics:	clear, no odor, sheen											
SW2-022325	creek	2/23/25	1220	6	3	10.10	7.96	0.711	+194	0.0	11.32	0.51
Sample Characteristics:	clear no odor											
SW1-022325	creek	2/23/25	1315	16.5	8.25	7.83	7.42	0.951	+205	0.0	12.86	0.82
~~Staff Gauge Reading~~												
Sample Characteristics:	clear, no odor											

APPENDIX B – DATA VALIDATION REPORT

Project Name: SPS Technologies

Project Number/Phase/Task: US0043268.2150-US-SPS Client Support. Task 01

Reviewing Company: WSP USA

Project Manager: Tovah Karl

Data Evaluator: Julia Campbell

Data Evaluation Date: February 26, 2025

Checked by: Julie Lehrman

Review Date: February 26, 2025

Laboratory: Pace Analytical LLC

Lab SDG #: L2509893

Matrix: ☒ Aqueous ☐ Soil ☐ Sediment ☐ Waste ☐ Air ☐ Other:

Analytical Methods: See Table B-1

Sample Information: See Table B-1

Work Plan or QAPP: SPS Technologies Abington PA Surface Water and Outfall Sampling Plan (WSP, 2025)

Data Validation Guidance:

USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (Nov. 2020)

USEPA NFG for Inorganic Superfund Methods Data Review (Nov. 2020)

COC and Sample Receipt	YES	NO	NA	COMMENT
a) COC complete and correct?	☒	☐		
b) COC documents release of custody (signed and dated)?	☒	☐		
c) Field QC types provided (note types)?	☒	☐	☐	TB; see Table B-1
d) Did the cooler contents match the COC?	☒	☐		
e) Were samples received in good condition?	☒	☐		
f) Were cooler temperatures within control limits?	☒	☐		

Data Package Information	YES	NO	NA	COMMENT
a) Laboratory name and location documented?	☒	☐		
b) All samples on COC reported in data package?	☒	☐		
c) Requested analytical methods used?	☒	☐		
d) Requested sample preparation methods used?	☒	☐	☐	
e) Requested analyte list reported?	☒	☐		
f) Requested units reported?	☒	☐	☐	
g) Did the laboratory define the qualifiers used?	☒	☐		
h) Data package contains all information necessary to complete the data quality review?	☒	☐		

Analytical Assessment	YES	NO	NA	COMMENT
a) Solid samples reported on a dry-weight basis?	☐	☐	☒	
b) Were solid samples percent moisture criteria acceptable?	☐	☐	☒	
c) Were sample dilutions noted?	☒	☐		

Analytical Assessment	**YES**	**NO**	**NA**	**COMMENT**
d) Were detected concentrations less than the QL qualified by the laboratory?	☒	☐		
e) Were detected concentrations above the calibration range reported by the laboratory?	☐	☒		
f) Did the laboratory satisfy the requested sensitivity requirements?	☒	☐		

Laboratory Case Narrative	**YES**	**NO**	**NA**	**COMMENT**
a) Do the laboratory narrative or laboratory qualifiers indicate deficiencies?	☒	☐	☐	See Notes below
b) Were all deficiencies noted in the laboratory qualifiers or narrative?	☒	☐	☐	

Sample Preservation and Holding Time	**YES**	**NO**	**NA**	**COMMENT**
a) Were samples properly preserved?	☒	☐		
b) Were holding times met for sample preparation?	☒	☐	☐	
c) Were holding times met for sample analysis?	☐	☒		See Note 1,2

Blanks	**YES**	**NO**	**NA**	**COMMENTS**
a) Were blanks analyzed at the appropriate frequency?	☒	☐		
b) Were any analytes detected in the associated preparation/method blank?	☐	☒		
c) Were any analytes detected in the associated trip blanks?	☐	☒	☐	
d) Were any analytes detected in the associated field or equipment/rinsate blanks?	☐	☐	☒	
e) Were any analytes detected in the associated storage blanks?	☐	☐	☒	

Surrogates or Deuterated Monitoring Compounds	**YES**	**NO**	**NA**	**COMMENTS**
a) Were the correct surrogate compounds added to each sample?	☒	☐	☐	
b) Were surrogate recoveries within control limits?	☒	☐	☐	
c) If not, were samples analyzed at dilution factors of 20x or greater?	☒	☐	☐	

LCS/LCSD	**YES**	**NO**	**NA**	**COMMENTS**
a) Were LCS/LCSD reported at the appropriate frequency?	☒	☐		
b) Were proper analytes included in the LCS/LCSD?	☒	☐		
c) Were LCS/LCSD recoveries within control limits?	☒	☐		
d) Were RPD values within control limits (if LCSD was analyzed)?	☒	☐	☐	

MS/MSDs	**YES**	**NO**	**NA**	**COMMENTS**
a) Were project-specific MS (and MSD) reported?	☒	☐		SW5_022325
b) Were proper analytes reported in the MS/MSD?	☒	☐	☐	

MS/MSDs	**YES**	**NO**	**NA**	**COMMENTS**
c) Were project-specific MS/MSD recoveries within control limits?	☐	☒	☐	See Notes 3 and 4
d) If not, were sample concentrations greater than 4x the spiking concentration?	☐	☐	☒	
e) Was the RPD or absolute difference within control limits (if project-specific MSD analyzed)?	☐	☐	☒	
f) Were project-specific post-digestion spikes analyzed?	☐	☐	☒	
g) Were project-specific post-digestion spike recoveries within control limits?	☐	☐	☒	

Duplicates	**YES**	**NO**	**NA**	**COMMENTS**
a) Were project-specific laboratory duplicates reported?	☒	☐	☐	SW5_022325
b) Was laboratory duplicate RPD or absolute difference criteria acceptable?	☐	☒	☐	See Note 3
c) Were field duplicates reported?	☐	☒	☐	
d) Was field duplicate RPD or absolute difference criteria acceptable?	☐	☐	☒	

ICP Serial Dilution (SD)	**YES**	**NO**	**NA**	**COMMENTS**
a) Was project-specific ICP SD data provided?	☐	☐	☒	
b) Were project-specific ICP SD within acceptable criteria?	☐	☐	☒	

Overall Evaluation	**YES**	**NO**	**NA**	**COMMENTS**
a) Were there any other technical problems not previously addressed?	☒	☐		
b) Were data acceptable and usable, except where noted?	☒	☐		

Comments/Notes:

The reliability of the analytical data was evaluated to assess its suitability for use in the surface water and outfall monitoring. In particular, a Stage 2A data validation was performed, which evaluates the data's precision, accuracy, and sensitivity based on adherence to sample holding times, and analysis of the QC samples (duplicates, spikes, and blanks). Where appropriate, data qualifiers were applied following USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (Nov. 2020) and USEPA NFG for Inorganic Superfund Methods Data Review (Nov. 2020), as applicable to the analytical methods used by the laboratory. Based on the data review, while estimated qualifiers were applied to certain data as detailed in Table B-2, all data was deemed suitable for project decision making. Further detail can be found in the comments below and in Table B-2.

1. The holding time for the analysis of hexavalent chromium is 24 hours. The samples were analyzed more than 24 but less than 48 hours after sampling (2x the holding time). Using professional judgement, when non-detect results were analyzed outside the required holding times, detected results were qualified as estimated(J) and the reporting limit for non-detect results were qualified as estimated (UJ). Trivalent chromium is calculated from the difference between total chromium and hexavalent chromium. Using professional judgement, the trivalent chromium results were qualified as estimated (UJ) due to the uncertainty in the hexavalent chromium analysis.
2. The laboratory performs the analysis of free cyanide from unpreserved samples via method SM4500CN-E(M). The holding time for the analysis of unpreserved samples for free cyanide is 24 hours. The samples were

analyzed more than 24 hours after sampling but before 48 hours (2x the holding time) had elapsed. Using professional judgement, when non-detect results were analyzed outside the required holding times, non-detect results were qualified as estimated (UJ), and detects were qualified as estimated (J).

3. The matrix spike performed on sample SW5_022325 had an 85% recovery for total cyanide, which was below QC criteria (90-110%). Cyanide was detected in the associated sample. A total cyanide lab duplicate was also performed using sample SW5_022325. The relative percent difference (RPD) for total cyanide was 100%, which exceeded the QC criteria (30%). Using professional judgment, the sample result was qualified as estimated with no direction of bias (J).

4. The matrix spike recovery performed on sample SW5_022325 had a 65% recovery for Hardness, which was below QC limits (70-130%). The associated sample result was detected. Using professional judgment, the sample result was qualified as estimated, biased low (J-).

Data Qualification: See Table 2

Table B-1
Sample Collection and Analysis Summary
SPS Technologies
Jenkintown, PA

					Analyses/Parameters								
Laboratory Job	**Field Identification**	**Matrix**	**Lab Identification**	**QC Samples**	**Collection Date**	**MEK and Toluene** E624.1	**Oil and Grease** E1664B	**Total Metals** 200.8	**Total Hardness** 200.8	**Trivalent Chromium** SM3500	**Free Cyanide** SM4500CN-E(M)	**Total Cyanide** SM4500CN-CE	**Hexavalent Chromium** SM3500CR-B
L2509893	SW5_022325	WS	L2509893-01	--	2/23/2025	X	X	X	X	X	X	X	X
L2509893	SW4_022325	WS	L2509893-02	--	2/23/2025	X	X	X	X	X	X	X	X
L2509893	SW3_022325	WS	L2509893-03	--	2/23/2025	X	X	X	X	X	X	X	X
L2509893	SW2_022325	WS	L2509893-04	--	2/23/2025	X	X	X	X	X	X	X	X
L2509893	SW1_022325	WS	L2509893-05	--	2/23/2025	X	X	X	X	X	X	X	X
L2509893	TBSW_022325	WQ	L2509893-06	TB	2/23/2025	X	--	--	--	--	--	--	X

Notes:
1) All analyses performed by Pace Analytical Westborough Facility, except for metals, hardness, and trivalent chromium which were performed at Pace Analytical Mansfield Lab.
2) Total Metals include: chromium and nickel.

Abbreviations:
MEK:methyl ethyl ketone
MS/MSD: Matrix Spike/Matrix Spike Duplicate
QC: Quality Control
SDG: Sample Delivery Group
TB: Trip Blank
WS: Surface Water
WQ: Quality Control Water

Table 2
Qualifier Summary Table
SPS Technolgies
Jenkintown, PA

Laboratory Job	*Sample Name*	*Analyte*	*New Result*	*New MDL*	*New RL*	*Qualifier*	*Reason*
L2509893	SW5_022325	Chromium, Hexavalent	--	--	--	J	Analysis Holding Time: exceeds criteria by less than 2x
L2509893	SW4_022325	Chromium, Hexavalent	--	--	--	UJ	Analysis Holding Time: exceeds criteria by less than 2x
L2509893	SW3_022325	Chromium, Hexavalent	--	--	--	UJ	Analysis Holding Time: exceeds criteria by less than 2x
L2509893	SW2_022325	Chromium, Hexavalent	--	--	--	UJ	Analysis Holding Time: exceeds criteria by less than 2x
L2509893	SW1_022325	Chromium, Hexavalent	--	--	--	J	Analysis Holding Time: exceeds criteria by less than 2x
L2509893	SW5_022325	Chromium, Trivalent	--	--	--	UJ	Qualified due to uncertainty in hexavalent chromium analysis
L2509893	SW4_022325	Chromium, Trivalent	--	--	--	UJ	Qualified due to uncertainty in hexavalent chromium analysis
L2509893	SW3_022325	Chromium, Trivalent	--	--	--	UJ	Qualified due to uncertainty in hexavalent chromium analysis
L2509893	SW2_022325	Chromium, Trivalent	--	--	--	UJ	Qualified due to uncertainty in hexavalent chromium analysis
L2509893	SW1_022325	Chromium, Trivalent	--	--	--	UJ	Qualified due to uncertainty in hexavalent chromium analysis
L2509893	SW5_022325	Cyanide, Free	--	--	--	UJ	Analysis Holding Time: exceeds criteria by less than 2x
L2509893	SW4_022325	Cyanide, Free	--	--	--	J	Analysis Holding Time: exceeds criteria by less than 2x
L2509893	SW3_022325	Cyanide, Free	--	--	--	J	Analysis Holding Time: exceeds criteria by less than 2x
L2509893	SW2_022325	Cyanide, Free	--	--	--	UJ	Analysis Holding Time: exceeds criteria by less than 2x
L2509893	SW1_022325	Cyanide, Free	--	--	--	UJ	Analysis Holding Time: exceeds criteria by less than 2x
L2509893	SW5_022325	Cyanide, Total	--	--	--	J	Matrix spike recovery below criteria. Lab duplicate RPD exceeds criteria
L2509893	SW5_022325	Hardness	--	--	--	J-	Matrix spike recovery below criteria
L2509893	All samples	--	--		--	--	Laboratory applied U-qualifiers indicating non-detect results and J-qualifiers indicating results below the reporting limit are retained unless other qualifications are indicated in this table. All other laboratory qualifiers are removed.

Table 2
Qualifier Summary Table
SPS Technolgies
Jenkintown, PA

Abbreviations:
MDL: Method Detection Limit
RL: Reporting Limit
RPD: Relative Percent Difference
SDG: Sample Delivery Group

Qualifiers:
J: Estimated
UJ: Estimated, non-detect

APPENDIX C – LABORATORY ANALYTICAL REPORT

ANALYTICAL REPORT

Lab Number:	L2509893
Client:	WSP USA Inc. 10 Lake Center Drive Suite 205 Marlton, NJ 08053
ATTN:	Julie Lehrman
Phone:	(856) 793-2005
Project Name:	SPS TECHNOLOGIES
Project Number:	US0043268.2150
Report Date:	02/26/25

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).

Project Name: SPS TECHNOLOGIES
Project Number: US0043268.2150

Lab Number: L2509893
Report Date: 02/26/25

Lab Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2509893-01	SW5_022325	WATER	JENKINTOWN, PA	02/23/25 09:20	02/23/25
L2509893-02	SW4_022325	WATER	JENKINTOWN, PA	02/23/25 10:15	02/23/25
L2509893-03	SW3_022325	WATER	JENKINTOWN, PA	02/23/25 11:15	02/23/25
L2509893-04	SW2_022325	WATER	JENKINTOWN, PA	02/23/25 12:20	02/23/25
L2509893-05	SW1_022325	WATER	JENKINTOWN, PA	02/23/25 13:15	02/23/25
L2509893-06	TBSW_022325	WATER	JENKINTOWN, PA	02/23/25 00:00	02/23/25

Project Name:	SPS TECHNOLOGIES	**Lab Number:**	L2509893
Project Number:	US0043268.2150	**Report Date:**	02/26/25

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:**	L2509893
Project Number:	US0043268.2150	**Report Date:**	02/26/25

Case Narrative (continued)

Report Revision

February 26, 2025: This report includes the results of the Hardness analysis performed on L2509893-01 through -05. In addition, the project number has been updated.

Report Submission

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

Total Metals

The WG2033692-3 MS recovery for hardness (67%), performed on L2509893-01, recovered outside the 70-130% acceptance criteria. The result for this analyte is considered suspect due to either the heterogeneous nature of the sample or matrix interference.

Cyanide, Free

L2509893-01, -02, -03, -04, and -05: The sample was analyzed with the method required holding time exceeded.

Cyanide, Total

The WG2033742-3 MS recovery performed on L2509893-01 is outside the acceptance criteria for cyanide, total (85%); however, the associated LCS recovery is within criteria. No further action was taken.
The WG2033742-4 Laboratory Duplicate RPD performed on L2509893-01 is outside the acceptance criteria for cyanide, total (100%). The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

Chromium, Hexavalent

L2509893-01, -02, -03, -04, and -05: The sample was analyzed with the method required holding time exceeded.

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:  Cristin Walker

Title: Technical Director/Representative Date: 02/26/25

ORGANICS

VOLATILES

Project Name: SPS TECHNOLOGIES
Project Number: US0043268.2150
Lab Number: L2509893
Report Date: 02/26/25

SAMPLE RESULTS

Lab ID: L2509893-01
Client ID: SW5_022325
Sample Location: JENKINTOWN, PA

Date Collected: 02/23/25 09:20
Date Received: 02/23/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 02/25/25 11:52
Analyst: JKH

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Toluene	ND		ug/l	1.0	0.31	1
2-Butanone	ND		ug/l	10	1.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	94		60-140
Fluorobenzene	104		60-140
4-Bromofluorobenzene	106		60-140

Project Name: SPS TECHNOLOGIES
Project Number: US0043268.2150
Lab Number: L2509893
Report Date: 02/26/25

SAMPLE RESULTS

Lab ID: L2509893-02
Client ID: SW4_022325
Sample Location: JENKINTOWN, PA
Date Collected: 02/23/25 10:15
Date Received: 02/23/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 02/25/25 10:41
Analyst: JKH

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Toluene	ND		ug/l	1.0	0.31	1
2-Butanone	ND		ug/l	10	1.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	96		60-140
Fluorobenzene	105		60-140
4-Bromofluorobenzene	106		60-140

Project Name: SPS TECHNOLOGIES
Project Number: US0043268.2150
Lab Number: L2509893
Report Date: 02/26/25

SAMPLE RESULTS

Lab ID: L2509893-03
Client ID: SW3_022325
Sample Location: JENKINTOWN, PA
Date Collected: 02/23/25 11:15
Date Received: 02/23/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 02/25/25 11:16
Analyst: JKH

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Toluene	ND		ug/l	1.0	0.31	1
2-Butanone	7.1	J	ug/l	10	1.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	94		60-140
Fluorobenzene	104		60-140
4-Bromofluorobenzene	106		60-140

Project Name: SPS TECHNOLOGIES
Project Number: US0043268.2150
Lab Number: L2509893
Report Date: 02/26/25

SAMPLE RESULTS

Lab ID: L2509893-04
Client ID: SW2_022325
Sample Location: JENKINTOWN, PA

Date Collected: 02/23/25 12:20
Date Received: 02/23/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 02/25/25 10:06
Analyst: JKH

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Toluene	ND		ug/l	1.0	0.31	1
2-Butanone	ND		ug/l	10	1.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	94		60-140
Fluorobenzene	105		60-140
4-Bromofluorobenzene	105		60-140

Project Name: SPS TECHNOLOGIES
Project Number: US0043268.2150
Lab Number: L2509893
Report Date: 02/26/25

SAMPLE RESULTS

Lab ID: L2509893-05
Client ID: SW1_022325
Sample Location: JENKINTOWN, PA

Date Collected: 02/23/25 13:15
Date Received: 02/23/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 02/25/25 09:32
Analyst: JKH

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Toluene	ND		ug/l	1.0	0.31	1
2-Butanone	ND		ug/l	10	1.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	96		60-140
Fluorobenzene	106		60-140
4-Bromofluorobenzene	107		60-140

Project Name: SPS TECHNOLOGIES
Project Number: US0043268.2150
Lab Number: L2509893
Report Date: 02/26/25

SAMPLE RESULTS

Lab ID: L2509893-06
Client ID: TBSW_022325
Sample Location: JENKINTOWN, PA
Date Collected: 02/23/25 00:00
Date Received: 02/23/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 128,624.1
Analytical Date: 02/25/25 08:57
Analyst: JKH

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Toluene	ND		ug/l	1.0	0.31	1
2-Butanone	ND		ug/l	10	1.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	96		60-140
Fluorobenzene	105		60-140
4-Bromofluorobenzene	107		60-140

Project Name: SPS TECHNOLOGIES
Project Number: US0043268.2150
Lab Number: L2509893
Report Date: 02/26/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 128,624.1
Analytical Date: 02/25/25 08:22
Analyst: JKH

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG2033953-4					
Toluene	ND		ug/l	1.0	0.31
2-Butanone	ND		ug/l	10	1.0

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	96		60-140
Fluorobenzene	104		60-140
4-Bromofluorobenzene	104		60-140

Lab Control Sample Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: US0043268.2150

Lab Number: L2509893
Report Date: 02/26/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG2033953-3								
Toluene	130		-		70-130	-		41
2-Butanone	100		-		60-140	-		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Pentafluorobenzene	95				60-140
Fluorobenzene	106				60-140
4-Bromofluorobenzene	106				60-140

METALS

Project Name: SPS TECHNOLOGIES
Project Number: US0043268.2150
Lab Number: L2509893
Report Date: 02/26/25

SAMPLE RESULTS

Lab ID: L2509893-01
Client ID: SW5_022325
Sample Location: JENKINTOWN, PA
Date Collected: 02/23/25 09:20
Date Received: 02/23/25
Field Prep: Not Specified

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											
Chromium, Total	0.3750	J	ug/l	1.000	0.1780	1	02/25/25 07:02	02/25/25 14:12	EPA 3005A	3,200.8	MRC
Nickel, Total	8.525		ug/l	2.000	0.5560	1	02/25/25 07:02	02/25/25 14:12	EPA 3005A	3,200.8	MRC
Total Hardness (by calculation) - Mansfield Lab											
Hardness	214800		ug/l	540.0	NA	1	02/25/25 07:02	02/25/25 14:12	EPA 3005A	3,200.8	MRC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		ug/l	10.0	3.00	1		02/25/25 14:12	NA	107,-	

Project Name: SPS TECHNOLOGIES
Project Number: US0043268.2150
Lab Number: L2509893
Report Date: 02/26/25

SAMPLE RESULTS

Lab ID: L2509893-02
Client ID: SW4_022325
Sample Location: JENKINTOWN, PA
Date Collected: 02/23/25 10:15
Date Received: 02/23/25
Field Prep: Not Specified

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											
Chromium, Total	0.3384	J	ug/l	1.000	0.1780	1	02/25/25 07:02	02/25/25 14:27	EPA 3005A	3,200.8	MRC
Nickel, Total	15.00		ug/l	2.000	0.5560	1	02/25/25 07:02	02/25/25 14:27	EPA 3005A	3,200.8	MRC
Total Hardness (by calculation) - Mansfield Lab											
Hardness	230400		ug/l	540.0	NA	1	02/25/25 07:02	02/25/25 14:27	EPA 3005A	3,200.8	MRC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		ug/l	10.0	3.00	1		02/25/25 14:27	NA	107,-	

Project Name: SPS TECHNOLOGIES
Project Number: US0043268.2150
Lab Number: L2509893
Report Date: 02/26/25

SAMPLE RESULTS

Lab ID: L2509893-03
Client ID: SW3_022325
Sample Location: JENKINTOWN, PA
Date Collected: 02/23/25 11:15
Date Received: 02/23/25
Field Prep: Not Specified

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											
Chromium, Total	0.5217	J	ug/l	1.000	0.1780	1	02/25/25 07:02	02/25/25 14:32	EPA 3005A	3,200.8	MRC
Nickel, Total	23.39		ug/l	2.000	0.5560	1	02/25/25 07:02	02/25/25 14:32	EPA 3005A	3,200.8	MRC
Total Hardness (by calculation) - Mansfield Lab											
Hardness	245600		ug/l	540.0	NA	1	02/25/25 07:02	02/25/25 14:32	EPA 3005A	3,200.8	MRC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		ug/l	10.0	3.00	1		02/25/25 14:32	NA	107,-	

Project Name: SPS TECHNOLOGIES
Project Number: US0043268.2150
Lab Number: L2509893
Report Date: 02/26/25

SAMPLE RESULTS

Lab ID: L2509893-04
Client ID: SW2_022325
Sample Location: JENKINTOWN, PA
Date Collected: 02/23/25 12:20
Date Received: 02/23/25
Field Prep: Not Specified

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											
Chromium, Total	0.3917	J	ug/l	1.000	0.1780	1	02/25/25 07:02	02/25/25 14:36	EPA 3005A	3,200.8	MRC
Nickel, Total	0.9273	J	ug/l	2.000	0.5560	1	02/25/25 07:02	02/25/25 14:36	EPA 3005A	3,200.8	MRC
Total Hardness (by calculation) - Mansfield Lab											
Hardness	233000		ug/l	540.0	NA	1	02/25/25 07:02	02/25/25 14:36	EPA 3005A	3,200.8	MRC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		ug/l	10.0	3.00	1		02/25/25 14:36	NA	107,-	

Project Name: SPS TECHNOLOGIES
Project Number: US0043268.2150
Lab Number: L2509893
Report Date: 02/26/25

SAMPLE RESULTS

Lab ID: L2509893-05
Client ID: SW1_022325
Sample Location: JENKINTOWN, PA
Date Collected: 02/23/25 13:15
Date Received: 02/23/25
Field Prep: Not Specified

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											
Chromium, Total	0.3061	J	ug/l	1.000	0.1780	1	02/25/25 07:02	02/25/25 14:41	EPA 3005A	3,200.8	MRC
Nickel, Total	1.590	J	ug/l	2.000	0.5560	1	02/25/25 07:02	02/25/25 14:41	EPA 3005A	3,200.8	MRC
Total Hardness (by calculation) - Mansfield Lab											
Hardness	260900		ug/l	540.0	NA	1	02/25/25 07:02	02/25/25 14:41	EPA 3005A	3,200.8	MRC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		ug/l	10.0	3.00	1		02/25/25 14:41	NA	107,-	

Project Name: SPS TECHNOLOGIES
Project Number: US0043268.2150
Lab Number: L2509893
Report Date: 02/26/25

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): 01-05 Batch: WG2033692-1										
Chromium, Total	ND		ug/l	1.000	0.1780	1	02/25/25 07:02	02/25/25 14:03	3,200.8	MRC
Nickel, Total	ND		ug/l	2.000	0.5560	1	02/25/25 07:02	02/25/25 14:03	3,200.8	MRC

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): 01-05 Batch: WG2033692-1										
Hardness	ND		ug/l	540.0	NA	1	02/25/25 07:02	02/25/25 14:03	3,200.8	MRC

Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: US0043268.2150

Lab Number: L2509893
Report Date: 02/26/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG2033692-2								
Chromium, Total	99		-		85-115	-		
Nickel, Total	100		-		85-115	-		
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 01-05 Batch: WG2033692-2								
Hardness	92		-		85-115	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: US0043268.2150

Lab Number: L2509893
Report Date: 02/26/25

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): 01-05 QC Batch ID: WG2033692-3 QC Sample: L2509893-01 Client ID: SW5_022325												
Chromium, Total	0.3750J	200	191.1	96		-	-		70-130	-		20
Nickel, Total	8.525	500	495.6	97		-	-		70-130	-		20
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG2033692-3 QC Sample: L2509893-01 Client ID: SW5_022325												
Hardness	214800	66200	259300	**67**	Q	-	-		70-130	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: SPS TECHNOLOGIES

Project Number: US0043268.2150

Lab Number: L2509893

Report Date: 02/26/25

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG2033692-4 QC Sample: L2509893-01 Client ID: SW5_022325						
Chromium, Total	0.3750J	0.3227J	ug/l	NC		20
Nickel, Total	8.525	8.583	ug/l	1		20
Total Hardness (by calculation) - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG2033692-4 QC Sample: L2509893-01 Client ID: SW5_022325						
Hardness	214800	202700	ug/l	6		20

INORGANICS
&
MISCELLANEOUS

Project Name: SPS TECHNOLOGIES
Project Number: US0043268.2150

Lab Number: L2509893
Report Date: 02/26/25

SAMPLE RESULTS

Lab ID: L2509893-01
Client ID: SW5_022325
Sample Location: JENKINTOWN, PA

Date Collected: 02/23/25 09:20
Date Received: 02/23/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	36.1		ug/l	5.00	1.80	1	02/25/25 07:55	02/25/25 11:55	121,4500CN-CE	JER
Cyanide, Free	ND		ug/l	10.0	3.50	1	-	02/25/25 05:15	121,4500CN-E(M)	KAF
Oil & Grease, Hem-Grav	ND		ug/l	4000	4000	1	02/25/25 08:08	02/25/25 10:01	140,1664B	TPR
Chromium, Hexavalent	3.00	J	ug/l	10.0	3.00	1	02/25/25 06:52	02/25/25 07:09	121,3500CR-B	DMO

Project Name: SPS TECHNOLOGIES
Project Number: US0043268.2150

Lab Number: L2509893
Report Date: 02/26/25

SAMPLE RESULTS

Lab ID: L2509893-02
Client ID: SW4_022325
Sample Location: JENKINTOWN, PA

Date Collected: 02/23/25 10:15
Date Received: 02/23/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	26.6		ug/l	5.00	1.80	1	02/25/25 07:55	02/25/25 12:01	121,4500CN-CE	JER
Cyanide, Free	4.00	J	ug/l	10.0	3.50	1	-	02/25/25 05:15	121,4500CN-E(M)	KAF
Oil & Grease, Hem-Grav	ND		ug/l	4000	4000	1	02/25/25 08:08	02/25/25 10:03	140,1664B	TPR
Chromium, Hexavalent	ND		ug/l	10.0	3.00	1	02/25/25 06:52	02/25/25 07:10	121,3500CR-B	DMO

Project Name: SPS TECHNOLOGIES
Project Number: US0043268.2150

Lab Number: L2509893
Report Date: 02/26/25

SAMPLE RESULTS

Lab ID: L2509893-03
Client ID: SW3_022325
Sample Location: JENKINTOWN, PA

Date Collected: 02/23/25 11:15
Date Received: 02/23/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	51.5		ug/l	5.00	1.80	1	02/25/25 07:55	02/25/25 12:02	121,4500CN-CE	JER
Cyanide, Free	11.0		ug/l	10.0	3.50	1	-	02/25/25 05:15	121,4500CN-E(M)	KAF
Oil & Grease, Hem-Grav	10000		ug/l	4000	4000	1	02/25/25 08:08	02/25/25 10:13	140,1664B	TPR
Chromium, Hexavalent	ND		ug/l	10.0	3.00	1	02/25/25 06:52	02/25/25 07:11	121,3500CR-B	DMO

Project Name: SPS TECHNOLOGIES
Project Number: US0043268.2150

Lab Number: L2509893
Report Date: 02/26/25

SAMPLE RESULTS

Lab ID: L2509893-04
Client ID: SW2_022325
Sample Location: JENKINTOWN, PA

Date Collected: 02/23/25 12:20
Date Received: 02/23/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND		ug/l	5.00	1.80	1	02/25/25 07:55	02/25/25 12:03	121,4500CN-CE	JER
Cyanide, Free	ND		ug/l	10.0	3.50	1	-	02/25/25 05:15	121,4500CN-E(M)	KAF
Oil & Grease, Hem-Grav	ND		ug/l	4000	4000	1	02/25/25 08:08	02/25/25 10:15	140,1664B	TPR
Chromium, Hexavalent	ND		ug/l	10.0	3.00	1	02/25/25 06:52	02/25/25 07:12	121,3500CR-B	DMO

Project Name: SPS TECHNOLOGIES
Project Number: US0043268.2150

Lab Number: L2509893
Report Date: 02/26/25

SAMPLE RESULTS

Lab ID: L2509893-05
Client ID: SW1_022325
Sample Location: JENKINTOWN, PA

Date Collected: 02/23/25 13:15
Date Received: 02/23/25
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	2.14	J	ug/l	5.00	1.80	1	02/25/25 07:55	02/25/25 12:04	121,4500CN-CE	JER
Cyanide, Free	ND		ug/l	10.0	3.50	1	-	02/25/25 05:15	121,4500CN-E(M)	KAF
Oil & Grease, Hem-Grav	ND		ug/l	4000	4000	1	02/25/25 08:08	02/25/25 10:16	140,1664B	TPR
Chromium, Hexavalent	3.00	J	ug/l	10.0	3.00	1	02/25/25 06:52	02/25/25 07:13	121,3500CR-B	DMO

Project Name: SPS TECHNOLOGIES
Project Number: US0043268.2150
Lab Number: L2509893
Report Date: 02/26/25

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): 01-05 Batch: WG2033614-1										
Oil & Grease, Hem-Grav	ND		ug/l	4000	4000	1	02/24/25 22:22	02/25/25 00:43	140,1664B	IYM
General Chemistry - Westborough Lab for sample(s): 01-05 Batch: WG2033676-1										
Cyanide, Free	ND		ug/l	10.0	3.50	1	-	02/25/25 05:15	121,4500CN-E(M)	KAF
General Chemistry - Westborough Lab for sample(s): 01-05 Batch: WG2033677-1										
Chromium, Hexavalent	ND		ug/l	10.0	3.00	1	02/25/25 06:52	02/25/25 07:07	121,3500CR-B	DMO
General Chemistry - Westborough Lab for sample(s): 01-05 Batch: WG2033742-1										
Cyanide, Total	ND		ug/l	5.00	1.80	1	02/25/25 07:55	02/25/25 11:52	121,4500CN-CE	JER

Lab Control Sample Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: US0043268.2150

Lab Number: L2509893
Report Date: 02/26/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-05 Batch: WG2033614-2								
Oil & Grease, Hem-Grav	88		-		78-114	-		18
General Chemistry - Westborough Lab Associated sample(s): 01-05 Batch: WG2033676-2								
Cyanide, Free	97		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-05 Batch: WG2033677-2								
Chromium, Hexavalent	95		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-05 Batch: WG2033742-2								
Cyanide, Total	97		-		90-110	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: US0043268.2150

Lab Number: L2509893
Report Date: 02/26/25

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): 01-05 QC Batch ID: WG2033614-4 WG2033614-5 QC Sample: L2509865-01 Client ID: MS Sample												
Oil & Grease, Hem-Grav	ND	40800	39000	96		36000	89		78-114	8		18
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG2033676-4 WG2033676-5 QC Sample: L2509865-01 Client ID: MS Sample												
Cyanide, Free	5.00J	250	225	90		219	88		80-120	3		20
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG2033677-4 QC Sample: L2509992-01 Client ID: MS Sample												
Chromium, Hexavalent	ND	100	99.0	99		-	-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG2033742-3 QC Sample: L2509893-01 Client ID: SW5_022325												
Cyanide, Total	36.1	200	207	**85**	Q	-	-		90-110	-		30

Lab Duplicate Analysis

Batch Quality Control

Project Name: SPS TECHNOLOGIES
Project Number: US0043268.2150

Lab Number: L2509893
Report Date: 02/26/25

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG2033614-3 QC Sample: L2509865-01 Client ID: DUP Sample						
Oil & Grease, Hem-Grav	ND	ND	ug/l	NC		18
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG2033676-3 QC Sample: L2509865-01 Client ID: DUP Sample						
Cyanide, Free	5.00J	4.00J	ug/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG2033677-3 QC Sample: L2509992-01 Client ID: DUP Sample						
Chromium, Hexavalent	ND	ND	ug/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG2033742-4 QC Sample: L2509893-01 Client ID: SW5_022325						
Cyanide, Total	36.1	12.0	ug/l	**100**	Q	30

Project Name: SPS TECHNOLOGIES
Project Number: US0043268.2150

Lab Number: L2509893
Report Date: 02/26/25

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Present/Intact
B	Present/Intact

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2509893-01A	Vial Na2S2O3 preserved	B	NA		3.8	Y	Present/Intact		624.1(7)
L2509893-01B	Vial Na2S2O3 preserved	B	NA		3.8	Y	Present/Intact		624.1(7)
L2509893-01C	Vial Na2S2O3 preserved	B	NA		3.8	Y	Present/Intact		624.1(7)
L2509893-01D	Plastic 250ml HNO3 preserved	B	<2	<2	3.8	Y	Present/Intact		HARDT-2008-PPB(180),NI-2008T-PPB(180),CR-2008T-PPB(180)
L2509893-01E	Plastic 250ml NaOH preserved	B	>12	>12	3.8	Y	Present/Intact		TCN-4500-PPB(14)
L2509893-01F	Plastic 500ml unpreserved	B	7	7	3.8	Y	Present/Intact		HEXCR-3500-PPB(1),FCN-PPB(1)
L2509893-01G	Amber 1L HCl preserved	B	NA		3.8	Y	Present/Intact		OG-1664-PPB(28)
L2509893-01H	Amber 1L HCl preserved	B	NA		3.8	Y	Present/Intact		OG-1664-PPB(28)
L2509893-02A	Vial Na2S2O3 preserved	B	NA		3.8	Y	Present/Intact		624.1(7)
L2509893-02B	Vial Na2S2O3 preserved	B	NA		3.8	Y	Present/Intact		624.1(7)
L2509893-02C	Vial Na2S2O3 preserved	B	NA		3.8	Y	Present/Intact		624.1(7)
L2509893-02D	Plastic 250ml HNO3 preserved	B	<2	<2	3.8	Y	Present/Intact		HARDT-2008-PPB(180),NI-2008T-PPB(180),CR-2008T-PPB(180)
L2509893-02E	Plastic 250ml NaOH preserved	B	>12	>12	3.8	Y	Present/Intact		TCN-4500-PPB(14)
L2509893-02F	Plastic 500ml unpreserved	B	7	7	3.8	Y	Present/Intact		HEXCR-3500-PPB(1),FCN-PPB(1)
L2509893-02G	Amber 1L HCl preserved	B	NA		3.8	Y	Present/Intact		OG-1664-PPB(28)
L2509893-02H	Amber 1L HCl preserved	B	NA		3.8	Y	Present/Intact		OG-1664-PPB(28)
L2509893-03A	Vial Na2S2O3 preserved	B	NA		3.8	Y	Present/Intact		624.1(7)
L2509893-03B	Vial Na2S2O3 preserved	B	NA		3.8	Y	Present/Intact		624.1(7)
L2509893-03C	Vial Na2S2O3 preserved	B	NA		3.8	Y	Present/Intact		624.1(7)
L2509893-03D	Plastic 250ml HNO3 preserved	B	<2	<2	3.8	Y	Present/Intact		HARDT-2008-PPB(180),NI-2008T-PPB(180),CR-2008T-PPB(180)
L2509893-03E	Plastic 250ml NaOH preserved	B	>12	>12	3.8	Y	Present/Intact		TCN-4500-PPB(14)

*Values in parentheses indicate holding time in days

Project Name: SPS TECHNOLOGIES
Project Number: US0043268.2150

Lab Number: L2509893
Report Date: 02/26/25

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2509893-03F	Plastic 500ml unpreserved	B	7	7	3.8	Y	Present/Intact		HEXCR-3500-PPB(1),FCN-PPB(1)
L2509893-03G	Amber 1L HCl preserved	B	NA		3.8	Y	Present/Intact		OG-1664-PPB(28)
L2509893-03H	Amber 1L HCl preserved	B	NA		3.8	Y	Present/Intact		OG-1664-PPB(28)
L2509893-04A	Vial Na2S2O3 preserved	B	NA		3.8	Y	Present/Intact		624.1(7)
L2509893-04B	Vial Na2S2O3 preserved	B	NA		3.8	Y	Present/Intact		624.1(7)
L2509893-04C	Vial Na2S2O3 preserved	B	NA		3.8	Y	Present/Intact		624.1(7)
L2509893-04D	Plastic 250ml HNO3 preserved	A	<2	<2	4.4	Y	Present/Intact		HARDT-2008-PPB(180),NI-2008T-PPB(180),CR-2008T-PPB(180)
L2509893-04E	Plastic 250ml NaOH preserved	A	>12	>12	4.4	Y	Present/Intact		TCN-4500-PPB(14)
L2509893-04F	Plastic 500ml unpreserved	A	7	7	4.4	Y	Present/Intact		HEXCR-3500-PPB(1),FCN-PPB(1)
L2509893-04G	Amber 1L HCl preserved	A	NA		4.4	Y	Present/Intact		OG-1664-PPB(28)
L2509893-04H	Amber 1L HCl preserved	A	NA		4.4	Y	Present/Intact		OG-1664-PPB(28)
L2509893-05A	Vial Na2S2O3 preserved	B	NA		3.8	Y	Present/Intact		624.1(7)
L2509893-05B	Vial Na2S2O3 preserved	B	NA		3.8	Y	Present/Intact		624.1(7)
L2509893-05C	Vial Na2S2O3 preserved	B	NA		3.8	Y	Present/Intact		624.1(7)
L2509893-05D	Plastic 250ml HNO3 preserved	A	<2	<2	4.4	Y	Present/Intact		HARDT-2008-PPB(180),NI-2008T-PPB(180),CR-2008T-PPB(180)
L2509893-05E	Plastic 250ml NaOH preserved	A	>12	>12	4.4	Y	Present/Intact		TCN-4500-PPB(14)
L2509893-05F	Plastic 500ml unpreserved	A	7	7	4.4	Y	Present/Intact		HEXCR-3500-PPB(1),FCN-PPB(1)
L2509893-05G	Amber 1L HCl preserved	A	NA		4.4	Y	Present/Intact		OG-1664-PPB(28)
L2509893-05H	Amber 1L HCl preserved	A	NA		4.4	Y	Present/Intact		OG-1664-PPB(28)
L2509893-06A	Vial Na2S2O3 preserved	B	NA		3.8	Y	Present/Intact		624.1(7)
L2509893-06B	Vial Na2S2O3 preserved	B	NA		3.8	Y	Present/Intact		624.1(7)

*Values in parentheses indicate holding time in days

Project Name:	SPS TECHNOLOGIES	**Lab Number:**	L2509893
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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:**	L2509893
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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:**	L2509893
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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:** L2509893

Project Number: US0043268.2150 **Report Date:** 02/26/25

REFERENCES

3 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.

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

Date Rec'd in Lab: 2/25/25

L2509893 25FEB25
GOLDER – NJ

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: WSP USA, Inc.
Address: 10 Lake Center Drive Suite 205, Marlton, NJ 08053
Phone: 856-793-2005
Fax: 856-793-2006
Email: Tovah.Karl@wsp.com
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: SPS Technologies
Project Location: Jenkintown, PA
Project #: —
Project Manager: Tovah Karl
ALPHA Quote #:

Turn-Around Time

☐ Standard ☒ RUSH (only confirmed if pre-approved!)
Date Due: Time: 1 day (24-hr)

Report Information - Data Deliverables

☐ FAX ☐ EMAIL
☐ ADEx ☐ Add'l Deliverables

Regulatory Requirements/Report Limits

State /Fed Program	Criteria
PA	

Other Project Specific Requirements/Comments/Detection Limits:
Attorney-Client privileged & confidential

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Oil+Grease E1664B	Total Cyanide E335.4	Free Cyanide 9016	Total Nickel E200.8	Total Chromium E200.8	Speciated Hexavalent Chromium E218.6	MEK & Toluene E624.1	Sample Specific Comments	TOTAL # BOTTLES
09893-01	SW5_022325	2/23/25	0920	SW	JET	X	X	X	X	X	X	X	pH-6.55	8
-02	SW4_022325	2/23/25	1015	SW	JET	X	X	X	X	X	X	X	pH-6.98	8
-03	SW3_022325	2/23/25	1115	SW	JET	X	X	X	X	X	X	X	pH-7.29	8
-04	SW2_022325	2/23/25	1220	SW	JET	X	X	X	X	X	X	X	pH-7.96	8
-05	SW1_022325	2/23/25	1315	SW	JET	X	X	X	X	X	X	X	pH-7.42	8
-06	TBSW_022325	2/23/25	—	W	—							X		3

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

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

Relinquished By:	Date/Time	Received By:	Date/Time
Stacy Mason	2/23/25 16:10		2/23/25 16:10
	2/23/25		2/24/25 1430
	2/24/25		2/24/25 1841

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 Terms and Conditions. See reverse side.

FORM NO. 01-01 (rev. 14-OCT-07)

CUSTODY SEAL
Date 2/23/25
Signature

CUSTODY SEAL
Date 2/23/25
Signature

CUSTODY SEAL
Date 2/23/25
Signature

CUSTODY SEAL
Date 2/23/25
Signature