

Parametrix No. 553-1550-067

Ryan Gardiner, Project Manager
Washington State Department of Ecology
Toxics Cleanup Program
15700 Dayton Ave. N.
Shoreline, Washington 98133

Re: South Park Landfill First Quarter 2026 Progress Report

Dear Ryan:

This progress report provides an explanation of actions taken during the referenced period.

General Activities During the 2026 First Quarter

SRDS Property

- The old South Transfer Station seep area (compactor shed) remains fenced off and locked. All existing safeguards remain in place.
- Solid Waste Operations and Household Hazardous Waste (HHW) collection continued on the Seattle Public Utilities (SPU) old South Transfer Station property.
- No waste audits were performed on the SRDS property during the first quarter.
- Cap maintenance was performed, including asphalt repairs at locations identified during cap inspections.

CenterPoint South Park LLC Property

- The landfill gas system blowers continued to be remotely monitored.
- Routine operation and maintenance of the landfill gas system was conducted as scheduled during the quarter.
- Current tenants (Avis and MedLog) continued vehicle parking operations on CenterPoint property.
- Quarterly inspection of the methane alarms in the on-site building was conducted.
- Installation of interior fencing to separate the 3-acre yard for the new tenant (MedLog), including addition of an entry gate, began in January following material and scheduling delays. This work includes tying the existing electric fence into the new gate, which requires trenching for electrical connections. Trenching involved removal of the asphalt cap to a depth of up to approximately 18 inches; the trenches will be backfilled and the asphalt cap restored in accordance with applicable specifications.

Overall Settlement Parcels

- **First Quarter Compliance Monitoring**
 - SPU staff completed the first quarter compliance monitoring at the perimeter gas probes and groundwater wells.



- The Parametrix team reviewed all field measurements and completed associated data management tasks.
- The following summarizes first quarter 2026 monitoring activities and response actions related to elevated methane at supplemental gas probe GP-32S:
 - Monitoring of GP-32S continued during the first quarter in accordance with the Cleanup Action Plan (CAP) and prior direction from Ecology. Due to periodic groundwater conditions resulting in the probe being blocked, monitoring was conducted on a weekly basis when the probe was inaccessible, consistent with Ecology authorization. When accessible, daily monitoring resumed.
 - Indoor ambient air monitoring at the adjacent building was conducted monthly during the first quarter as a precautionary measure. Methane concentrations remained at background levels and well below applicable performance criteria, confirming continued protection of human health.
 - A technical memorandum evaluating GP-32S conditions and providing recommendations was submitted to Ecology on December 1, 2025. Ecology review is ongoing.
- **Cap Inspections**
 - The 2025 mid-year cap inspection was conducted in October. A report summarizing the findings is included as Appendix B1-B in the 2025 Operations, Maintenance, and Monitoring Annual Report submitted to Ecology on March 31, 2026.
- **Other Actions**
 - The Landfill Gas Monitoring Improvements and Maintenance technical memorandum documenting the installation of supplemental gas probes and other maintenance activities was prepared and is included as Appendix C3 in the 2025 Operations, Maintenance, and Monitoring Annual Report submitted to Ecology on March 31, 2026.

Deviations from Samples, Required Tasks, CAP, or Schedule

Monitoring at gas probe GP-32S deviated from CAP requirements during the first quarter due to groundwater levels rising above the screened interval, which periodically prevented collection of representative landfill gas measurements. As previously approved by Ecology, monitoring frequency was reduced from daily to weekly when the probe was not accessible.

Data Summary

Perimeter Gas Probes Monitoring

Monitoring Date: January 27, 2026

Conducted By: SPU

Two probes (GP-13 and GP-32) were blocked by water at the time of monitoring; therefore, the corresponding supplemental probes (GP-13S and GP-32S) were monitored.



One probe exceeded the regulatory action limit of 5% methane by volume. Methane was detected only at the following location:

Probe	CH4 (% by volume)	Blocked	Comments
GP-32S	17.7%	No	GP-32S has remained primarily blocked since December. Monitoring results collected outside of the quarterly event are reported separately.

The elevated methane concentration at GP-32S was previously evaluated in a technical memorandum submitted to Ecology on December 1, 2025. Ecology review of the recommendations is ongoing.

Quarterly monitoring data are provided in the attached records.

Groundwater Monitoring

Monitoring Dates: February 2-4, 2026

Conducted By: SPU

Laboratory Analysis: Performed by Analytical Resources, LLC

Data validation for the 2026 first quarter compliance monitoring event is complete. A trigger assessment for vinyl chloride has been completed and will be reported to Ecology in the 2026 annual report, consistent with recommendations provided in a technical memorandum submitted in January.

A draft groundwater quality data summary table, field sheets, and final laboratory reports are included as attachments.

Upcoming Activities

SRDS Property

- SPU has added significant scope changes to the STS Phase II project including combining stormwater treatment from the STS property to the SRDS property, larger trailer canopy, a combined electrical building, and crew quarters modifications. These changes resulted in numerous comments on the 90% permit design submittal from the Seattle Department of Construction and Inspections. Final design is now anticipated in the second quarter of 2026.
- No waste audits are anticipated for the second quarter of 2026 as of the date of this report.
- A previously identified underground water leak resulted in water service being shut off in 2025. The leak was isolated and repair or abandonment of the leaking water line will occur during STS Phase II construction.

CenterPoint Property

- Continue remote monitoring of the landfill gas system blowers.
- Complete second quarter 2026 operation and maintenance of the landfill gas system.



- Installation of interior fencing to separate larger lot (formerly occupied by First Student) into two lots and installation of new gate for the 3-acre area currently leased by MedLog. This includes trenching in the northwest corner of the 12-acre lot to connect the existing electric fence to the new gate. This project is anticipated to be completed in May. The electrical is currently pending inspection and then the trench will be backfilled and the asphalt cap repaired in accordance with applicable specifications.
- Perform maintenance of the geomembrane in areas where it is exposed, including re-establishment of soil cover and vegetation where erosion has occurred.

Overall Settlement Parcels

- Continue implementation of Ecology-approved monitoring actions for GP-32S, including modified monitoring frequency in response to groundwater conditions and periodic indoor air monitoring at the adjacent building as a precautionary measure.
- Continue coordination with Ecology regarding evaluation of GP-32S and potential next steps for long-term monitoring.
- SPU will conduct second quarter 2026 compliance monitoring.
- Conduct the 2026 annual cap inspection and verify completion of maintenance by property owners.

If you have any questions regarding this progress report, please do not hesitate to contact me.

Sincerely,

Parametrix



Laura B. Lee
Project Manager

cc: Mark Jusayan, SPU Solid Waste Capital Planning and Landfill Closure Program Manager
Min Soon Yim, SPU Landfill Manager
Ashley Piatek, CenterPoint Properties
Jeff Fowler, SPU, Solid Waste Line of Business Deputy Director
Susan Fife-Ferris, SPU, Solid Waste Line of Business/Solid Waste Planning Director
Megan J Joplin, SPU, Law Department, Attorney
Hui Yang, SPU, SRDS Redevelopment Project Manager
Lucie Harpster, SPU Solid Waste Transfer Station Manager



Attachments

- 1 Draft Groundwater Quality Data Summary, First Quarter 2026
- 2 Landfill Gas and Groundwater Compliance Monitoring Field Sheets, First Quarter 2026
- 3 First Quarter 2026 Groundwater Laboratory Data

Attachment 1

Draft Groundwater Quality
Data Summary,
First Quarter 2026

Groundwater Quality Data Summary, First Quarter 2026, South Park Landfill

			Upgradient Wells			Downgradient Wells											Trip Blanks				
			A-Zone			Perched Zone	A-Zone						B-Zone								
			MW-12	MW-14	MW-29		MW-30 ¹	MW-25	MW-26	MW-27	MW-61 (MW-27 Dup)	MW-31 ^{1,2}	MW-32 ³	MW-33 ³	MW-08	MW-10	MW-60 (MW-10 Dup)	MW-18 ³	MW-24	MW-80	MW-81
Parameter	Units	Cleanup Level	2/3/26	2/3/26	2/2/26	2/4/26	2/3/26	2/4/26	2/4/26	2/4/26	2/2/26	2/2/26	2/4/26	2/3/26	2/3/26	2/4/26	2/2/26	2/3/26	2/4/26		
Field Parameters																					
Temperature	C		12.2	14.2	12.3	12.6	14.0	12.9	12.2	--	14.1	13.7	14.6	12.3	13.8	--	14.0	12.6	--	--	--
Dissolved Oxygen	mg/L		0.51	0.10	0.09	0.20	0.10	0.54	0.11	--	0.18	0.10	0.13	0.13	0.09	--	0.12	0.11	--	--	--
Specific Conductivity	µS/cm		440.8	538	762	427.6	1146	199.4	479.0	--	512	946	1226	1311	1501	--	542	1030	--	--	--
pH	units		6.12	6.52	6.69	6.19	6.49	6.15	6.40	--	6.36	6.75	6.84	6.63	6.69	--	6.69	6.42	--	--	--
Redox	mv		132.5	-18.2	-96.5	35.0	-66.4	39.5	-23.7	--	-22.5	-109.9	-135.3	-61.8	-113.7	--	-60.5	-68.8	--	--	--
Turbidity	NTU		5.40	40.4	23.2	4.87	8.49	9.13	15.2	--	12.3	8.50	7.80	4.75	4.77	--	1.83	1.13	--	--	--
Metals																					
Iron, Total	mg/L	27 A-Zone	0.180	4.02	16.8	2.92	31.9	4.63	11.0	11.2	19.1	13.1	11.5	--	--	--	--	--	--	--	--
		31 B-Zone	--	--	--	--	--	--	--	--	--	--	--	15.0	29.8	31.4	14.0	25.8	--	--	--
Manganese, Total	mg/L	2.2	0.0358	1.07	0.572	0.0821	2.62	0.0556	0.471	0.442	0.770	1.28	1.54	1.00	1.82	1.93	0.707	1.55	--	--	--
Volatile Organic Compounds																					
Vinyl Chloride	µg/L	0.29	0.0200 U	0.0200 U	0.0551	0.140	0.523	0.174	0.109	0.111	0.670	0.298	0.272	0.0757	0.336	0.350	0.0531	0.0423	0.0200 U	0.0200 U	0.0200 U
Cis-1,2-Dichloroethene	µg/L	16	0.20 U	0.20 U	0.20 U	0.31	0.20 U	0.38	0.20 U	0.20 U	0.20 U	0.49	0.20 U	0.20 U	0.89	0.93	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U

Notes:

- ¹ MW 30 and MW-31 monitor the former Glitsa property and are not CPOC wells.
- ² MW-31 is not a CPOC well, but is considered in vinyl chloride trigger condition 2 (the trend trigger).
- ³ MW 18 is completed in refuse along the downgradient edge of the Landfill; MW 32 and MW 33 are completed beneath refuse along the downgradient edge.

█ = Exceeds cleanup level for CPOC wells

-- = Not analyzed

U = The analyte was analyzed for but was not detected above the reported sample quantitation limit.

Abbreviations:

- µg/L Micrograms per liter
- mg/L Milligrams per liter
- µS/cm Microsiemens per centimeter
- NTU Nephelometric Turbidity unit
- CPOC Conditional point of compliance

Attachment 2

Landfill Gas and Groundwater
Compliance Monitoring Field
Sheets,
First Quarter 2026

South Park Landfill
First Quarter 2026 Gas Probe Monitoring Data

Date	Time	Probe	By	CH4 %	CO2 %	O2 %	SP In/Wc	BP In/Hg	Blocked	Comment
1/27/2026	9:45	GP03	TS/WY	0	4.5	13.5	0.04	30.12	FALSE	
1/27/2026	11:34	GP07	TS/WY	0	1.3	20.1	0.05	30.12	FALSE	
1/27/2026	9:05	GP09	TS/WY	0	7.5	12.9	0	30.12	FALSE	
1/27/2026	10:22	GP11	TS/WY	0	0.2	21.9	0.04	30.12	FALSE	
1/27/2026	9:32	GP13	TS/WY	0	2.4	16.9	-11.24	30.12	TRUE	blocked by water in 174 sec purge
1/27/2026	9:37	GP13S	TS/WY	0	2.1	20	0.08	30.12	FALSE	60 sec purge
1/27/2026	10:11	GP15	TS/WY	0	0.1	22.1	-0.95	30.12	FALSE	
1/27/2026	11:00	GP16	TS/WY	0	5	15.4	0.05	30.12	FALSE	
1/27/2026	11:47	GP23	TS/WY	0	6.3	14.7	0.08	30.12	FALSE	
1/27/2026	8:45	GP26	TS/WY	0	1.7	19.5	0.01	30.12	FALSE	
1/27/2026	11:22	GP27	TS/WY	0	9.6	0.4	0.06	30.12	FALSE	
1/27/2026	11:14	GP28	TS/WY	0	0.1	21.8	0.05	30.12	FALSE	
1/27/2026	11:04	GP29	TS/WY	0	13.5	1.1	-0.04	30.12	FALSE	
1/27/2026	10:42	GP31	TS/WY	0	4.3	10.7	-0.01	30.12	FALSE	
1/27/2026	9:51	GP32	TS/WY	0	0.1	20	0.04	30.12	TRUE	blocked by water in 15 sec purge
1/27/2026	9:57	GP32S	TS/WY	17.7	10.1	8.1	0.18	30.12	FALSE	220 sec purge
1/27/2026	8:56	GP33	TS/WY	0	0.9	20.3	-0.07	30.12	FALSE	
1/27/2026	9:14	GP37	TS/WY	0	8.6	5.1	0.04	30.12	FALSE	
1/27/2026	9:23	GP38	TS/WY	0	12.3	4.6	0.02	30.12	FALSE	

Water Level Measurement Field Report

DATE:	02/02/2026	JOB NO. 553-1550-067			
PROJECT: South Park Landfill		CLIENT: Seattle Public Utilities			
LOCATION: Seattle, WA					
WEATHER	TEMP	45	° at	8:14	AM
Rain		47	° at	10:00	AM
PRESENT AT SITE	T. Steimel	D. Favill	W. Yu		

THE FOLLOWING WAS NOTED:

WELL NUMBER	Time	Measured Depth to Water (ft from TOC or SG level)	Total Measured Well Depth (ft from TOC)	Measuring Point	Total Well Depth (ft bgs)	Screen Interval (ft bgs)	SU (ft)
MW-12	9:55	5.19		TOC	15.3	10 - 15	1.52
MW-14	8:47	2.23		TOC	21.8	11.5 - 21.5	0.8
MW-29	9:00	6.25		TOC	30	20 - 30	-0.29
MW-18	9:05	14.70		TOC	40.4	30 - 40	1.25
MW-25	8:38	13.28		TOC	27	22 - 27	2.79
MW-32	8:30	10.24		TOC	24	19 - 24	-0.44
MW-33	8:25	10.39		TOC	25	20 - 25	-0.47
MW-26	9:37	9.02		TOC	25	15 - 25	2.39
MW-27	9:44	7.68		TOC	20	10 - 20	2.04
MW-10	8:40	12.57		TOC	45	35 - 45	1.65
MW-24	9:35	8.24		TOC	45.3	35 - 45	1.56
MW-08	9:42	7.68		TOC	45.6	35.5 – 45.5	1.88
MW-30	9:27	9.37		TOC	13	8 - 13	-0.53
MW-31	9:29	10.45		TOC	23	18 - 23	-0.46

Comments:

TOC – top of PVC casing SG – staff gauge

SIGNED: _____

stop purging at 13:50 to allow truck traffic inside the tentant space. Resume purging at 13:57

Turbidity readings appeared to be "stuck/hung up" at 44.2 NTU for the 2nd and 3rd readings.
Troubleshooted and re-calibrated the turbidity meter and readings returned normal.

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number:		Turn-around Requested:			Date: 02/02/2026		 Analytical Resources, Incorporated Analytical Chemists and Consultants 4611 South 134th Place, Suite 100 Tukwila, WA 98168 206-695-6200 206-695-6201 (fax)								
ARI Client Company: City of Seattle/ Seattle Public Utilities		Phone: (206) 233-2629			Page: of										
Client Contact: Shannon Straws, Laura Lee(Lblee@parametrix.com)					No. of Coolers: Cooler Temps:										
Client Project Name: South Park Landfill - Groundwater Sampling					Analysis Requested							Notes/Comments			
Client Project #: 553-1550-067		Samplers: T. Steimel D. Favill W. Yu			cis-1,2-DCE	Vinyl Chloride	Total FE, MN							Mark for MS/MSD	
Sample ID	Date	Time	Matrix	No. Containers											
SPL-GW-MW33-0226	2/2/2026	11:00	Water	7				3	3	1					
SPL-GW-MW32-0226	2/2/2026	12:20	Water	7				3	3	1					
SPL-GW-MW29-0226	2/2/2026	14:25	Water	7				3	3	1					
SPL-GW-MW80-0226	2/2/2026		Water	4				2	2						
Comments/Special Instructions					Relinquished by: (Signature) <i>WY</i>		Received by: (Signature) <i>Sarah</i>		Relinquished by:		Received by:				
					Printed Name: Wilson Yu		Printed Name: Sarah Spector		Printed Name:		Printed Name:				
					Company: SPU/K-H landfill		Company: ARLCC		Company:		Company:				
					Date & Time: 2/2/2026 14:57		Date & Time: 2-2-26 14:58		Date & Time:		Date & Time:				

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability

Sample Retention Policy: Unless specified by workorder or contract, all water/soil samples submitted to ARI will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer. Sediment s

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number:		Turn-around Requested:		Date: 02/03/2026		 Analytical Resources, Incorporated Analytical Chemists and Consultants 4611 South 134th Place, Suite 100 Tukwila, WA 98168 206-695-6200 206-695-6201 (fax)			
ARI Client Company: City of Seattle/ Seattle Public Utilities		Phone: (206) 233-2629		Page: of					
Client Contact: Shannon Straws, Laura Lee(Lblee@parametrix.com)				No. of Coolers: 2-8 Cooler Temps:					
Client Project Name: South Park Landfill - Groundwater Sampling				Analysis Requested				Notes/Comments	
Client Project #: 553-1550-067		Samplers: T. Steimel D. Favill W. Yu		cis-1,2-DCE	Vinyl Chloride	Total FE, MN		Mark for MS/MSD	
Sample ID	Date	Time	Matrix	No. Containers					
SPL-GW-MW10-0226	2/3/2026	9:05	Water	13	6	6	1	MS/MSD	
SPL-GW-MW60-0226	2/3/2026	9:35	Water	7	3	3	1		
SPL-GW-MW25-0226	2/3/2026	9:50	Water	7	3	3	1		
SPL-GW-MW12-0226	2/3/2026	11:10	Water	7	3	3	1		
SPL-GW-MW14-0226	2/3/2026	12:40	Water	7	3	3	1		
SPL-GW-MW18-0226	2/3/2026	13:35	Water	7	3	3	1		
SPL-GW-MW81-0226	2/3/2026		Water	4	2	2			
Comments/Special Instructions				Relinquished by: (Signature) <i>W Yu</i>		Received by: (Signature) <i>Sarah</i>		Relinquished by: (Signature)	
				Printed Name: Wilson Yu		Printed Name: Sarah Spector		Printed Name:	
				Company: SPU/K-H landfill		Company: AR LLC		Company:	
				Date & Time: 2/3/2026 14:39		Date & Time: 2-3-26 14:40		Date & Time:	

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability

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Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number:		Turn-around Requested:			Date: 02/04/2026				 Analytical Resources, Incorporated Analytical Chemists and Consultants 4611 South 134th Place, Suite 100 Tukwila, WA 98168 206-695-6200 206-695-6201 (fax)				
ARI Client Company:		Phone:			Page: of								
City of Seattle/ Seattle Public Utilities		(206) 233-2629											
Client Contact:					No. of Coolers:				Cooler Temps: 4.3				
Shannon Straws, Laura Lee(Lblee@parametrix.com)													
Client Project Name:					Analysis Requested								Notes/Comments
South Park Landfill - Groundwater Sampling					cis-1,2-DCE	Vinyl Chloride	Total FE, MN						Mark for MS/MSD
Client Project #:													
553-1550-067		Samplers:											
		T. Steimel D. Favill W. Yu											
Sample ID	Date	Time	Matrix	No. Containers									
SPL-GW-MW08-0226	2/4/2026	11:00	Water	7	3	3	1						
SPL-GW-MW24-0226	2/4/2026	9:00	Water	7	3	3	1						
SPL-GW-MW26-0226	2/4/2026	9:50	Water	7	3	3	1						
SPL-GW-MW27-0226	2/4/2026	12:35	Water	13	6	6	1						MS/MSD
SPL-GW-MW61-0226	2/4/2026	13:05	Water	7	3	3	1						
SPL-GW-MW30-0226	2/4/2026	14:55	Water	7	3	3	1						
SPL-GW-MW31-0226	2/4/2026	14:05	Water	7	3	3	1						
SPL-GW-MW82-0226	2/4/2026		Water	4	2	2							
Comments/Special Instructions					Relinquished by:		Received by:		Relinquished by:		Received by:		
					(Signature) <i>Wilson Yu</i>		(Signature) <i>Sydney Acevedo</i>		(Signature)		(Signature)		
					Printed Name:		Printed Name:		Printed Name:		Printed Name:		
					Wilson Yu		Sydney Acevedo						
					Company:		Company:		Company:		Company:		
					SPU/K-H landfill		ARLLC						
					Date & Time:		Date & Time:		Date & Time:		Date & Time:		
					2/4/2026 15:33		2/4/26 1533						

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability

Sample Retention Policy: Unless specified by workorder or contract, all water/soil samples submitted to ARI will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer. Sediment s

Attachment 3

First Quarter 2026

Groundwater Laboratory Data



Analytical Resources, LLC
Analytical Chemists and Consultants
Tukwila, WA

09 February 2026

Min-Soon Yim
Seattle Public Utilities
700-5th Ave, Ste 4900, Box 34018
Seattle, WA 98124-4018

RE: South Park Landfill -Parametrix Water (553-155-067)

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)
26B0019

Associated SDG ID(s)
N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Kelly Bottem, Client Services Manager



Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: 26B0019		Turn-around Requested:		Date: 02/02/2026		 Analytical Resources, Incorporated Analytical Chemists and Consultants 4611 South 134th Place, Suite 100 Tukwila, WA 98168 206-695-6200 206-695-6201 (fax)						
ARI Client Company: City of Seattle/ Seattle Public Utilities		Phone: (206) 233-2629		Page: of								
Client Contact: Shannon Straws, Laura Lee(Lblee@parametrix.com)		No. of Coolers:		Cooler Temps:								
Client Project Name: South Park Landfill - Groundwater Sampling				Analysis Requested						Notes/Comments		
Client Project #: 553-1550-067		Samplers: T. Steimel D. Favill W. Yu			cis-1,2-DCE	Vinyl Chloride	Total FE, MN					Mark for MS/MSD
Sample ID	Date	Time	Matrix	No. Containers								
SPL-GW-MW33-0226	2/2/2026	11:00	Water	7	3	3	1					
SPL-GW-MW32-0226	2/2/2026	12:20	Water	7	3	3	1					
SPL-GW-MW29-0226	2/2/2026	14:25	Water	7	3	3	1					
SPL-GW-MW80-0226	2/2/2026		Water	4	2	2						
Comments/Special Instructions				Relinquished by: (Signature) WBY		Received by: (Signature) Sarah		Relinquished by: (Signature)		Received by: (Signature)		
				Printed Name: Wilson Yu		Printed Name: Sarah Spector		Printed Name:		Printed Name:		
				Company: SPU/K-H landfill		Company: ARLCC		Company:		Company:		
				Date & Time: 2/2/2026 14:57		Date & Time: 2-2-26 14:58		Date & Time:		Date & Time:		

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Seattle Public Utilities

700-5th Ave, Ste 4900, Box 34018

Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water

Project Number: 553-155-067

Project Manager: Min-Soon Yim

Reported:

09-Feb-2026 13:23

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SPL-GW-MW33-0226	26B0019-01	Water	02-Feb-2026 11:00	02-Feb-2026 14:58
SPL-GW-MW32-0226	26B0019-02	Water	02-Feb-2026 12:20	02-Feb-2026 14:58
SPL-GW-MW29-0226	26B0019-03	Water	02-Feb-2026 14:25	02-Feb-2026 14:58
SPL-GW-MW80-0226	26B0019-04	Water	02-Feb-2026 11:00	02-Feb-2026 14:58



Seattle Public Utilities
700-5th Ave, Ste 4900, Box 34018
Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-155-067
Project Manager: Min-Soon Yim

Reported:
09-Feb-2026 13:23

Work Order Case Narrative

Client: Seattle Public Utilities
Project: South Park Landfill -Parametrix Water
Work Order: 26B0019

Sample receipt

Samples as listed on the preceding page were received 02-Feb-2026 14:58 under ARI work order 26B0019. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Volatiles - EPA Method SW8260D

The sample(s) were analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries and relative percent difference (RPD) were within control limits.

Volatiles - EPA Method 8260D-SIM (Selected Ion Monitoring)

The sample(s) were analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries and relative percent difference (RPD) were within control limits.

Total Metals - EPA Method 6020B

The sample(s) were digested and analyzed within the recommended holding times.

Initial and continuing calibrations including interference checks were within method requirements for reported elements.

The method blank(s) were clean at the reporting limits.



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Reported:

09-Feb-2026 13:23

The blank spike (BS/LCS) percent recoveries were within control limits.



WORK ORDER

26B0019

Client: Seattle Public Utilities

Project Manager: Kelly Bottem

Project: South Park Landfill -Parametrix Water

Project Number: 553-155-067

Preservation Confirmation

Container ID	Container Type	pH	pH Paper Lot#: <u>N000119</u>
26B0019-01 A	HDPE NM, 250mL HNO3	<u>L2P</u>	
26B0019-01 B	VOA Vial, Clear, 40 mL, HCL		
26B0019-01 C	VOA Vial, Clear, 40 mL, HCL		
26B0019-01 D	VOA Vial, Clear, 40 mL, HCL		
26B0019-01 E	VOA Vial, Clear, 40 mL		
26B0019-01 F	VOA Vial, Clear, 40 mL		
26B0019-01 G	VOA Vial, Clear, 40 mL		
26B0019-02 A	HDPE NM, 250mL HNO3	<u>L2P</u>	
26B0019-02 B	VOA Vial, Clear, 40 mL, HCL		
26B0019-02 C	VOA Vial, Clear, 40 mL, HCL		
26B0019-02 D	VOA Vial, Clear, 40 mL, HCL		
26B0019-02 E	VOA Vial, Clear, 40 mL		
26B0019-02 F	VOA Vial, Clear, 40 mL		
26B0019-02 G	VOA Vial, Clear, 40 mL		
26B0019-03 A	HDPE NM, 250mL HNO3	<u>L2P</u>	
26B0019-03 B	VOA Vial, Clear, 40 mL, HCL		
26B0019-03 C	VOA Vial, Clear, 40 mL, HCL		
26B0019-03 D	VOA Vial, Clear, 40 mL, HCL		
26B0019-03 E	VOA Vial, Clear, 40 mL		
26B0019-03 F	VOA Vial, Clear, 40 mL		
26B0019-03 G	VOA Vial, Clear, 40 mL		
26B0019-04 A	VOA Vial, Clear, 40 mL, HCL		
26B0019-04 B	VOA Vial, Clear, 40 mL, HCL		
26B0019-04 C	VOA Vial, Clear, 40 mL		
26B0019-04 D	VOA Vial, Clear, 40 mL		

SA
Preservation Confirmed By

2/2/26
Date



Cooler Receipt Form

ARI Client: Seattle Public Utilities

Project Name: South Park Landfill

COC No(s): _____ (NA)

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: 26B0019

Tracking No: _____ (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler? YES (NO)
Were custody papers included with the cooler? YES NO
Were custody papers properly filled out (ink, signed, etc.) YES NO
Temperature of Cooler(s) (°C) Time 14:58 3.5 Temp Gun ID#: 9708
Was a temperature blank included in the cooler? YES (NO)
Were coolers received between 0°- 6° (°C) YES NO
Was an attempt made to cool the samples? NA YES NO

Cooler Accepted by: SS Date: 2-2-26 Time: 14:58

Complete custody forms and attach all shipping documents

Log-In Phase:

What kind of packing material was used? Bubble Wrap Wet Ice Gel Packs Baggies Foam Block N/A Other: _____
Are any samples that were out of temperature compliance documented in LIMS? YES (NO)
How were bottles sealed in plastic bags? Individually Grouped Not
Did all bottles arrive in good condition (unbroken)? YES NO
Were all bottle labels complete and legible? YES NO
Did the number of containers listed on COC match with the number of containers received? YES NO
Did all bottle labels and tags agree with custody papers? YES NO
Were all bottles used correct for the requested analyses? YES NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ... NA YES NO
Were all VOC vials free of air bubbles? NA YES NO
Was sufficient amount of sample sent in each bottle? YES NO
Date VOC Trip Blank was made at ARI: _____ (NA)
Were the sample(s) split by ARI? (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: SA Date: 2/2/26 Time: 1514 Labels checked by: SA

**** Notify Project Manager of discrepancies or concerns ****

Additional Notes, Discrepancies, & Resolutions:

By: _____ Date: _____



Seattle Public Utilities
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Project: South Park Landfill -Parametrix Water
Project Number: 553-155-067
Project Manager: Min-Soon Yim

Reported:
09-Feb-2026 13:23

SPL-GW-MW33-0226
26B0019-01 (Water)

Volatile Organic Compounds

Method: EPA 8260D

Sampled: 02/02/2026 11:00

Instrument: NT3 Analyst: FCL

Analyzed: 02/02/2026 17:54

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 26B0019-01 B

Preparation Batch: BOB0017

Sample Size: 10 mL

Prepared: 02/02/2026

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
cis-1,2-Dichloroethene	156-59-2	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			80-129 %	95.3	%	



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Reported:
09-Feb-2026 13:23

SPL-GW-MW33-0226
26B0019-01 (Water)

Volatile Organic Compounds - SIM

Method: EPA 8260D-SIM

Sampled: 02/02/2026 11:00

Instrument: NT16 Analyst: LTN

Analyzed: 02/03/2026 10:08

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 26B0019-01 E

Preparation Batch: BOB0042

Sample Size: 10 mL

Prepared: 02/03/2026

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl chloride	75-01-4	1	0.0200	0.272	ug/L	
Surrogate: 1,2-Dichloroethane-d4			80-129 %	104	%	



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Reported:
09-Feb-2026 13:23

SPL-GW-MW33-0226
26B0019-01 (Water)

Metals and Metallic Compounds

Method: EPA 6020B	Sampled: 02/02/2026 11:00
Instrument: ICPMS1 Analyst: HAL	Analyzed: 02/03/2026 23:37
Sample Preparation:	Preparation Method: REN - EPA 3010A M
	Preparation Batch: BOB0038
	Prepared: 02/03/2026
	Sample Size: 25 mL
	Final Volume: 25 mL
	Extract ID: 26B0019-01 A 01

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Iron	7439-89-6	1	0.0360	11.5	mg/L	



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Reported:
09-Feb-2026 13:23

SPL-GW-MW33-0226
26B0019-01RE1 (Water)

Metals and Metallic Compounds

Method: EPA 6020B

Sampled: 02/02/2026 11:00

Instrument: ICPMS1 Analyst: HAL

Analyzed: 02/05/2026 17:27

Sample Preparation:

Preparation Method: REN - EPA 3010A M

Extract ID: 26B0019-01RE1 A 01

Preparation Batch: BOB0038

Sample Size: 25 mL

Prepared: 02/03/2026

Final Volume: 25 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Manganese	7439-96-5	50	0.0500	1.54	mg/L	D



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Project Number: 553-155-067
Project Manager: Min-Soon Yim

Reported:
09-Feb-2026 13:23

SPL-GW-MW32-0226
26B0019-02 (Water)

Volatile Organic Compounds

Method: EPA 8260D	Sampled: 02/02/2026 12:20
Instrument: NT3 Analyst: FCL	Analyzed: 02/02/2026 18:16
Sample Preparation:	Preparation Method: EPA 5030C (Purge and Trap)
	Preparation Batch: BOB0017
	Sample Size: 10 mL
	Prepared: 02/02/2026
	Final Volume: 10 mL
	Extract ID: 26B0019-02 B

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
cis-1,2-Dichloroethene	156-59-2	1	0.20	0.49	ug/L	
Surrogate: 1,2-Dichloroethane-d4			80-129 %	89.0	%	



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Project: South Park Landfill -Parametrix Water
Project Number: 553-155-067
Project Manager: Min-Soon Yim

Reported:
09-Feb-2026 13:23

SPL-GW-MW32-0226
26B0019-02 (Water)

Volatile Organic Compounds - SIM

Method: EPA 8260D-SIM

Sampled: 02/02/2026 12:20

Instrument: NT16 Analyst: LTN

Analyzed: 02/03/2026 10:29

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 26B0019-02 E

Preparation Batch: BOB0042

Sample Size: 10 mL

Prepared: 02/03/2026

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl chloride	75-01-4	1	0.0200	0.298	ug/L	
Surrogate: 1,2-Dichloroethane-d4			80-129 %	105	%	



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Project Manager: Min-Soon Yim

Reported:

09-Feb-2026 13:23

SPL-GW-MW32-0226

26B0019-02 (Water)

Metals and Metallic Compounds

Method: EPA 6020B

Sampled: 02/02/2026 12:20

Instrument: ICPMS1 Analyst: HAL

Analyzed: 02/03/2026 23:42

Sample Preparation:

Preparation Method: REN - EPA 3010A M

Extract ID: 26B0019-02 A 01

Preparation Batch: BOB0038

Sample Size: 25 mL

Prepared: 02/03/2026

Final Volume: 25 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Iron	7439-89-6	1	0.0360	13.1	mg/L	



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Reported:

09-Feb-2026 13:23

SPL-GW-MW32-0226

26B0019-02RE1 (Water)

Metals and Metallic Compounds

Method: EPA 6020B

Sampled: 02/02/2026 12:20

Instrument: ICPMS1 Analyst: HAL

Analyzed: 02/05/2026 00:05

Sample Preparation:

Preparation Method: REN - EPA 3010A M

Extract ID: 26B0019-02RE1 A 01

Preparation Batch: BOB0038

Sample Size: 25 mL

Prepared: 02/03/2026

Final Volume: 25 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Manganese	7439-96-5	10	0.0100	1.28	mg/L	D



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Reported:
09-Feb-2026 13:23

SPL-GW-MW29-0226
26B0019-03 (Water)

Volatile Organic Compounds

Method: EPA 8260D	Sampled: 02/02/2026 14:25
Instrument: NT3 Analyst: FCL	Analyzed: 02/02/2026 18:39
Sample Preparation:	Preparation Method: EPA 5030C (Purge and Trap)
	Preparation Batch: BOB0017
	Sample Size: 10 mL
	Prepared: 02/02/2026
	Final Volume: 10 mL
	Extract ID: 26B0019-03 B

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
cis-1,2-Dichloroethene	156-59-2	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			80-129 %	94.0	%	



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Reported:
09-Feb-2026 13:23

SPL-GW-MW29-0226
26B0019-03 (Water)

Volatile Organic Compounds - SIM

Method: EPA 8260D-SIM

Sampled: 02/02/2026 14:25

Instrument: NT16 Analyst: LTN

Analyzed: 02/03/2026 10:49

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 26B0019-03 E

Preparation Batch: BOB0042

Sample Size: 10 mL

Prepared: 02/03/2026

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl chloride	75-01-4	1	0.0200	0.0551	ug/L	
Surrogate: 1,2-Dichloroethane-d4			80-129 %	105	%	



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Reported:
09-Feb-2026 13:23

SPL-GW-MW29-0226
26B0019-03 (Water)

Metals and Metallic Compounds

Method: EPA 6020B	Sampled: 02/02/2026 14:25
Instrument: ICPMS1 Analyst: HAL	Analyzed: 02/03/2026 23:47
Sample Preparation:	Extract ID: 26B0019-03 A 01
Preparation Method: REN - EPA 3010A M	
Preparation Batch: BOB0038	Sample Size: 25 mL
Prepared: 02/03/2026	Final Volume: 25 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Iron	7439-89-6	1	0.0360	16.8	mg/L	



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Reported:
09-Feb-2026 13:23

SPL-GW-MW29-0226
26B0019-03RE1 (Water)

Metals and Metallic Compounds

Method: EPA 6020B

Sampled: 02/02/2026 14:25

Instrument: ICPMS1 Analyst: HAL

Analyzed: 02/05/2026 00:10

Sample Preparation:

Preparation Method: REN - EPA 3010A M

Extract ID: 26B0019-03RE1 A 01

Preparation Batch: BOB0038

Sample Size: 25 mL

Prepared: 02/03/2026

Final Volume: 25 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Manganese	7439-96-5	10	0.0100	0.572	mg/L	D



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Reported:
09-Feb-2026 13:23

SPL-GW-MW80-0226
26B0019-04 (Water)

Volatile Organic Compounds

Method: EPA 8260D	Sampled: 02/02/2026 11:00
Instrument: NT3 Analyst: FCL	Analyzed: 02/02/2026 19:01
Sample Preparation:	Preparation Method: EPA 5030C (Purge and Trap)
	Preparation Batch: BOB0017
	Sample Size: 10 mL
	Prepared: 02/02/2026
	Final Volume: 10 mL
	Extract ID: 26B0019-04 A

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
cis-1,2-Dichloroethene	156-59-2	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			80-129 %	87.5	%	



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Reported:
09-Feb-2026 13:23

SPL-GW-MW80-0226
26B0019-04 (Water)

Volatile Organic Compounds - SIM

Method: EPA 8260D-SIM

Sampled: 02/02/2026 11:00

Instrument: NT16 Analyst: LTN

Analyzed: 02/03/2026 09:47

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 26B0019-04 D

Preparation Batch: BOB0042

Sample Size: 10 mL

Prepared: 02/03/2026

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl chloride	75-01-4	1	0.0200	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			80-129 %	99.1	%	



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Reported:
09-Feb-2026 13:23

Analysis by: Analytical Resources, LLC

Volatile Organic Compounds - Quality Control

Batch BOB0017 - EPA 8260D in Water

Instrument: NT3 Analyst: FCL

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Blank (BOB0017-BLK1) Prepared: 02-Feb-2026 Analyzed: 02-Feb-2026 13:01									
cis-1,2-Dichloroethene	ND	0.20	ug/L						U
Surrogate: 1,2-Dichloroethane-d4	6.04		ug/L	6.25		96.6 80-129			
LCS (BOB0017-BS1) Prepared: 02-Feb-2026 Analyzed: 02-Feb-2026 11:01									
cis-1,2-Dichloroethene	9.98	0.20	ug/L	10.0		99.8 80-121			
Surrogate: 1,2-Dichloroethane-d4	5.78		ug/L	6.25		92.5 80-129			
LCS Dup (BOB0017-BSD1) Prepared: 02-Feb-2026 Analyzed: 02-Feb-2026 11:45									
cis-1,2-Dichloroethene	9.59	0.20	ug/L	10.0		95.9 80-121	4.03	30	
Surrogate: 1,2-Dichloroethane-d4	5.69		ug/L	6.25		91.0 80-129			



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Reported:
09-Feb-2026 13:23

Analysis by: Analytical Resources, LLC

Volatile Organic Compounds - SIM - Quality Control

Batch BOB0042 - EPA 8260D-SIM in Water

Instrument: NT16 Analyst: LTN

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Blank (BOB0042-BLK1) Prepared: 03-Feb-2026 Analyzed: 03-Feb-2026 08:57									
Vinyl chloride	ND	0.0200	ug/L						U
Surrogate: 1,2-Dichloroethane-d4	6370		ug/L	6250		102 80-129			
LCS (BOB0042-BS1) Prepared: 03-Feb-2026 Analyzed: 03-Feb-2026 08:15									
Vinyl chloride	1.86	0.0200	ug/L	2.00		92.8 62-141			
Surrogate: 1,2-Dichloroethane-d4	6660		ug/L	6250		107 80-129			
LCS Dup (BOB0042-BSD1) Prepared: 03-Feb-2026 Analyzed: 03-Feb-2026 08:36									
Vinyl chloride	2.01	0.0200	ug/L	2.00		100 62-141	7.88	30	
Surrogate: 1,2-Dichloroethane-d4	6630		ug/L	6250		106 80-129			



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Project Number: 553-155-067
Project Manager: Min-Soon Yim

Reported:
09-Feb-2026 13:23

Analysis by: Analytical Resources, LLC

Metals and Metallic Compounds - Quality Control

Batch BOB0038 - EPA 6020B in Water

Instrument: ICPMS1 Analyst: HAL

QC Sample/Analyte	Isotope	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BOB0038-BLK1)			Prepared: 03-Feb-2026 Analyzed: 03-Feb-2026 17:49								
Iron	54	ND	0.0360	mg/L							U
Manganese	55	ND	0.00100	mg/L							U
Blank (BOB0038-BLK2)			Prepared: 03-Feb-2026 Analyzed: 04-Feb-2026 17:51								
Iron	54	ND	0.0360	mg/L							U
Manganese	55	ND	0.00100	mg/L							U
LCS (BOB0038-BS1)			Prepared: 03-Feb-2026 Analyzed: 03-Feb-2026 17:54								
Iron	54	5.13	0.0360	mg/L	5.00		103	80-120			
Manganese	55	0.0253	0.00100	mg/L	0.0250		101	80-120			
LCS (BOB0038-BS2)			Prepared: 03-Feb-2026 Analyzed: 04-Feb-2026 17:56								
Iron	54	5.20	0.0360	mg/L	5.00		104	80-120			
Manganese	55	0.0256	0.00100	mg/L	0.0250		102	80-120			



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Project Number: 553-155-067

Project Manager: Min-Soon Yim

Reported:

09-Feb-2026 13:23

Uncertified Analytes included in this Report

Analysis Matrix & Analyte

None

Certified Analyses included in this Report

Analysis Matrix & Analyte

Certification Codes

EPA 6020B in Water

Iron-54 NELAP,DoD-ELAP,WADOE

Manganese-55 NELAP,DoD-ELAP,WADOE

EPA 8260D in Water

cis-1,2-Dichloroethene ADEC,NELAP,WADOE,DoD-ELAP

EPA 8260D-SIM in Water

Vinyl chloride NELAP,WADOE

Certifications

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	02/28/2026
NELAP	ORELAP - Oregon Laboratory Accreditation Program	WA100006-018	05/12/2026
WADOE	WA Dept of Ecology	C558	06/30/2026



Seattle Public Utilities

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Project: South Park Landfill -Parametrix Water

Project Number: 553-155-067

Project Manager: Min-Soon Yim

Reported:

09-Feb-2026 13:23

Notes and Definitions

*	Flagged value is not within established control limits.
B	This analyte was detected in the method blank.
D	The reported value is from a dilution
J	Estimated concentration value detected below the reporting limit.
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
[2C]	Indicates this result was quantified on the second column on a dual column analysis.
!	Indicates that ARL is NOT ACCREDITED for this parameter in samples logged as 'Drinking Water'
#	Indicates that ARL is NOT ACCREDITED for this parameter in this analysis and matrix.



Analytical Resources, LLC
Analytical Chemists and Consultants
Tukwila, WA

09 February 2026

Min-Soon Yim
Seattle Public Utilities
700-5th Ave, Ste 4900, Box 34018
Seattle, WA 98124-4018

RE: South Park Landfill -Parametrix Water (553-1550-067)

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)
26B0051

Associated SDG ID(s)
N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Kelly Bottem, Client Services Manager



Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: 26B0051		Turn-around Requested:		Date: 02/03/2026				 Analytical Resources, Incorporated Analytical Chemists and Consultants 4611 South 134th Place, Suite 100 Tukwila, WA 98168 206-695-6200 206-695-6201 (fax)					
ARI Client Company: City of Seattle/ Seattle Public Utilities		Phone: (206) 233-2629		Page: of									
Client Contact: Shannon Straws, Laura Lee(Lblee@parametrix.com)				No. of Coolers: Cooler Temps: 2.8									
Client Project Name: South Park Landfill - Groundwater Sampling					Analysis Requested								Notes/Comments
Client Project #: 553-1550-067		Samplers: T. Steimel D. Favill W. Yu			cis-1,2-DCE	Vinyl Chloride	Total FE, MN						Mark for MS/MSD
Sample ID	Date	Time	Matrix	No. Containers									
SPL-GW-MW10-0226	2/3/2026	9:05	Water	13	6	6	1						MS/MSD
SPL-GW-MW60-0226	2/3/2026	9:35	Water	7	3	3	1						
SPL-GW-MW25-0226	2/3/2026	9:50	Water	7	3	3	1						
SPL-GW-MW12-0226	2/3/2026	11:10	Water	7	3	3	1						
SPL-GW-MW14-0226	2/3/2026	12:40	Water	7	3	3	1						
SPL-GW-MW18-0226	2/3/2026	13:35	Water	7	3	3	1						
SPL-GW-MW81-0226	2/3/2026		Water	4	2	2							
Comments/Special Instructions		Relinquished by: (Signature) <i>Wily</i>			Received by: (Signature) <i>Sarah</i>			Relinquished by: (Signature)			Received by: (Signature)		
		Printed Name: Wilson Yu			Printed Name: Sarah Spector			Printed Name:			Printed Name:		
		Company: SPU/K-H landfill			Company: AR LLC			Company:			Company:		
		Date & Time: 2/3/2026 14:39			Date & Time: 2-3-26 14:40			Date & Time:			Date & Time:		

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability

Sample Retention Policy: Unless specified by workorder or contract, all water/soil samples submitted to ARI will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer. Sediment s



Seattle Public Utilities

700-5th Ave, Ste 4900, Box 34018

Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water

Project Number: 553-1550-067

Project Manager: Min-Soon Yim

Reported:

09-Feb-2026 13:58

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SPL-GW-MW10-0226	26B0051-01	Water	03-Feb-2026 09:05	03-Feb-2026 14:40
SPL-GW-MW60-0226	26B0051-02	Water	03-Feb-2026 09:35	03-Feb-2026 14:40
SPL-GW-MW25-0226	26B0051-03	Water	03-Feb-2026 09:50	03-Feb-2026 14:40
SPL-GW-MW12-0226	26B0051-04	Water	03-Feb-2026 11:10	03-Feb-2026 14:40
SPL-GW-MW14-0226	26B0051-05	Water	03-Feb-2026 12:40	03-Feb-2026 14:40
SPL-GW-MW18-0226	26B0051-06	Water	03-Feb-2026 13:35	03-Feb-2026 14:40
SPL-GW-MW81-0226	26B0051-07	Water	03-Feb-2026 09:05	03-Feb-2026 14:40



Seattle Public Utilities
700-5th Ave, Ste 4900, Box 34018
Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-1550-067
Project Manager: Min-Soon Yim

Reported:
09-Feb-2026 13:58

Work Order Case Narrative

Client: Seattle Public Utilities
Project: South Park Landfill -Parametrix Water
Work Order: 26B0051

Sample receipt

Samples as listed on the preceding page were received 03-Feb-2026 14:40 under ARI work order 26B0051. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Volatiles - EPA Method SW8260D

The sample(s) were analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries and relative percent difference (RPD) were within control limits.

The matrix spike/matrix spike duplicate (MS/MSD) spike recoveries and relative percent difference (RPD) were within advisory control limits.

Volatiles - EPA Method 8260D-SIM (Selected Ion Monitoring)

The sample(s) were analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries and relative percent difference (RPD) were within control limits.

The matrix spike/matrix spike duplicate (MS/MSD) percent recoveries and relative percent difference (RPD) were within advisory control limits.

Total Metals - EPA Method 6020B

The sample(s) were digested and analyzed within the recommended holding times.



Seattle Public Utilities

700-5th Ave, Ste 4900, Box 34018

Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water

Project Number: 553-1550-067

Project Manager: Min-Soon Yim

Reported:

09-Feb-2026 13:58

Initial and continuing calibrations were within method requirements.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

The matrix spike (MS) percent recoveries and the duplicate (DUP) relative percent difference (RPD) were within advisory control limits with the exception of analytes flagged on the associated forms.



WORK ORDER

26B0051

Client: Seattle Public Utilities

Project Manager: Kelly Bottem

Project: South Park Landfill -Parametrix Water

Project Number: 553-1550-067

Preservation Confirmation

Container ID	Container Type	pH	pH Paper Lot#: <u>NOV0119</u>
26B0051-01 A	HDPE NM, 250mL HNO3	<2 P	
26B0051-01 B	VOA Vial, Clear, 40 mL, HCL		
26B0051-01 C	VOA Vial, Clear, 40 mL, HCL		
26B0051-01 D	VOA Vial, Clear, 40 mL, HCL		
26B0051-01 E	VOA Vial, Clear, 40 mL, HCL		
26B0051-01 F	VOA Vial, Clear, 40 mL, HCL		
26B0051-01 G	VOA Vial, Clear, 40 mL, HCL		
26B0051-01 H	VOA Vial, Clear, 40 mL		
26B0051-01 I	VOA Vial, Clear, 40 mL		
26B0051-01 J	VOA Vial, Clear, 40 mL		
26B0051-01 K	VOA Vial, Clear, 40 mL		
26B0051-01 L	VOA Vial, Clear, 40 mL		
26B0051-01 M	VOA Vial, Clear, 40 mL		
26B0051-02 A	HDPE NM, 250mL HNO3	<2 P	
26B0051-02 B	VOA Vial, Clear, 40 mL, HCL		
26B0051-02 C	VOA Vial, Clear, 40 mL, HCL		
26B0051-02 D	VOA Vial, Clear, 40 mL, HCL		
26B0051-02 E	VOA Vial, Clear, 40 mL		
26B0051-02 F	VOA Vial, Clear, 40 mL		
26B0051-02 G	VOA Vial, Clear, 40 mL		
26B0051-03 A	HDPE NM, 250mL HNO3	<2 P	
26B0051-03 B	VOA Vial, Clear, 40 mL, HCL		
26B0051-03 C	VOA Vial, Clear, 40 mL, HCL		
26B0051-03 D	VOA Vial, Clear, 40 mL, HCL		
26B0051-03 E	VOA Vial, Clear, 40 mL		
26B0051-03 F	VOA Vial, Clear, 40 mL		
26B0051-03 G	VOA Vial, Clear, 40 mL		
26B0051-04 A	HDPE NM, 250mL HNO3	<2 P	
26B0051-04 B	VOA Vial, Clear, 40 mL, HCL		
26B0051-04 C	VOA Vial, Clear, 40 mL, HCL		
26B0051-04 D	VOA Vial, Clear, 40 mL, HCL		
26B0051-04 E	VOA Vial, Clear, 40 mL		



WORK ORDER

26B0051

Client: Seattle Public Utilities

Project Manager: Kelly Bottem

Project: South Park Landfill - Parametrix Water

Project Number: 553-1550-067

26B0051-04 F	VOA Vial, Clear, 40 mL	
26B0051-04 G	VOA Vial, Clear, 40 mL	
26B0051-05 A	HDPE NM, 250mL HNO3	<2 P
26B0051-05 B	VOA Vial, Clear, 40 mL, HCL	
26B0051-05 C	VOA Vial, Clear, 40 mL, HCL	
26B0051-05 D	VOA Vial, Clear, 40 mL, HCL	
26B0051-05 E	VOA Vial, Clear, 40 mL	
26B0051-05 F	VOA Vial, Clear, 40 mL	
26B0051-05 G	VOA Vial, Clear, 40 mL	
26B0051-06 A	HDPE NM, 250mL HNO3	<2 P
26B0051-06 B	VOA Vial, Clear, 40 mL, HCL	
26B0051-06 C	VOA Vial, Clear, 40 mL, HCL	
26B0051-06 D	VOA Vial, Clear, 40 mL, HCL	
26B0051-06 E	VOA Vial, Clear, 40 mL	
26B0051-06 F	VOA Vial, Clear, 40 mL	
26B0051-06 G	VOA Vial, Clear, 40 mL	
26B0051-07 A	VOA Vial, Clear, 40 mL, HCL	
26B0051-07 B	VOA Vial, Clear, 40 mL, HCL	
26B0051-07 C	VOA Vial, Clear, 40 mL	
26B0051-07 D	VOA Vial, Clear, 40 mL	

NDT

Preservation Confirmed By

02/03/26

Date



Cooler Receipt Form

ARI Client: City of Seattle/SPU
COC No(s): 26B0051 NA
Assigned ARI Job No: 26B0051

Project Name: South Park Landfill
Delivered by: Fed-Ex UPS Courier Hand Delivered Other: NA
Tracking No: NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler? YES NO
Were custody papers included with the cooler? YES YES NO
Were custody papers properly filled out (ink, signed, etc.) YES YES NO
Temperature of Cooler(s) (°C) Time 14:40 28 Temp Gun ID#: 7708
Was a temperature blank included in the cooler? YES NO
Were coolers received between 0° - 6° (°C) YES YES NO
Was an attempt made to cool the samples? NA YES NO
Cooler Accepted by: SS Date: 2-3-26 Time: 14:40

Complete custody forms and attach all shipping documents

Log-In Phase:

What kind of packing material was used? Bubble Wrap Wet Ice Gel Packs Baggies Foam Block N/A Other: NA
Are any samples that were out of temperature compliance documented in LIMS? YES NO
How were bottles sealed in plastic bags? Individually Grouped Not
Did all bottles arrive in good condition (unbroken)? YES YES NO
Were all bottle labels complete and legible? YES YES NO
Did the number of containers listed on COC match with the number of containers received? YES YES NO
Did all bottle labels and tags agree with custody papers? YES YES NO
Were all bottles used correct for the requested analyses? YES YES NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ... NA YES NO
Were all VOC vials free of air bubbles? NA YES NO
Was sufficient amount of sample sent in each bottle? NDT YES NO
Date VOC Trip Blank was made at ARI: NA 01/09/26
Were the sample(s) split by ARI? NA YES Date/Time: _____ Equipment: _____ Split by: _____
Samples Logged by: NDT Date: 02/03/26 Time: 1503 Labels checked by: NDT

**** Notify Project Manager of discrepancies or concerns ****

Additional Notes, Discrepancies, & Resolutions:

By: _____

Date: _____



Seattle Public Utilities
700-5th Ave, Ste 4900, Box 34018
Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-1550-067
Project Manager: Min-Soon Yim

Reported:
09-Feb-2026 13:58

SPL-GW-MW10-0226
26B0051-01 (Water)

Volatile Organic Compounds

Method: EPA 8260D

Sampled: 02/03/2026 09:05

Instrument: NT20 Analyst: FCL

Analyzed: 02/04/2026 11:59

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 26B0051-01 B

Preparation Batch: BOB0068

Sample Size: 10 mL

Prepared: 02/04/2026

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
cis-1,2-Dichloroethene	156-59-2	1	0.20	0.89	ug/L	
Surrogate: 1,2-Dichloroethane-d4			80-129 %	89.1	%	



Seattle Public Utilities
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Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-1550-067
Project Manager: Min-Soon Yim

Reported:
09-Feb-2026 13:58

SPL-GW-MW10-0226
26B0051-01 (Water)

Volatile Organic Compounds - SIM

Method: EPA 8260D-SIM

Sampled: 02/03/2026 09:05

Instrument: NT16 Analyst: LTN

Analyzed: 02/04/2026 10:49

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 26B0051-01 H

Preparation Batch: BOB0074

Sample Size: 10 mL

Prepared: 02/04/2026

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl chloride	75-01-4	1	0.0200	0.336	ug/L	
Surrogate: 1,2-Dichloroethane-d4			80-129 %	111	%	



Seattle Public Utilities

700-5th Ave, Ste 4900, Box 34018

Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water

Project Number: 553-1550-067

Project Manager: Min-Soon Yim

Reported:

09-Feb-2026 13:58

SPL-GW-MW10-0226

26B0051-01 (Water)

Metals and Metallic Compounds

Method: EPA 6020B

Sampled: 02/03/2026 09:05

Instrument: ICPMS1 Analyst: HAL

Analyzed: 02/04/2026 21:46

Sample Preparation:

Preparation Method: REN - EPA 3010A M

Extract ID: 26B0051-01 A 01

Preparation Batch: BOB0064

Sample Size: 25 mL

Prepared: 02/04/2026

Final Volume: 25 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Iron	7439-89-6	20	0.720	29.8	mg/L	D
Manganese	7439-96-5	20	0.0200	1.82	mg/L	D



Seattle Public Utilities
700-5th Ave, Ste 4900, Box 34018
Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-1550-067
Project Manager: Min-Soon Yim

Reported:
09-Feb-2026 13:58

SPL-GW-MW60-0226
26B0051-02 (Water)

Volatile Organic Compounds

Method: EPA 8260D	Sampled: 02/03/2026 09:35
Instrument: NT20 Analyst: FCL	Analyzed: 02/04/2026 12:22
Sample Preparation:	Preparation Method: EPA 5030C (Purge and Trap)
	Preparation Batch: BOB0068
	Prepared: 02/04/2026
	Sample Size: 10 mL
	Final Volume: 10 mL
	Extract ID: 26B0051-02 B

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
cis-1,2-Dichloroethene	156-59-2	1	0.20	0.93	ug/L	
Surrogate: 1,2-Dichloroethane-d4			80-129 %	92.6	%	



Seattle Public Utilities
700-5th Ave, Ste 4900, Box 34018
Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-1550-067
Project Manager: Min-Soon Yim

Reported:
09-Feb-2026 13:58

SPL-GW-MW60-0226
26B0051-02 (Water)

Volatile Organic Compounds - SIM

Method: EPA 8260D-SIM

Sampled: 02/03/2026 09:35

Instrument: NT16 Analyst: LTN

Analyzed: 02/04/2026 11:10

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 26B0051-02 E

Preparation Batch: BOB0074

Sample Size: 10 mL

Prepared: 02/04/2026

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl chloride	75-01-4	1	0.0200	0.350	ug/L	
Surrogate: 1,2-Dichloroethane-d4			80-129 %	110	%	



Seattle Public Utilities
700-5th Ave, Ste 4900, Box 34018
Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-1550-067
Project Manager: Min-Soon Yim

Reported:
09-Feb-2026 13:58

SPL-GW-MW60-0226
26B0051-02 (Water)

Metals and Metallic Compounds

Method: EPA 6020B	Sampled: 02/03/2026 09:35
Instrument: ICPMS1 Analyst: HAL	Analyzed: 02/04/2026 21:22
Sample Preparation:	Preparation Method: REN - EPA 3010A M
	Preparation Batch: BOB0064
	Prepared: 02/04/2026
	Sample Size: 25 mL
	Final Volume: 25 mL
	Extract ID: 26B0051-02 A 01

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Iron	7439-89-6	20	0.720	31.4	mg/L	D
Manganese	7439-96-5	20	0.0200	1.93	mg/L	D



Seattle Public Utilities
700-5th Ave, Ste 4900, Box 34018
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Project: South Park Landfill -Parametrix Water
Project Number: 553-1550-067
Project Manager: Min-Soon Yim

Reported:
09-Feb-2026 13:58

SPL-GW-MW25-0226
26B0051-03 (Water)

Volatile Organic Compounds

Method: EPA 8260D	Sampled: 02/03/2026 09:50
Instrument: NT20 Analyst: FCL	Analyzed: 02/04/2026 12:45
Sample Preparation:	Preparation Method: EPA 5030C (Purge and Trap)
	Preparation Batch: BOB0068
	Sample Size: 10 mL
	Prepared: 02/04/2026
	Final Volume: 10 mL
	Extract ID: 26B0051-03 B

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
cis-1,2-Dichloroethene	156-59-2	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			80-129 %	90.1	%	



Seattle Public Utilities
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Project: South Park Landfill -Parametrix Water
Project Number: 553-1550-067
Project Manager: Min-Soon Yim

Reported:
09-Feb-2026 13:58

SPL-GW-MW25-0226
26B0051-03 (Water)

Volatile Organic Compounds - SIM

Method: EPA 8260D-SIM

Sampled: 02/03/2026 09:50

Instrument: NT16 Analyst: LTN

Analyzed: 02/04/2026 11:31

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 26B0051-03 E

Preparation Batch: BOB0074

Sample Size: 10 mL

Prepared: 02/04/2026

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl chloride	75-01-4	1	0.0200	0.523	ug/L	
Surrogate: 1,2-Dichloroethane-d4			80-129 %	112	%	



Seattle Public Utilities
700-5th Ave, Ste 4900, Box 34018
Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-1550-067
Project Manager: Min-Soon Yim

Reported:
09-Feb-2026 13:58

SPL-GW-MW25-0226
26B0051-03 (Water)

Metals and Metallic Compounds

Method: EPA 6020B	Sampled: 02/03/2026 09:50
Instrument: ICPMS1 Analyst: HAL	Analyzed: 02/04/2026 21:27
Sample Preparation:	Preparation Method: REN - EPA 3010A M
	Preparation Batch: BOB0064
	Prepared: 02/04/2026
	Sample Size: 25 mL
	Final Volume: 25 mL
	Extract ID: 26B0051-03 A 01

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Iron	7439-89-6	20	0.720	31.9	mg/L	D
Manganese	7439-96-5	20	0.0200	2.62	mg/L	D



Seattle Public Utilities
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Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-1550-067
Project Manager: Min-Soon Yim

Reported:
09-Feb-2026 13:58

SPL-GW-MW12-0226
26B0051-04 (Water)

Volatile Organic Compounds

Method: EPA 8260D	Sampled: 02/03/2026 11:10
Instrument: NT20 Analyst: FCL	Analyzed: 02/04/2026 13:08
Sample Preparation:	Preparation Method: EPA 5030C (Purge and Trap)
	Preparation Batch: BOB0068
	Sample Size: 10 mL
	Prepared: 02/04/2026
	Final Volume: 10 mL
	Extract ID: 26B0051-04 B

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
cis-1,2-Dichloroethene	156-59-2	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			80-129 %	90.5	%	



Seattle Public Utilities
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Project: South Park Landfill -Parametrix Water
Project Number: 553-1550-067
Project Manager: Min-Soon Yim

Reported:
09-Feb-2026 13:58

SPL-GW-MW12-0226
26B0051-04 (Water)

Volatile Organic Compounds - SIM

Method: EPA 8260D-SIM

Sampled: 02/03/2026 11:10

Instrument: NT16 Analyst: LTN

Analyzed: 02/04/2026 11:52

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 26B0051-04 E

Preparation Batch: BOB0074

Sample Size: 10 mL

Prepared: 02/04/2026

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl chloride	75-01-4	1	0.0200	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			80-129 %	109	%	



Seattle Public Utilities
700-5th Ave, Ste 4900, Box 34018
Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-1550-067
Project Manager: Min-Soon Yim

Reported:
09-Feb-2026 13:58

SPL-GW-MW12-0226
26B0051-04 (Water)

Metals and Metallic Compounds

Method: EPA 6020B	Sampled: 02/03/2026 11:10
Instrument: ICPMS1 Analyst: HAL	Analyzed: 02/04/2026 21:32
Sample Preparation:	Preparation Method: REN - EPA 3010A M
	Preparation Batch: BOB0064
	Prepared: 02/04/2026
	Sample Size: 25 mL
	Final Volume: 25 mL
	Extract ID: 26B0051-04 A 01

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Iron	7439-89-6	5	0.180	0.180	mg/L	D
Manganese	7439-96-5	5	0.00500	0.0358	mg/L	D



Seattle Public Utilities
700-5th Ave, Ste 4900, Box 34018
Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-1550-067
Project Manager: Min-Soon Yim

Reported:
09-Feb-2026 13:58

SPL-GW-MW14-0226
26B0051-05 (Water)

Volatile Organic Compounds

Method: EPA 8260D	Sampled: 02/03/2026 12:40
Instrument: NT20 Analyst: FCL	Analyzed: 02/04/2026 13:32
Sample Preparation:	Preparation Method: EPA 5030C (Purge and Trap)
	Preparation Batch: BOB0068
	Sample Size: 10 mL
	Prepared: 02/04/2026
	Final Volume: 10 mL
	Extract ID: 26B0051-05 B

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
cis-1,2-Dichloroethene	156-59-2	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			80-129 %	91.4	%	



Seattle Public Utilities
700-5th Ave, Ste 4900, Box 34018
Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-1550-067
Project Manager: Min-Soon Yim

Reported:
09-Feb-2026 13:58

SPL-GW-MW14-0226
26B0051-05 (Water)

Volatile Organic Compounds - SIM

Method: EPA 8260D-SIM

Sampled: 02/03/2026 12:40

Instrument: NT16 Analyst: LTN

Analyzed: 02/04/2026 12:13

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 26B0051-05 E

Preparation Batch: BOB0074

Sample Size: 10 mL

Prepared: 02/04/2026

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl chloride	75-01-4	1	0.0200	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			80-129 %	110	%	



Seattle Public Utilities

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Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water

Project Number: 553-1550-067

Project Manager: Min-Soon Yim

Reported:

09-Feb-2026 13:58

SPL-GW-MW14-0226

26B0051-05 (Water)

Metals and Metallic Compounds

Method: EPA 6020B

Sampled: 02/03/2026 12:40

Instrument: ICPMS1 Analyst: HAL

Analyzed: 02/04/2026 21:36

Sample Preparation:

Preparation Method: REN - EPA 3010A M

Extract ID: 26B0051-05 A 01

Preparation Batch: BOB0064

Sample Size: 25 mL

Prepared: 02/04/2026

Final Volume: 25 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Iron	7439-89-6	20	0.720	4.02	mg/L	D
Manganese	7439-96-5	20	0.0200	1.07	mg/L	D



Seattle Public Utilities
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Project: South Park Landfill -Parametrix Water
Project Number: 553-1550-067
Project Manager: Min-Soon Yim

Reported:
09-Feb-2026 13:58

SPL-GW-MW18-0226
26B0051-06 (Water)

Volatile Organic Compounds

Method: EPA 8260D	Sampled: 02/03/2026 13:35
Instrument: NT20 Analyst: FCL	Analyzed: 02/04/2026 13:55
Sample Preparation:	Preparation Method: EPA 5030C (Purge and Trap)
	Preparation Batch: BOB0068
	Sample Size: 10 mL
	Prepared: 02/04/2026
	Final Volume: 10 mL
	Extract ID: 26B0051-06 B

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
cis-1,2-Dichloroethene	156-59-2	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			80-129 %	92.4	%	



Seattle Public Utilities
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Project: South Park Landfill -Parametrix Water
Project Number: 553-1550-067
Project Manager: Min-Soon Yim

Reported:
09-Feb-2026 13:58

SPL-GW-MW18-0226
26B0051-06 (Water)

Volatile Organic Compounds - SIM

Method: EPA 8260D-SIM

Sampled: 02/03/2026 13:35

Instrument: NT16 Analyst: LTN

Analyzed: 02/04/2026 12:34

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 26B0051-06 E

Preparation Batch: BOB0074

Sample Size: 10 mL

Prepared: 02/04/2026

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl chloride	75-01-4	1	0.0200	0.0531	ug/L	
Surrogate: 1,2-Dichloroethane-d4			80-129 %	112	%	



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Project: South Park Landfill -Parametrix Water
Project Number: 553-1550-067
Project Manager: Min-Soon Yim

Reported:
09-Feb-2026 13:58

SPL-GW-MW18-0226
26B0051-06 (Water)

Metals and Metallic Compounds

Method: EPA 6020B	Sampled: 02/03/2026 13:35
Instrument: ICPMS1 Analyst: HAL	Analyzed: 02/04/2026 21:41
Sample Preparation:	Preparation Method: REN - EPA 3010A M
	Preparation Batch: BOB0064
	Prepared: 02/04/2026
	Sample Size: 25 mL
	Final Volume: 25 mL
	Extract ID: 26B0051-06 A 01

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Iron	7439-89-6	20	0.720	14.0	mg/L	D
Manganese	7439-96-5	20	0.0200	0.707	mg/L	D



Seattle Public Utilities
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Project: South Park Landfill -Parametrix Water
Project Number: 553-1550-067
Project Manager: Min-Soon Yim

Reported:
09-Feb-2026 13:58

SPL-GW-MW81-0226
26B0051-07 (Water)

Volatile Organic Compounds

Method: EPA 8260D	Sampled: 02/03/2026 09:05
Instrument: NT20 Analyst: FCL	Analyzed: 02/04/2026 11:36
Sample Preparation:	Preparation Method: EPA 5030C (Purge and Trap)
	Preparation Batch: BOB0068
	Prepared: 02/04/2026
	Sample Size: 10 mL
	Final Volume: 10 mL
	Extract ID: 26B0051-07 B

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
cis-1,2-Dichloroethene	156-59-2	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			80-129 %	87.6	%	



Seattle Public Utilities
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Project: South Park Landfill -Parametrix Water
Project Number: 553-1550-067
Project Manager: Min-Soon Yim

Reported:
09-Feb-2026 13:58

SPL-GW-MW81-0226
26B0051-07 (Water)

Volatile Organic Compounds - SIM

Method: EPA 8260D-SIM

Sampled: 02/03/2026 09:05

Instrument: NT16 Analyst: LTN

Analyzed: 02/04/2026 10:28

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 26B0051-07 C

Preparation Batch: BOB0074

Sample Size: 10 mL

Prepared: 02/04/2026

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl chloride	75-01-4	1	0.0200	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			80-129 %	107	%	



Seattle Public Utilities
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Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-1550-067
Project Manager: Min-Soon Yim

Reported:
09-Feb-2026 13:58

Analysis by: Analytical Resources, LLC

Volatile Organic Compounds - Quality Control

Batch BOB0068 - EPA 8260D in Water

Instrument: NT20 Analyst: FCL

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BOB0068-BLK1)		Prepared: 04-Feb-2026 Analyzed: 04-Feb-2026 11:13								
cis-1,2-Dichloroethene	ND	0.20	ug/L							U
Surrogate: 1,2-Dichloroethane-d4	5.24		ug/L	6.25		83.9	80-129			
LCS (BOB0068-BS1)		Prepared: 04-Feb-2026 Analyzed: 04-Feb-2026 08:53								
cis-1,2-Dichloroethene	9.13	0.20	ug/L	10.0		91.3	80-121			
Surrogate: 1,2-Dichloroethane-d4	5.11		ug/L	6.25		81.7	80-129			
LCS Dup (BOB0068-BSD1)		Prepared: 04-Feb-2026 Analyzed: 04-Feb-2026 09:39								
cis-1,2-Dichloroethene	9.49	0.20	ug/L	10.0		94.9	80-121	3.90	30	
Surrogate: 1,2-Dichloroethane-d4	5.24		ug/L	6.25		83.8	80-129			
Matrix Spike (BOB0068-MS1)		Source: 26B0051-01		Prepared: 04-Feb-2026 Analyzed: 04-Feb-2026 14:41						
cis-1,2-Dichloroethene	11.1	0.20	ug/L	10.0	0.89	102	80-121			
Surrogate: 1,2-Dichloroethane-d4	5.76		ug/L	6.25	5.57	92.1	80-129			
Recovery limits for target analytes in MS/MSD QC samples are advisory only.										
Matrix Spike Dup (BOB0068-MSD1)		Source: 26B0051-01		Prepared: 04-Feb-2026 Analyzed: 04-Feb-2026 15:05						
cis-1,2-Dichloroethene	11.6	0.20	ug/L	10.0	0.89	107	80-121	4.71	30	
Surrogate: 1,2-Dichloroethane-d4	5.83		ug/L	6.25	5.57	93.2	80-129			

Recovery limits for target analytes in MS/MSD QC samples are advisory only.



Seattle Public Utilities
700-5th Ave, Ste 4900, Box 34018
Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-1550-067
Project Manager: Min-Soon Yim

Reported:
09-Feb-2026 13:58

Analysis by: Analytical Resources, LLC

Volatile Organic Compounds - SIM - Quality Control

Batch BOB0074 - EPA 8260D-SIM in Water

Instrument: NT16 Analyst: LTN

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BOB0074-BLK1) Prepared: 04-Feb-2026 Analyzed: 04-Feb-2026 09:17										
Vinyl chloride	ND	0.0200	ug/L							U
Surrogate: 1,2-Dichloroethane-d4	6710		ug/L	6250		107	80-129			
LCS (BOB0074-BS1) Prepared: 04-Feb-2026 Analyzed: 04-Feb-2026 08:35										
Vinyl chloride	1.87	0.0200	ug/L	2.00		93.3	62-141			
Surrogate: 1,2-Dichloroethane-d4	7010		ug/L	6250		112	80-129			
LCS Dup (BOB0074-BSD1) Prepared: 04-Feb-2026 Analyzed: 04-Feb-2026 08:56										
Vinyl chloride	1.87	0.0200	ug/L	2.00		93.5	62-141	0.23	30	
Surrogate: 1,2-Dichloroethane-d4	7080		ug/L	6250		113	80-129			
Matrix Spike (BOB0074-MS1) Source: 26B0051-01 Prepared: 04-Feb-2026 Analyzed: 04-Feb-2026 12:54										
Vinyl chloride	2.61	0.0200	ug/L	2.00	0.336	114	62-141			
Surrogate: 1,2-Dichloroethane-d4	7320		ug/L	6250	6910	117	80-129			
Recovery limits for target analytes in MS/MSD QC samples are advisory only.										
Matrix Spike Dup (BOB0074-MSD1) Source: 26B0051-01 Prepared: 04-Feb-2026 Analyzed: 04-Feb-2026 13:15										
Vinyl chloride	2.47	0.0200	ug/L	2.00	0.336	107	62-141	5.64	30	
Surrogate: 1,2-Dichloroethane-d4	7320		ug/L	6250	6910	117	80-129			

Recovery limits for target analytes in MS/MSD QC samples are advisory only.



Seattle Public Utilities
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Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-1550-067
Project Manager: Min-Soon Yim

Reported:
09-Feb-2026 13:58

Analysis by: Analytical Resources, LLC

Metals and Metallic Compounds - Quality Control

Batch BOB0064 - EPA 6020B in Water

Instrument: ICPMS1 Analyst: HAL

QC Sample/Analyte	Isotope	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BOB0064-BLK1)			Prepared: 04-Feb-2026 Analyzed: 04-Feb-2026 18:01								
Iron	54	ND	0.0360	mg/L							U
Manganese	55	ND	0.00100	mg/L							U
LCS (BOB0064-BS1)			Prepared: 04-Feb-2026 Analyzed: 04-Feb-2026 18:06								
Iron	54	5.05	0.0360	mg/L	5.00		101	80-120			
Manganese	55	0.0252	0.00100	mg/L	0.0250		101	80-120			
Duplicate (BOB0064-DUP1)			Source: 26B0051-01		Prepared: 04-Feb-2026 Analyzed: 04-Feb-2026 21:51						
Iron	54	29.7	0.720	mg/L		29.8			0.44	20	D
Manganese	55	1.80	0.0200	mg/L		1.82			1.41	20	D
Matrix Spike (BOB0064-MS1)			Source: 26B0051-01		Prepared: 04-Feb-2026 Analyzed: 04-Feb-2026 21:56						
Iron	54	34.8	0.720	mg/L	5.00	29.8	99.6	75-125			D
Manganese	55	1.85	0.0200	mg/L	0.0250	1.82	107	75-125			D

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

Matrix Spike Dup (BOB0064-MSD1)			Source: 26B0051-01		Prepared: 04-Feb-2026 Analyzed: 04-Feb-2026 22:01						
Iron	54	35.9	0.720	mg/L	5.00	29.8	122	75-125	3.17	20	D
Manganese	55	1.90	0.0200	mg/L	0.0250	1.82	319	75-125	2.82	20	*, D

Recovery limits for target analytes in MS/MSD QC samples are advisory only.



Seattle Public Utilities
700-5th Ave, Ste 4900, Box 34018
Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-1550-067
Project Manager: Min-Soon Yim

Reported:
09-Feb-2026 13:58

Uncertified Analytes included in this Report

Analysis Matrix & Analyte

None

Certified Analyses included in this Report

Analysis Matrix & Analyte

Certification Codes

EPA 6020B in Water

Iron-54 NELAP,DoD-ELAP,WADOE

Manganese-55 NELAP,DoD-ELAP,WADOE

EPA 8260D in Water

cis-1,2-Dichloroethene ADEC,NELAP,WADOE,DoD-ELAP

EPA 8260D-SIM in Water

Vinyl chloride NELAP,WADOE

Certifications

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	02/28/2026
NELAP	ORELAP - Oregon Laboratory Accreditation Program	WA100006-018	05/12/2026
WADOE	WA Dept of Ecology	C558	06/30/2026



Seattle Public Utilities

700-5th Ave, Ste 4900, Box 34018

Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water

Project Number: 553-1550-067

Project Manager: Min-Soon Yim

Reported:

09-Feb-2026 13:58

Notes and Definitions

*	Flagged value is not within established control limits.
D	The reported value is from a dilution
J	Estimated concentration value detected below the reporting limit.
Q	Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20% RSD, <20% drift or minimum RRF)
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
[2C]	Indicates this result was quantified on the second column on a dual column analysis.
!	Indicates that ARL is NOT ACCREDITED for this parameter in samples logged as 'Drinking Water'
#	Indicates that ARL is NOT ACCREDITED for this parameter in this analysis and matrix.



Analytical Resources, LLC
Analytical Chemists and Consultants
Tukwila, WA

10 February 2026

Min-Soon Yim
Seattle Public Utilities
700-5th Ave, Ste 4900, Box 34018
Seattle, WA 98124-4018

RE: South Park Landfill -Parametrix Water (553-155-067)

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)
26B0080

Associated SDG ID(s)
N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Kelly Bottem, Client Services Manager



Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: 26B0080		Turn-around Requested:		Date: 02/04/2026		 Analytical Resources, Incorporated Analytical Chemists and Consultants 4611 South 134th Place, Suite 100 Tukwila, WA 98168 206-695-6200 206-695-6201 (fax)						
ARI Client Company: City of Seattle/ Seattle Public Utilities		Phone: (206) 233-2629		Page: of								
Client Contact: Shannon Straws, Laura Lee(Lblee@parametrix.com)				No. of Coolers: Cooler Temps: 4.3								
Client Project Name: South Park Landfill - Groundwater Sampling				Analysis Requested						Notes/Comments		
Client Project #: 553-1550-067		Samplers: T. Steimel D. Favill W. Yu			cis-1,2-DCE	Vinyl Chloride	Total FE, MN					Mark for MS/MSD
Sample ID	Date	Time	Matrix	No. Containers								
SPL-GW-MW08-0226	2/4/2026	11:00	Water	7	3	3	1					
SPL-GW-MW24-0226	2/4/2026	9:00	Water	7	3	3	1					
SPL-GW-MW26-0226	2/4/2026	9:50	Water	7	3	3	1					
SPL-GW-MW27-0226	2/4/2026	12:35	Water	13	6	6	1					MS/MSD
SPL-GW-MW61-0226	2/4/2026	13:05	Water	7	3	3	1					
SPL-GW-MW30-0226	2/4/2026	14:55	Water	7	3	3	1					
SPL-GW-MW31-0226	2/4/2026	14:05	Water	7	3	3	1					
SPL-GW-MW82-0226	2/4/2026		Water	4	2	2						
Comments/Special Instructions				Relinquished by: (Signature) <i>Wilson Yu</i>		Received by: (Signature) <i>Sydni Acevedo</i>		Relinquished by: (Signature)		Received by: (Signature)		
				Printed Name: Wilson Yu		Printed Name: Sydni Acevedo		Printed Name:		Printed Name:		
				Company: SPU/K-H landfill		Company: ARLLC		Company:		Company:		
				Date & Time: 2/4/2026 15:33		Date & Time: 2/4/26 1533		Date & Time:		Date & Time:		

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability

Sample Retention Policy: Unless specified by workorder or contract, all water/soil samples submitted to ARI will be discarded or returned, no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer. Sediment s



Seattle Public Utilities

700-5th Ave, Ste 4900, Box 34018

Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water

Project Number: 553-155-067

Project Manager: Min-Soon Yim

Reported:

10-Feb-2026 12:43

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SPL-GW-MW08-0226	26B0080-01	Water	04-Feb-2026 11:00	04-Feb-2026 15:33
SPL-GW-MW24-0226	26B0080-02	Water	04-Feb-2026 09:00	04-Feb-2026 15:33
SPL-GW-MW26-0226	26B0080-03	Water	04-Feb-2026 09:50	04-Feb-2026 15:33
SPL-GW-MW27-0226	26B0080-04	Water	04-Feb-2026 12:35	04-Feb-2026 15:33
SPL-GW-MW61-0226	26B0080-05	Water	04-Feb-2026 13:05	04-Feb-2026 15:33
SPL-GW-MW30-0226	26B0080-06	Water	04-Feb-2026 14:55	04-Feb-2026 15:33
SPL-GW-MW31-0226	26B0080-07	Water	04-Feb-2026 14:05	04-Feb-2026 15:33
SPL-GW-MW82-0226	26B0080-08	Water	04-Feb-2026 09:00	04-Feb-2026 15:33



Seattle Public Utilities
700-5th Ave, Ste 4900, Box 34018
Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-155-067
Project Manager: Min-Soon Yim

Reported:
10-Feb-2026 12:43

Work Order Case Narrative

Client: Seattle Public Utilities
Project: South Park Landfill -Parametrix Water
Work Order: 26B0080

Sample receipt

Samples as listed on the preceding page were received 04-Feb-2026 15:33 under ARI work order 26B0080. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Volatiles - EPA Method SW8260D

The sample(s) were analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries and relative percent difference (RPD) were within control limits.

The matrix spike/matrix spike duplicate (MS/MSD) spike recoveries and relative percent difference (RPD) were within advisory control limits.

Volatiles - EPA Method 8260D-SIM (Selected Ion Monitoring)

The sample(s) were analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike and blank spike duplicate (BS/LCS and BSD/LCSD) spike recoveries and relative percent difference (RPD) were within control limits.

The matrix spike/matrix spike duplicate (MS/MSD) percent recoveries and relative percent difference (RPD) were within advisory control limits.

Total Metals - EPA Method 6020B

The sample(s) were digested and analyzed within the recommended holding times.



Seattle Public Utilities

700-5th Ave, Ste 4900, Box 34018

Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water

Project Number: 553-155-067

Project Manager: Min-Soon Yim

Reported:

10-Feb-2026 12:43

Initial and continuing calibrations including interference checks were within method requirements for reported elements.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

The matrix spike (MS) percent recoveries and the duplicate (DUP) relative percent difference (RPD) were within advisory control limits with the exception of analytes flagged on the associated forms.



WORK ORDER

26B0080

Client: Seattle Public Utilities

Project Manager: Kelly Bottem

Project: South Park Landfill -Parametrix Water

Project Number: 553-155-067

Preservation Confirmation

Container ID	Container Type	pH	pH Paper Lot#: <u>N000119</u>
26B0080-01 A	HDPE NM, 250mL HNO3	<u>L2p</u>	
26B0080-01 B	VOA Vial, Clear, 40 mL		
26B0080-01 C	VOA Vial, Clear, 40 mL		
26B0080-01 D	VOA Vial, Clear, 40 mL		
26B0080-01 E	VOA Vial, Clear, 40 mL, HCL		
26B0080-01 F	VOA Vial, Clear, 40 mL, HCL		
26B0080-01 G	VOA Vial, Clear, 40 mL, HCL		
26B0080-02 A	HDPE NM, 250mL HNO3	<u>L2p</u>	
26B0080-02 B	VOA Vial, Clear, 40 mL		
26B0080-02 C	VOA Vial, Clear, 40 mL		
26B0080-02 D	VOA Vial, Clear, 40 mL		
26B0080-02 E	VOA Vial, Clear, 40 mL, HCL		
26B0080-02 F	VOA Vial, Clear, 40 mL, HCL		
26B0080-02 G	VOA Vial, Clear, 40 mL, HCL		
26B0080-03 A	HDPE NM, 250mL HNO3	<u>L2p</u>	
26B0080-03 B	VOA Vial, Clear, 40 mL		
26B0080-03 C	VOA Vial, Clear, 40 mL		
26B0080-03 D	VOA Vial, Clear, 40 mL		
26B0080-03 E	VOA Vial, Clear, 40 mL, HCL		
26B0080-03 F	VOA Vial, Clear, 40 mL, HCL		
26B0080-03 G	VOA Vial, Clear, 40 mL, HCL		
26B0080-04 A	HDPE NM, 250mL HNO3	<u>L2p</u>	
26B0080-04 B	VOA Vial, Clear, 40 mL		
26B0080-04 C	VOA Vial, Clear, 40 mL		
26B0080-04 D	VOA Vial, Clear, 40 mL		
26B0080-04 E	VOA Vial, Clear, 40 mL, HCL		
26B0080-04 F	VOA Vial, Clear, 40 mL, HCL		
26B0080-04 G	VOA Vial, Clear, 40 mL, HCL		
26B0080-04 H	VOA Vial, Clear, 40 mL, HCL		
26B0080-04 I	VOA Vial, Clear, 40 mL, HCL		
26B0080-04 J	VOA Vial, Clear, 40 mL, HCL		
26B0080-04 K	VOA Vial, Clear, 40 mL		



WORK ORDER

26B0080

Client: Seattle Public Utilities

Project Manager: Kelly Bottem

Project: South Park Landfill -Parametrix Water

Project Number: 553-155-067

26B0080-04 L	VOA Vial, Clear, 40 mL	
26B0080-04 M	VOA Vial, Clear, 40 mL	
26B0080-05 A	HDPE NM, 250mL HNO3	L2p
26B0080-05 B	VOA Vial, Clear, 40 mL	
26B0080-05 C	VOA Vial, Clear, 40 mL	
26B0080-05 D	VOA Vial, Clear, 40 mL	
26B0080-05 E	VOA Vial, Clear, 40 mL, HCL	
26B0080-05 F	VOA Vial, Clear, 40 mL, HCL	
26B0080-05 G	VOA Vial, Clear, 40 mL, HCL	
26B0080-06 A	HDPE NM, 250mL HNO3	L2p
26B0080-06 B	VOA Vial, Clear, 40 mL	
26B0080-06 C	VOA Vial, Clear, 40 mL	
26B0080-06 D	VOA Vial, Clear, 40 mL	
26B0080-06 E	VOA Vial, Clear, 40 mL, HCL	
26B0080-06 F	VOA Vial, Clear, 40 mL, HCL	
26B0080-06 G	VOA Vial, Clear, 40 mL, HCL	
26B0080-07 A	HDPE NM, 250mL HNO3	L2p
26B0080-07 B	VOA Vial, Clear, 40 mL	
26B0080-07 C	VOA Vial, Clear, 40 mL	
26B0080-07 D	VOA Vial, Clear, 40 mL	
26B0080-07 E	VOA Vial, Clear, 40 mL, HCL	
26B0080-07 F	VOA Vial, Clear, 40 mL, HCL	
26B0080-07 G	VOA Vial, Clear, 40 mL, HCL	
26B0080-08 A	VOA Vial, Clear, 40 mL	
26B0080-08 B	VOA Vial, Clear, 40 mL	
26B0080-08 C	VOA Vial, Clear, 40 mL, HCL	
26B0080-08 D	VOA Vial, Clear, 40 mL, HCL	

SA
Preservation Confirmed By

2/4/26
Date



Cooler Receipt Form

ARI Client: SPU
COC No(s): NA
Assigned ARI Job No: 26B0080

Project Name: South Park Landfill
Delivered by: Fed-Ex UPS Courier Hand Delivered Other: NA
Tracking No: NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler? YES NO
Were custody papers included with the cooler? YES NO
Were custody papers properly filled out (ink, signed, etc.) YES NO
Temperature of Cooler(s) (°C) Time 1533 4.3 Temp Gun ID#: 9708
Was a temperature blank included in the cooler? YES NO
Were coolers received between 0° - 6° (°C) YES NO
Was an attempt made to cool the samples? NA YES NO
Cooler Accepted by: SA Date: 2/4/26 Time: 1533

Complete custody forms and attach all shipping documents

Log-In Phase:

What kind of packing material was used? Bubble Wrap Wet Ice Gel Packs Baggies Foam Block N/A Other: NA
Are any samples that were out of temperature compliance documented in LIMS? YES NO
How were bottles sealed in plastic bags? Individually Grouped Not
Did all bottles arrive in good condition (unbroken)? YES NO
Were all bottle labels complete and legible? YES NO
Did the number of containers listed on COC match with the number of containers received? YES NO
Did all bottle labels and tags agree with custody papers? YES NO
Were all bottles used correct for the requested analyses? YES NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ... NA YES NO
Were all VOC vials free of air bubbles? NA YES NO
Was sufficient amount of sample sent in each bottle? YES NO
Date VOC Trip Blank was made at ARI: NA 01/09/26
Were the sample(s) split? NA YES Date/Time: _____ Equipment: _____ Split by: _____
Samples Logged by: SA Date: 2/4/26 Time: 1546 Labels checked by: SA

** Notify Project Manager of discrepancies or concerns **

Additional Notes, Discrepancies, & Resolutions:

By:

Date:



Seattle Public Utilities
700-5th Ave, Ste 4900, Box 34018
Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-155-067
Project Manager: Min-Soon Yim

Reported:
10-Feb-2026 12:43

SPL-GW-MW08-0226
26B0080-01 (Water)

Volatile Organic Compounds

Method: EPA 8260D

Sampled: 02/04/2026 11:00

Instrument: NT3 Analyst: FCL

Analyzed: 02/05/2026 16:52

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 26B0080-01 E

Preparation Batch: BOB0104

Sample Size: 10 mL

Prepared: 02/05/2026

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
cis-1,2-Dichloroethene	156-59-2	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			80-129 %	92.3	%	



Seattle Public Utilities
700-5th Ave, Ste 4900, Box 34018
Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-155-067
Project Manager: Min-Soon Yim

Reported:
10-Feb-2026 12:43

SPL-GW-MW08-0226
26B0080-01 (Water)

Volatile Organic Compounds - SIM

Method: EPA 8260D-SIM

Sampled: 02/04/2026 11:00

Instrument: NT16 Analyst: LTN

Analyzed: 02/05/2026 10:38

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 26B0080-01 B

Preparation Batch: BOB0096

Sample Size: 10 mL

Prepared: 02/05/2026

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl chloride	75-01-4	1	0.0200	0.0757	ug/L	
Surrogate: 1,2-Dichloroethane-d4			80-129 %	113	%	



Seattle Public Utilities
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Project: South Park Landfill -Parametrix Water
Project Number: 553-155-067
Project Manager: Min-Soon Yim

Reported:
10-Feb-2026 12:43

SPL-GW-MW08-0226
26B0080-01RE1 (Water)

Metals and Metallic Compounds

Method: EPA 6020B

Sampled: 02/04/2026 11:00

Instrument: ICPMS1 Analyst: HAL

Analyzed: 02/06/2026 18:22

Sample Preparation:

Preparation Method: REN - EPA 3010A M

Extract ID: 26B0080-01RE1 A 02

Preparation Batch: BOB0109

Sample Size: 25 mL

Prepared: 02/06/2026

Final Volume: 25 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Iron	7439-89-6	20	0.720	15.0	mg/L	D
Manganese	7439-96-5	20	0.0200	1.00	mg/L	D



Seattle Public Utilities
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Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-155-067
Project Manager: Min-Soon Yim

Reported:
10-Feb-2026 12:43

SPL-GW-MW24-0226
26B0080-02 (Water)

Volatile Organic Compounds

Method: EPA 8260D	Sampled: 02/04/2026 09:00
Instrument: NT3 Analyst: FCL	Analyzed: 02/05/2026 17:15
Sample Preparation:	Preparation Method: EPA 5030C (Purge and Trap)
	Preparation Batch: BOB0104
	Prepared: 02/05/2026
	Sample Size: 10 mL
	Final Volume: 10 mL
	Extract ID: 26B0080-02 E

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
cis-1,2-Dichloroethene	156-59-2	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			80-129 %	92.6	%	



Seattle Public Utilities
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Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-155-067
Project Manager: Min-Soon Yim

Reported:
10-Feb-2026 12:43

SPL-GW-MW24-0226
26B0080-02 (Water)

Volatile Organic Compounds - SIM

Method: EPA 8260D-SIM

Sampled: 02/04/2026 09:00

Instrument: NT16 Analyst: LTN

Analyzed: 02/05/2026 11:00

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 26B0080-02 C

Preparation Batch: BOB0096

Sample Size: 10 mL

Prepared: 02/05/2026

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl chloride	75-01-4	1	0.0200	0.0423	ug/L	
Surrogate: 1,2-Dichloroethane-d4			80-129 %	113	%	



Seattle Public Utilities
700-5th Ave, Ste 4900, Box 34018
Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-155-067
Project Manager: Min-Soon Yim

Reported:
10-Feb-2026 12:43

SPL-GW-MW24-0226
26B0080-02RE1 (Water)

Metals and Metallic Compounds

Method: EPA 6020B

Sampled: 02/04/2026 09:00

Instrument: ICPMS1 Analyst: HAL

Analyzed: 02/06/2026 18:27

Sample Preparation:

Preparation Method: REN - EPA 3010A M

Extract ID: 26B0080-02RE1 A 02

Preparation Batch: BOB0109

Sample Size: 25 mL

Prepared: 02/06/2026

Final Volume: 25 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Iron	7439-89-6	20	0.720	25.8	mg/L	D
Manganese	7439-96-5	20	0.0200	1.55	mg/L	D



Seattle Public Utilities
700-5th Ave, Ste 4900, Box 34018
Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-155-067
Project Manager: Min-Soon Yim

Reported:
10-Feb-2026 12:43

SPL-GW-MW26-0226
26B0080-03 (Water)

Volatile Organic Compounds

Method: EPA 8260D	Sampled: 02/04/2026 09:50
Instrument: NT3 Analyst: FCL	Analyzed: 02/05/2026 17:37
Sample Preparation:	Preparation Method: EPA 5030C (Purge and Trap)
	Preparation Batch: BOB0104
	Prepared: 02/05/2026
	Sample Size: 10 mL
	Final Volume: 10 mL
	Extract ID: 26B0080-03 E

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
cis-1,2-Dichloroethene	156-59-2	1	0.20	0.38	ug/L	
Surrogate: 1,2-Dichloroethane-d4			80-129 %	91.7	%	



Seattle Public Utilities
700-5th Ave, Ste 4900, Box 34018
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Project: South Park Landfill -Parametrix Water
Project Number: 553-155-067
Project Manager: Min-Soon Yim

Reported:
10-Feb-2026 12:43

SPL-GW-MW26-0226
26B0080-03 (Water)

Volatile Organic Compounds - SIM

Method: EPA 8260D-SIM

Sampled: 02/04/2026 09:50

Instrument: NT16 Analyst: LTN

Analyzed: 02/05/2026 11:21

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 26B0080-03 B

Preparation Batch: BOB0096

Sample Size: 10 mL

Prepared: 02/05/2026

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl chloride	75-01-4	1	0.0200	0.174	ug/L	
Surrogate: 1,2-Dichloroethane-d4			80-129 %	114	%	



Seattle Public Utilities

700-5th Ave, Ste 4900, Box 34018

Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water

Project Number: 553-155-067

Project Manager: Min-Soon Yim

Reported:

10-Feb-2026 12:43

SPL-GW-MW26-0226

26B0080-03RE1 (Water)

Metals and Metallic Compounds

Method: EPA 6020B

Sampled: 02/04/2026 09:50

Instrument: ICPMS1 Analyst: HAL

Analyzed: 02/06/2026 18:32

Sample Preparation:

Preparation Method: REN - EPA 3010A M

Extract ID: 26B0080-03RE1 A 02

Preparation Batch: BOB0109

Sample Size: 25 mL

Prepared: 02/06/2026

Final Volume: 25 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Iron	7439-89-6	10	0.360	4.63	mg/L	D
Manganese	7439-96-5	10	0.0100	0.0556	mg/L	D



Seattle Public Utilities
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Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-155-067
Project Manager: Min-Soon Yim

Reported:
10-Feb-2026 12:43

SPL-GW-MW27-0226
26B0080-04 (Water)

Volatile Organic Compounds

Method: EPA 8260D	Sampled: 02/04/2026 12:35
Instrument: NT3 Analyst: FCL	Analyzed: 02/05/2026 17:59
Sample Preparation:	Preparation Method: EPA 5030C (Purge and Trap)
	Preparation Batch: BOB0104
	Prepared: 02/05/2026
	Sample Size: 10 mL
	Final Volume: 10 mL
	Extract ID: 26B0080-04 F

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
cis-1,2-Dichloroethene	156-59-2	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			80-129 %	94.1	%	



Seattle Public Utilities
700-5th Ave, Ste 4900, Box 34018
Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-155-067
Project Manager: Min-Soon Yim

Reported:
10-Feb-2026 12:43

SPL-GW-MW27-0226
26B0080-04 (Water)

Volatile Organic Compounds - SIM

Method: EPA 8260D-SIM

Sampled: 02/04/2026 12:35

Instrument: NT16 Analyst: LTN

Analyzed: 02/05/2026 11:42

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 26B0080-04 B

Preparation Batch: BOB0096

Sample Size: 10 mL

Prepared: 02/05/2026

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl chloride	75-01-4	1	0.0200	0.109	ug/L	
Surrogate: 1,2-Dichloroethane-d4			80-129 %	114	%	



Seattle Public Utilities
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Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-155-067
Project Manager: Min-Soon Yim

Reported:
10-Feb-2026 12:43

SPL-GW-MW27-0226
26B0080-04RE1 (Water)

Metals and Metallic Compounds

Method: EPA 6020B

Sampled: 02/04/2026 12:35

Instrument: ICPMS1 Analyst: HAL

Analyzed: 02/06/2026 18:46

Sample Preparation:

Preparation Method: REN - EPA 3010A M

Extract ID: 26B0080-04RE1 A 02

Preparation Batch: BOB0109

Sample Size: 25 mL

Prepared: 02/06/2026

Final Volume: 25 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Iron	7439-89-6	20	0.720	11.0	mg/L	D
Manganese	7439-96-5	20	0.0200	0.471	mg/L	D



Seattle Public Utilities
700-5th Ave, Ste 4900, Box 34018
Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-155-067
Project Manager: Min-Soon Yim

Reported:
10-Feb-2026 12:43

SPL-GW-MW61-0226
26B0080-05 (Water)

Volatile Organic Compounds

Method: EPA 8260D	Sampled: 02/04/2026 13:05
Instrument: NT3 Analyst: FCL	Analyzed: 02/05/2026 18:21
Sample Preparation:	Preparation Method: EPA 5030C (Purge and Trap)
	Preparation Batch: BOB0104
	Prepared: 02/05/2026
	Sample Size: 10 mL
	Final Volume: 10 mL
	Extract ID: 26B0080-05 E

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
cis-1,2-Dichloroethene	156-59-2	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			80-129 %	93.7	%	



Seattle Public Utilities
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Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-155-067
Project Manager: Min-Soon Yim

Reported:
10-Feb-2026 12:43

SPL-GW-MW61-0226
26B0080-05 (Water)

Volatile Organic Compounds - SIM

Method: EPA 8260D-SIM

Sampled: 02/04/2026 13:05

Instrument: NT16 Analyst: LTN

Analyzed: 02/05/2026 12:03

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 26B0080-05 B

Preparation Batch: BOB0096

Sample Size: 10 mL

Prepared: 02/05/2026

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl chloride	75-01-4	1	0.0200	0.111	ug/L	
Surrogate: 1,2-Dichloroethane-d4			80-129 %	114	%	



Seattle Public Utilities

700-5th Ave, Ste 4900, Box 34018

Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water

Project Number: 553-155-067

Project Manager: Min-Soon Yim

Reported:

10-Feb-2026 12:43

SPL-GW-MW61-0226

26B0080-05RE1 (Water)

Metals and Metallic Compounds

Method: EPA 6020B

Sampled: 02/04/2026 13:05

Instrument: ICPMS1 Analyst: HAL

Analyzed: 02/06/2026 18:36

Sample Preparation:

Preparation Method: REN - EPA 3010A M

Extract ID: 26B0080-05RE1 A 02

Preparation Batch: BOB0109

Sample Size: 25 mL

Prepared: 02/06/2026

Final Volume: 25 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Iron	7439-89-6	10	0.360	11.2	mg/L	D
Manganese	7439-96-5	10	0.0100	0.442	mg/L	D



Seattle Public Utilities
700-5th Ave, Ste 4900, Box 34018
Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-155-067
Project Manager: Min-Soon Yim

Reported:
10-Feb-2026 12:43

SPL-GW-MW30-0226
26B0080-06 (Water)

Volatile Organic Compounds

Method: EPA 8260D	Sampled: 02/04/2026 14:55
Instrument: NT3 Analyst: FCL	Analyzed: 02/05/2026 18:43
Sample Preparation:	Preparation Method: EPA 5030C (Purge and Trap)
	Preparation Batch: BOB0104
	Sample Size: 10 mL
	Prepared: 02/05/2026
	Final Volume: 10 mL
	Extract ID: 26B0080-06 E

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
cis-1,2-Dichloroethene	156-59-2	1	0.20	0.31	ug/L	
Surrogate: 1,2-Dichloroethane-d4			80-129 %	93.8	%	



Seattle Public Utilities
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Project: South Park Landfill -Parametrix Water
Project Number: 553-155-067
Project Manager: Min-Soon Yim

Reported:
10-Feb-2026 12:43

SPL-GW-MW30-0226
26B0080-06 (Water)

Volatile Organic Compounds - SIM

Method: EPA 8260D-SIM

Sampled: 02/04/2026 14:55

Instrument: NT16 Analyst: LTN

Analyzed: 02/05/2026 12:24

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 26B0080-06 B

Preparation Batch: BOB0096

Sample Size: 10 mL

Prepared: 02/05/2026

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl chloride	75-01-4	1	0.0200	0.140	ug/L	
Surrogate: 1,2-Dichloroethane-d4			80-129 %	114	%	



Seattle Public Utilities
700-5th Ave, Ste 4900, Box 34018
Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-155-067
Project Manager: Min-Soon Yim

Reported:
10-Feb-2026 12:43

SPL-GW-MW30-0226
26B0080-06RE1 (Water)

Metals and Metallic Compounds

Method: EPA 6020B

Sampled: 02/04/2026 14:55

Instrument: ICPMS1 Analyst: HAL

Analyzed: 02/06/2026 18:41

Sample Preparation:

Preparation Method: REN - EPA 3010A M

Extract ID: 26B0080-06RE1 A 02

Preparation Batch: BOB0109

Sample Size: 25 mL

Prepared: 02/06/2026

Final Volume: 25 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Iron	7439-89-6	10	0.360	2.92	mg/L	D
Manganese	7439-96-5	10	0.0100	0.0821	mg/L	D



Seattle Public Utilities
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Project: South Park Landfill -Parametrix Water
Project Number: 553-155-067
Project Manager: Min-Soon Yim

Reported:
10-Feb-2026 12:43

SPL-GW-MW31-0226
26B0080-07 (Water)

Volatile Organic Compounds

Method: EPA 8260D	Sampled: 02/04/2026 14:05
Instrument: NT3 Analyst: FCL	Analyzed: 02/05/2026 19:05
Sample Preparation:	Preparation Method: EPA 5030C (Purge and Trap)
	Preparation Batch: BOB0104
	Prepared: 02/05/2026
	Sample Size: 10 mL
	Final Volume: 10 mL
	Extract ID: 26B0080-07 E

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
cis-1,2-Dichloroethene	156-59-2	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			80-129 %	92.0	%	



Seattle Public Utilities
700-5th Ave, Ste 4900, Box 34018
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Project: South Park Landfill -Parametrix Water
Project Number: 553-155-067
Project Manager: Min-Soon Yim

Reported:
10-Feb-2026 12:43

SPL-GW-MW31-0226
26B0080-07 (Water)

Volatile Organic Compounds - SIM

Method: EPA 8260D-SIM

Sampled: 02/04/2026 14:05

Instrument: NT16 Analyst: LTN

Analyzed: 02/05/2026 12:45

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 26B0080-07 B

Preparation Batch: BOB0096

Sample Size: 10 mL

Prepared: 02/05/2026

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl chloride	75-01-4	1	0.0200	0.670	ug/L	
Surrogate: 1,2-Dichloroethane-d4			80-129 %	115	%	



Seattle Public Utilities
700-5th Ave, Ste 4900, Box 34018
Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-155-067
Project Manager: Min-Soon Yim

Reported:
10-Feb-2026 12:43

SPL-GW-MW31-0226
26B0080-07RE1 (Water)

Metals and Metallic Compounds

Method: EPA 6020B

Sampled: 02/04/2026 14:05

Instrument: ICPMS1 Analyst: HAL

Analyzed: 02/06/2026 19:25

Sample Preparation:

Preparation Method: REN - EPA 3010A M

Extract ID: 26B0080-07RE1 A 02

Preparation Batch: BOB0109

Sample Size: 25 mL

Prepared: 02/06/2026

Final Volume: 25 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Iron	7439-89-6	20	0.720	19.1	mg/L	D
Manganese	7439-96-5	20	0.0200	0.770	mg/L	D



Seattle Public Utilities
700-5th Ave, Ste 4900, Box 34018
Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-155-067
Project Manager: Min-Soon Yim

Reported:
10-Feb-2026 12:43

SPL-GW-MW82-0226
26B0080-08 (Water)

Volatile Organic Compounds

Method: EPA 8260D	Sampled: 02/04/2026 09:00
Instrument: NT3 Analyst: FCL	Analyzed: 02/05/2026 15:24
Sample Preparation:	Preparation Method: EPA 5030C (Purge and Trap)
	Preparation Batch: BOB0104
	Sample Size: 10 mL
	Prepared: 02/05/2026
	Final Volume: 10 mL
	Extract ID: 26B0080-08 C

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
cis-1,2-Dichloroethene	156-59-2	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			80-129 %	88.1	%	



Seattle Public Utilities
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Seattle WA, 98124-4018

Project: South Park Landfill -Parametrix Water
Project Number: 553-155-067
Project Manager: Min-Soon Yim

Reported:
10-Feb-2026 12:43

SPL-GW-MW82-0226
26B0080-08 (Water)

Volatile Organic Compounds - SIM

Method: EPA 8260D-SIM

Sampled: 02/04/2026 09:00

Instrument: NT16 Analyst: LTN

Analyzed: 02/05/2026 10:17

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 26B0080-08 A

Preparation Batch: BOB0096

Sample Size: 10 mL

Prepared: 02/05/2026

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Vinyl chloride	75-01-4	1	0.0200	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			80-129 %	111	%	



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Reported:
10-Feb-2026 12:43

Analysis by: Analytical Resources, LLC

Volatile Organic Compounds - Quality Control

Batch BOB0104 - EPA 8260D in Water

Instrument: NT3 Analyst: FCL

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BOB0104-BLK1)		Prepared: 05-Feb-2026 Analyzed: 05-Feb-2026 15:00								
cis-1,2-Dichloroethene	ND	0.20	ug/L							U
Surrogate: 1,2-Dichloroethane-d4	5.64		ug/L	6.25		90.3	80-129			
LCS (BOB0104-BS1)		Prepared: 05-Feb-2026 Analyzed: 05-Feb-2026 12:05								
cis-1,2-Dichloroethene	8.71	0.20	ug/L	10.0		87.1	80-121			
Surrogate: 1,2-Dichloroethane-d4	5.74		ug/L	6.25		91.8	80-129			
LCS Dup (BOB0104-BSD1)		Prepared: 05-Feb-2026 Analyzed: 05-Feb-2026 12:49								
cis-1,2-Dichloroethene	8.81	0.20	ug/L	10.0		88.1	80-121	1.08	30	
Surrogate: 1,2-Dichloroethane-d4	5.67		ug/L	6.25		90.8	80-129			
Matrix Spike (BOB0104-MS1)		Source: 26B0080-04		Prepared: 05-Feb-2026 Analyzed: 05-Feb-2026 20:34						
cis-1,2-Dichloroethene	9.36	0.20	ug/L	10.0	ND	92.2	80-121			
Surrogate: 1,2-Dichloroethane-d4	5.83		ug/L	6.25	5.88	93.3	80-129			
Recovery limits for target analytes in MS/MSD QC samples are advisory only.										
Matrix Spike Dup (BOB0104-MSD1)		Source: 26B0080-04		Prepared: 05-Feb-2026 Analyzed: 05-Feb-2026 20:56						
cis-1,2-Dichloroethene	9.98	0.20	ug/L	10.0	ND	98.5	80-121	6.48	30	
Surrogate: 1,2-Dichloroethane-d4	5.77		ug/L	6.25	5.88	92.2	80-129			

Recovery limits for target analytes in MS/MSD QC samples are advisory only.



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Volatile Organic Compounds - SIM - Quality Control

Batch BOB0096 - EPA 8260D-SIM in Water

Instrument: NT16 Analyst: LTN

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BOB0096-BLK1) Prepared: 05-Feb-2026 Analyzed: 05-Feb-2026 08:37										
Vinyl chloride	ND	0.0200	ug/L							U
Surrogate: 1,2-Dichloroethane-d4	6970		ug/L	6250		111	80-129			
LCS (BOB0096-BS1) Prepared: 05-Feb-2026 Analyzed: 05-Feb-2026 07:55										
Vinyl chloride	1.91	0.0200	ug/L	2.00		95.7	62-141			
Surrogate: 1,2-Dichloroethane-d4	7190		ug/L	6250		115	80-129			
LCS Dup (BOB0096-BSD1) Prepared: 05-Feb-2026 Analyzed: 05-Feb-2026 08:16										
Vinyl chloride	2.01	0.0200	ug/L	2.00		101	62-141	5.06	30	
Surrogate: 1,2-Dichloroethane-d4	7240		ug/L	6250		116	80-129			
Matrix Spike (BOB0096-MS1) Source: 26B0080-04 Prepared: 05-Feb-2026 Analyzed: 05-Feb-2026 13:06										
Vinyl chloride	2.51	0.0200	ug/L	2.00	0.109	120	62-141			
Surrogate: 1,2-Dichloroethane-d4	7470		ug/L	6250	7100	120	80-129			
Recovery limits for target analytes in MS/MSD QC samples are advisory only.										
Matrix Spike Dup (BOB0096-MSD1) Source: 26B0080-04 Prepared: 05-Feb-2026 Analyzed: 05-Feb-2026 13:27										
Vinyl chloride	2.43	0.0200	ug/L	2.00	0.109	116	62-141	3.22	30	
Surrogate: 1,2-Dichloroethane-d4	7540		ug/L	6250	7100	121	80-129			

Recovery limits for target analytes in MS/MSD QC samples are advisory only.



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Reported:
10-Feb-2026 12:43

Analysis by: Analytical Resources, LLC

Metals and Metallic Compounds - Quality Control

Batch BOB0109 - EPA 6020B in Water

Instrument: ICPMS1 Analyst: HAL

QC Sample/Analyte	Isotope	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BOB0109-BLK1)			Prepared: 06-Feb-2026 Analyzed: 06-Feb-2026 17:07								
Iron	54	ND	0.0360	mg/L							U
Manganese	55	ND	0.00100	mg/L							U
LCS (BOB0109-BS1)			Prepared: 06-Feb-2026 Analyzed: 06-Feb-2026 17:12								
Iron	54	5.04	0.0360	mg/L	5.00		101	80-120			
Manganese	55	0.0268	0.00100	mg/L	0.0250		107	80-120			
Duplicate (BOB0109-DUP1)			Source: 26B0080-04RE1		Prepared: 06-Feb-2026 Analyzed: 06-Feb-2026 18:51						
Iron	54	11.4	0.720	mg/L		11.0			3.39	20	D
Manganese	55	0.489	0.0200	mg/L		0.471			3.85	20	D
Matrix Spike (BOB0109-MS1)			Source: 26B0080-04RE1		Prepared: 06-Feb-2026 Analyzed: 06-Feb-2026 18:56						
Iron	54	16.1	0.720	mg/L	5.00	11.0	101	75-125			D
Manganese	55	0.501	0.0200	mg/L	0.0250	0.471	119	75-125			D

Recovery limits for target analytes in MS/MSD QC samples are advisory only.

Matrix Spike Dup (BOB0109-MSD1)			Source: 26B0080-04RE1		Prepared: 06-Feb-2026 Analyzed: 06-Feb-2026 19:01						
Iron	54	16.5	0.720	mg/L	5.00	11.0	109	75-125	2.53	20	D
Manganese	55	0.503	0.0200	mg/L	0.0250	0.471	128	75-125	0.43	20	HC, D

Recovery limits for target analytes in MS/MSD QC samples are advisory only.



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Uncertified Analytes included in this Report

Analysis Matrix & Analyte

None

Certified Analyses included in this Report

Analysis Matrix & Analyte

Certification Codes

EPA 6020B in Water

Iron-54 NELAP,DoD-ELAP,WADOE

Manganese-55 NELAP,DoD-ELAP,WADOE

EPA 8260D in Water

cis-1,2-Dichloroethene ADEC,NELAP,WADOE,DoD-ELAP

EPA 8260D-SIM in Water

Vinyl chloride NELAP,WADOE

Certifications

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	02/28/2026
NELAP	ORELAP - Oregon Laboratory Accreditation Program	WA100006-018	05/12/2026
WADOE	WA Dept of Ecology	C558	06/30/2026



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Notes and Definitions

*	Flagged value is not within established control limits.
B	This analyte was detected in the method blank.
D	The reported value is from a dilution
HC	The natural concentration of the spiked analyte is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible
J	Estimated concentration value detected below the reporting limit.
Q	Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20% RSD, <20% drift or minimum RRF)
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
[2C]	Indicates this result was quantified on the second column on a dual column analysis.
!	Indicates that ARL is NOT ACCREDITED for this parameter in samples logged as 'Drinking Water'
#	Indicates that ARL is NOT ACCREDITED for this parameter in this analysis and matrix.