
FIELD ACTIVITIES SUMMARY REPORT

GRIFFON PARK REGION 9

INACTIVE LANDFILL INITIATIVE WORK ASSIGNMENTS # D007623-33 / D009811-02

Prepared For:



New York State Department of Environmental Conservation
Division of Materials Management
625 Broadway
Albany, NY 12233-7250

Prepared By:



301 Plainfield Road, Suite 350
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MARCH 2023

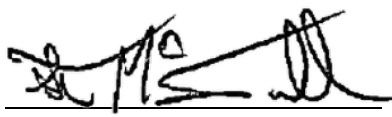
CERTIFICATION

Griffon Park, Niagara Falls, NY

I, George H. Moreau, certify that all activities detailed in this Field Activity Summary Report were conducted as described and in full accordance with the approved workplan and any DEC approved modifications, unless otherwise noted herein.

<u>George H. Moreau</u>	<u>03/09/23</u>	 _____
Regional Coordinator	Date	Signature

Reviewed/Accepted By:

<u>Steven McDonnell</u>	<u>3/10/23</u>	 _____
Division of Materials Management	Date	Signature

New York State Department of Environmental Remediation
Division of Materials Management
Inactive Landfill Initiative
Field Activities Summary

Landfill Name: Griffon Park

Region: 9

Database ID: 9068

Date of Field Activities: 02/23/2022 through 03/07/2022, 03/22/2022, and 03/23/2022

Summary of Field Activities

Five new monitoring wells were installed, developed, and sampled and a seep location was sampled, at the Griffon Park site to assess impacts to drinking water sources and nearby receptors. The five soil borings used to install the monitoring wells were advanced to depths between 10 and 41 feet below the ground surface. Fill was identified in each of the five borings and the depth of the fill ranged to depths between 5 and 17 feet below ground surface. Fill material included clear and brown glass, metal, cloth, brick fragments, cinder, and wood. The borings identified soils that consisted of mainly clay with a few layers or lenses rich in silt and/or sand up to a few feet thick. Gravel was occasionally identified intermixed with either silt or clay. Bedrock was not encountered in any of the borings. Monitoring well locations are shown in Figure 1 and the groundwater flow direction is shown in Figure 2. Field activities were conducted in accordance with the Field Activities Plan (FAP) and Site-Specific Work Plan (Attachment 1).

Monitoring Wells Installed

Mon- itoring Well ID	Latitude	Longitude	Top of PVC Casing Elevation (Feet AMSL)	Well Development Date	Comments
MW-01	43.076120858	-78.952670606	574.01	03/04/2022	Removed 85 gallons.
MW-02	43.075663343	-78.953141507	572.19	03/04/2022	Removed 150 gallons.
MW-03	43.074653586	-78.952250859	573.73	03/04/2022	Removed 55 gallons.
MW-04	43.073499727	-78.951067531	570.68	03/07/2022	Removed 120 gallons.
MW-05	43.074503974	-78.951112865	574.21	03/07/2022	Removed 160 gallons.

Monitoring Wells Sampled

Monitoring Well ID	Date	Sample Collected (yes/no)	Comments
MW-01	03/22/2022	Yes	Sampled with bladder/peristaltic pump at 275 mL/min. Parameters stabilized during purge of 13 gallons. Turbidity remained > 50 NTU.
MW-02	03/22/2022	Yes	Sampled with peristaltic pump at 400 mL/min. Parameters stabilized during purge of 5.0 gallons.
MW-03	03/23/2022	Yes	Sampled with peristaltic pump at 300 mL/min. Parameters stabilized, except for DO and turbidity, during purge of 4 gallons.
MW-04	03/23/2022	Yes	Sampled with peristaltic pump at 450 mL/min. Parameters stabilized during purge of 7.0 gallons.
MW-05	03/23/2022	Yes	Sampled with peristaltic pump at 400 mL/min. Parameters stabilized during purge of 4.0 gallons.

Other Samples

Sample Location	Sample Type	Date	Comments/UTM Coordinates
NA	Equipment Blank	03/22/2022	Field QC sample
NA	Field Blank	03/22/2022	Field QC sample
NA	Trip Blank	03/22/2022	Field QC sample
SEEP-01	Seep sample	03/22/2022	Seep/surface water sample
MW-02	Duplicate sample	03/22/2022	Field duplicate sample
NA	Equipment Blank	03/23/2022	Field QC sample
NA	Field Blank	03/23/2022	Field QC sample
NA	Trip Blank	03/23/2022	Field QC sample

Figures

Figure 1	Well Locations
Figure 2	Groundwater Flow Direction and Summary of Analytical Results

Attachments

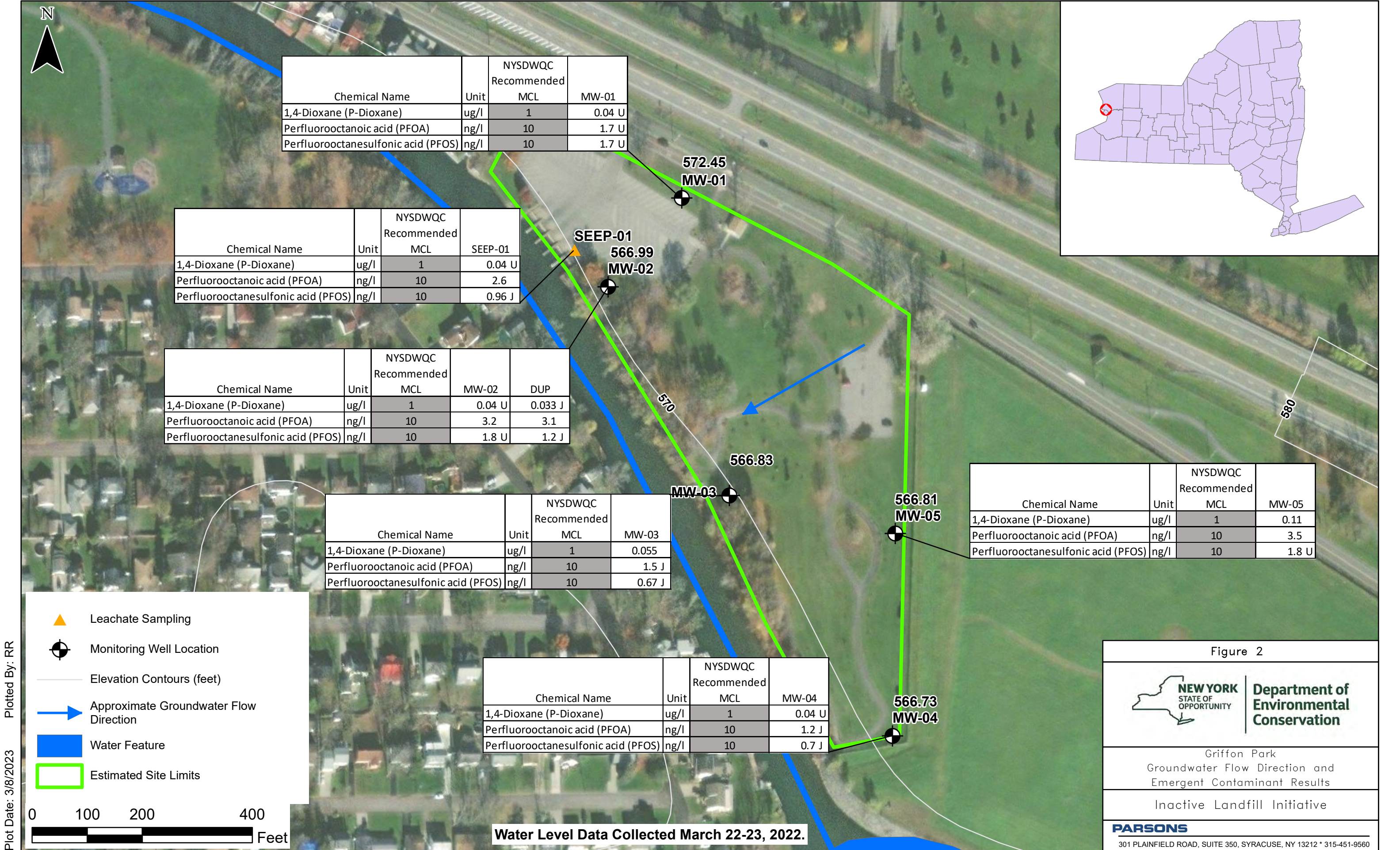
Attachment 1	Site Work Plan
Attachment 2	Boring and Well Construction Logs
Attachment 3	Groundwater Sample Logs
Attachment 4	Analytical Laboratory Level II Data Deliverable

Figures



Plot Date: 3/8/2023
Plotted By: RR

Figure 1	
 NEW YORK STATE OF OPPORTUNITY	Department of Environmental Conservation
Griffon Park Sample Locations	
Inactive Landfill Initiative	
PARSONS 301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560	



Attachments

ATTACHMENT 1
WORK PLAN

FINAL

Site-Specific Work Plan for:

**HYDROGEOLOGIC INVESTIGATION AT THE
GRIFFON PARK SITE
NYSDEC REGION 9 – NIAGARA COUNTY
NIAGARA FALLS, NEW YORK**

Prepared For:



New York State Department of Environmental Conservation
Division of Materials Management
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Prepared By:

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JULY 2021

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**Site-Specific Work Plan for
Hydrogeologic Investigation
at the Griffon Park Site**

1.0 PROJECT BACKGROUND

This hydrogeologic investigation is part of the New York State Department of Environmental Conservation's (NYSDEC's) Inactive Landfills Initiative. The objective of the Initiative is to assess inactive landfills in New York State for potential impacts to drinking water sources and other potential receptors.

2.0 PROJECT OBJECTIVES

The objective of this hydrogeological investigation is to provide an initial assessment of the potential for impacts to groundwater in the immediate vicinity of the Griffon Park Site. This objective will be accomplished by installing five groundwater monitoring wells, sampling groundwater from the wells and one leachate location, and analyzing the samples for a suite of potential organic and inorganic contaminants. The groundwater and leachate sample data will be evaluated to assess whether groundwater quality has been impacted by the landfill.

3.0 SITE SETTING

The Griffon Park Site is located at 9551 Buffalo Avenue, in the City of Niagara Falls, Niagara County, New York. GPS coordinates at the site are 43.07478316, -78.95138389 and the property has tax I.D. of 161.18-1-34.1. The property occupies approximately 10 acres and the landfill is assumed to occupy the majority of the property. The property is owned by the City of Niagara Falls, 745 Main Street, Niagara Falls, New York. The site is currently a city park (Griffon Park) along the Niagara River and includes parking areas, picnic tables, a playground, a boat launch, and a kayak launch. The city-owned site contains municipal solid waste (MSW). The site is immediately west of the 102nd Street landfill. The 102nd Street landfill is fenced in and has monitoring wells lining the site boundary.

The topography is generally flat but slopes slightly downward next to the Niagara River. The site is bound by the Niagara River to the south, a tributary to the Niagara River to the west, the 102nd Street landfill to the east and Buffalo Avenue to the north. Groundwater flow direction is likely to the southwest and depth to groundwater is likely shallow, between 5 and 10 feet below ground surface.

The cap condition is good, it is well vegetated and shows no signs of subsidence or erosion. There are occasional instances of exposed waste along the banks of the tributary to the Niagara River. Leachate has been identified pooled by the boat launch in the northern portion of the site.

The NYSDEC GIS database indicates that all nearby areas are served by public water supplies. There are currently no monitoring wells situated at the site.

3.1 GROUNDWATER OCCURRENCE AND FLOW

Based on the topography and stream patterns, groundwater flow is anticipated to be to the southwest. Nearby areas are served by public water supplies. There are many residences and business within a quarter of a mile of the site that are served by public water. Depth to groundwater is shallow and is thought to be less than 50 feet below the ground surface.

4.0 HYDROGEOLOGICAL INVESTIGATION SCOPE OF WORK

Field activities will be conducted in accordance with the programmatic Quality Assurance Project Plan (QAPP), Field Activities Plan (FAP), and Health and Safety Plan (HASP), which have been prepared and approved specifically for the NYSDEC Inactive Landfill Initiative program. Site-specific elements and specific job safety analyses for soil borings and monitoring well installations will be added to the Health and Safety Plan specifically for the Griffon Park Site.

A Community Air Monitoring Plan will be implemented for real-time monitoring for volatile organic compounds (VOCs) and particulates (i.e., dust) at the downwind perimeter of each designated work area during invasive activities on-site.

The specific field procedures to be used during this investigation are described in the programmatic FAP. That document describes the drilling methods, well installation and sampling methods, and handling of investigation-derived waste. The programmatic QAPP describes the analytical procedures to be used by the laboratory in analyzing the groundwater samples.

4.1 SUBSURFACE UTILITY CLEARING

The local DIG SAFE service will be used to mark out subsurface utility lines near the proposed monitoring well locations. Monitoring well boring locations will be adjusted in the field as necessary to avoid subsurface obstructions and utilities. Each well boring location will also be hand-dug to 5 feet to ensure the location is clear of subsurface utilities. The proposed well locations are shown on Figure 3.

4.2 MONITORING WELL INSTALLATIONS

Access to well locations may require an ATV-based or track mounted drill rig. A small amount of brush and small trees may require removal to access proposed well locations. For the Griffon Park Site, three wells have been situated along the southwest (downgradient) side of the landfill and two to the northeast (upgradient) to provide adequate coverage in the upgradient (MW-01 and MW-05) and downgradient (MW-02, MW-03 and MW-04) directions.

Following hand clearing the location to 5 feet below ground surface, five well borings will be drilled into the overburden using hollow-stem augers or another acceptable technique based on the conditions present. Alternate drilling techniques are described in the programmatic FAP. Split-spoon soil samples will be collected continuously at each boring location. The borings will be advanced to the first water-bearing zone that is considered acceptable for placing a monitoring well that will yield enough groundwater for sampling.

Based on the site setting in the landfill area, it is anticipated that the wells will be less than 50 feet deep. The well borings will be drilled deep enough to allow a 10-foot well screen to be placed allowing for fluctuations in the water table to remain within the screened zone. This will be considered the “target depth”.

Once the target depth and conditions are reached, monitoring wells will be constructed with 2-inch inside diameter polyvinyl chloride (PVC) casing with a 10-foot long, #10-slot PVC screen with the screen extending at least 2 feet above the water table interface, if conditions allow. Each well will be completed with a protective casing. Should site conditions dictate modifications to the well design, these will be made in the field by the supervising geologist.

Following installation, the new monitoring wells will be developed to remove material which may have settled in and around the well screen. Development will use methods described in the FAP. Following well development, the locations and elevations of the monitoring well PVC casings will be established relative to an arbitrary onsite datum using a Total Station instrument.

All drilling equipment will be decontaminated by pressure washing between borings and before entering or leaving the site.

Drill cuttings and other soils generated on-site may be disposed of by spreading along the ground adjacent to the borehole that will be used for well installation. The soils that contain wastes, free product, NAPL, or otherwise grossly contaminated will not be spread out and will be containerized for subsequent characterization and disposal. Water generated during the investigation may be discharged to an unpaved area of the site.

4.3 GROUNDWATER AND LEACHATE SAMPLING

Once well installation and development is complete, a groundwater sample will be retrieved from each well and up to one leachate location may be sampled. Groundwater and leachate samples will be collected and analyzed as described in the FAP and QAPP. Bailers or low-flow pumps may be used to collect the groundwater samples. The wells will be purged prior to sampling, and all sampling equipment will be dedicated to that sampling location or will be decontaminated between sampling locations using the methods provided in the FAP.

The groundwater and leachate samples will be analyzed for modified baseline VOCs, polycyclic aromatic hydrocarbons (PAHs), 1,4-dioxane, per- and polyfluoroalkyl substances (PFAS), baseline leachate indicators, and modified baseline metals. A complete list of analytical parameters is provided in Table 1 and the sampling summary is provided in Table 2.

5.0 HYDROGEOLOGICAL INVESTIGATION REPORT

The hydrogeological report will summarize the program and site-specific objectives, the field and analytical methods used, the site geology and hydrogeology including groundwater occurrence and flow directions, and the results of the groundwater sampling.

TABLE 1 – ANALYTICAL PARAMETERS

Parameter	Method	Parameter	Method
Leachate Indicators (water samples only)		PAHs + 1,4-Dioxane	
Ammonia	350.1 / SM20 4500NH3 B/D	Acenaphthene	8270D SIM
Chemical Oxygen Demand	410.4	Acenaphthylene	8270D SIM
Total Organic Carbon	EPA 9060 / SM20 5310B/C	Anthracene	8270D SIM
Total Dissolved Solids	SM20 2540C	Benzo(a)anthracene	8270D SIM
Sulfate	300	Benzo(a)pyrene	8270D SIM
Alkalinity	SM20 2320B	Benzo(b)fluoranthene	8270D SIM
Chloride	300	Benzo(g,h,i)perylene	8270D SIM
Bromide	300	Benzo(k)fluoranthene	8270D SIM
Total hardness as CaCO3	SM20 2340C	Chrysene	8270D SIM
		Dibenzo(a,h)anthracene	8270D SIM
Inorganics		Fluoranthene	8270D SIM
Arsenic	SW6010C	Fluorene	8270D SIM
Barium	SW6010C	Indeno(1,2,3-cd)pyrene	8270D SIM
Beryllium	SW6010C	Naphthalene	8270D SIM
Boron	SW6010C	Phenanthrene	8270D SIM
Chromium	SW6010C	Pyrene	8270D SIM
Copper	SW6010C	1-4-Dioxane	8270D SIM
Iron	SW6010C	Per- and polyfluoroalkyl Substances (PFAS)	
Lead	SW6010C		
Manganese	SW6010C	N-ethyl perfluorooctanesulfonamidoacetic acid	Modified 537
Nickel	SW6010C	N-methyl perfluorooctanesulfonamidoacetic acid	Modified 537
Selenium	SW6010C	Perfluorobutanesulfonic acid (PFBS)	Modified 537
Thallium	SW6010C	Perfluorodecanoic acid (PFDA)	Modified 537
Zinc	SW6010C	Perfluorododecanoic acid (PFDoA)	Modified 537
Mercury	SW7470A (water) SW7471B (soil)	Perfluoroheptanoic acid (PFHpA)	Modified 537
		Perfluorohexanesulfonic acid (PFHxS)	Modified 537

Parsons

TABLE 1 - ANALYTICAL PARAMETERS

(Continued)

Parameter	Method	Parameter	Method
Per- and polyfluoroalkyl Substances (PFAS) (cont'd)			
		Perfluorohexanoic acid (PFHxA)	Modified 537
		Perfluorononanoic acid (PFNA)	Modified 537
		Perfluorooctanesulfonic acid (PFOS)	Modified 537
		Perfluorooctanoic acid (PFOA)	Modified 537
		Perfluorotetradecanoic acid (PFTA)	Modified 537
		Perfluorotridecanoic acid (PFTriA)	Modified 537
		Perfluoroundecanoic acid (PFUA)	Modified 537
		Perfluoroheptanesulfonic acid (PFHpS)	Modified 537
		Perfluorodecanesulfonic acid (PFDS)	Modified 537
Perfluorobutanoic acid (PFBA)	Modified 537	Perfluorooctanesulfonamide (PFOSA)	Modified 537
Perfluoropentanoic acid (PFPeA)	Modified 537	6:2 Fluorotelomer sulfonate (6:2 FTS)	Modified 537
		8:2 Fluorotelomer sulfonate (8:2 FTS)	Modified 537

TABLE 1 - ANALYTICAL PARAMETERS

(Continued)

Parameter	Method	Parameter	Method
Volatile Organic Compounds			
Acetone	SW8260C	Ethylbenzene	SW8260C
Acrylonitrile	SW8260C	2-Hexanone	SW8260C
Benzene	SW8260C	Bromomethane	SW8260C
Bromochloromethane	SW8260C	Chloromethane (Methyl chloride)	SW8260C
Bromodichloromethane	SW8260C	Dibromomethane	SW8260C
Bromoform	SW8260C	Methylene chloride	SW8260C
Carbon disulfide	SW8260C	2-Butanone (Methyl ethyl ketone)	SW8260C
Carbon tetrachloride	SW8260C	Idomethane (Methyl iodide)	SW8260C
Chlorobenzene	SW8260C	4-Methyl-2-pentanone (Methyl isobutyl ketone)	SW8260C
Chloroethane	SW8260C	Styrene	SW8260C
Chloroform	SW8260C	1,1,1,2-Tetrachloroethane	SW8260C
Dibromochloromethane	SW8260C	1,1,2,2-Tetrachloroethane	SW8260C
1,2-Dibromo-3-chloropropane	SW8260C	Tetrachloroethene	SW8260C
1,2-Dibromoethane (Ethylene dibromide)	SW8260C	Toluene	SW8260C
1,2-Dichlorobenzene	SW8260C	1,1,1-Trichloroethane	SW8260C
1,4-Dichlorobenzene	SW8260C	1,1,2-Trichloroethane	SW8260C
trans-1,4-Dichloro-2-butene	SW8260C	Trichloroethene	SW8260C
1,1-Dichloroethane	SW8260C	Trichlorofluoromethane	SW8260C
1,2-Dichloroethane	SW8260C	1,2,3-Trichloropropane	SW8260C
1,1-Dichloroethene	SW8260C	Vinyl acetate	SW8260C
cis-1,2-Dichloroethene	SW8260C	Vinyl chloride	SW8260C
trans-1,2-Dichloroethene	SW8260C	o-Xylene	SW8260C
1,2-Dichloropropane	SW8260C	m,p-Xylene	SW8260C
cis-1,3-Dichlororpropene	SW8260C	Xylenes, Total	SW8260C
trans-1,3-Dichlororpropene	SW8260C		

TABLE 2 – ANALYTICAL SAMPLE SUMMARY

Samples	Matrix	Laboratory Analysis	No. of Samples	Trip Blank	Equipment/ Field Blank	Total
MW-01	Groundwater	See Table 1	1			1
MW-02	Groundwater	See Table 1	1			1
MW-03	Groundwater	See Table 1	1			1
MW-04	Groundwater	See Table 1	1			1
MW-05	Groundwater	See Table 1	1			1
SEEP-01	Leachate	See Table 1	1			1
TB-1	Water	VOCs		1*		1
FB-1	Water	PFAS; See Table 1			1*	1
EB-1	Water	PFAS; See Table 1			1*	1

* Per day



Plot Date: 6/25/2021 Plotted By: RR



Plot Date: 6/25/2021 Plotted By: RR

0 200 400 800
Feet

- Elevation Contours (feet)
- Estimated Site Limits
- Water Feature

Figure 2



Department of
Environmental
Conservation

Griffon Park
Site Setting

Inactive Landfill Initiative

PARSONS

301 PLAINFIELD ROAD, SUITE 350, SYRACUSE, NY 13212 * 315-451-9560



Plotted By: RR

Plot Date: 7/27/2021

ATTACHMENT 2
BORING AND WELL CONSTRUCTION LOGS

BOREHOLE LOG

Client: New York State Department of Environmental Conservation	Site Location: Niagara Falls, NY	BOREHOLE ID: 9-NIA-003-MW-01
Project: Inactive Landfill Initiative	Weather: 23; windy, snow	START DATE: 02/24/2022 10:30
Region: 9	Job #: 452148.09000	FINISH DATE: 02/25/2022 11:00
Site: Griffon Park LF	DB ID: 9068	PAGE 1 of 2

Depth (ft)	STRATIGRAPHIC DESCRIPTION	MATERIAL TYPE	SAMPLE TYPE	RUN NUMBER	BLOW COUNTS 1/2/3/4	RQD	RECOVERY %	PID (ppm)	MONITORING WELL	COMMENTS AND MONITORING WELL NOTES	Depth (ft)
0	Moist, soft, brown SILT, some Clay, little f-c round to sub-round Gravel, trace glass (clear and brown). [OL]		OS		-	-	0.1			WELL COMPLETED AS FLUSH MOUNT ROAD BOX	0
5			SS		4/4/4/3	-	37.5	0.1		CEMENT GROUT (0-24' BGS)	5
	Moist to dry, loose, yellow-brown f SAND, trace Silt. [SP]										
	Moist, yellow-brown, medium stiff f SAND, little Silt. [SP]		SS		3/6/11/12	-	66.7	0.1			
	Moist, red, stiff CLAY, trace Silt. [CL]										
10	Moist to dry, red, stiff CLAY, trace Silt. [CL]		SS		2/6/9/10	-	100	0.2			10
	Moist to dry, stiff, red CLAY, trace Silt. [CL]		SS		3/3/6/5	-	66.7	0.2			
	Moist, medium stiff, red CLAY. Plastic (rolls to <1/16"). [CH]										
15	Moist, soft to medium stiff, red CLAY, trace Silt. Plastic. [CH]		SS		3/3/3/4	-	58.3	0.2			15
	Moist, soft to medium stiff, mottled red and gray CLAY. Plastic. [CH]		SS		2/3/3/4	-	91.7	0.2			
	Moist, soft to very soft, mottled red and gray CLAY, trace silt. Plastic. [CH]		SS		2/3/3/3	-	50	0.2			
20			SS		3/2/3/2	-	100	0.2			20
22	Moist, very soft, mottled red and gray CLAY. Sticky. Coarse sand on outside of split spoon, but none within the sample. [CH]		SS		2/2/2/2	-	100	0.2			22



CONTRACTOR: NW Contracting

DRILLER: N. Gingrich

EQUIPMENT: Diedrich D-50

OVERSIGHT: T. Schweigel

METHOD: Hollow Stem Auger

BOREHOLE DIA.: 10.5 in

BOREHOLE LOG

Client: New York State Department of Environmental Conservation	Site Location: Niagara Falls, NY	BOREHOLE ID: 9-NIA-003-MW-01
Project: Inactive Landfill Initiative	Weather: 23; windy, snow	START DATE: 02/24/2022 10:30
Region: 9	Job #: 452148.09000	FINISH DATE: 02/25/2022 11:00
Site: Griffon Park LF	DB ID: 9068	PAGE 2 of 2

Depth (ft)	STRATIGRAPHIC DESCRIPTION	MATERIAL TYPE	SAMPLE TYPE	RUN NUMBER	BLOW COUNTS 1/2/3/4	RQD	RECOVERY %	PID (ppm)	MONITORING WELL	COMMENTS AND MONITORING WELL NOTES	Depth (ft)
22			SS		2/2/2/2	-	100	0.2			22
			SS		2/1/2/2	-	75	0.2		BENTONITE CHIPS (24-27' BGS)	
25			SS		1/2/3/2	-	58.3	0.2			25
			SS		WR/WH/WH/WH	-	75	0.2		#00 CHOKE SAND (27-28' BGS)	
			SS		WH/WH/2/3	-	62.5	0.2		#0 FILTER SAND (28-40' BGS)	
30	Moist, soft red, CLAY, some f-c sub-round to sub-angular Gravel, little f Sand. [CL]										30
	Moist, medium stiff, red CLAY, some round to sub-round m-c Gravel. [CL]										
	Dry stiff, CLAY and f-c round to angular GRAVEL, little f-c Sand. [CL]		SS		12/23/37/27	-	91.7	0.2			
			SS		50/5	-	8.3	0.1			
35	One piece of gravel. Moist, dark gray, GRAVEL with a white crystalline-filled vug, some Clay. [GP]									10", 2" DIAMETER, 10-SLOT, SCH 40 PVC SCREEN (30-40' BGS)	35
	Moist to dry, stiff to hard, red CLAY and sub-angular to angular gray GRAVEL, little f Sand. Not plastic. [CL]		SS		37/48/20/43	-	75	0.1			
			SS		50/1	-	4.2				
	Moist, black to dark gray GRAVEL. [GP]									RODS WERE WET WHEN BROUGHT UP.	
40	No recovery. []		SS		50/2	-	0				40
	BOREHOLE TD @ 41 FT BGS []										
44											44



CONTRACTOR: NW Contracting

DRILLER: N. Gingrich

EQUIPMENT: Diedrich D-50

OVERSIGHT: T. Schweigel

METHOD: Hollow Stem Auger

BOREHOLE DIA.: 10.5 in

BOREHOLE LOG

Client: New York State Department of Environmental Conservation	Site Location: Niagara Falls, NY	BOREHOLE ID: 9-NIA-003-MW-02
Project: Inactive Landfill Initiative	Weather: 30; windy	START DATE: 02/23/2022 10:45
Region: 9	Job #: 452148.09000	FINISH DATE: 02/23/2022 14:00
Site: Griffon Park LF	DB ID: 9068	PAGE 1 of 1

Depth (ft)	STRATIGRAPHIC DESCRIPTION	MATERIAL TYPE	SAMPLE TYPE	RUN NUMBER	BLOW COUNTS 1/2/3/4	RQD	RECOVERY %	PID (ppm)	MONITORING WELL	COMMENTS AND MONITORING WELL NOTES	Depth (ft)
0	moist, loose, black to red-orange, fine to coarse GRAVEL, some Sand; significant fill (glass, steel, cloth) [GM]		HC	0	-	-	100	0		WELL COMPLETED AS PVC STICKUP WITH SS PRO. CASING GROUT (0 - 2 FT BGS) BENTONITE CHIPS (2 - 4 FT BGS) 2-IN DIA. SCH40 PVC RISER (0 - 5 FT BGS)	0
5	wet, loose, black to gray, SILT, some Sand; occasional glass [ML]		SS	1	2/1/1/1	-	10	0.1		#0 FILTER SAND (4 - 15 FT BGS); NO CHOKE SAND USED 2-IN DIA. SCH40 10-SLOT PVC SCREEN (5 - 15 FT BGS)	5
			SS	2	2/1/2/2	-	50	0.1			
10	wet, loose, black-gray, SAND, some Silt; occasional glass [SM]		SS	3	3/2/1/1	-	40	0.1			10
	wet, loose, black-gray, SAND, some Silt, some Clay [SM]		SS	4	2/1/WOH/1	-	70	0.1			
	NO RECOVERY []		SS	5	WOH/WOH/WOH/0	-	0	0.1			
15	BOREHOLE TD @ 15 FT BGS []										15
16											16



CONTRACTOR: NW Contracting

DRILLER: N. Gingrich

EQUIPMENT: Diedrich D-50

OVERSIGHT: H. Annunziata

METHOD: Hollow Stem Auger

BOREHOLE DIA.: 10.5 in

BOREHOLE LOG

Client: New York State Department of Environmental Conservation	Site Location: Niagara Falls, NY	BOREHOLE ID: 9-NIA-003-MW-03
Project: Inactive Landfill Initiative	Weather: 18; snow	START DATE: 03/03/2022 10:00
Region: 9	Job #: 452148.09000	FINISH DATE: 03/03/2022 13:30
Site: Griffon Park LF	DB ID: 9068	PAGE 1 of 1

Depth (ft)	STRATIGRAPHIC DESCRIPTION	MATERIAL TYPE	SAMPLE TYPE	RUN NUMBER	BLOW COUNTS 1/2/3/4	RQD	RECOVERY %	PID (ppm)	MONITORING WELL	COMMENTS AND MONITORING WELL NOTES	Depth (ft)
0	moist, loose, brown, SILT, trace Clay; occasional garbage (glass, brick fragments) [ML]									WELL COMPLETED AS PVC STICKUP WITH SS PRO. CASING	0
										GROUT (0 - 2 FT BGS)	
			HC	0	-	-	100	0.1		BENTONITE CHIPS (2 - 3.5 FT BGS)	
										2-IN DIA. SCH40 PVC RISER (0 - 5 FT BGS)	
5	wet, loose, gray-brown, fine SAND, some Silt, some fine Gravel [SM]									#0 FILTER SAND (4 - 10 FT BGS); NO CHOKE SAND USED	5
			SS	1	1/1/MOH/1	-	10	0.1			
	wet, very loose, black, SAND, some Clay, trace Gravel; ODOR and SHEEN observed [SC]									2-IN DIA. SCH40 10-SLOT PVC SCREEN (5 - 10 FT BGS)	
			SS	2	1/2/1/1	-	10	0.9		5 FT SCREEN USED TO PREVENT CREATION OF DEEP MIGRATION PATHWAY OF GROSS CONTAMINATION	
	wet, very soft, dark brown, CLAY, trace Silt; significant ODOR and SHEEN observed [CL]										
10	BOREHOLE TD @ 10 FT BGS []		SS	3	1/1/1/1	-	80	0.5			10
11											11



CONTRACTOR: NW Contracting

DRILLER: N. Gingrich

EQUIPMENT: Diedrich D-50

OVERSIGHT: H. Annunziata

METHOD: Hollow Stem Auger

BOREHOLE DIA.: 10.5 in

BOREHOLE LOG

Client: New York State Department of Environmental Conservation	Site Location: Niagara Falls, NY	BOREHOLE ID: 9-NIA-003-MW-04
Project: Inactive Landfill Initiative	Weather: 36; Light snow	START DATE: 03/02/2022 10:50
Region: 9	Job #: 452148.09000	FINISH DATE: 03/02/2022 15:15
Site: Griffon Park LF	DB ID: 9068	PAGE 1 of 1

Depth (ft)	STRATIGRAPHIC DESCRIPTION	MATERIAL TYPE	SAMPLE TYPE	RUN NUMBER	BLOW COUNTS 1/2/3/4	RQD	RECOVERY %	PID (ppm)	MONITORING WELL	COMMENTS AND MONITORING WELL NOTES	Depth (ft)
0	Moist, brown, SILT, some medium to fine Sand, trace coarse to fine Gravel [ML]									WELL COMPLETED AS FLUSH MOUNT ROAD BOX	0
	Moist, orange, SILT, some fine to medium Sand, little Fill (metal, glass), trace coarse to fine Gravel [ML]		HC	0	-	-	100	0		CEMENT GROUT (0-1.5 FT BGS)	
	Moist, black, SILT, some Fill (glass, metal, cinder) little fine Sand [ML]									ANNULAR BENTONITE SEAL (1.5-4 FT BGS) 2-INCH PVC RISER (0-7 FT BGS)	
5	Wet, dark brown, SILT, some Fill (glass, metal) little coarse to medium Gravel, standing water [MH]									CHOKE SAND (4-5 FT BGS)	5
	Wet, soft, brown, CLAY and SILT, some Fill (wood, brick), trace medium Gravel, faint decay odor [CH]		SS	1	3/2/5/1	-	5	0.2			
	NO RECOVERY, all water in spoon []										
			SS	2	1/2/1/3	-	0				
	Wet, very loose, dark brown, medium to fine SAND, little fine Gravel, trash odor [SP]										
10	Wet, soft, dark brown, SILT and CLAY, little fine sand, trace fine Gravel, faint trash odor [MH]		SS	3	1/3/1/1	-	60	0.5		FILTER SAND (5-17 FT BGS)	10
			SS	4	2/2/5/4	-	55	0.7		2-INCH PVC 0.10 SLOT SCREEN (7-17 FT BGS)	
	Wet, medium stiff, grey, SILT and fine SAND, trace fine Gravel, faint trash odor [MH]		SS	5	2/2/2/3	-	65	0.3			
15	Wet, soft, grey, SILT and CLAY, little fine Sand, faint trash odor [MH]		SS	6	3/1/1/1	-	25	0.3			15
20											20



CONTRACTOR: NW Contracting

DRILLER: N. Gingrich

EQUIPMENT: Diedrich D-50

OVERSIGHT: J. Moffitt

METHOD: Hollow Stem Auger

BOREHOLE DIA.: 4.25 in

BOREHOLE LOG

Client: New York State Department of Environmental Conservation	Site Location: Niagara Falls, NY	BOREHOLE ID: 9-NIA-003-MW-05
Project: Inactive Landfill Initiative	Weather: 43; Partly Sunny	START DATE: 03/01/2021 12:55
Region: 9	Job #: 452148.09000	FINISH DATE: 03/02/2022 10:25
Site: Griffon Park LF	DB ID: 9068	PAGE 1 of 1

Depth (ft)	STRATIGRAPHIC DESCRIPTION	MATERIAL TYPE	SAMPLE TYPE	RUN NUMBER	BLOW COUNTS 1/2/3/4	RQD	RECOVERY %	PID (ppm)	MONITORING WELL	COMMENTS AND MONITORING WELL NOTES	Depth (ft)
0	Moist, brown, SILT, some fine Sand, little Clay and coarse to fine Gravel [ML]									WELL COMPLETED AS FLUSH MOUNT ROAD BOX	0
										CEMENT GROUT (0-1.5 FT BGS)	
	Moist, black, FILL (top soil) and SILT, little fine Sand and coarse to fine Gravel [ML]									ANNULAR BENTONITE SEAL (1.5-4 FT BGS)	
	Moist, orange, SILT and fine SAND, some Fill (glass) [ML]									2-INCH PVC RISER (0-7 FT BGS)	
										CHOKE SAND (4-5 FT BGS)	
5	Moist, grey, FILL (glass, paper, cloth) []										5
	Moist, grey, FILL (glass) []										
	Moist, soft, black, FILL (glass, mulch, paper, metal), little Silt, faint trash odor []										
	Wet, soft, black, FILL (glass, mulch, paper, metal), little Silt, faint trash odor []										
10											10
	Wet, medium stiff, black, CLAY, little Silt and Fill (mulch) [CH]									FILTER SAND (5-17 FT BGS)	
										2-INCH PVC 0.10 SLOT SCREEN (7-17 FT BGS)	
	Wet, medium stiff, black, CLAY and SILT, trace medium Gravel [CH]										
15	Wet, medium stiff, grey, SILT, some Clay, little fill (plastic) little fine Sand, trace medium Gravel [MH]										15
17											17



CONTRACTOR: NW Contracting

DRILLER: N. Gingrich

EQUIPMENT: Diedrich D-50

OVERSIGHT: J. Moffitt

METHOD: Hollow Stem Auger

BOREHOLE DIA.: 4.25 in

ATTACHMENT 3
GROUNDWATER SAMPLE LOGS

Low Flow Ground Water Sampling Log								
Mike Hayes/Kelcie								
Date	03/22/22		Personnel	Bogardus		Weather	Sunny/Low 40s	
Site Name	Griffon Park Site		Evacuation Method	Bladder/Peri		Well #	MW-01	
Site Location	Niagara Falls, NY		Sampling Method	Low Flow		Project #	452148.09000	
Well information:								
Depth of Well	40.2 ft.		*Measurements taken from:					
Depth to Water	1.56 ft.		X		Top of Well Casing			
H _{wc}	38.64 ft.				Top of Protective Casing			
Depth to Intake	30 ft.				(Other, Specify)			
Start Purge Time: 1130								
		10%	0.1	3%	10 mV	10%	10%	100 - 500 mL/min
Elapsed Time (min)	Depth to Water (ft)	Temperature (celsius)	pH	Conductivity (ms/cm)	Oxidation Reduction Potential	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Flow Rate (mL/min)
0	11.14	13.31	6.22	3.03	-121	2.5	>1000	275
5	11	13.14	6.87	3.01	-194	0.7	>1000	275
10	11	13.15	7.31	3.01	-245	0.47	>1000	275
15	10.89	13.12	7.41	3	-254	0.4	>1000	275
20	10.84	13.1	7.43	2.97	-255	0.38	>1000	275
25	10.81	12.96	7.43	2.95	-261	0.38	>1000	275
30	10.82	12.94	7.43	2.95	-283	0.39	>1000	275
35	10.83	12.94	7.42	2.98	-315	0.38	>1000	275
40	10.86	12.93	7.42	3.01	-345	0.45	>1000	275
45	10.88	12.95	7.41	3.05	-371	0.49	>1000	275
50	10.89	12.94	7.4	3.1	-391	0.52	745	275
55	10.8	12.89	7.4	3.09	-401	0.55	569	275
60	10.8	12.86	7.39	3.12	-408	0.57	467	275
65	10.81	12.9	7.38	3.15	-414	0.6	382	275
70	10.81	12.9	7.38	3.19	-419	0.61	355	275
75	10.84	12.81	7.37	3.2	-425	0.63	349	275
80	10.82	12.82	7.35	3.17	-430	0.65	274	275
85	10.81	12.79	7.34	3.18	-433	0.66	237	275
90	10.81	12.77	7.33	3.18	-427	0.66	206	275
95	10.86	12.84	7.33	3.19	-439	0.67	191	275
100	10.83	12.85	7.33	3.17	-442	0.66	165	275
105	10.65	12.95	7.34	3.09	-443	0.66	153	275
110	10.75	12.88	7.33	3.1	-445	0.66	177	275
115	10.94	12.84	7.33	3.11	-447	0.66	180	275
End Purge Time: 1400								
Water Sample								
Time Collected: 1410		Total volume of purged water removed: 13 (gallons)						
Physical appearance at start:		Physical appearance at start:						
Color muddy		Color clear/cloudy						
Odor sulfur		Odor sulfur						
Sheen/Free Product yes		Sheen/Free Product yes						
Samples: (See list of parameters collected below)								
MS/MSD/Field Dup?								
9-NIA-003-001-01								
*Turbidity did not reach below 50 NTU								
Sample	Container Type	# Collected	Field Filtered	Preservative	Container pH			
Alkalinity	125 mL Plastic	1	no	none	-			
Ammonia/COD	250 mL Plastic	1	no	H2SO4	-			
PAHs + 1,4-Dioxane	1 L Amber	2	no	none	-			
Chl/Tds/Bro/SO4	60 mL Plastic	1	no	none	-			
TOC	40 mL Glass	2	no	HCl	-			
TDS	500 mL Plastic	1	no	none	-			
VOCs	40 mL Glass	3	no	HCl	-			
Mod. Bsln Metals / Hardness	250 mL Plastic	2	no	HNO3	-			
PFAS	250 mL Plastic	2	no	none	-			
PAHs	250 mL Amber	2	no	none	-			

Low Flow Ground Water Sampling Log

Mike Hayes/Kelcie

Date	03/22/22	Personnel	Bogardus	Weather	Sunny/Low 40s
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Site Name	Griffon Park Site	Evacuation Method	Bladder/Peri	Well #	MW-01
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Site Location	Niagara Falls, NY	Sampling Method	Low Flow	Project #	452148.09000
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Well information:

Depth of Well	40.2 ft.
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*Measurements taken from:

Depth to Water 1.56 ft.

$$H_{wc} \quad \overline{\quad\quad\quad} \quad 38.64 \text{ ft.}$$

Depth to Intake 30 ft.

X	Top of Well Casing
	Top of Protective Casing
	(Other, Specify)

Start Purge Time: 1130

[illegible]

End Purge Time: 1400

Water Sample

Time Collected: 1410

Total volume of purged water removed: 13 (gallons)

Physical appearance at start:

Physical appearance at start:

Color muddy

Color clear/cloudy

Odor sulfur

Odor sulfur

Sheen/Free Product yes

Sheen/Free Product yes

Samples:

(See list of parameters collected below)

MS/MSD/Field Dup?

9-NIA-003-001-01

*Turbidity did not reach below 50 NTU

Sample	Container Type	# Collected	Field Filtered	Preservative	Container pH
Alkalinity	125 mL Plastic	1	no	none	-
Ammonia/COD	250 mL Plastic	1	no	H2SO4	-
PAHs + 1,4-Dioxane	1 L Amber	2	no	none	-
Chl/Tds/Bro/SO4	60 mL Plastic	1	no	none	-
TOC	40 mL Glass	2	no	HCl	-
TDS	500 mL Plastic	1	no	none	-
VOCs	40 mL Glass	3	no	HCl	-
Mod. Bsln Metals / Hardness	250 mL Plastic	2	no	HNO3	-
PFAS	250 mL Plastic	2	no	none	-
PAHs	250 mL Amber	2	no	none	-

Low Flow Ground Water Sampling Log

Mike Haves/Kelcie

Date	03/22/22	Personnel	Bogardus	Weather	Sunny/Low 40s
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Site Name	Griffon Park Site	Evacuation Method	Peristaltic Pump	Well #	MW-02
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Site Location	Niagara Falls, NY	Sampling Method	Low Flow	Project #	452148.09000
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Well information:

Depth of Well	17.44 ft.
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*Measurements taken from:

Depth to Water 5.2 ft.

X	Top of Well Casing
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$$H_{wc} = 12.24 \text{ ft.}$$

	1	8
	Top of Protective Casing	

Depth to Intake 16 ft.

	1
	(Other, Specify)

Start Purge Time: 1440

[illegible]

End Purge Time: 1510

Water Sample

Time Collected: 1515

Total volume of purged water removed: 5 (gallons)

Physical appearance at start:

Physical appearance at start:

Color cloudy

Color clear

Odor slight sulfur

Odor none

Sheen/Free Product yes

Sheen/Free Product none

Samples:

(See list of parameters collected below)

MS/MSD/Field Dup? Yes

9-NIA-003-001-02 (MS/MSD)

9-NIA-003-001-07

Sample	Container Type	# Collected	Field Filtered	Preservative	Container pH
Alkalinity	125 mL Plastic	1	no	none	-
Ammonia/COD	250 mL Plastic	1	no	H2SO4	-
PAHs + 1,4-Dioxane	1 L Amber	2	no	none	-
Chl/Tds/Bro/SO4	60 mL Plastic	1	no	none	-
TOC	40 mL Glass	2	no	HCl	-
TDS	500 mL Plastic	1	no	none	-
VOCs	40 mL Glass	3	no	HCl	-
Mod. Bsln Metals / Hardness	250 mL Plastic	2	no	HNO3	-
PFAS	250 mL Plastic	2	no	none	-
PAHs	250 mL Amber	2	no	none	-

Low Flow Ground Water Sampling Log

Mike Haves/Kelcie

Date	03/23/22	Personnel	Bogardus	Weather	Cloudy/Rain/30s
Site Name	Griffon Park Site	Evacuation Method	Peristaltic	Well #	MW-03
Site Location	Niagara Falls, NY	Sampling Method	Low Flow	Project #	452148.09000

Well information:

Depth of Well	12.46 ft.
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Depth to Water 6.9 ft.

$$H_{wc} \quad \overline{\hspace{1.5cm}} \quad 5.56 \text{ ft.}$$

Depth to Intake 11 ft.

*Measurements taken from:

X	Top of Well Casing
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Top of Protective Casing

(Other, Specify)

Start Purge Time: 1230

[illegible]

End Purge Time: 1310

Water Sample

Time Collected: 1315

Total volume of purged water removed: 4 (gallons)

Physical appearance at start:

Physical appearance at start:

Color clear

Color clear

Odor slight sulfur

Odor slight sulfur

Sheen/Free Product slight sheen

Sheen/Free Product slight sheen

Samples:

(See list of parameters collected below)

MS/MSD/Field Dup?

9-NIA-003-002-03

*At beginning of purge time, water had tiny black particulates (OM?)

Sample	Container Type	# Collected	Field Filtered	Preservative	Container pH
Alkalinity	125 mL Plastic	1	no	none	-
Ammonia/COD	250 mL Plastic	1	no	H2SO4	-
PAHs + 1,4-Dioxane	1 L Amber	2	no	none	-
Chl/Tds/BrO/SO4	60 mL Plastic	1	no	none	-
TOC	40 mL Glass	2	no	HCl	-
TDS	500 mL Plastic	1	no	none	-
VOCs	40 mL Glass	3	no	HCl	-
Mod. Bsln Metals / Hardness	250 mL Plastic	2	no	HNO3	-
PFAS	250 mL Plastic	2	no	none	-
PAHs	250 mL Amber	2	no	none	-

Low Flow Ground Water Sampling Log

Mike Haves/Kelcie

Date	03/23/22	Personnel	Bogardus	Weather	Cloudy/Windy/30s
Site Name	Griffon Park Site	Evacuation Method	Peristaltic	Well #	MW-04
Site Location	Niagara Falls, NY	Sampling Method	Low Flow	Project #	452148.09000

Well information:

Depth of Well	16.8 ft.
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Depth to Water	3.95 ft.
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$$H_{wc} \quad \overline{\hspace{1.5cm}} \quad 12.85 \text{ ft.}$$

Depth to Intake 15 ft.

*Measurements taken from:

X	Top of Well Casing
	Top of Protective Casing
	(Other, Specify)

Start Purge Time: 1050

[illegible]

End Purge Time: 1140

Water Sample

Time Collected: 1145

Total volume of purged water removed: 7 (gallons)

Physical appearance at start:

Physical appearance at start:

Color clear

Color clear

Odor sulfur

Odor sulfur

Sheen/Free Product none

Sheen/Free Product none

Samples:

(See list of parameters collected below)

MS/MSD/Field Dup?

9-NIA-003-002-02

Sample	Container Type	# Collected	Field Filtered	Preservative	Container pH
Alkalinity	125 mL Plastic	1	no	none	-
Ammonia/COD	250 mL Plastic	1	no	H2SO4	-
PAHs + 1,4-Dioxane	1 L Amber	2	no	none	-
Chl/Tds/Bro/SO4	60 mL Plastic	1	no	none	-
TOC	40 mL Glass	2	no	HCl	-
TDS	500 mL Plastic	1	no	none	-
VOCs	40 mL Glass	3	no	HCl	-
Mod. Bsln Metals / Hardness	250 mL Plastic	2	no	HNO3	-
PFAS	250 mL Plastic	2	no	none	-
PAHs	250 mL Amber	2	no	none	-

Low Flow Ground Water Sampling Log

Mike Hayes/Kelcie

Date	03/23/22	Personnel	Bogardus	Weather	Cloudy/Windy/30s
Site Name	Griffon Park Site	Evacuation Method	Peristaltic	Well #	MW-05
Site Location	Niagara Falls, NY	Sampling Method	Low Flow	Project #	452148.09000

Well information:

Depth of Well 16.5 ft.

*Measurements taken from:

Depth to Water	7.4 ft.
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$$H_{wc} \quad \underline{\hspace{1.5cm}} \quad 9.1 \text{ ft.}$$

Depth to Intake	15 ft.
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X	Top of Well Casing
	Top of Protective Casing
	(Other, Specify)

Start Purge Time: 0915

[illegible]

End Purge Time: 0945

Water Sample

Time Collected: 0955

Total volume of purged water removed: 4 (gallons)

Physical appearance at start:

Physical appearance at start:

Color cloudy

Color clear

Odor slight sulfur

Odor slight sulfur

Sheen/Free Product none

Sheen/Free Product none

Samples:

(See list of parameters collected below)

MS/MSD/Field Dup?

9-NIA-003-002-01

Sample	Container Type	# Collected	Field Filtered	Preservative	Container pH
Alkalinity	125 mL Plastic	1	no	none	-
Ammonia/COD	250 mL Plastic	1	no	H2SO4	-
PAHs + 1,4-Dioxane	1 L Amber	2	no	none	-
Chl/Tds/BrO/SO4	60 mL Plastic	1	no	none	-
TOC	40 mL Glass	2	no	HCl	-
TDS	500 mL Plastic	1	no	none	-
VOCs	40 mL Glass	3	no	HCl	-
Mod. Bsln Metals / Hardness	250 mL Plastic	2	no	HNO3	-
PFAS	250 mL Plastic	2	no	none	-
PAHs	250 mL Amber	2	no	none	-

PARSONS
SURFACE WATER/SEEP SAMPLING RECORD

SITE NAME: Griffon Park LF
PROJECT NUMBER: 452148.09000
SAMPLING DATE / TIME: 03/22/22 1640
WEATHER: Sunny/Windy
SAMPLERS: Mike Hayes of Parsons
Kelcie Bogardus of Parsons
SAMPLE ID: 9-NIA-003-001-03
SAMPLING METHOD: Peristaltic Pump
DEPTH OF SAMPLE: N/A Surface

DESCRIPTION OF SAMPLING POINT

LOCATION: Griffon Park near boat dock (43.075785, 78.953251)
PHYSICAL APPEARANCE: Near boat dock, coming from grassy area onto concrete
DEPTH TO BOTTOM: N/A
DRAINAGE DIRECTION: Towards canal
UPSTREAM FROM: Canal
DOWNSTREAM FROM: Landfill

SAMPLE DESCRIPTION

COLOR: Rainbow sheen and rust
ODOR: Slight sulfur
SUSPENDED MATTER: Rust and plant matter
OTHER:

FIELD TESTS

FIELD TESTS LABEL:
TEMPERATURE: 7.80 degrees C **REDOX:** -175
pH: 6.76 **DISSOLVED O2:** 12.57 mg/O
CONDUCTIVITY: 2.03 ms/cm **OTHER:** Turbidity: 288 NTU

SAMPLE ANALYSIS / QA/QC / CHAIN OF CUSTODY

ANALYZE FOR: PFAS, VOCs, PAHs, 1,4-Dioxane, Metals/Hg, Hardness, Ammonia/COD, TOS, SO4/CHL/BRO, TDS, Alkalinity
QA/QC SAMPLE ID:
ANALYZE QA/QC SAMPLES FOR:
DATE/TIME REFRIGERATED: 03/22/22 1700
CHAIN OF CUSTODY NUMBER: 9-NIA-003-001-03
SHIPPED VIA: Fedex
LABORATORY: ALS

COMMENTS / MISCELLANEOUS

ATTACHMENT 4

ANALYTICAL LABORATORY LEVEL II DATA DELIVERABLE



April 19, 2022

Service Request No:R2202484

Mr. George Moreau
Parsons Engineering Science
301 Plainfield Road
Suite 350
Syracuse, NY 13212

Laboratory Results for: ILI - Region 9 Griffon Park

Dear Mr. Moreau,

Enclosed are the results of the sample(s) submitted to our laboratory March 23, 2022
For your reference, these analyses have been assigned our service request number **R2202484**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Janice Jaeger
Project Manager

CC: Maryanne
Kosciewicz

ADDRESS

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

PHONE +1 585 288 5380 | **FAX** +1 585 288 8475

ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com



Client: Parsons
Project: ILI - Region 9 Griffon Park
Sample Matrix: Water

Service Request: R2202484
Date Received: 03/23/2022

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

Sample Receipt:

Eight water samples were received for analysis at ALS Environmental on 03/23/2022. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

One or more samples were subcontracted to another laboratory for testing. The certified analytical report from the subcontractor has been included in its entirety at the end of this report and includes the name and address of the subcontracted laboratory.

Semivolatiles by GC/MS:

Method 8270D, 04/04/2022: The control limit was exceeded for one or more surrogates in the Continuing Calibration Verification (CCV). The surrogates were within acceptance limits for the associated field samples. The data quality was not significantly affected and no further corrective action was taken.

Method 8270D, 04/05/2022: The control limit was exceeded for one or more surrogates in the Continuing Calibration Verification (CCV). The surrogates were within acceptance limits for the associated field samples. The data quality was not significantly affected and no further corrective action was taken.

Method 8270D, 759624: Sample(s) required dilution due to the presence of matrix that interfered with internal standard recovery. The reporting limits are adjusted to reflect the dilution.

Metals:

No significant anomalies were noted with this analysis.

General Chemistry:

No significant anomalies were noted with this analysis.

Subcontracted Analytical Parameters:

No significant anomalies were noted with this analysis.

Volatiles by GC/MS:

Method 8260C, 03/30/2022: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 8260C, 03/30/2022: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) above the MRL in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Method 8260C, : The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) above the MRL in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Approved by _____

Date 04/18/2022



Sample Receipt Information

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03

Service Request:R2202484

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R2202484-001	9-NIA-003-001-01	3/22/2022	1410
R2202484-002	9-NIA-003-001-01 Diss	3/22/2022	1410
R2202484-003	9-NIA-003-001-02	3/22/2022	1515
R2202484-004	9-NIA-003-001-03	3/22/2022	1640
R2202484-005	9-NIA-003-001-04	3/22/2022	1115
R2202484-006	9-NIA-003-001-05	3/22/2022	1645
R2202484-007	9-NIA-003-001-06	3/22/2022	
R2202484-008	9-NIA-003-001-07	3/22/2022	1515

CHAIN-OF-CUSTODY / Analytical Request Document																																																																																																																																																		
Section A Laboratory Information					Section B Client Information					COC #:		9-NIA-003-001																																																																																																																																						
Lab Name: ALS					Company: Parsons					Project Name:		ILI - Region 9																																																																																																																																						
Attention: Janice Jaeger					Attention: George Moreau					Project Site:		Griffon Park																																																																																																																																						
Address: 1565 Jefferson Road, Bldg 300, Suite 360 Rochester, NY 14623					Address: 301 Plainfield Road, Suite 350 Syracuse, NY 13212					Project Number:		452148.09000																																																																																																																																						
Phone: 585-288-5380					Phone: 315-552-9715					Composite (V/N) <table border="1" style="font-size: 8px; border-collapse: collapse;"> <tr> <th colspan="12">Preservative codes (for water only):</th> </tr> <tr> <td>0</td><td>1</td><td>0</td><td>0</td><td>2</td><td>2</td><td>3</td><td>3</td><td>0</td><td>0</td><td>0</td><td>0</td> </tr> <tr> <td colspan="2">Headed Baseline VOCs 8260</td> <td colspan="2">1, 4 - Dichloro 8270SM</td> <td colspan="2">Mod Bdn Mod/Hg 6010/7470</td> <td colspan="2">Ammonia/COD 350.1/410.4</td> <td colspan="2">SO4/CL/BRD 300.0</td> <td colspan="2">Alkalinity 9400 2320B</td> </tr> <tr> <td colspan="2">PbAs Modified 537</td> <td colspan="2">PbAs 8270SM</td> <td colspan="2">Hard 9400 2340C</td> <td colspan="2">TOC 9060A</td> <td colspan="2">TDS 9405400</td> <td colspan="2">Dissolved Mod Metals/Hg 6010/7470</td> </tr> </table>		Preservative codes (for water only):												0	1	0	0	2	2	3	3	0	0	0	0	Headed Baseline VOCs 8260		1, 4 - Dichloro 8270SM		Mod Bdn Mod/Hg 6010/7470		Ammonia/COD 350.1/410.4		SO4/CL/BRD 300.0		Alkalinity 9400 2320B		PbAs Modified 537		PbAs 8270SM		Hard 9400 2340C		TOC 9060A		TDS 9405400		Dissolved Mod Metals/Hg 6010/7470																																																																																								
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Email: janice.jaeger@alsglobal.com					Email: George.H.Moreau@parsons.com																																																																																																																																													
Section C Deliverable Requirements					Purchase Order No:					HS/MSD					# Bottles	2	3	2	2	2	1	1	3	1	1	1	1	X	X	X	X	X	X	X	X	X	X	X	2	X	X	X	X	X	X	X	X	X	X	X	3	X	X	X	X	X	X	X	X	X	X	X	4	X											5	X											6		X										7	X	X	X	X	X	X	X	X	X	X	X	8												9												10											
# Bottles	2	3	2	2	2	1	1	3	1						1	1																																																																																																																																		
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Report To: George.H.Moreau@parsons.com					TAT - 10 Day										
Copy To: Lorraine.Weber@parsons.com; Laura.Drachenberg@parsons.com Maryanne.Kosciewicz@parsons.com; Heather.Fettig@parsons.com					**Section D Additional Information**										
Deliverables: Level 2, CAT B Report, NYSDEC EQUIS EDD															
	Location ID	Start Depth (ft)	End Depth (ft)	Field Sample ID MUST BE UNIQUE	Sample Date	Sample Time	Sample Matrix	Sample Type	# of Cont.						
1	9-NIA-003-MW-01	30	40	9-NIA-003-001-01	03-22-22	1410	WG	N	18						
2	9-NIA-003-MW-02	5	15	9-NIA-003-001-02	03-22-22	1515	WG	N	54	X					
3	9-NIA-003-SEEP-01	-	-	9-NIA-003-001-03	03-22-22	1640	WS	N	18						
4	Field QC	-	-	9-NIA-003-001-04	03-22-22	1115	WQ	FB	1						
5	Field QC	-	-	9-NIA-003-001-05	03-22-22	1645	WQ	EB	2						
6	Field QC	-	-	9-NIA-003-001-06	03-22-22	-	WQ	TB	3						
7	9-NIA-063-MW-02	5	15	9-NIA-003-001-07	03-22-22	1515	WG	FD	18						
8															
9															
10															
Special Instructions:															
**** - Additional bottles for Dissolved Mod Metals/Hg (unpreserved) will be collected when Turbidity is greater than 50 NTU. Lab to filter.** ***MW-01 Turbidity greater than 50 NTU, take excess water from large ampers to do filtered metals***															
Samplers Name: Kate Bogardus		Company: Parsons			Relinquished By:			Company:			Cooler Temp.:			Custody Seals Intact: Yes ☐ No ☐	
Date/Time: 03-22-22 1715		Shipment Tracking No:			Accepted By:			Company:			Cooler Temp.:			Samples Intact: Yes ☐ No ☐	
Date/Time:		Date/Time:			Date/Time: 3/22/22 0930			Date/Time:			Cooler Temp.:			Custody Seal Intact: Yes ☐ No ☐	
Preservatives: 0 = None; [1 = HCL]; [2 = HNO3]; [3 = H2SO4]; [4 = NaOH]; [5 = Zn Acetate]; [6 = MeOH]; [7 = NaHSO4]; 8 = Other (H3PO4):															

Page 1 of 1



Cooler Receipt and Preservation Check Form

R2202484
Parsons Engineering Science
LLI - Region 9 Griffon Park

5

Project/Client Parsons

Folder Number _____

Cooler received on 3/23/22

by: e

COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	Y <u>(N)</u>
2	Custody papers properly completed (ink, signed)?	<u>(Y)</u> N
3	Did all bottles arrive in good condition (unbroken)?	<u>(Y)</u> N
4	Circle: <u>Wet Ice</u> Dry Ice Gel packs present?	<u>(Y)</u> N

5a	Perchlorate samples have required headspace?	Y N <u>(NA)</u>
5b	Did VOA vials, Alk, or Sulfide have sig* bubbles?	<u>(Y)</u> N NA
6	Where did the bottles originate?	<u>ALS/ROC</u> CLIENT
7	Soil VOA received as: Bulk Encore 5035set	<u>(NA)</u>

3. Temperature Readings Date: 3/23/22 Time: 0946 ID: IR#7 (IR#11) From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>3.8</u>	<u>2.9</u>	<u>4.5</u>	<u>2.7</u>	<u>3.3</u>		
Within 0-6°C?	<u>(Y)</u> N	<u>(Y)</u> N	<u>(Y)</u> N	<u>(Y)</u> N	<u>(Y)</u> N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule

& Client Approval to Run Samples: _____ Standing Approval: Client aware at drop-off Client notified by: _____

All samples held in storage location: Room by e on 3/23/22 at 0959
5035 samples placed in storage location: _____ by _____ on _____ at _____ within 48 hours of sampling? Y N

Cooler Breakdown/Preservation Check**: Date: 3/23/22 Time: 1312 by: e

9. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
10. Did all bottle labels and tags agree with custody papers? YES NO
11. Were correct containers used for the tests indicated? YES NO
12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO
13. Air Samples: Cassettes / Tubes Intact Y / N with MS Y / N Canisters Pressurized Tedlar® Bags Inflated (N/A)

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
≥12		NaOH								
≤2	<u>205320</u>	HNO ₃	<u>✓</u>		<u>1121071</u>					
≤2		H ₂ SO ₄	<u>✓</u>		<u>112010, 11160759</u>					
<4		NaHSO ₄								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃								
		ZnAcetate	-	-						
		HCl	**	**						

**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 21-11-11, 1-027-008, 2602, 111521-0AAA, 80409-C2769, 12721-16LT, 21-12-14

Explain all Discrepancies/ Other Comments:

headspace: all alk and 1 vial TB

HPROD	BULK
HTR	FLDT
<u>SUB</u>	HGFB
ALS	LL3541

Labels secondary reviewed by: e

PC Secondary Review: WJ 3/29/22 *significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter

ALS Group USA, Corp.
dba ALS Environmental

Internal Chain of Custody Report

Client: Parsons Engineering Science
Project: ILI - Region 9 Griffon Park/452148.60007.03

Service Request: R2202484

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R2202484-001.01					
		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1315	R-001 / GLAFORCE	
		3/29/2022	1621	In Lab / KRUEST	
		3/29/2022	1822	R-001-S12 / KRUEST	
R2202484-001.02					
	8260C				
		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1315	R-001 / GLAFORCE	
		3/31/2022	1159	In Lab / KRUEST	
		3/31/2022	1210	R-001-S12 / KRUEST	
R2202484-001.03					
		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1315	R-001 / GLAFORCE	
R2202484-001.04					
	SM 2340 C-1997(2011)				
		3/23/2022	1312	SMO / GLAFORCE	
		3/24/2022	1120	R-015 / GESMERIAN	
		3/24/2022	1121	RT000739 / GESMERIAN	
		4/15/2022	1639	R-002 / GESMERIAN	
R2202484-001.05					
	300.0,SM 2540 C-1997(2011),300.0,300.0				
		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1457	R-017 / GESMERIAN	
		3/23/2022	1458	RT000046 / GESMERIAN	
		4/11/2022	1508	R-002 / GESMERIAN	
R2202484-001.06					
	410.4,350.1				
		3/23/2022	1312	SMO / GLAFORCE	
		3/24/2022	1123	RT000774 / GESMERIAN	
		3/24/2022	1123	R-016 / GESMERIAN	
R2202484-001.07					
		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1315	R-002 / GLAFORCE	
R2202484-001.08					
	8270D SIM				
		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1315	R-002 / GLAFORCE	

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Internal Chain of Custody Report

Client: Parsons Engineering Science
Project: ILI - Region 9 Griffon Park/452148.60007.03

Service Request: R2202484

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
	8270D SIM	3/29/2022	1100	In Lab / AFELSER	
		3/30/2022	1238	R-002 / AFELSER	
R2202484-001.09					
	PFC/537M	3/23/2022	1312	SMO / GLAFORCE	3/24/2022
		3/23/2022	1315	SUBBED / GLAFORCE	3/24/2022
		3/24/2022	1240	K-OLC / SMO2	3/24/2022
		3/24/2022	1241	OLC 19 / SMO2	3/24/2022
		3/24/2022	1306	In Lab / CCOX	3/24/2022
		3/24/2022	1735	K-Disposed / AMOORE	3/24/2022
R2202484-001.10					
		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1315	SUBBED / GLAFORCE	
		3/24/2022	1240	K-OLC / SMO2	
		3/24/2022	1241	OLC 19 / SMO2	
		4/14/2022	1113	K-DELILAH / AMOORE	
R2202484-001.11					
	SM 2320 B-1997(2011)	3/23/2022	1312	SMO / GLAFORCE	
		3/24/2022	1125	R-014 / GESMERIAN	
		3/24/2022	1126	RT000571 / GESMERIAN	
		4/13/2022	1751	R-002 / GLAFORCE	
R2202484-001.12					
	SM 5310 C-2000(2011)	3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1457	RT000046 / GESMERIAN	
		3/23/2022	1457	R-017 / GESMERIAN	
		4/11/2022	1508	R-002 / GESMERIAN	
R2202484-001.13					
		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1457	RT000046 / GESMERIAN	
		3/23/2022	1457	R-017 / GESMERIAN	
		4/11/2022	1508	R-002 / GESMERIAN	
R2202484-001.14					
		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1457	R-017 / GESMERIAN	
		3/23/2022	1457	RT000046 / GESMERIAN	

Internal Chain of Custody Report

Service Request: R2202484

[illegible]

ALS Group USA, Corp.
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Internal Chain of Custody Report

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Service Request: R2202484

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1315	R-001 / GLAFORCE	
R2202484-003.04					
	SM 2340 C-1997(2011)				
		3/23/2022	1312	SMO / GLAFORCE	
		3/24/2022	1120	R-015 / GESMERIAN	
		3/24/2022	1121	RT000739 / GESMERIAN	
		4/15/2022	1639	R-002 / GESMERIAN	
R2202484-003.05					
	SM 2540 C-1997(2011),300.0,300.0,300.0				
		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1457	R-017 / GESMERIAN	
		3/23/2022	1458	RT000046 / GESMERIAN	
		4/11/2022	1508	R-002 / GESMERIAN	
R2202484-003.06					
	410.4,350.1				
		3/23/2022	1312	SMO / GLAFORCE	
		3/24/2022	1123	RT000774 / GESMERIAN	
		3/24/2022	1123	R-016 / GESMERIAN	
R2202484-003.07					
	8270D SIM				
		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1315	R-002 / GLAFORCE	
		3/29/2022	1100	In Lab / AFELSER	
		3/30/2022	1238	R-002 / AFELSER	
R2202484-003.08					
		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1315	R-002 / GLAFORCE	
		3/29/2022	1100	In Lab / AFELSER	
		3/30/2022	1238	R-002 / AFELSER	
R2202484-003.09					
	PFC/537M				
		3/23/2022	1312	SMO / GLAFORCE	3/24/2022
		3/23/2022	1315	SUBBED / GLAFORCE	3/24/2022
		3/24/2022	1240	OLC 19 / SMO2	3/24/2022
		3/24/2022	1240	K-OLC / SMO2	3/24/2022
		3/24/2022	1306	In Lab / CCOX	3/24/2022
		3/24/2022	1735	K-Disposed / AMOORE	3/24/2022
R2202484-003.10					

ALS Group USA, Corp.
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Internal Chain of Custody Report

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Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1315	SUBBED / GLAFORCE	
		3/24/2022	1240	OLC 19 / SMO2	
		3/24/2022	1240	K-OLC / SMO2	
		4/14/2022	1113	K-DELILAH / AMOORE	
R2202484-003.11					
	SM 2320 B-1997(2011)				
		3/23/2022	1312	SMO / GLAFORCE	
		3/24/2022	1125	R-014 / GESMERIAN	
		3/24/2022	1126	RT000571 / GESMERIAN	
		4/13/2022	1751	R-002 / GLAFORCE	
R2202484-003.12					
	SM 5310 C-2000(2011)				
		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1457	RT000046 / GESMERIAN	
		3/23/2022	1457	R-017 / GESMERIAN	
		4/11/2022	1508	R-002 / GESMERIAN	
R2202484-003.13					
		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1457	RT000046 / GESMERIAN	
		3/23/2022	1457	R-017 / GESMERIAN	
		4/11/2022	1508	R-002 / GESMERIAN	
R2202484-003.14					
		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1457	RT000046 / GESMERIAN	
		3/23/2022	1457	R-017 / GESMERIAN	
		4/11/2022	1508	R-002 / GESMERIAN	
R2202484-003.15					
		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1315	R-002 / GLAFORCE	
R2202484-003.16					
		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1315	R-002 / GLAFORCE	
R2202484-003.17					
	7470A				
		3/23/2022	1312	SMO / GLAFORCE	

Internal Chain of Custody Report

Service Request: R2202484

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ALS Group USA, Corp.
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Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
		3/23/2022	1314	SMO / GLAFORCE	
		3/24/2022	1120	R-015 / GESMERIAN	
		3/24/2022	1121	RT000739 / GESMERIAN	
		4/15/2022	1639	R-002 / GESMERIAN	
R2202484-003.27					
		3/23/2022	1314	SMO / GLAFORCE	
		3/23/2022	1457	R-017 / GESMERIAN	
		3/23/2022	1458	RT000046 / GESMERIAN	
		4/11/2022	1508	R-002 / GESMERIAN	
R2202484-003.28					
		3/23/2022	1314	SMO / GLAFORCE	
		3/23/2022	1457	R-017 / GESMERIAN	
		3/23/2022	1458	RT000046 / GESMERIAN	
		4/11/2022	1508	R-002 / GESMERIAN	
R2202484-003.29					
		3/23/2022	1314	SMO / GLAFORCE	
		3/24/2022	1123	R-016 / GESMERIAN	
		3/24/2022	1124	RT000774 / GESMERIAN	
R2202484-003.30					
		3/23/2022	1314	SMO / GLAFORCE	
		3/24/2022	1123	R-016 / GESMERIAN	
		3/24/2022	1124	RT000774 / GESMERIAN	
R2202484-003.31					
		3/23/2022	1314	SMO / GLAFORCE	
		3/23/2022	1315	R-002 / GLAFORCE	
R2202484-003.32					
		3/23/2022	1314	SMO / GLAFORCE	
		3/23/2022	1315	R-002 / GLAFORCE	
R2202484-003.33					
		3/23/2022	1314	SMO / GLAFORCE	
		3/23/2022	1315	R-002 / GLAFORCE	
R2202484-003.34					

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Internal Chain of Custody Report

Client: Parsons Engineering Science
Project: ILI - Region 9 Griffon Park/452148.60007.03

Service Request: R2202484

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
		3/23/2022	1314	SMO / GLAFORCE	
		3/23/2022	1315	R-002 / GLAFORCE	
R2202484-003.35					
		3/23/2022	1314	SMO / GLAFORCE	3/24/2022
		3/23/2022	1315	SUBBED / GLAFORCE	3/24/2022
		3/24/2022	1240	OLC 19 / SMO2	3/24/2022
		3/24/2022	1240	K-OLC / SMO2	3/24/2022
		3/24/2022	1306	In Lab / CCOX	3/24/2022
		3/24/2022	1736	K-Disposed / AMOORE	3/24/2022
R2202484-003.36					
		3/23/2022	1314	SMO / GLAFORCE	3/24/2022
		3/23/2022	1315	SUBBED / GLAFORCE	3/24/2022
		3/24/2022	1240	OLC 19 / SMO2	3/24/2022
		3/24/2022	1240	K-OLC / SMO2	3/24/2022
		3/24/2022	1306	In Lab / CCOX	3/24/2022
		3/24/2022	1736	K-Disposed / AMOORE	3/24/2022
R2202484-003.37					
		3/23/2022	1314	SMO / GLAFORCE	
		3/23/2022	1315	SUBBED / GLAFORCE	
		3/24/2022	1240	OLC 19 / SMO2	
		3/24/2022	1240	K-OLC / SMO2	
		4/14/2022	1113	K-DELILAH / AMOORE	
R2202484-003.38					
		3/23/2022	1314	SMO / GLAFORCE	
		3/23/2022	1315	SUBBED / GLAFORCE	
		3/24/2022	1240	OLC 19 / SMO2	
		3/24/2022	1240	K-OLC / SMO2	
		4/14/2022	1113	K-DELILAH / AMOORE	
R2202484-003.39					
		3/23/2022	1314	SMO / GLAFORCE	
		3/24/2022	1125	R-014 / GESMERIAN	
		3/24/2022	1126	RT000571 / GESMERIAN	
		4/13/2022	1751	R-002 / GLAFORCE	
R2202484-003.40					

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Internal Chain of Custody Report

Client: Parsons Engineering Science
Project: ILI - Region 9 Griffon Park/452148.60007.03

Service Request: R2202484

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R2202484-003.41		3/23/2022	1314	SMO / GLAFORCE	
		3/24/2022	1125	R-014 / GESMERIAN	
		3/24/2022	1127	RT000571 / GESMERIAN	
		4/13/2022	1751	R-002 / GLAFORCE	
R2202484-003.42		3/23/2022	1314	SMO / GLAFORCE	
		3/23/2022	1457	RT000046 / GESMERIAN	
		3/23/2022	1457	R-017 / GESMERIAN	
		4/11/2022	1508	R-002 / GESMERIAN	
R2202484-003.43		3/23/2022	1314	SMO / GLAFORCE	
		3/23/2022	1457	RT000046 / GESMERIAN	
		3/23/2022	1457	R-017 / GESMERIAN	
		4/11/2022	1508	R-002 / GESMERIAN	
R2202484-003.44		3/23/2022	1314	SMO / GLAFORCE	
		3/23/2022	1457	RT000046 / GESMERIAN	
		3/23/2022	1457	R-017 / GESMERIAN	
		4/11/2022	1508	R-002 / GESMERIAN	
R2202484-003.45		3/23/2022	1314	SMO / GLAFORCE	
		3/23/2022	1457	RT000046 / GESMERIAN	
		3/23/2022	1457	R-017 / GESMERIAN	
		4/11/2022	1508	R-002 / GESMERIAN	
R2202484-003.46		3/23/2022	1314	SMO / GLAFORCE	
		3/23/2022	1457	RT000046 / GESMERIAN	
		3/23/2022	1457	R-017 / GESMERIAN	
		4/11/2022	1508	R-002 / GESMERIAN	

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Internal Chain of Custody Report

Client: Parsons Engineering Science
Project: ILI - Region 9 Griffon Park/452148.60007.03

Service Request: R2202484

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R2202484-003.47		3/23/2022	1314	SMO / GLAFORCE	
		3/23/2022	1315	R-002 / GLAFORCE	
R2202484-003.48	8270D	3/23/2022	1314	SMO / GLAFORCE	
		3/23/2022	1315	R-002 / GLAFORCE	
R2202484-003.49		3/23/2022	1314	SMO / GLAFORCE	
		3/23/2022	1315	R-002 / GLAFORCE	
R2202484-003.50		3/23/2022	1314	SMO / GLAFORCE	
		3/23/2022	1315	R-002 / GLAFORCE	
R2202484-004.01	8260C	3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1315	R-001 / GLAFORCE	
		3/29/2022	1621	In Lab / KRUEST	
		3/29/2022	1822	R-001-S12 / KRUEST	
R2202484-004.02		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1315	R-001 / GLAFORCE	
R2202484-004.03		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1315	R-001 / GLAFORCE	
R2202484-004.04	SM 2340 C-1997(2011)	3/23/2022	1312	SMO / GLAFORCE	
		3/24/2022	1120	R-015 / GESMERIAN	
		3/24/2022	1121	RT000739 / GESMERIAN	
		4/15/2022	1639	R-002 / GESMERIAN	
R2202484-004.05	300.0,SM 2540 C-1997(2011),300.0,300.0	3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1457	R-017 / GESMERIAN	
		3/23/2022	1458	RT000046 / GESMERIAN	

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Internal Chain of Custody Report

Client: Parsons Engineering Science
Project: ILI - Region 9 Griffon Park/452148.60007.03

Service Request: R2202484

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R2202484-004.06	300.0,SM 2540 C-1997(2011),300.0,300.0 410.4,350.1	4/11/2022	1508	R-002 / GESMERIAN	
		3/23/2022	1312	SMO / GLAFORCE	
		3/24/2022	1123	R-016 / GESMERIAN	
		3/24/2022	1124	RT000774 / GESMERIAN	
R2202484-004.07		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1315	R-002 / GLAFORCE	
R2202484-004.08	8270D SIM	3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1315	R-002 / GLAFORCE	
		3/29/2022	1100	In Lab / AFELSER	
		3/30/2022	1238	R-002 / AFELSER	
R2202484-004.09	PFC/537M	3/23/2022	1312	SMO / GLAFORCE	3/24/2022
		3/23/2022	1315	SUBBED / GLAFORCE	3/24/2022
		3/24/2022	1240	OLC 19 / SMO2	3/24/2022
		3/24/2022	1240	K-OLC / SMO2	3/24/2022
		3/24/2022	1306	In Lab / CCOX	3/24/2022
		3/24/2022	1735	K-Disposed / AMOORE	3/24/2022
R2202484-004.10		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1315	SUBBED / GLAFORCE	
		3/24/2022	1240	OLC 19 / SMO2	
		3/24/2022	1240	K-OLC / SMO2	
		4/14/2022	1113	K-DELILAH / AMOORE	
R2202484-004.11	SM 2320 B-1997(2011)	3/23/2022	1312	SMO / GLAFORCE	
		3/24/2022	1125	R-014 / GESMERIAN	
		3/24/2022	1126	RT000571 / GESMERIAN	
		4/13/2022	1751	R-002 / GLAFORCE	
R2202484-004.12	SM 5310 C-2000(2011)	3/23/2022	1312	SMO / GLAFORCE	

Internal Chain of Custody Report

Service Request: R2202484

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Internal Chain of Custody Report

Client: Parsons Engineering Science
Project: ILI - Region 9 Griffon Park/452148.60007.03

Service Request: R2202484

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
	PFC/537M	3/24/2022	1306	In Lab / CCOX	3/24/2022
		3/24/2022	1735	K-Disposed / AMOORE	3/24/2022
R2202484-006.01					
	PFC/537M	3/23/2022	1312	SMO / GLAFORCE	3/24/2022
		3/23/2022	1315	SUBBED / GLAFORCE	3/24/2022
		3/24/2022	1240	OLC 19 / SMO2	3/24/2022
		3/24/2022	1240	K-OLC / SMO2	3/24/2022
		3/24/2022	1305	In Lab / CCOX	3/24/2022
		3/24/2022	1735	K-Disposed / AMOORE	3/24/2022
R2202484-006.02					
		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1315	SUBBED / GLAFORCE	
		3/24/2022	1240	OLC 19 / SMO2	
		3/24/2022	1240	K-OLC / SMO2	
		4/14/2022	1113	K-DELILAH / AMOORE	
R2202484-007.01					
	8260C	3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1315	R-001 / GLAFORCE	
		3/29/2022	1621	In Lab / KRUEST	
		3/29/2022	1822	R-001-S12 / KRUEST	
R2202484-007.02					
		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1315	R-001 / GLAFORCE	
R2202484-007.03					
		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1315	R-001 / GLAFORCE	
R2202484-008.01					
	8260C	3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1315	R-001 / GLAFORCE	
		3/29/2022	1621	In Lab / KRUEST	
		3/29/2022	1822	R-001-S12 / KRUEST	
R2202484-008.02					
		3/23/2022	1312	SMO / GLAFORCE	

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Internal Chain of Custody Report

Client: Parsons Engineering Science
Project: ILI - Region 9 Griffon Park/452148.60007.03

Service Request: R2202484

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R2202484-008.03		3/23/2022	1315	R-001 / GLAFORCE	
		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1315	R-001 / GLAFORCE	
R2202484-008.04	SM 2340 C-1997(2011)	3/23/2022	1312	SMO / GLAFORCE	
		3/24/2022	1120	R-015 / GESMERIAN	
		3/24/2022	1121	RT000739 / GESMERIAN	
		4/15/2022	1639	R-002 / GESMERIAN	
R2202484-008.05	300.0,SM 2540 C-1997(2011),300.0,300.0	3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1457	R-017 / GESMERIAN	
		3/23/2022	1458	RT000046 / GESMERIAN	
		4/11/2022	1508	R-002 / GESMERIAN	
R2202484-008.06	350.1,410.4	3/23/2022	1312	SMO / GLAFORCE	
		3/24/2022	1123	R-016 / GESMERIAN	
		3/24/2022	1124	RT000774 / GESMERIAN	
R2202484-008.07	8270D SIM	3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1315	R-002 / GLAFORCE	
		3/29/2022	1100	In Lab / AFELSER	
		3/30/2022	1238	R-002 / AFELSER	
R2202484-008.08		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1315	R-002 / GLAFORCE	
R2202484-008.09	PFC/537M	3/23/2022	1312	SMO / GLAFORCE	3/24/2022
		3/23/2022	1315	SUBBED / GLAFORCE	3/24/2022
		3/24/2022	1240	OLC 19 / SMO2	3/24/2022
		3/24/2022	1240	K-OLC / SMO2	3/24/2022
		3/24/2022	1305	In Lab / CCOX	3/24/2022
		3/24/2022	1736	K-Disposed / AMOORE	3/24/2022

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Internal Chain of Custody Report

Client: Parsons Engineering Science
Project: ILI - Region 9 Griffon Park/452148.60007.03

Service Request: R2202484

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R2202484-008.10					
		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1315	SUBBED / GLAFORCE	
		3/24/2022	1240	OLC 19 / SMO2	
		3/24/2022	1240	K-OLC / SMO2	
		4/14/2022	1113	K-DELILAH / AMOORE	
R2202484-008.11					
	SM 2320 B-1997(2011)				
		3/23/2022	1312	SMO / GLAFORCE	
		3/24/2022	1125	R-014 / GESMERIAN	
		3/24/2022	1127	RT000571 / GESMERIAN	
		4/13/2022	1751	R-002 / GLAFORCE	
R2202484-008.12					
	SM 5310 C-2000(2011)				
		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1457	R-017 / GESMERIAN	
		3/23/2022	1458	RT000046 / GESMERIAN	
		4/11/2022	1508	R-002 / GESMERIAN	
R2202484-008.13					
		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1457	R-017 / GESMERIAN	
		3/23/2022	1458	RT000046 / GESMERIAN	
		4/11/2022	1508	R-002 / GESMERIAN	
R2202484-008.14					
		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1457	R-017 / GESMERIAN	
		3/23/2022	1458	RT000046 / GESMERIAN	
		4/11/2022	1508	R-002 / GESMERIAN	
R2202484-008.15					
		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1315	R-002 / GLAFORCE	
R2202484-008.16					
	8270D				
		3/23/2022	1312	SMO / GLAFORCE	
		3/23/2022	1315	R-002 / GLAFORCE	
R2202484-008.17					

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Internal Chain of Custody Report

Client: Parsons Engineering Science
Project: ILI - Region 9 Griffon Park/452148.60007.03

Service Request: R2202484

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Miscellaneous Forms

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.	+	Correlation coefficient for MSA is <0.995.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).	N	Inorganics- Matrix spike recovery was outside laboratory limits.
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.	N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.	S	Concentration has been determined using Method of Standard Additions (MSA).
E	Organics- Concentration has exceeded the calibration range for that specific analysis.	W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.	P	Concentration >40% difference between the two GC columns.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.	C	Confirmed by GC/MS
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.	Q	DoD reports: indicates a pesticide/Aroclor is not confirmed ($\geq 100\%$ Difference between two GC columns).
#	Spike was diluted out.	X	See Case Narrative for discussion.
		MRL	Method Reporting Limit. Also known as:
		LOQ	Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
		MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
		LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
		ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Rochester Lab ID # for State Accreditations¹



NELAP States
Florida ID # E87674
New Hampshire ID # 2941
New York ID # 10145
Pennsylvania ID# 68-786
Virginia #460167

Non-NELAP States
Connecticut ID #PH0556
Delaware Approved
Maine ID #NY01587
North Carolina #36701
North Carolina #676
Rhode Island LAO00333

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to <https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental>

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

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Analyst Summary report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03

Service Request: R2202484

Sample Name: 9-NIA-003-001-01
Lab Code: R2202484-001
Sample Matrix: Water

Date Collected: 03/22/22
Date Received: 03/23/22

Analysis Method	Extracted/Digested By	Analyzed By
300.0		KWONG
350.1		MROGERSON
410.4		SMEDBURY
6010C	BDIAMOND	KMCLAEN
7470A	BDIAMOND	BDIAMOND
8260C		KRUEST
8270D	AMOSSES	AMOSSES
8270D SIM	AFELSER	AFELSER
PFC/537M	AMOOORE	MSESSIONS
SM 2320 B-1997(2011)		CLOI
SM 2340 C-1997(2011)		STALARICO
SM 2540 C-1997(2011)		CLOI
SM 5310 C-2000(2011)		CWOODS

Sample Name: 9-NIA-003-001-01 Diss
Lab Code: R2202484-002
Sample Matrix: Water

Date Collected: 03/22/22
Date Received: 03/23/22

Analysis Method	Extracted/Digested By	Analyzed By
6010C	BDIAMOND	KMCLAEN
7470A	BDIAMOND	BDIAMOND

Sample Name: 9-NIA-003-001-02
Lab Code: R2202484-003
Sample Matrix: Water

Date Collected: 03/22/22
Date Received: 03/23/22

Analysis Method	Extracted/Digested By	Analyzed By
300.0		KWONG
350.1		MROGERSON
410.4		SMEDBURY
6010C	BDIAMOND	KMCLAEN
7470A	BDIAMOND	BDIAMOND

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Analyst Summary report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03

Service Request: R2202484

Sample Name: 9-NIA-003-001-02
Lab Code: R2202484-003
Sample Matrix: Water

Date Collected: 03/22/22
Date Received: 03/23/22

Analysis Method	Extracted/Digested By	Analyzed By
8260C		KRUEST
8270D	AMOSSES	AMOSSES
8270D SIM	AFELSER	AFELSER
PFC/537M	AMOORE	MSESSIONS
SM 2320 B-1997(2011)		CLOI
SM 2340 C-1997(2011)		STALARICO
SM 2540 C-1997(2011)		CLOI
SM 5310 C-2000(2011)		CWOODS

Sample Name: 9-NIA-003-001-03
Lab Code: R2202484-004
Sample Matrix: Water

Date Collected: 03/22/22
Date Received: 03/23/22

Analysis Method	Extracted/Digested By	Analyzed By
300.0		KWONG
350.1		MROGERSON
410.4		SMEDBURY
6010C	BDIAMOND	KMCLAEN
7470A	BDIAMOND	BDIAMOND
8260C		KRUEST
8270D	AMOSSES	AMOSSES
8270D SIM	AFELSER	AFELSER
PFC/537M	AMOORE	MSESSIONS
SM 2320 B-1997(2011)		CLOI
SM 2340 C-1997(2011)		STALARICO
SM 2540 C-1997(2011)		CLOI
SM 5310 C-2000(2011)		CWOODS

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Analyst Summary report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03

Service Request: R2202484

Sample Name: 9-NIA-003-001-04
Lab Code: R2202484-005
Sample Matrix: Water

Date Collected: 03/22/22**Date Received:** 03/23/22

Analysis Method
PFC/537M

Extracted/Digested By
AMOORE

Analyzed By
MSESSIONS

Sample Name: 9-NIA-003-001-05
Lab Code: R2202484-006
Sample Matrix: Water

Date Collected: 03/22/22**Date Received:** 03/23/22

Analysis Method
PFC/537M

Extracted/Digested By
AMOORE

Analyzed By
MSESSIONS

Sample Name: 9-NIA-003-001-06
Lab Code: R2202484-007
Sample Matrix: Water

Date Collected: 03/22/22**Date Received:** 03/23/22

Analysis Method
8260C

Extracted/Digested By

Analyzed By
KRUEST

Sample Name: 9-NIA-003-001-07
Lab Code: R2202484-008
Sample Matrix: Water

Date Collected: 03/22/22**Date Received:** 03/23/22

Analysis Method
300.0
350.1
410.4
6010C
7470A
8260C
8270D
8270D SIM
PFC/537M
SM 2320 B-1997(2011)

Extracted/Digested By

BDIAMOND
BDIAMOND

Analyzed By
KWONG
MROGERSON
SMEDBURY
KMCLAEN
BDIAMOND
KRUEST
AMOSSES
AFELSER
MSESSIONS
CLOI

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Analyst Summary report

Client: Parsons

Service Request: R2202484

Project: ILI - Region 9 Griffon Park/452148.60007.03

Sample Name: 9-NIA-003-001-07

Date Collected: 03/22/22

Lab Code: R2202484-008

Date Received: 03/23/22

Sample Matrix: Water

Analysis Method

SM 2340 C-1997(2011)

SM 2540 C-1997(2011)

SM 5310 C-2000(2011)

Extracted/Digested By

Analyzed By

STALARICO

CLOI

CWOODS



INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9034 Sulfide Acid Soluble	9030B
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7199	3060A
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction
For analytical methods not listed, the preparation method is the same as the analytical method reference.	



Sample Results

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

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Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

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Phone (585) 288-5380 Fax (585) 288-8475

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22 14:10
Date Received: 03/23/22 09:30

Sample Name: 9-NIA-003-001-01
Lab Code: R2202484-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	1.0 U	1.0	0.20	1	03/31/22 12:50	
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.20	1	03/31/22 12:50	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	03/31/22 12:50	
1,1,2-Trichloroethane	1.0 U	1.0	0.20	1	03/31/22 12:50	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	03/31/22 12:50	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.20	1	03/31/22 12:50	
1,2,3-Trichloropropane	1.0 U	1.0	0.26	1	03/31/22 12:50	
1,2-Dibromo-3-chloropropane (DBCP)	2.0 U	2.0	0.45	1	03/31/22 12:50	
1,2-Dibromoethane	1.0 U	1.0	0.20	1	03/31/22 12:50	
1,2-Dichlorobenzene	1.0 U	1.0	0.20	1	03/31/22 12:50	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	03/31/22 12:50	
1,2-Dichloropropane	1.0 U	1.0	0.20	1	03/31/22 12:50	
1,4-Dichlorobenzene	1.0 U	1.0	0.20	1	03/31/22 12:50	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	03/31/22 12:50	
2-Hexanone	5.0 U	5.0	0.20	1	03/31/22 12:50	
4-Methyl-2-pentanone	5.0 U	5.0	0.20	1	03/31/22 12:50	
Acetone	5.0 U	5.0	5.0	1	03/31/22 12:50	
Acrylonitrile	10 U	10	0.90	1	03/31/22 12:50	
Benzene	1.0 U	1.0	0.20	1	03/31/22 12:50	
Bromochloromethane	1.0 U	1.0	0.20	1	03/31/22 12:50	
Bromodichloromethane	1.0 U	1.0	0.20	1	03/31/22 12:50	
Bromoform	1.0 U	1.0	0.25	1	03/31/22 12:50	
Bromomethane	1.0 U	1.0	0.70	1	03/31/22 12:50	
Carbon Disulfide	6.9	1.0	0.42	1	03/31/22 12:50	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	03/31/22 12:50	
Chlorobenzene	1.0 U	1.0	0.20	1	03/31/22 12:50	
Chloroethane	1.0 U	1.0	0.23	1	03/31/22 12:50	
Chloroform	1.0 U	1.0	0.24	1	03/31/22 12:50	
Chloromethane	1.0 U	1.0	0.28	1	03/31/22 12:50	
Dibromochloromethane	1.0 U	1.0	0.20	1	03/31/22 12:50	
Dibromomethane	1.0 U	1.0	0.20	1	03/31/22 12:50	
Methylene Chloride	1.0 U	1.0	0.65	1	03/31/22 12:50	
Ethylbenzene	1.0 U	1.0	0.20	1	03/31/22 12:50	
Iodomethane	5.0 U	5.0	4.3	1	03/31/22 12:50	
Styrene	1.0 U	1.0	0.20	1	03/31/22 12:50	
Tetrachloroethene (PCE)	1.0 U	1.0	0.21	1	03/31/22 12:50	
Toluene	1.0 U	1.0	0.20	1	03/31/22 12:50	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	03/31/22 12:50	
Trichlorofluoromethane (CFC 11)	1.0 U	1.0	0.24	1	03/31/22 12:50	
Vinyl Acetate	2.0 U	2.0	1.1	1	03/31/22 12:50	
Vinyl Chloride	1.0 U	1.0	0.20	1	03/31/22 12:50	
Xylenes, Total	3.0 U	3.0	0.23	1	03/31/22 12:50	
cis-1,2-Dichloroethene	1.0 U	1.0	0.23	1	03/31/22 12:50	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22 14:10
Date Received: 03/23/22 09:30

Sample Name: 9-NIA-003-001-01
Lab Code: R2202484-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
cis-1,3-Dichloropropene	1.0 U	1.0	0.20	1	03/31/22 12:50	
m,p-Xylenes	2.0 U	2.0	0.20	1	03/31/22 12:50	
o-Xylene	1.0 U	1.0	0.20	1	03/31/22 12:50	
trans-1,2-Dichloroethene	1.0 U	1.0	0.20	1	03/31/22 12:50	
trans-1,3-Dichloropropene	1.0 U	1.0	0.23	1	03/31/22 12:50	
trans-1,4-Dichloro-2-butene	1.0 U	1.0	0.78	1	03/31/22 12:50	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85 - 122	03/31/22 12:50	
Dibromofluoromethane	105	80 - 116	03/31/22 12:50	
Toluene-d8	100	87 - 121	03/31/22 12:50	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22 15:15
Date Received: 03/23/22 09:30

Sample Name: 9-NIA-003-001-02
Lab Code: R2202484-003

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	1.0 U	1.0	0.20	1	03/29/22 23:37	
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.20	1	03/29/22 23:37	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	03/29/22 23:37	
1,1,2-Trichloroethane	1.0 U	1.0	0.20	1	03/29/22 23:37	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	03/29/22 23:37	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.20	1	03/29/22 23:37	
1,2,3-Trichloropropane	1.0 U	1.0	0.26	1	03/29/22 23:37	
1,2-Dibromo-3-chloropropane (DBCP)	2.0 U	2.0	0.45	1	03/29/22 23:37	
1,2-Dibromoethane	1.0 U	1.0	0.20	1	03/29/22 23:37	
1,2-Dichlorobenzene	1.0 U	1.0	0.20	1	03/29/22 23:37	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	03/29/22 23:37	
1,2-Dichloropropane	1.0 U	1.0	0.20	1	03/29/22 23:37	
1,4-Dichlorobenzene	1.0 U	1.0	0.20	1	03/29/22 23:37	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	03/29/22 23:37	
2-Hexanone	5.0 U	5.0	0.20	1	03/29/22 23:37	
4-Methyl-2-pentanone	5.0 U	5.0	0.20	1	03/29/22 23:37	
Acetone	5.0 U	5.0	5.0	1	03/29/22 23:37	
Acrylonitrile	10 U	10	0.90	1	03/29/22 23:37	
Benzene	1.0 U	1.0	0.20	1	03/29/22 23:37	
Bromochloromethane	1.0 U	1.0	0.20	1	03/29/22 23:37	
Bromodichloromethane	1.0 U	1.0	0.20	1	03/29/22 23:37	
Bromoform	1.0 U	1.0	0.25	1	03/29/22 23:37	
Bromomethane	1.0 U	1.0	0.70	1	03/29/22 23:37	
Carbon Disulfide	1.0 U	1.0	0.42	1	03/29/22 23:37	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	03/29/22 23:37	
Chlorobenzene	0.42 J	1.0	0.20	1	03/29/22 23:37	
Chloroethane	1.0 U	1.0	0.23	1	03/29/22 23:37	
Chloroform	1.0 U	1.0	0.24	1	03/29/22 23:37	
Chloromethane	1.0 U	1.0	0.28	1	03/29/22 23:37	
Dibromochloromethane	1.0 U	1.0	0.20	1	03/29/22 23:37	
Dibromomethane	1.0 U	1.0	0.20	1	03/29/22 23:37	
Methylene Chloride	1.0 U	1.0	0.65	1	03/29/22 23:37	
Ethylbenzene	1.0 U	1.0	0.20	1	03/29/22 23:37	
Iodomethane	5.0 U	5.0	4.3	1	03/29/22 23:37	
Styrene	1.0 U	1.0	0.20	1	03/29/22 23:37	
Tetrachloroethene (PCE)	1.0 U	1.0	0.21	1	03/29/22 23:37	
Toluene	1.0 U	1.0	0.20	1	03/29/22 23:37	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	03/29/22 23:37	
Trichlorofluoromethane (CFC 11)	1.0 U	1.0	0.24	1	03/29/22 23:37	
Vinyl Acetate	2.0 U	2.0	1.1	1	03/29/22 23:37	
Vinyl Chloride	1.0 U	1.0	0.20	1	03/29/22 23:37	
Xylenes, Total	3.0 U	3.0	0.23	1	03/29/22 23:37	
cis-1,2-Dichloroethene	1.0 U	1.0	0.23	1	03/29/22 23:37	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22 15:15
Date Received: 03/23/22 09:30

Sample Name: 9-NIA-003-001-02
Lab Code: R2202484-003

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
cis-1,3-Dichloropropene	1.0 U	1.0	0.20	1	03/29/22 23:37	
m,p-Xylenes	2.0 U	2.0	0.20	1	03/29/22 23:37	
o-Xylene	1.0 U	1.0	0.20	1	03/29/22 23:37	
trans-1,2-Dichloroethene	1.0 U	1.0	0.20	1	03/29/22 23:37	
trans-1,3-Dichloropropene	1.0 U	1.0	0.23	1	03/29/22 23:37	
trans-1,4-Dichloro-2-butene	1.0 U	1.0	0.78	1	03/29/22 23:37	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	03/29/22 23:37	
Dibromofluoromethane	96	80 - 116	03/29/22 23:37	
Toluene-d8	98	87 - 121	03/29/22 23:37	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22 16:40
Date Received: 03/23/22 09:30

Sample Name: 9-NIA-003-001-03
Lab Code: R2202484-004

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	1.0 U	1.0	0.20	1	03/29/22 23:15	
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.20	1	03/29/22 23:15	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	03/29/22 23:15	
1,1,2-Trichloroethane	1.0 U	1.0	0.20	1	03/29/22 23:15	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	03/29/22 23:15	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.20	1	03/29/22 23:15	
1,2,3-Trichloropropane	1.0 U	1.0	0.26	1	03/29/22 23:15	
1,2-Dibromo-3-chloropropane (DBCP)	2.0 U	2.0	0.45	1	03/29/22 23:15	
1,2-Dibromoethane	1.0 U	1.0	0.20	1	03/29/22 23:15	
1,2-Dichlorobenzene	1.0 U	1.0	0.20	1	03/29/22 23:15	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	03/29/22 23:15	
1,2-Dichloropropane	1.0 U	1.0	0.20	1	03/29/22 23:15	
1,4-Dichlorobenzene	0.43 J	1.0	0.20	1	03/29/22 23:15	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	03/29/22 23:15	
2-Hexanone	5.0 U	5.0	0.20	1	03/29/22 23:15	
4-Methyl-2-pentanone	5.0 U	5.0	0.20	1	03/29/22 23:15	
Acetone	5.0 U	5.0	5.0	1	03/29/22 23:15	
Acrylonitrile	10 U	10	0.90	1	03/29/22 23:15	
Benzene	1.0 U	1.0	0.20	1	03/29/22 23:15	
Bromochloromethane	1.0 U	1.0	0.20	1	03/29/22 23:15	
Bromodichloromethane	1.0 U	1.0	0.20	1	03/29/22 23:15	
Bromoform	1.0 U	1.0	0.25	1	03/29/22 23:15	
Bromomethane	1.0 U	1.0	0.70	1	03/29/22 23:15	
Carbon Disulfide	1.0 U	1.0	0.42	1	03/29/22 23:15	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	03/29/22 23:15	
Chlorobenzene	0.36 J	1.0	0.20	1	03/29/22 23:15	
Chloroethane	1.0 U	1.0	0.23	1	03/29/22 23:15	
Chloroform	1.0 U	1.0	0.24	1	03/29/22 23:15	
Chloromethane	1.0 U	1.0	0.28	1	03/29/22 23:15	
Dibromochloromethane	1.0 U	1.0	0.20	1	03/29/22 23:15	
Dibromomethane	1.0 U	1.0	0.20	1	03/29/22 23:15	
Methylene Chloride	1.0 U	1.0	0.65	1	03/29/22 23:15	
Ethylbenzene	1.0 U	1.0	0.20	1	03/29/22 23:15	
Iodomethane	5.0 U	5.0	4.3	1	03/29/22 23:15	
Styrene	1.0 U	1.0	0.20	1	03/29/22 23:15	
Tetrachloroethene (PCE)	1.0 U	1.0	0.21	1	03/29/22 23:15	
Toluene	1.0 U	1.0	0.20	1	03/29/22 23:15	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	03/29/22 23:15	
Trichlorofluoromethane (CFC 11)	1.0 U	1.0	0.24	1	03/29/22 23:15	
Vinyl Acetate	2.0 U	2.0	1.1	1	03/29/22 23:15	
Vinyl Chloride	1.0 U	1.0	0.20	1	03/29/22 23:15	
Xylenes, Total	3.0 U	3.0	0.23	1	03/29/22 23:15	
cis-1,2-Dichloroethene	1.0 U	1.0	0.23	1	03/29/22 23:15	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22 16:40
Date Received: 03/23/22 09:30

Sample Name: 9-NIA-003-001-03
Lab Code: R2202484-004

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
cis-1,3-Dichloropropene	1.0 U	1.0	0.20	1	03/29/22 23:15	
m,p-Xylenes	2.0 U	2.0	0.20	1	03/29/22 23:15	
o-Xylene	1.0 U	1.0	0.20	1	03/29/22 23:15	
trans-1,2-Dichloroethene	1.0 U	1.0	0.20	1	03/29/22 23:15	
trans-1,3-Dichloropropene	1.0 U	1.0	0.23	1	03/29/22 23:15	
trans-1,4-Dichloro-2-butene	1.0 U	1.0	0.78	1	03/29/22 23:15	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	03/29/22 23:15	
Dibromofluoromethane	96	80 - 116	03/29/22 23:15	
Toluene-d8	97	87 - 121	03/29/22 23:15	

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dba ALS Environmental

Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22
Date Received: 03/23/22 09:30

Sample Name: 9-NIA-003-001-06
Lab Code: R2202484-007

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	1.0 U	1.0	0.20	1	03/29/22 23:59	
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.20	1	03/29/22 23:59	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	03/29/22 23:59	
1,1,2-Trichloroethane	1.0 U	1.0	0.20	1	03/29/22 23:59	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	03/29/22 23:59	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.20	1	03/29/22 23:59	
1,2,3-Trichloropropane	1.0 U	1.0	0.26	1	03/29/22 23:59	
1,2-Dibromo-3-chloropropane (DBCP)	2.0 U	2.0	0.45	1	03/29/22 23:59	
1,2-Dibromoethane	1.0 U	1.0	0.20	1	03/29/22 23:59	
1,2-Dichlorobenzene	1.0 U	1.0	0.20	1	03/29/22 23:59	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	03/29/22 23:59	
1,2-Dichloropropane	1.0 U	1.0	0.20	1	03/29/22 23:59	
1,4-Dichlorobenzene	1.0 U	1.0	0.20	1	03/29/22 23:59	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	03/29/22 23:59	
2-Hexanone	5.0 U	5.0	0.20	1	03/29/22 23:59	
4-Methyl-2-pentanone	5.0 U	5.0	0.20	1	03/29/22 23:59	
Acetone	5.0 U	5.0	5.0	1	03/29/22 23:59	
Acrylonitrile	10 U	10	0.90	1	03/29/22 23:59	
Benzene	1.0 U	1.0	0.20	1	03/29/22 23:59	
Bromochloromethane	1.0 U	1.0	0.20	1	03/29/22 23:59	
Bromodichloromethane	1.0 U	1.0	0.20	1	03/29/22 23:59	
Bromoform	1.0 U	1.0	0.25	1	03/29/22 23:59	
Bromomethane	1.0 U	1.0	0.70	1	03/29/22 23:59	
Carbon Disulfide	1.0 U	1.0	0.42	1	03/29/22 23:59	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	03/29/22 23:59	
Chlorobenzene	1.0 U	1.0	0.20	1	03/29/22 23:59	
Chloroethane	1.0 U	1.0	0.23	1	03/29/22 23:59	
Chloroform	1.0 U	1.0	0.24	1	03/29/22 23:59	
Chloromethane	1.0 U	1.0	0.28	1	03/29/22 23:59	
Dibromochloromethane	1.0 U	1.0	0.20	1	03/29/22 23:59	
Dibromomethane	1.0 U	1.0	0.20	1	03/29/22 23:59	
Methylene Chloride	1.0 U	1.0	0.65	1	03/29/22 23:59	
Ethylbenzene	1.0 U	1.0	0.20	1	03/29/22 23:59	
Iodomethane	5.0 U	5.0	4.3	1	03/29/22 23:59	
Styrene	1.0 U	1.0	0.20	1	03/29/22 23:59	
Tetrachloroethene (PCE)	1.0 U	1.0	0.21	1	03/29/22 23:59	
Toluene	1.0 U	1.0	0.20	1	03/29/22 23:59	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	03/29/22 23:59	
Trichlorofluoromethane (CFC 11)	1.0 U	1.0	0.24	1	03/29/22 23:59	
Vinyl Acetate	2.0 U	2.0	1.1	1	03/29/22 23:59	
Vinyl Chloride	1.0 U	1.0	0.20	1	03/29/22 23:59	
Xylenes, Total	3.0 U	3.0	0.23	1	03/29/22 23:59	
cis-1,2-Dichloroethene	1.0 U	1.0	0.23	1	03/29/22 23:59	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22
Date Received: 03/23/22 09:30

Sample Name: 9-NIA-003-001-06
Lab Code: R2202484-007

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
cis-1,3-Dichloropropene	1.0 U	1.0	0.20	1	03/29/22 23:59	
m,p-Xylenes	2.0 U	2.0	0.20	1	03/29/22 23:59	
o-Xylene	1.0 U	1.0	0.20	1	03/29/22 23:59	
trans-1,2-Dichloroethene	1.0 U	1.0	0.20	1	03/29/22 23:59	
trans-1,3-Dichloropropene	1.0 U	1.0	0.23	1	03/29/22 23:59	
trans-1,4-Dichloro-2-butene	1.0 U	1.0	0.78	1	03/29/22 23:59	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	03/29/22 23:59	
Dibromofluoromethane	100	80 - 116	03/29/22 23:59	
Toluene-d8	101	87 - 121	03/29/22 23:59	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22 15:15
Date Received: 03/23/22 09:30

Sample Name: 9-NIA-003-001-07
Lab Code: R2202484-008

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	1.0 U	1.0	0.20	1	03/30/22 00:21	
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.20	1	03/30/22 00:21	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	03/30/22 00:21	
1,1,2-Trichloroethane	1.0 U	1.0	0.20	1	03/30/22 00:21	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	03/30/22 00:21	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.20	1	03/30/22 00:21	
1,2,3-Trichloropropane	1.0 U	1.0	0.26	1	03/30/22 00:21	
1,2-Dibromo-3-chloropropane (DBCP)	2.0 U	2.0	0.45	1	03/30/22 00:21	
1,2-Dibromoethane	1.0 U	1.0	0.20	1	03/30/22 00:21	
1,2-Dichlorobenzene	1.0 U	1.0	0.20	1	03/30/22 00:21	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	03/30/22 00:21	
1,2-Dichloropropane	1.0 U	1.0	0.20	1	03/30/22 00:21	
1,4-Dichlorobenzene	1.0 U	1.0	0.20	1	03/30/22 00:21	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	03/30/22 00:21	
2-Hexanone	5.0 U	5.0	0.20	1	03/30/22 00:21	
4-Methyl-2-pentanone	5.0 U	5.0	0.20	1	03/30/22 00:21	
Acetone	5.0 U	5.0	5.0	1	03/30/22 00:21	
Acrylonitrile	10 U	10	0.90	1	03/30/22 00:21	
Benzene	1.0 U	1.0	0.20	1	03/30/22 00:21	
Bromochloromethane	1.0 U	1.0	0.20	1	03/30/22 00:21	
Bromodichloromethane	1.0 U	1.0	0.20	1	03/30/22 00:21	
Bromoform	1.0 U	1.0	0.25	1	03/30/22 00:21	
Bromomethane	1.0 U	1.0	0.70	1	03/30/22 00:21	
Carbon Disulfide	1.0 U	1.0	0.42	1	03/30/22 00:21	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	03/30/22 00:21	
Chlorobenzene	0.41 J	1.0	0.20	1	03/30/22 00:21	
Chloroethane	1.0 U	1.0	0.23	1	03/30/22 00:21	
Chloroform	1.0 U	1.0	0.24	1	03/30/22 00:21	
Chloromethane	1.0 U	1.0	0.28	1	03/30/22 00:21	
Dibromochloromethane	1.0 U	1.0	0.20	1	03/30/22 00:21	
Dibromomethane	1.0 U	1.0	0.20	1	03/30/22 00:21	
Methylene Chloride	1.0 U	1.0	0.65	1	03/30/22 00:21	
Ethylbenzene	1.0 U	1.0	0.20	1	03/30/22 00:21	
Iodomethane	5.0 U	5.0	4.3	1	03/30/22 00:21	
Styrene	1.0 U	1.0	0.20	1	03/30/22 00:21	
Tetrachloroethene (PCE)	1.0 U	1.0	0.21	1	03/30/22 00:21	
Toluene	1.0 U	1.0	0.20	1	03/30/22 00:21	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	03/30/22 00:21	
Trichlorofluoromethane (CFC 11)	1.0 U	1.0	0.24	1	03/30/22 00:21	
Vinyl Acetate	2.0 U	2.0	1.1	1	03/30/22 00:21	
Vinyl Chloride	1.0 U	1.0	0.20	1	03/30/22 00:21	
Xylenes, Total	3.0 U	3.0	0.23	1	03/30/22 00:21	
cis-1,2-Dichloroethene	1.0 U	1.0	0.23	1	03/30/22 00:21	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22 15:15
Date Received: 03/23/22 09:30

Sample Name: 9-NIA-003-001-07
Lab Code: R2202484-008

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
cis-1,3-Dichloropropene	1.0 U	1.0	0.20	1	03/30/22 00:21	
m,p-Xylenes	2.0 U	2.0	0.20	1	03/30/22 00:21	
o-Xylene	1.0 U	1.0	0.20	1	03/30/22 00:21	
trans-1,2-Dichloroethene	1.0 U	1.0	0.20	1	03/30/22 00:21	
trans-1,3-Dichloropropene	1.0 U	1.0	0.23	1	03/30/22 00:21	
trans-1,4-Dichloro-2-butene	1.0 U	1.0	0.78	1	03/30/22 00:21	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85 - 122	03/30/22 00:21	
Dibromofluoromethane	105	80 - 116	03/30/22 00:21	
Toluene-d8	99	87 - 121	03/30/22 00:21	



Semivolatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22 14:10
Date Received: 03/23/22 09:30

Sample Name: 9-NIA-003-001-01
Lab Code: R2202484-001

Units: ug/L
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Acenaphthene	0.41 U	0.41	0.12	2	04/05/22 12:18	3/29/22	
Acenaphthylene	0.41 U	0.41	0.11	2	04/05/22 12:18	3/29/22	
Anthracene	0.41 U	0.41	0.15	2	04/05/22 12:18	3/29/22	
Benz(a)anthracene	0.41 U	0.41	0.18	2	04/05/22 12:18	3/29/22	
Benzo(b)fluoranthene	0.41 U	0.41	0.14	2	04/05/22 12:18	3/29/22	
Benzo(k)fluoranthene	0.41 U	0.41	0.15	2	04/05/22 12:18	3/29/22	
Benzo(g,h,i)perylene	0.41 U	0.41	0.23	2	04/05/22 12:18	3/29/22	
Benzo(a)pyrene	0.41 U	0.41	0.16	2	04/05/22 12:18	3/29/22	
Chrysene	0.41 U	0.41	0.19	2	04/05/22 12:18	3/29/22	
Dibenz(a,h)anthracene	0.41 U	0.41	0.20	2	04/05/22 12:18	3/29/22	
Fluoranthene	0.41 U	0.41	0.20	2	04/05/22 12:18	3/29/22	
Fluorene	0.41 U	0.41	0.14	2	04/05/22 12:18	3/29/22	
Indeno(1,2,3-cd)pyrene	0.41 U	0.41	0.23	2	04/05/22 12:18	3/29/22	
Naphthalene	0.41 U	0.41	0.12	2	04/05/22 12:18	3/29/22	
Phenanthrene	0.41 U	0.41	0.21	2	04/05/22 12:18	3/29/22	
Pyrene	0.41 U	0.41	0.23	2	04/05/22 12:18	3/29/22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	68	27 - 133	04/05/22 12:18	
Nitrobenzene-d5	59	31 - 167	04/05/22 12:18	
p-Terphenyl-d14	90	25 - 151	04/05/22 12:18	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22 15:15
Date Received: 03/23/22 09:30

Sample Name: 9-NIA-003-001-02
Lab Code: R2202484-003

Units: ug/L
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Acenaphthene	0.081 J	0.19	0.055	1	04/04/22 17:45	3/29/22	
Acenaphthylene	0.19 U	0.19	0.053	1	04/04/22 17:45	3/29/22	
Anthracene	0.19 U	0.19	0.071	1	04/04/22 17:45	3/29/22	
Benz(a)anthracene	0.19 U	0.19	0.087	1	04/04/22 17:45	3/29/22	
Benzo(b)fluoranthene	0.19 U	0.19	0.065	1	04/04/22 17:45	3/29/22	
Benzo(k)fluoranthene	0.19 U	0.19	0.070	1	04/04/22 17:45	3/29/22	
Benzo(g,h,i)perylene	0.19 U	0.19	0.11	1	04/04/22 17:45	3/29/22	
Benzo(a)pyrene	0.19 U	0.19	0.075	1	04/04/22 17:45	3/29/22	
Chrysene	0.19 U	0.19	0.089	1	04/04/22 17:45	3/29/22	
Dibenz(a,h)anthracene	0.19 U	0.19	0.095	1	04/04/22 17:45	3/29/22	
Fluoranthene	0.19 U	0.19	0.098	1	04/04/22 17:45	3/29/22	
Fluorene	0.071 J	0.19	0.065	1	04/04/22 17:45	3/29/22	
Indeno(1,2,3-cd)pyrene	0.19 U	0.19	0.11	1	04/04/22 17:45	3/29/22	
Naphthalene	0.19 U	0.19	0.058	1	04/04/22 17:45	3/29/22	
Phenanthrene	0.19 U	0.19	0.10	1	04/04/22 17:45	3/29/22	
Pyrene	0.19 U	0.19	0.11	1	04/04/22 17:45	3/29/22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	75	27 - 133	04/04/22 17:45	
Nitrobenzene-d5	68	31 - 167	04/04/22 17:45	
p-Terphenyl-d14	91	25 - 151	04/04/22 17:45	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22 16:40
Date Received: 03/23/22 09:30

Sample Name: 9-NIA-003-001-03
Lab Code: R2202484-004

Units: ug/L
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Acenaphthene	0.16 J	0.20	0.055	1	04/04/22 19:11	3/29/22	
Acenaphthylene	0.20 U	0.20	0.053	1	04/04/22 19:11	3/29/22	
Anthracene	0.20 U	0.20	0.071	1	04/04/22 19:11	3/29/22	
Benz(a)anthracene	0.20 U	0.20	0.087	1	04/04/22 19:11	3/29/22	
Benzo(b)fluoranthene	0.20 U	0.20	0.065	1	04/04/22 19:11	3/29/22	
Benzo(k)fluoranthene	0.20 U	0.20	0.070	1	04/04/22 19:11	3/29/22	
Benzo(g,h,i)perylene	0.20 U	0.20	0.11	1	04/04/22 19:11	3/29/22	
Benzo(a)pyrene	0.20 U	0.20	0.075	1	04/04/22 19:11	3/29/22	
Chrysene	0.20 U	0.20	0.089	1	04/04/22 19:11	3/29/22	
Dibenz(a,h)anthracene	0.20 U	0.20	0.095	1	04/04/22 19:11	3/29/22	
Fluoranthene	0.20 U	0.20	0.098	1	04/04/22 19:11	3/29/22	
Fluorene	0.11 J	0.20	0.065	1	04/04/22 19:11	3/29/22	
Indeno(1,2,3-cd)pyrene	0.20 U	0.20	0.11	1	04/04/22 19:11	3/29/22	
Naphthalene	0.072 J	0.20	0.058	1	04/04/22 19:11	3/29/22	
Phenanthrene	0.20 U	0.20	0.10	1	04/04/22 19:11	3/29/22	
Pyrene	0.20 U	0.20	0.11	1	04/04/22 19:11	3/29/22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	76	27 - 133	04/04/22 19:11	
Nitrobenzene-d5	68	31 - 167	04/04/22 19:11	
p-Terphenyl-d14	91	25 - 151	04/04/22 19:11	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22 15:15
Date Received: 03/23/22 09:30

Sample Name: 9-NIA-003-001-07
Lab Code: R2202484-008

Units: ug/L
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Acenaphthene	0.19 U	0.19	0.055	1	04/04/22 19:40	3/29/22	
Acenaphthylene	0.19 U	0.19	0.053	1	04/04/22 19:40	3/29/22	
Anthracene	0.19 U	0.19	0.071	1	04/04/22 19:40	3/29/22	
Benz(a)anthracene	0.19 U	0.19	0.087	1	04/04/22 19:40	3/29/22	
Benzo(b)fluoranthene	0.19 U	0.19	0.065	1	04/04/22 19:40	3/29/22	
Benzo(k)fluoranthene	0.19 U	0.19	0.070	1	04/04/22 19:40	3/29/22	
Benzo(g,h,i)perylene	0.19 U	0.19	0.11	1	04/04/22 19:40	3/29/22	
Benzo(a)pyrene	0.19 U	0.19	0.075	1	04/04/22 19:40	3/29/22	
Chrysene	0.19 U	0.19	0.089	1	04/04/22 19:40	3/29/22	
Dibenz(a,h)anthracene	0.19 U	0.19	0.095	1	04/04/22 19:40	3/29/22	
Fluoranthene	0.19 U	0.19	0.098	1	04/04/22 19:40	3/29/22	
Fluorene	0.19 U	0.19	0.065	1	04/04/22 19:40	3/29/22	
Indeno(1,2,3-cd)pyrene	0.19 U	0.19	0.11	1	04/04/22 19:40	3/29/22	
Naphthalene	0.19 U	0.19	0.058	1	04/04/22 19:40	3/29/22	
Phenanthrene	0.19 U	0.19	0.10	1	04/04/22 19:40	3/29/22	
Pyrene	0.19 U	0.19	0.11	1	04/04/22 19:40	3/29/22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	71	27 - 133	04/04/22 19:40	
Nitrobenzene-d5	66	31 - 167	04/04/22 19:40	
p-Terphenyl-d14	80	25 - 151	04/04/22 19:40	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22 14:10
Date Received: 03/23/22 09:30

Sample Name: 9-NIA-003-001-01
Lab Code: R2202484-001

Units: ug/L
Basis: NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	0.040 U	0.040	0.027	1	03/30/22 11:04	3/29/22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,4-Dioxane-d8	123	64 - 124	03/30/22 11:04	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22 15:15
Date Received: 03/23/22 09:30

Sample Name: 9-NIA-003-001-02
Lab Code: R2202484-003

Units: ug/L
Basis: NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	0.040 U	0.040	0.027	1	03/30/22 11:21	3/29/22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,4-Dioxane-d8	102	64 - 124	03/30/22 11:21	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water
Sample Name: 9-NIA-003-001-03
Lab Code: R2202484-004

Service Request: R2202484
Date Collected: 03/22/22 16:40
Date Received: 03/23/22 09:30
Units: ug/L
Basis: NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	0.040 U	0.040	0.027	1	03/30/22 12:14	3/29/22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,4-Dioxane-d8	117	64 - 124	03/30/22 12:14	

ALS Group USA, Corp.
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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22 15:15
Date Received: 03/23/22 09:30

Sample Name: 9-NIA-003-001-07
Lab Code: R2202484-008

Units: ug/L
Basis: NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	0.033 J	0.040	0.027	1	03/30/22 12:31	3/29/22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,4-Dioxane-d8	112	64 - 124	03/30/22 12:31	



Metals

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METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: Parsons	Service Request: 9-NIA-003-001-01
Project No.: R2202484	Date Collected: 3/22/2022
Project Name:	Date Received: 3/23/2022
Matrix: WATER	Units: ug/L
	Basis:

Sample Name: 9-NIA-003-001-01	Lab Code: R2202484-001
-------------------------------	------------------------

Analyte	Analysis Method	PQL	MDL	Dil. Factor	Result	C	Q
Aluminum	6010C	100	23.0	1.0	1590		
Antimony	6010C	60.0	6.3	1.0	60.0	U	
Arsenic	6010C	10.0	5.5	1.0	10.0	U	
Barium	6010C	20.0	3.0	1.0	32.5		
Beryllium	6010C	3.0	0.130	1.0	3.0	U	
Boron	6010C	200	12.0	1.0	1130		
Cadmium	6010C	5.0	0.350	1.0	5.0	U	
Mercury	7470A	0.200	0.077	1.0	0.200	U	
Calcium	6010C	10000	2200	10.0	336000		
Chromium	6010C	10.0	1.4	1.0	4.0	J	
Cobalt	6010C	50.0	0.890	1.0	1.1	J	
Copper	6010C	20.0	3.9	1.0	20.0	U	
Iron	6010C	100	61.0	1.0	1670		
Lead	6010C	50.0	2.1	1.0	50.0	U	
Magnesium	6010C	1000	29.0	1.0	160000		
Manganese	6010C	10.0	3.7	1.0	120		
Nickel	6010C	40.0	2.6	1.0	3.3	J	
Potassium	6010C	2000	380	1.0	8160		
Selenium	6010C	10.0	6.4	1.0	10.0	U	
Silver	6010C	10.0	0.570	1.0	10.0	U	
Sodium	6010C	10000	1300	10.0	232000		
Thallium	6010C	10.0	6.6	1.0	12.2		
Vanadium	6010C	50.0	0.670	1.0	1.8	J	
Zinc	6010C	20.0	2.4	1.0	12.0	J	

% Solids: 0.0

Comments:

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: Parsons	Service Request: 9-NIA-003-001-01
Project No.: R2202484	Date Collected: 3/22/2022
Project Name:	Date Received: 3/23/2022
Matrix: WATER	Units: ug/L
	Basis:

Sample Name: 9-NIA-003-001-01 Diss	Lab Code: R2202484-002
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Analyte	Analysis Method	PQL	MDL	Dil. Factor	Result	C	Q
Aluminum	6010C	100	23.0	1.0	100	U	
Antimony	6010C	60.0	6.3	1.0	60.0	U	
Arsenic	6010C	10.0	5.5	1.0	10.0	U	
Barium	6010C	20.0	3.0	1.0	21.8		
Beryllium	6010C	3.0	0.130	1.0	3.0	U	
Boron	6010C	200	12.0	1.0	1130		
Cadmium	6010C	5.0	0.350	1.0	5.0	U	
Mercury	7470A	0.200	0.077	1.0	0.200	U	
Calcium	6010C	10000	2200	10.0	323000		
Chromium	6010C	10.0	1.4	1.0	10.0	U	
Cobalt	6010C	50.0	0.890	1.0	50.0	U	
Copper	6010C	20.0	3.9	1.0	20.0	U	
Iron	6010C	100	61.0	1.0	100	U	
Lead	6010C	50.0	2.1	1.0	50.0	U	
Magnesium	6010C	1000	29.0	1.0	155000		
Manganese	6010C	10.0	3.7	1.0	50.9		
Nickel	6010C	40.0	2.6	1.0	40.0	U	
Potassium	6010C	2000	380	1.0	7680		
Selenium	6010C	10.0	6.4	1.0	10.0	U	
Silver	6010C	10.0	0.570	1.0	10.0	U	
Sodium	6010C	10000	1300	10.0	232000		
Thallium	6010C	10.0	6.6	1.0	8.3	J	
Vanadium	6010C	50.0	0.670	1.0	50.0	U	
Zinc	6010C	20.0	2.4	1.0	8.5	J	

% Solids: 0.0

Comments:

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: Parsons	Service Request: 9-NIA-003-001-01
Project No.: R2202484	Date Collected: 3/22/2022
Project Name:	Date Received: 3/23/2022
Matrix: WATER	Units: ug/L
	Basis:

Sample Name: 9-NIA-003-001-02	Lab Code: R2202484-003
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Analyte	Analysis Method	PQL	MDL	Dil. Factor	Result	C	Q
Aluminum	6010C	100	23.0	1.0	46.2	J	
Antimony	6010C	60.0	6.3	1.0	60.0	U	
Arsenic	6010C	10.0	5.5	1.0	10.0	U	
Barium	6010C	20.0	3.0	1.0	584		
Beryllium	6010C	3.0	0.130	1.0	3.0	U	
Boron	6010C	200	12.0	1.0	394		
Cadmium	6010C	5.0	0.350	1.0	0.500	J	
Mercury	7470A	0.200	0.077	1.0	0.200	U	
Calcium	6010C	1000	220	1.0	239000		
Chromium	6010C	10.0	1.4	1.0	10.0	U	
Cobalt	6010C	50.0	0.890	1.0	50.0	U	
Copper	6010C	20.0	3.9	1.0	20.0	U	
Iron	6010C	100	61.0	1.0	25600		
Lead	6010C	50.0	2.1	1.0	50.0	U	
Magnesium	6010C	1000	29.0	1.0	46200		
Manganese	6010C	10.0	3.7	1.0	778		
Nickel	6010C	40.0	2.6	1.0	4.8	J	
Potassium	6010C	2000	380	1.0	8280		
Selenium	6010C	10.0	6.4	1.0	10.0	U	
Silver	6010C	10.0	0.570	1.0	10.0	U	
Sodium	6010C	1000	130	1.0	97400		
Thallium	6010C	10.0	6.6	1.0	10.0	U	
Vanadium	6010C	50.0	0.670	1.0	50.0	U	
Zinc	6010C	20.0	2.4	1.0	28.2		

% Solids: 0.0

Comments:

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: Parsons	Service Request: 9-NIA-003-001-01
Project No.: R2202484	Date Collected: 3/22/2022
Project Name:	Date Received: 3/23/2022
Matrix: WATER	Units: ug/L
	Basis:

Sample Name: 9-NIA-003-001-03	Lab Code: R2202484-004
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Analyte	Analysis Method	PQL	MDL	Dil. Factor	Result	C	Q
Aluminum	6010C	100	23.0	1.0	100	U	
Antimony	6010C	60.0	6.3	1.0	60.0	U	
Arsenic	6010C	10.0	5.5	1.0	10.0	U	
Barium	6010C	20.0	3.0	1.0	581		
Beryllium	6010C	3.0	0.130	1.0	3.0	U	
Boron	6010C	200	12.0	1.0	315		
Cadmium	6010C	5.0	0.350	1.0	0.400	J	
Mercury	7470A	0.200	0.077	1.0	0.200	U	
Calcium	6010C	1000	220	1.0	234000		
Chromium	6010C	10.0	1.4	1.0	10.0	U	
Cobalt	6010C	50.0	0.890	1.0	50.0	U	
Copper	6010C	20.0	3.9	1.0	20.0	U	
Iron	6010C	100	61.0	1.0	38400		
Lead	6010C	50.0	2.1	1.0	50.0	U	
Magnesium	6010C	1000	29.0	1.0	48600		
Manganese	6010C	10.0	3.7	1.0	331		
Nickel	6010C	40.0	2.6	1.0	6.0	J	
Potassium	6010C	2000	380	1.0	10000		
Selenium	6010C	10.0	6.4	1.0	10.0	U	
Silver	6010C	10.0	0.570	1.0	10.0	U	
Sodium	6010C	10000	1300	10.0	305000		
Thallium	6010C	10.0	6.6	1.0	10.0	U	
Vanadium	6010C	50.0	0.670	1.0	0.800	J	
Zinc	6010C	20.0	2.4	1.0	17.4	J	

% Solids: 0.0

Comments:

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: Parsons	Service Request: 9-NIA-003-001-01
Project No.: R2202484	Date Collected: 3/22/2022
Project Name:	Date Received: 3/23/2022
Matrix: WATER	Units: ug/L
	Basis:

Sample Name: 9-NIA-003-001-07	Lab Code: R2202484-008
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Analyte	Analysis Method	PQL	MDL	Dil. Factor	Result	C	Q
Aluminum	6010C	100	23.0	1.0	24.8	J	
Antimony	6010C	60.0	6.3	1.0	60.0	U	
Arsenic	6010C	10.0	5.5	1.0	10.0	U	
Barium	6010C	20.0	3.0	1.0	589		
Beryllium	6010C	3.0	0.130	1.0	3.0	U	
Boron	6010C	200	12.0	1.0	402		
Cadmium	6010C	5.0	0.350	1.0	5.0	U	
Mercury	7470A	0.200	0.077	1.0	0.200	U	
Calcium	6010C	1000	220	1.0	240000		
Chromium	6010C	10.0	1.4	1.0	10.0	U	
Cobalt	6010C	50.0	0.890	1.0	50.0	U	
Copper	6010C	20.0	3.9	1.0	20.0	U	
Iron	6010C	100	61.0	1.0	26400		
Lead	6010C	50.0	2.1	1.0	3.6	J	
Magnesium	6010C	1000	29.0	1.0	46500		
Manganese	6010C	10.0	3.7	1.0	782		
Nickel	6010C	40.0	2.6	1.0	5.5	J	
Potassium	6010C	2000	380	1.0	8270		
Selenium	6010C	10.0	6.4	1.0	10.0	U	
Silver	6010C	10.0	0.570	1.0	10.0	U	
Sodium	6010C	1000	130	1.0	97700		
Thallium	6010C	10.0	6.6	1.0	10.0	U	
Vanadium	6010C	50.0	0.670	1.0	50.0	U	
Zinc	6010C	20.0	2.4	1.0	25.0		

% Solids: 0.0

Comments:



General Chemistry

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water
Sample Name: 9-NIA-003-001-01
Lab Code: R2202484-001

Service Request: R2202484
Date Collected: 03/22/22 14:10
Date Received: 03/23/22 09:30

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	158	mg/L	2.0	1.8	1	03/25/22 14:09	
Ammonia as Nitrogen, undistilled	350.1	0.659	mg/L	0.050	0.026	1	03/29/22 20:53	
Bromide	300.0	4.6	mg/L	1.0	0.4	10	03/26/22 19:02	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.1	mg/L	1.0	0.5	1	03/31/22 02:01	
Chemical Oxygen Demand, Total	410.4	22.6	mg/L	5.0	3.8	1	03/25/22 18:35	
Chloride	300.0	374	mg/L	10	3	50	04/08/22 08:50	
Hardness, Total as CaCO3	SM 2340 C-1997(2011)	1420	mg/L	40	13	1	03/28/22 15:30	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	2420	mg/L	20	18	1	03/24/22 09:45	
Sulfate	300.0	1240	mg/L	40	8	200	04/08/22 08:57	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water
Sample Name: 9-NIA-003-001-02
Lab Code: R2202484-003

Service Request: R2202484
Date Collected: 03/22/22 15:15
Date Received: 03/23/22 09:30

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Q
Alkalinity, Total as CaCO ₃	SM 2320 B-1997(2011)	752	mg/L	6.0	5.4	3	03/25/22 18:04	
Ammonia as Nitrogen, undistilled	350.1	3.98	mg/L	0.25	0.13	5	03/29/22 21:52	
Bromide	300.0	1.0 U	mg/L	1.0	0.4	10	03/26/22 19:34	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	12.6	mg/L	1.0	0.5	1	03/31/22 06:32	
Chemical Oxygen Demand, Total	410.4	33.9	mg/L	5.0	3.8	1	03/25/22 18:35	
Chloride	300.0	127	mg/L	8.0	1.7	40	04/08/22 09:04	
Hardness, Total as CaCO ₃	SM 2340 C-1997(2011)	817	mg/L	67	21	1	03/28/22 15:30	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	1050	mg/L	11	10	1	03/24/22 09:45	
Sulfate	300.0	52.3	mg/L	2.0	0.4	10	03/26/22 19:34	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water
Sample Name: 9-NIA-003-001-03
Lab Code: R2202484-004

Service Request: R2202484
Date Collected: 03/22/22 16:40
Date Received: 03/23/22 09:30

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Q
Alkalinity, Total as CaCO ₃	SM 2320 B-1997(2011)	758	mg/L	2.0	1.8	1	03/25/22 14:46	
Ammonia as Nitrogen, undistilled	350.1	12.4	mg/L	1.0	0.6	20	03/29/22 22:08	
Bromide	300.0	1.0 U	mg/L	1.0	0.4	10	03/26/22 19:09	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	12.6	mg/L	1.0	0.5	1	03/31/22 02:21	
Chemical Oxygen Demand, Total	410.4	34.7	mg/L	5.0	3.8	1	03/25/22 18:35	
Chloride	300.0	452	mg/L	20	5	100	04/08/22 09:25	
Hardness, Total as CaCO ₃	SM 2340 C-1997(2011)	780	mg/L	40	13	1	03/28/22 15:30	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	1480	mg/L	14	13	1	03/24/22 09:45	
Sulfate	300.0	37.6	mg/L	2.0	0.4	10	03/26/22 19:09	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water
Sample Name: 9-NIA-003-001-07
Lab Code: R2202484-008

Service Request: R2202484
Date Collected: 03/22/22 15:15
Date Received: 03/23/22 09:30

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Q
Alkalinity, Total as CaCO ₃	SM 2320 B-1997(2011)	760	mg/L	2.0	1.8	1	03/25/22 18:23	
Ammonia as Nitrogen, undistilled	350.1	4.03	mg/L	0.25	0.13	5	03/29/22 21:56	
Bromide	300.0	1.0 U	mg/L	1.0	0.4	10	03/26/22 19:54	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	13.3	mg/L	1.0	0.5	1	03/31/22 02:42	
Chemical Oxygen Demand, Total	410.4	33.4	mg/L	5.0	3.8	1	03/25/22 18:35	
Chloride	300.0	131	mg/L	4.0	0.9	20	04/08/22 09:32	
Hardness, Total as CaCO ₃	SM 2340 C-1997(2011)	780	mg/L	20	7	1	03/28/22 15:30	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	1060	mg/L	11	10	1	03/24/22 09:45	
Sulfate	300.0	51.8	mg/L	2.0	0.4	10	03/26/22 19:54	



QC Summary Forms

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Volatile Organic Compounds by GC/MS

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: EPA 5030C

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		85-122	80-116	87-121
9-NIA-003-001-01	R2202484-001	97	105	100
9-NIA-003-001-02	R2202484-003	94	96	98
9-NIA-003-001-03	R2202484-004	95	96	97
9-NIA-003-001-06	R2202484-007	95	100	101
9-NIA-003-001-07	R2202484-008	98	105	99
Method Blank	RQ2203165-04	96	100	100
Method Blank	RQ2203261-04	96	102	103
Lab Control Sample	RQ2203165-03	97	102	100
Lab Control Sample	RQ2203261-03	103	106	103
9-NIA-003-001-02 MS	RQ2203165-05	96	99	97
9-NIA-003-001-02 DMS	RQ2203165-06	98	106	104

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22
Date Received: 03/23/22
Date Analyzed: 03/30/22
Date Extracted: NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: 9-NIA-003-001-02
Lab Code: R2202484-003
Analysis Method: 8260C
Prep Method: EPA 5030C

Units: ug/L
Basis: NA

Analyte Name	Matrix Spike RQ2203165-05				Duplicate Matrix Spike RQ2203165-06					
	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	1.0 U	51.9	50.0	104	53.8	50.0	108	68-146	4	30
1,1,1-Trichloroethane (TCA)	1.0 U	49.2	50.0	98	50.0	50.0	100	74-127	2	30
1,1,2,2-Tetrachloroethane	1.0 U	52.2	50.0	104	50.1	50.0	100	72-122	4	30
1,1,2-Trichloroethane	1.0 U	49.3	50.0	99	48.9	50.0	98	82-121	<1	30
1,1-Dichloroethane (1,1-DCA)	1.0 U	52.7	50.0	105	52.2	50.0	104	74-132	1	30
1,1-Dichloroethene (1,1-DCE)	1.0 U	51.3	50.0	103	52.3	50.0	105	71-118	2	30
1,2,3-Trichloropropane	1.0 U	55.6	50.0	111	50.8	50.0	102	75-122	9	30
1,2-Dibromo-3-chloropropane (DBCP)	2.0 U	47.3	50.0	95	48.8	50.0	98	37-150	3	30
1,2-Dibromoethane	1.0 U	46.2	50.0	92	46.1	50.0	92	67-127	<1	30
1,2-Dichlorobenzene	1.0 U	51.6	50.0	103	48.6	50.0	97	77-120	6	30
1,2-Dichloroethane	1.0 U	48.1	50.0	96	47.2	50.0	94	68-130	2	30
1,2-Dichloropropane	1.0 U	49.0	50.0	98	51.0	50.0	102	79-124	4	30
1,4-Dichlorobenzene	1.0 U	48.1	50.0	96	46.3	50.0	93	82-120	4	30
2-Butanone (MEK)	5.0 U	47.1	50.0	94	46.5	50.0	93	61-137	1	30
2-Hexanone	5.0 U	50.6	50.0	101	51.9	50.0	104	56-132	2	30
4-Methyl-2-pentanone	5.0 U	52.0	50.0	104	54.6	50.0	109	60-141	5	30
Acetone	5.0 U	58.1	50.0	116	57.5	50.0	115	35-183	<1	30
Acrylonitrile	10 U	242	250	97	245	250	98	69-131	1	30
Benzene	1.0 U	50.3	50.0	101	50.4	50.0	101	76-129	<1	30
Bromochloromethane	1.0 U	47.0	50.0	94	45.9	50.0	92	80-122	2	30
Bromodichloromethane	1.0 U	48.6	50.0	97	52.1	50.0	104	78-133	7	30
Bromoform	1.0 U	58.0	50.0	116	58.5	50.0	117	58-133	<1	30
Bromomethane	1.0 U	41.6	50.0	83	40.1	50.0	80	10-184	4	30
Carbon Disulfide	1.0 U	41.3	50.0	83	41.3	50.0	83	59-140	<1	30
Carbon Tetrachloride	1.0 U	45.9	50.0	92	49.5	50.0	99	65-135	8	30
Chlorobenzene	0.42 J	50.3	50.0	100	49.0	50.0	97	76-125	3	30
Chloroethane	1.0 U	57.3	50.0	115	58.1	50.0	116	48-146	1	30
Chloroform	1.0 U	50.7	50.0	101	49.0	50.0	98	75-130	3	30
Chloromethane	1.0 U	64.8	50.0	130	65.0	50.0	130	55-160	<1	30
Dibromochloromethane	1.0 U	53.9	50.0	108	55.9	50.0	112	72-128	4	30
Dibromomethane	1.0 U	50.0	50.0	100	51.0	50.0	102	77-119	2	30
Methylene Chloride	1.0 U	54.2	50.0	108	53.2	50.0	106	73-122	2	30
Ethylbenzene	1.0 U	52.2	50.0	104	50.8	50.0	102	72-134	3	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22
Date Received: 03/23/22
Date Analyzed: 03/30/22
Date Extracted: NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: 9-NIA-003-001-02
Lab Code: R2202484-003
Analysis Method: 8260C
Prep Method: EPA 5030C

Units: ug/L
Basis: NA

Analyte Name	Matrix Spike RQ2203165-05				Duplicate Matrix Spike RQ2203165-06					
	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Iodomethane	5.0 U	43.4	50.0	87	46.6	50.0	93	18-160	7	30
Styrene	1.0 U	50.8	50.0	102	50.3	50.0	101	74-136	<1	30
Tetrachloroethene (PCE)	1.0 U	47.4	50.0	95	46.4	50.0	93	72-125	2	30
Toluene	1.0 U	50.7	50.0	101	51.4	50.0	103	79-119	1	30
Trichloroethene (TCE)	1.0 U	45.4	50.0	91	47.1	50.0	94	74-122	4	30
Trichlorofluoromethane (CFC 11)	1.0 U	50.0	50.0	100	49.3	50.0	99	71-136	1	30
Vinyl Acetate	2.0 U	34.1	50.0	68	36.6	50.0	73	48-172	7	30
Vinyl Chloride	1.0 U	56.5	50.0	113	56.7	50.0	113	74-159	<1	30
cis-1,2-Dichloroethene	1.0 U	49.7	50.0	99	50.6	50.0	101	77-127	2	30
cis-1,3-Dichloropropene	1.0 U	45.8	50.0	92	46.3	50.0	93	52-134	<1	30
m,p-Xylenes	2.0 U	102	100	102	103	100	103	80-126	<1	30
o-Xylene	1.0 U	51.7	50.0	103	50.9	50.0	102	79-123	2	30
trans-1,2-Dichloroethene	1.0 U	50.8	50.0	102	48.7	50.0	97	73-118	4	30
trans-1,3-Dichloropropene	1.0 U	41.3	50.0	83	44.3	50.0	89	71-133	7	30
trans-1,4-Dichloro-2-butene	1.0 U	38.8	50.0	78	37.3	50.0	75	27-155	4	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2203165-04

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	1.0 U	1.0	0.20	1	03/29/22 22:53	
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.20	1	03/29/22 22:53	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	03/29/22 22:53	
1,1,2-Trichloroethane	1.0 U	1.0	0.20	1	03/29/22 22:53	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	03/29/22 22:53	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.20	1	03/29/22 22:53	
1,2,3-Trichloropropane	1.0 U	1.0	0.26	1	03/29/22 22:53	
1,2-Dibromo-3-chloropropane (DBCP)	2.0 U	2.0	0.45	1	03/29/22 22:53	
1,2-Dibromoethane	1.0 U	1.0	0.20	1	03/29/22 22:53	
1,2-Dichlorobenzene	1.0 U	1.0	0.20	1	03/29/22 22:53	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	03/29/22 22:53	
1,2-Dichloropropane	1.0 U	1.0	0.20	1	03/29/22 22:53	
1,4-Dichlorobenzene	1.0 U	1.0	0.20	1	03/29/22 22:53	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	03/29/22 22:53	
2-Hexanone	5.0 U	5.0	0.20	1	03/29/22 22:53	
4-Methyl-2-pentanone	5.0 U	5.0	0.20	1	03/29/22 22:53	
Acetone	5.0 U	5.0	5.0	1	03/29/22 22:53	
Acrylonitrile	10 U	10	0.90	1	03/29/22 22:53	
Benzene	1.0 U	1.0	0.20	1	03/29/22 22:53	
Bromochloromethane	1.0 U	1.0	0.20	1	03/29/22 22:53	
Bromodichloromethane	1.0 U	1.0	0.20	1	03/29/22 22:53	
Bromoform	1.0 U	1.0	0.25	1	03/29/22 22:53	
Bromomethane	1.0 U	1.0	0.70	1	03/29/22 22:53	
Carbon Disulfide	1.0 U	1.0	0.42	1	03/29/22 22:53	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	03/29/22 22:53	
Chlorobenzene	1.0 U	1.0	0.20	1	03/29/22 22:53	
Chloroethane	1.0 U	1.0	0.23	1	03/29/22 22:53	
Chloroform	1.0 U	1.0	0.24	1	03/29/22 22:53	
Chloromethane	1.0 U	1.0	0.28	1	03/29/22 22:53	
Dibromochloromethane	1.0 U	1.0	0.20	1	03/29/22 22:53	
Dibromomethane	1.0 U	1.0	0.20	1	03/29/22 22:53	
Methylene Chloride	1.0 U	1.0	0.65	1	03/29/22 22:53	
Ethylbenzene	1.0 U	1.0	0.20	1	03/29/22 22:53	
Iodomethane	5.0 U	5.0	4.3	1	03/29/22 22:53	
Styrene	1.0 U	1.0	0.20	1	03/29/22 22:53	
Tetrachloroethene (PCE)	1.0 U	1.0	0.21	1	03/29/22 22:53	
Toluene	1.0 U	1.0	0.20	1	03/29/22 22:53	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	03/29/22 22:53	
Trichlorofluoromethane (CFC 11)	1.0 U	1.0	0.24	1	03/29/22 22:53	
Vinyl Acetate	2.0 U	2.0	1.1	1	03/29/22 22:53	
Vinyl Chloride	1.0 U	1.0	0.20	1	03/29/22 22:53	
Xylenes, Total	3.0 U	3.0	0.23	1	03/29/22 22:53	
cis-1,2-Dichloroethene	1.0 U	1.0	0.23	1	03/29/22 22:53	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ2203165-04

Service Request: R2202484
Date Collected: NA
Date Received: NA

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
cis-1,3-Dichloropropene	1.0 U	1.0	0.20	1	03/29/22 22:53	
m,p-Xylenes	2.0 U	2.0	0.20	1	03/29/22 22:53	
o-Xylene	1.0 U	1.0	0.20	1	03/29/22 22:53	
trans-1,2-Dichloroethene	1.0 U	1.0	0.20	1	03/29/22 22:53	
trans-1,3-Dichloropropene	1.0 U	1.0	0.23	1	03/29/22 22:53	
trans-1,4-Dichloro-2-butene	1.0 U	1.0	0.78	1	03/29/22 22:53	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	03/29/22 22:53	
Dibromofluoromethane	100	80 - 116	03/29/22 22:53	
Toluene-d8	100	87 - 121	03/29/22 22:53	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ2203261-04

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	1.0 U	1.0	0.20	1	03/31/22 12:28	
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.20	1	03/31/22 12:28	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	03/31/22 12:28	
1,1,2-Trichloroethane	1.0 U	1.0	0.20	1	03/31/22 12:28	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	03/31/22 12:28	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.20	1	03/31/22 12:28	
1,2,3-Trichloropropane	1.0 U	1.0	0.26	1	03/31/22 12:28	
1,2-Dibromo-3-chloropropane (DBCP)	2.0 U	2.0	0.45	1	03/31/22 12:28	
1,2-Dibromoethane	1.0 U	1.0	0.20	1	03/31/22 12:28	
1,2-Dichlorobenzene	1.0 U	1.0	0.20	1	03/31/22 12:28	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	03/31/22 12:28	
1,2-Dichloropropane	1.0 U	1.0	0.20	1	03/31/22 12:28	
1,4-Dichlorobenzene	1.0 U	1.0	0.20	1	03/31/22 12:28	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	03/31/22 12:28	
2-Hexanone	5.0 U	5.0	0.20	1	03/31/22 12:28	
4-Methyl-2-pentanone	5.0 U	5.0	0.20	1	03/31/22 12:28	
Acetone	5.0 U	5.0	5.0	1	03/31/22 12:28	
Acrylonitrile	10 U	10	0.90	1	03/31/22 12:28	
Benzene	1.0 U	1.0	0.20	1	03/31/22 12:28	
Bromochloromethane	1.0 U	1.0	0.20	1	03/31/22 12:28	
Bromodichloromethane	1.0 U	1.0	0.20	1	03/31/22 12:28	
Bromoform	1.0 U	1.0	0.25	1	03/31/22 12:28	
Bromomethane	1.0 U	1.0	0.70	1	03/31/22 12:28	
Carbon Disulfide	1.0 U	1.0	0.42	1	03/31/22 12:28	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	03/31/22 12:28	
Chlorobenzene	1.0 U	1.0	0.20	1	03/31/22 12:28	
Chloroethane	1.0 U	1.0	0.23	1	03/31/22 12:28	
Chloroform	1.0 U	1.0	0.24	1	03/31/22 12:28	
Chloromethane	0.32 J	1.0	0.28	1	03/31/22 12:28	
Dibromochloromethane	1.0 U	1.0	0.20	1	03/31/22 12:28	
Dibromomethane	1.0 U	1.0	0.20	1	03/31/22 12:28	
Methylene Chloride	1.0 U	1.0	0.65	1	03/31/22 12:28	
Ethylbenzene	1.0 U	1.0	0.20	1	03/31/22 12:28	
Iodomethane	5.0 U	5.0	4.3	1	03/31/22 12:28	
Styrene	1.0 U	1.0	0.20	1	03/31/22 12:28	
Tetrachloroethene (PCE)	1.0 U	1.0	0.21	1	03/31/22 12:28	
Toluene	1.0 U	1.0	0.20	1	03/31/22 12:28	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	03/31/22 12:28	
Trichlorofluoromethane (CFC 11)	1.0 U	1.0	0.24	1	03/31/22 12:28	
Vinyl Acetate	2.0 U	2.0	1.1	1	03/31/22 12:28	
Vinyl Chloride	1.0 U	1.0	0.20	1	03/31/22 12:28	
Xylenes, Total	3.0 U	3.0	0.23	1	03/31/22 12:28	
cis-1,2-Dichloroethene	1.0 U	1.0	0.23	1	03/31/22 12:28	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ2203261-04

Service Request: R2202484
Date Collected: NA
Date Received: NA

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
cis-1,3-Dichloropropene	1.0 U	1.0	0.20	1	03/31/22 12:28	
m,p-Xylenes	2.0 U	2.0	0.20	1	03/31/22 12:28	
o-Xylene	1.0 U	1.0	0.20	1	03/31/22 12:28	
trans-1,2-Dichloroethene	1.0 U	1.0	0.20	1	03/31/22 12:28	
trans-1,3-Dichloropropene	1.0 U	1.0	0.23	1	03/31/22 12:28	
trans-1,4-Dichloro-2-butene	1.0 U	1.0	0.78	1	03/31/22 12:28	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	03/31/22 12:28	
Dibromofluoromethane	102	80 - 116	03/31/22 12:28	
Toluene-d8	103	87 - 121	03/31/22 12:28	

ALS Group USA, Corp.
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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Analyzed: 03/29/22

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ2203165-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	8260C	21.6	20.0	108	76-129
1,1,1-Trichloroethane (TCA)	8260C	23.0	20.0	115	75-125
1,1,2,2-Tetrachloroethane	8260C	20.6	20.0	103	78-126
1,1,2-Trichloroethane	8260C	19.8	20.0	99	82-121
1,1-Dichloroethane (1,1-DCA)	8260C	22.1	20.0	110	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	22.9	20.0	115	71-118
1,2,3-Trichloropropane	8260C	21.5	20.0	107	75-118
1,2-Dibromo-3-chloropropane (DBCP)	8260C	19.8	20.0	99	55-136
1,2-Dibromoethane	8260C	18.4	20.0	92	82-127
1,2-Dichlorobenzene	8260C	21.6	20.0	108	80-119
1,2-Dichloroethane	8260C	20.4	20.0	102	71-127
1,2-Dichloropropane	8260C	20.5	20.0	103	80-119
1,4-Dichlorobenzene	8260C	21.1	20.0	105	79-119
2-Butanone (MEK)	8260C	18.4	20.0	92	61-137
2-Hexanone	8260C	18.0	20.0	90	63-124
4-Methyl-2-pentanone	8260C	18.2	20.0	91	66-124
Acetone	8260C	21.6	20.0	108	40-161
Acrylonitrile	8260C	103	100	103	71-130
Benzene	8260C	20.6	20.0	103	79-119
Bromochloromethane	8260C	19.6	20.0	98	81-126
Bromodichloromethane	8260C	21.9	20.0	109	81-123
Bromoform	8260C	25.8	20.0	129	65-146
Bromomethane	8260C	18.0	20.0	90	42-166
Carbon Disulfide	8260C	16.2	20.0	81	66-128
Carbon Tetrachloride	8260C	20.6	20.0	103	70-127
Chlorobenzene	8260C	20.9	20.0	105	80-121
Chloroethane	8260C	23.9	20.0	119	62-131
Chloroform	8260C	21.2	20.0	106	79-120
Chloromethane	8260C	27.0	20.0	135	65-135
Dibromochloromethane	8260C	23.3	20.0	117	72-128
Dibromomethane	8260C	20.3	20.0	101	80-118
Methylene Chloride	8260C	21.9	20.0	109	73-122
Ethylbenzene	8260C	22.2	20.0	111	76-120

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Superset Reference:22-0000622276 rev 00

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Analyzed: 03/29/22

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ2203165-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Iodomethane	8260C	16.7	20.0	84	18-160
Styrene	8260C	21.0	20.0	105	80-124
Tetrachloroethene (PCE)	8260C	18.5	20.0	93	72-125
Toluene	8260C	21.3	20.0	107	79-119
Trichloroethene (TCE)	8260C	20.2	20.0	101	74-122
Trichlorofluoromethane (CFC 11)	8260C	22.4	20.0	112	71-136
Vinyl Acetate	8260C	17.9	20.0	89	52-174
Vinyl Chloride	8260C	24.3	20.0	121	74-159
cis-1,2-Dichloroethene	8260C	21.7	20.0	108	80-121
cis-1,3-Dichloropropene	8260C	20.0	20.0	100	77-122
m,p-Xylenes	8260C	42.7	40.0	107	80-126
o-Xylene	8260C	21.4	20.0	107	79-123
trans-1,2-Dichloroethene	8260C	22.1	20.0	111	73-118
trans-1,3-Dichloropropene	8260C	19.0	20.0	95	71-133
trans-1,4-Dichloro-2-butene	8260C	18.8	20.0	94	39-137

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Analyzed: 03/31/22

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ2203261-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	8260C	23.2	20.0	116	76-129
1,1,1-Trichloroethane (TCA)	8260C	21.0	20.0	105	75-125
1,1,2,2-Tetrachloroethane	8260C	18.3	20.0	92	78-126
1,1,2-Trichloroethane	8260C	19.1	20.0	95	82-121
1,1-Dichloroethane (1,1-DCA)	8260C	21.8	20.0	109	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	19.6	20.0	98	71-118
1,2,3-Trichloropropane	8260C	21.8	20.0	109	75-118
1,2-Dibromo-3-chloropropane (DBCP)	8260C	19.1	20.0	96	55-136
1,2-Dibromoethane	8260C	18.2	20.0	91	82-127
1,2-Dichlorobenzene	8260C	19.9	20.0	99	80-119
1,2-Dichloroethane	8260C	18.9	20.0	95	71-127
1,2-Dichloropropane	8260C	19.1	20.0	96	80-119
1,4-Dichlorobenzene	8260C	19.0	20.0	95	79-119
2-Butanone (MEK)	8260C	17.0	20.0	85	61-137
2-Hexanone	8260C	16.7	20.0	83	63-124
4-Methyl-2-pentanone	8260C	17.4	20.0	87	66-124
Acetone	8260C	17.6	20.0	88	40-161
Acrylonitrile	8260C	91.7	100	92	71-130
Benzene	8260C	19.1	20.0	95	79-119
Bromochloromethane	8260C	20.4	20.0	102	81-126
Bromodichloromethane	8260C	22.2	20.0	111	81-123
Bromoform	8260C	26.8	20.0	134	65-146
Bromomethane	8260C	18.3	20.0	92	42-166
Carbon Disulfide	8260C	17.4	20.0	87	66-128
Carbon Tetrachloride	8260C	20.7	20.0	103	70-127
Chlorobenzene	8260C	19.4	20.0	97	80-121
Chloroethane	8260C	21.3	20.0	107	62-131
Chloroform	8260C	20.7	20.0	104	79-120
Chloromethane	8260C	26.6	20.0	133	65-135
Dibromochloromethane	8260C	24.0	20.0	120	72-128
Dibromomethane	8260C	19.5	20.0	98	80-118
Methylene Chloride	8260C	21.8	20.0	109	73-122
Ethylbenzene	8260C	19.7	20.0	98	76-120

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Superset Reference:22-0000622276 rev 00

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Analyzed: 03/31/22

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ2203261-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Iodomethane	8260C	18.0	20.0	90	18-160
Styrene	8260C	19.9	20.0	99	80-124
Tetrachloroethene (PCE)	8260C	19.2	20.0	96	72-125
Toluene	8260C	19.7	20.0	98	79-119
Trichloroethene (TCE)	8260C	18.7	20.0	93	74-122
Trichlorofluoromethane (CFC 11)	8260C	20.1	20.0	100	71-136
Vinyl Acetate	8260C	18.0	20.0	90	52-174
Vinyl Chloride	8260C	22.4	20.0	112	74-159
cis-1,2-Dichloroethene	8260C	21.2	20.0	106	80-121
cis-1,3-Dichloropropene	8260C	19.5	20.0	97	77-122
m,p-Xylenes	8260C	40.7	40.0	102	80-126
o-Xylene	8260C	19.8	20.0	99	79-123
trans-1,2-Dichloroethene	8260C	20.2	20.0	101	73-118
trans-1,3-Dichloropropene	8260C	18.3	20.0	92	71-133
trans-1,4-Dichloro-2-butene	8260C	16.8	20.0	84	39-137



Semivolatile Organic Compounds by GC/MS

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484

SURROGATE RECOVERY SUMMARY
Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Extraction Method: EPA 3510C

Sample Name	Lab Code	2-Fluorobiphenyl	Nitrobenzene-d5	p-Terphenyl-d14
		27-133	31-167	25-151
9-NIA-003-001-01	R2202484-001	68	59	90
9-NIA-003-001-02	R2202484-003	75	68	91
9-NIA-003-001-03	R2202484-004	76	68	91
9-NIA-003-001-07	R2202484-008	71	66	80
Method Blank	RQ2203151-01	62	60	91
Lab Control Sample	RQ2203151-02	75	67	90
Duplicate Lab Control Sample	RQ2203151-03	80	73	91
9-NIA-003-001-02 MS	RQ2203151-04	78	71	83
9-NIA-003-001-02 DMS	RQ2203151-05	75	64	80

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22
Date Received: 03/23/22
Date Analyzed: 04/4/22
Date Extracted: 03/29/22

Duplicate Matrix Spike Summary
Low Level Semivolatile Organic Compounds by GC/MS

Sample Name: 9-NIA-003-001-02
Lab Code: R2202484-003
Analysis Method: 8270D
Prep Method: EPA 3510C

Units: ug/L
Basis: NA

Analyte Name	Sample Result	Matrix Spike RQ2203151-04			Duplicate Matrix Spike RQ2203151-05			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Acenaphthene	0.081 J	4.45	5.66	77	4.38	5.66	76	24-158	2	30
Acenaphthylene	0.19 U	4.80	5.66	85	4.76	5.66	84	41-140	<1	30
Anthracene	0.19 U	4.44	5.66	78	4.52	5.66	80	27-150	2	30
Benz(a)anthracene	0.19 U	3.78	5.66	67	3.89	5.66	69	36-140	3	30
Benzo(b)fluoranthene	0.19 U	4.06	5.66	72	4.00	5.66	71	30-151	1	30
Benzo(k)fluoranthene	0.19 U	3.91	5.66	69	3.96	5.66	70	18-145	1	30
Benzo(g,h,i)perylene	0.19 U	3.70	5.66	65	3.61	5.66	64	10-174	2	30
Benzo(a)pyrene	0.19 U	4.75	5.66	84	4.78	5.66	84	10-154	<1	30
Chrysene	0.19 U	4.16	5.66	74	4.30	5.66	76	39-141	3	30
Dibenz(a,h)anthracene	0.19 U	3.04	5.66	54	3.07	5.66	54	10-173	1	30
Fluoranthene	0.19 U	4.41	5.66	78	4.60	5.66	81	45-154	4	30
Fluorene	0.071 J	4.68	5.66	81	4.79	5.66	83	33-152	2	30
Indeno(1,2,3-cd)pyrene	0.19 U	3.56	5.66	63	3.43	5.66	61	10-167	4	30
Naphthalene	0.19 U	3.39	5.66	60	3.23	5.66	57	30-133	5	30
Phenanthrene	0.19 U	4.15	5.66	73	4.28	5.66	76	29-170	3	30
Pyrene	0.19 U	4.64	5.66	82	4.75	5.66	84	40-166	2	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ2203151-01

Service Request: R2202484
Date Collected: NA
Date Received: NA

Units: ug/L
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Acenaphthene	0.20 U	0.20	0.055	1	04/04/22 15:51	3/29/22	
Acenaphthylene	0.20 U	0.20	0.053	1	04/04/22 15:51	3/29/22	
Anthracene	0.20 U	0.20	0.071	1	04/04/22 15:51	3/29/22	
Benz(a)anthracene	0.20 U	0.20	0.087	1	04/04/22 15:51	3/29/22	
Benzo(b)fluoranthene	0.20 U	0.20	0.065	1	04/04/22 15:51	3/29/22	
Benzo(k)fluoranthene	0.20 U	0.20	0.070	1	04/04/22 15:51	3/29/22	
Benzo(g,h,i)perylene	0.20 U	0.20	0.11	1	04/04/22 15:51	3/29/22	
Benzo(a)pyrene	0.20 U	0.20	0.075	1	04/04/22 15:51	3/29/22	
Chrysene	0.20 U	0.20	0.089	1	04/04/22 15:51	3/29/22	
Dibenz(a,h)anthracene	0.20 U	0.20	0.095	1	04/04/22 15:51	3/29/22	
Fluoranthene	0.20 U	0.20	0.098	1	04/04/22 15:51	3/29/22	
Fluorene	0.20 U	0.20	0.065	1	04/04/22 15:51	3/29/22	
Indeno(1,2,3-cd)pyrene	0.20 U	0.20	0.11	1	04/04/22 15:51	3/29/22	
Naphthalene	0.20 U	0.20	0.058	1	04/04/22 15:51	3/29/22	
Phenanthrene	0.20 U	0.20	0.10	1	04/04/22 15:51	3/29/22	
Pyrene	0.20 U	0.20	0.11	1	04/04/22 15:51	3/29/22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	62	27 - 133	04/04/22 15:51	
Nitrobenzene-d5	60	31 - 167	04/04/22 15:51	
p-Terphenyl-d14	91	25 - 151	04/04/22 15:51	

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Analyzed: 04/04/22

Duplicate Lab Control Sample Summary
Low Level Semivolatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample RQ2203151-02					Duplicate Lab Control Sample RQ2203151-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Acenaphthene	8270D	4.24	6.00	71	4.55	6.00	76	48-118	7	30
Acenaphthylene	8270D	4.65	6.00	77	5.06	6.00	84	48-121	8	30
Anthracene	8270D	4.67	6.00	78	4.86	6.00	81	52-124	4	30
Benz(a)anthracene	8270D	4.36	6.00	73	4.54	6.00	76	54-120	4	30
Benzo(b)fluoranthene	8270D	4.97	6.00	83	5.05	6.00	84	57-117	2	30
Benzo(k)fluoranthene	8270D	5.13	6.00	85	5.12	6.00	85	59-123	<1	30
Benzo(g,h,i)perylene	8270D	4.88	6.00	81	4.63	6.00	77	47-154	5	30
Benzo(a)pyrene	8270D	5.68	6.00	95	5.69	6.00	95	57-124	<1	30
Chrysene	8270D	5.05	6.00	84	5.36	6.00	89	58-124	6	30
Dibenz(a,h)anthracene	8270D	4.34	6.00	72	3.93	6.00	65	43-147	10	30
Fluoranthene	8270D	4.87	6.00	81	4.94	6.00	82	50-117	1	30
Fluorene	8270D	4.54	6.00	76	4.89	6.00	82	47-107	8	30
Indeno(1,2,3-cd)pyrene	8270D	4.65	6.00	78	4.38	6.00	73	55-129	6	30
Naphthalene	8270D	3.26	6.00	54	3.54	6.00	59	37-114	8	30
Phenanthrene	8270D	4.40	6.00	73	4.53	6.00	76	54-116	3	30
Pyrene	8270D	4.87	6.00	81	5.14	6.00	86	56-123	5	30

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484

SURROGATE RECOVERY SUMMARY
1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Extraction Method: EPA 3535A

Sample Name	Lab Code	1,4-Dioxane-d8
		64-124
9-NIA-003-001-01	R2202484-001	123
9-NIA-003-001-02	R2202484-003	102
9-NIA-003-001-03	R2202484-004	117
9-NIA-003-001-07	R2202484-008	112
Method Blank	RQ2203149-01	121
Lab Control Sample	RQ2203149-02	114
Duplicate Lab Control Sample	RQ2203149-03	114
9-NIA-003-001-02 MS	RQ2203149-04	119
9-NIA-003-001-02 DMS	RQ2203149-05	122

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22
Date Received: 03/23/22
Date Analyzed: 03/30/22
Date Extracted: 03/29/22

Duplicate Matrix Spike Summary
1,4-Dioxane by GC/MS

Sample Name: 9-NIA-003-001-02
Lab Code: R2202484-003
Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Units: ug/L
Basis: NA

Analyte Name	Matrix Spike RQ2203149-04				Duplicate Matrix Spike RQ2203149-05				% Rec Limits	RPD	RPD Limit
	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec				
1,4-Dioxane	0.040 U	11.4	10.0	114	11.3	10.0	113	33-146	<1		30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ2203149-01

Service Request: R2202484
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	0.040 U	0.040	0.027	1	03/30/22 10:12	3/29/22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,4-Dioxane-d8	121	64 - 124	03/30/22 10:12	

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Analyzed: 04/04/22

Duplicate Lab Control Sample Summary
1,4-Dioxane by GC/MS

Units:ug/L
Basis:NA

			Lab Control Sample			Duplicate Lab Control Sample				
			RQ2203149-02			RQ2203149-03				
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,4-Dioxane	8270D SIM	11.1	10.0	111	11.1	10.0	111	58-124	<1	30



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BLANKS

Contract: R2202484

Lab Code: Case No.: SAS No.: SDG NO.: 9-NIA-003-00

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L, ppt, or mg/kg): UG/L

Analyte	Initial Calib. Blank ug/L	Continuing Calibration Blank ug/L						Preparation Blank		M
		1	2	3						
Aluminum	23.00 U	23.00 U	23.00 U	23.00 U			23.000	U		P
Antimony	7.70 J	6.30 U	6.30 U	6.30 U			6.300	U		P
Arsenic	5.50 U	5.50 U	5.50 U	5.50 U			5.500	U		P
Barium	3.00 U	3.00 U	3.00 U	3.00 U			3.000	U		P
Beryllium	0.13 U	0.13 U	0.13 U	0.13 U			0.130	U		P
Boron	12.00 U	12.00 U	12.00 U	12.00 U			12.000	U		P
Cadmium	0.35 U	0.35 U	0.35 U	0.35 U			0.350	U		P
Mercury	0.077 U	0.077 U	0.077 U	0.077 U			0.077	U		CV
Calcium	220.00 U	220.00 U	220.00 U	220.00 U			220.000	U		P
Chromium	1.40 U	1.40 U	1.40 U	1.40 U			1.400	U		P
Cobalt	0.89 U	0.89 U	0.89 U	0.89 U			0.890	U		P
Copper	3.90 U	3.90 U	3.90 U	3.90 U			3.900	U		P
Iron	61.00 U	61.00 U	61.00 U	61.00 U			61.000	U		P
Lead	2.10 U	2.10 U	2.10 U	2.10 U			2.100	U		P
Magnesium	29.00 U	29.00 U	29.00 U	29.00 U			29.000	U		P
Manganese	3.70 U	3.70 U	3.70 U	3.70 U			3.700	U		P
Nickel	2.60 U	2.60 U	2.60 U	2.60 U			2.600	U		P
Potassium	380.00 U	380.00 U	380.00 U	380.00 U			380.000	U		P
Selenium	6.40 U	6.40 U	6.40 U	6.40 U			6.400	U		P
Silver	0.57 U	-0.60 J	-0.60 J	-0.60 J			0.570	U		P
Sodium	130.00 U	130.00 U	130.00 U	130.00 U			130.000	U		P
Thallium	6.60 U	6.60 U	6.60 U	6.60 U			6.600	U		P
Vanadium	0.67 U	0.67 U	0.67 U	0.67 U			0.670	U		P
Zinc	2.40 U	2.40 U	2.40 U	2.40 U			2.400	U		P

Comments:

METALS

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BLANKS

Contract: R2202484

Lab Code: Case No.: SAS No.: SDG NO.: 9-NIA-003-00

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L, ppt, or mg/kg): UG/L

Analyte	Initial Calib. Blank ug/L	Continuing Calibration Blank ug/L						Preparation Blank	C	M
		1	C	2	C	3	C			
Aluminum		23.00	U	23.00	U	23.00	U			P
Antimony		6.30	U	6.30	U	6.30	U			P
Arsenic		5.50	U	5.50	U	5.50	U			P
Barium		3.00	U	3.00	U	3.00	U			P
Beryllium		0.13	U	0.13	U	0.13	U			P
Boron		12.00	U	12.00	U	12.00	U			P
Cadmium		0.40	J	0.35	U	0.50	J			P
Mercury		0.077	U							CV
Calcium		220.00	U	220.00	U	220.00	U			P
Chromium		1.40	U	1.40	U	1.40	U			P
Cobalt		0.89	U	0.89	U	0.89	U			P
Copper		3.90	U	3.90	U	3.90	U			P
Iron		61.00	U	61.00	U	61.00	U			P
Lead		2.10	U	2.10	U	2.10	U			P
Magnesium		29.00	U	29.00	U	29.00	U			P
Manganese		3.70	U	3.70	U	3.70	U			P
Nickel		2.60	U	2.60	U	2.60	U			P
Potassium		380.00	U	380.00	U	380.00	U			P
Selenium		6.40	U	6.40	U	6.40	U			P
Silver		-0.60	J	-0.60	J	-0.70	J			P
Sodium		130.00	U	130.00	U	130.00	U			P
Thallium		6.60	U	6.60	U	6.60	U			P
Vanadium		0.67	U	0.67	U	0.67	U			P
Zinc		2.40	U	2.40	U	2.40	U			P

Comments:

METALS

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BLANKS

Contract: R2202484

Lab Code: Case No.: SAS No.: SDG NO.: 9-NIA-003-00

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L, ppt, or mg/kg): UG/L

Analyte	Initial Calib. Blank ug/L	Continuing Calibration Blank ug/L						Preparation Blank	C	M
		1	C	2	C	3	C			
Aluminum		23.00	U	23.00	U					P
Antimony		6.30	U	6.30	U					P
Arsenic		5.50	U	5.50	U					P
Barium		3.00	U	3.00	U					P
Beryllium		0.13	U	0.13	U					P
Boron		12.00	U	12.00	U					P
Cadmium		0.35	U	0.40	J					P
Calcium		220.00	U	220.00	U					P
Chromium		1.40	U	1.40	U					P
Cobalt		0.89	U	0.89	U					P
Copper		3.90	U	3.90	U					P
Iron		61.00	U	61.00	U					P
Lead		2.10	U	2.10	U					P
Magnesium		29.00	U	29.00	U					P
Manganese		3.70	U	3.70	U					P
Nickel		2.60	U	2.60	U					P
Potassium		380.00	U	380.00	U					P
Selenium		6.40	U	6.40	U					P
Silver		-0.70	J	-0.70	J					P
Sodium		130.00	U	130.00	U					P
Thallium		6.60	U	6.60	U					P
Vanadium		0.67	U	0.67	U					P
Zinc		2.40	U	2.40	U					P

Comments:

METALS

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BLANKS

Contract: R2202484

Lab Code: Case No.: SAS No.: SDG NO.: 9-NIA-003-00

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L, ppt, or mg/kg): UG/L

Analyte	Initial Calib. Blank ug/L	Continuing Calibration Blank ug/L						Preparation Blank		
		1	2	3						
Thallium	6.60 U	6.60 U	6.60 U	6.60 U						P

Comments:

METALS

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BLANKS

Contract: R2202484

Lab Code: Case No.: SAS No.: SDG NO.: 9-NIA-003-00

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L, ppt, or mg/kg): UG/L

Analyte	Initial Calib. Blank ug/L	Continuing Calibration Blank ug/L						Preparation Blank		
		1	2	3						
Thallium		6.60								

Comments:

METALS

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SPIKE SAMPLE RECOVERY

SAMPLE NO.

9-NIA-003-001-02S

Contract: R2202484

Lab Code: Case No.: SAS No.: SDG NO.: 9-NIA-003-00

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Aluminum	75 - 125	2060.00	46.20 J	2000.0	101		P
Antimony	75 - 125	488.00	6.30 U	500.0	98		P
Arsenic	75 - 125	34.20	5.50 U	40.0	86		P
Barium	75 - 125	2560.00	584.00	2000.0	99		P
Beryllium	75 - 125	46.30	0.13 U	50.0	93		P
Boron	75 - 125	1380.00	394.00	1000.0	99		P
Cadmium	75 - 125	48.00	0.50 J	50.0	95		P
Mercury	75 - 125	1.090	0.077 U	1.000	109		CV
Calcium		235000.00	239000.00	2000.0	-200		P
Chromium	75 - 125	200.00	1.40 U	200.0	100		P
Cobalt	75 - 125	477.00	0.89 U	500.0	95		P
Copper	75 - 125	251.00	3.90 U	250.0	100		P
Iron		26100.00	25600.00	1000.0	50		P
Lead	75 - 125	496.00	2.10 U	500.0	99		P
Magnesium		47300.00	46200.00	2000.0	55		P
Manganese	75 - 125	1250.00	778.00	500.0	94		P
Nickel	75 - 125	494.00	4.80 J	500.0	98		P
Potassium	75 - 125	28500.00	8280.00	20000.0	101		P
Selenium	75 - 125	1010.00	6.40 U	1010.0	100		P
Silver	75 - 125	48.80	0.57 U	50.0	98		P
Sodium		114000.00	97400.00	20000.0	83		P
Thallium	75 - 125	2020.00	6.60 U	2000.0	101		P
Vanadium	75 - 125	498.00	0.67 U	500.0	100		P
Zinc	75 - 125	510.00	28.20	500.0	96		P

Comments:

METALS

-5A-

SPIKE SAMPLE RECOVERY

SAMPLE NO.

9-NIA-003-001-02SD

Contract: R2202484

Lab Code: Case No.: SAS No.: SDG NO.: 9-NIA-003-00

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Aluminum	75 - 125	2090.00	46.20 J	2000.0	102		P
Antimony	75 - 125	494.00	6.30 U	500.0	99		P
Arsenic	75 - 125	34.20	5.50 U	40.0	86		P
Barium	75 - 125	2570.00	584.00	2000.0	99		P
Beryllium	75 - 125	46.90	0.13 U	50.0	94		P
Boron	75 - 125	1380.00	394.00	1000.0	99		P
Cadmium	75 - 125	48.50	0.50 J	50.0	96		P
Mercury	75 - 125	1.100	0.077 U	1.000	110		CV
Calcium		232000.00	239000.00	2000.0	-350		P
Chromium	75 - 125	203.00	1.40 U	200.0	102		P
Cobalt	75 - 125	484.00	0.89 U	500.0	97		P
Copper	75 - 125	254.00	3.90 U	250.0	102		P
Iron		25700.00	25600.00	1000.0	10		P
Lead	75 - 125	503.00	2.10 U	500.0	101		P
Magnesium		46700.00	46200.00	2000.0	25		P
Manganese	75 - 125	1240.00	778.00	500.0	92		P
Nickel	75 - 125	500.00	4.80 J	500.0	99		P
Potassium	75 - 125	28600.00	8280.00	20000.0	102		P
Selenium	75 - 125	1050.00	6.40 U	1010.0	104		P
Silver	75 - 125	49.30	0.57 U	50.0	99		P
Sodium		113000.00	97400.00	20000.0	78		P
Thallium	75 - 125	2050.00	6.60 U	2000.0	102		P
Vanadium	75 - 125	504.00	0.67 U	500.0	101		P
Zinc	75 - 125	530.00	28.20	500.0	100		P

Comments:

METALS
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DUPLICATES

SAMPLE NO.

9-NIA-003-001-02SD

Contract: R2202484

Lab Code: Case No.: SAS No.: SDG NO.: 9-NIA-003-00

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S) C	Duplicate (D) C	RPD	Q	M
Aluminum		2060.00	2090.00	1		P
Antimony		488.00	494.00	1		P
Arsenic		34.20	34.20	0		P
Barium		2560.00	2570.00	0		P
Beryllium		46.30	46.90	1		P
Boron		1380.00	1380.00	0		P
Cadmium		48.00	48.50	1		P
Mercury		1.090	1.100	1		CV
Calcium		235000.00	232000.00	1		P
Chromium		200.00	203.00	1		P
Cobalt		477.00	484.00	1		P
Copper		251.00	254.00	1		P
Iron		26100.00	25700.00	2		P
Lead		496.00	503.00	1		P
Magnesium		47300.00	46700.00	1		P
Manganese		1250.00	1240.00	1		P
Nickel		494.00	500.00	1		P
Potassium		28500.00	28600.00	0		P
Selenium		1010.00	1050.00	4		P
Silver		48.80	49.30	1		P
Sodium		114000.00	113000.00	1		P
Thallium		2020.00	2050.00	1		P
Vanadium		498.00	504.00	1		P
Zinc		510.00	530.00	4		P

Comments:

METALS

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LABORATORY CONTROL SAMPLE

Contract: R2202484

Lab Code: Case No.: SAS No.: SDG NO.: 9-NIA-003-00

Solid LCS Source:

Aqueous LCS Source: CPI

Analyte	Aqueous (ug/L			Solid (mg/K					
	True	Found	%R	True	Found	C	Limits	%R	
Aluminum	2000	1990	100						
Antimony	500	477	95						
Arsenic	40	39	98						
Barium	2000	2040	102						
Beryllium	50	47	94						
Boron	1000	965	96						
Cadmium	50	51	102						
Mercury	1.000	0.996	100						
Calcium	2000	2060	103						
Chromium	200	205	102						
Cobalt	500	495	99						
Copper	250	237	95						
Iron	1000	980	98						
Lead	500	507	101						
Magnesium	2000	2040	102						
Manganese	500	496	99						
Nickel	500	507	101						
Potassium	20000	19300	96						
Selenium	1010	1020	101						
Silver	50	47	94						
Sodium	20000	20400	102						
Thallium	2000	1850	92						
Vanadium	500	500	100						
Zinc	500	497	99						

Comments:



General Chemistry

ALS Environmental—Rochester Laboratory

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R2202484-MB1

Service Request: R2202484
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Q
Alkalinity, Total as CaCO ₃	SM 2320 B-1997(2011)	2.0 U	mg/L	2.0	1.8	1	03/25/22 09:49	
Ammonia as Nitrogen, undistilled	350.1	0.050 U	mg/L	0.050	0.026	1	03/29/22 20:38	
Bromide	300.0	0.10 U	mg/L	0.10	0.04	1	03/26/22 17:22	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	0.5	1	03/30/22 18:59	
Chemical Oxygen Demand, Total	410.4	5.0 U	mg/L	5.0	3.8	1	03/25/22 18:35	
Chloride	300.0	0.20 U	mg/L	0.20	0.05	1	04/08/22 08:37	
Hardness, Total as CaCO ₃	SM 2340 C-1997(2011)	2.0 U	mg/L	2.0	0.7	1	03/28/22 15:30	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	10 U	mg/L	10	9	1	03/24/22 09:45	
Sulfate	300.0	0.20 U	mg/L	0.20	0.04	1	03/26/22 17:22	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R2202484-MB2

Service Request: R2202484
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	2.0 U	mg/L	2.0	1.8	1	03/25/22 13:47	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	0.5	1	03/31/22 03:45	
Sulfate	300.0	0.20 U	mg/L	0.20	0.04	1	04/08/22 08:37	

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dba ALS Environmental

QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22
Date Received: 03/23/22
Date Analyzed: 03/25/22 - 04/08/22

**Duplicate Matrix Spike Summary
General Chemistry Parameters**

Sample Name: 9-NIA-003-001-02
Lab Code: R2202484-003

Units: mg/L
Basis: NA

Matrix Spike
R2202484-003MS

Duplicate Matrix Spike
R2202484-003DMS

Analyte Name	Method	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Ammonia as Nitrogen, undistilled	350.1	3.98	4.94	1.25	77 *	4.94	1.25	77 *	90-110	<1	20
Bromide	300.0	1.0 U	10.0	10.0	100	10.1	10.0	101	90-110	<1	20
Chloride	300.0	127	205	80.0	97	205	80.0	98	90-110	<1	20
Chemical Oxygen Demand, Total	410.4	33.9	55.4	25.0	86 *	55.8	25.0	87 *	90-110	<1	20
Sulfate	300.0	52.3	70.0	20.0	88 *	69.7	20.0	87 *	90-110	<1	20
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	12.6	20.4	10.0	78	20.6	10.0	80	48-135	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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Superset Reference: 22-0000622276 rev 00

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QA/QC Report

Client: Parsons
Project ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22
Date Received: 03/23/22
Date Analyzed: 03/24/22 - 03/28/22

Replicate Sample Summary
General Chemistry Parameters

Sample Name: 9-NIA-003-001-02
Lab Code: R2202484-003

Units: mg/L
Basis: NA

				Duplicate Sample R2202484- 003DUP			
Analyte Name	Analysis Method	MRL	Sample Result	Result	Average	RPD	RPD Limit
Alkalinity, Total as CaCO ₃	SM 2320 B-1997(2011)	6.0	752	746	749	<1	20
Hardness, Total as CaCO ₃	SM 2340 C-1997(2011)	67	817	817	817	<1	20
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	11	1050	1060	1060	1	10

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

Client: Parsons
Project ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484**Date Collected:** 03/22/22**Date Received:** 03/23/22**Date Analyzed:** 03/25/22

Replicate Sample Summary
General Chemistry Parameters

Sample Name: 9-NIA-003-001-03**Units:** mg/L**Lab Code:** R2202484-004**Basis:** NA

				Duplicate Sample R2202484- 004DUP			
Analyte Name	Analysis Method	MRL	Sample Result	Result	Average	RPD	RPD Limit
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	2.0	758	760	759	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Analyzed: 03/24/22 - 04/08/22

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R2202484-LCS1

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Alkalinity, Total as CaCO ₃	SM 2320 B-1997(2011)	18.4	20.0	92	80-120
Ammonia as Nitrogen, undistilled	350.1	0.254	0.250	102	90-110
Bromide	300.0	0.992	1.00	99	90-110
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	9.47	10.0	95	80-121
Chemical Oxygen Demand, Total	410.4	48.8	50.0	98	90-110
Chloride	300.0	1.99	2.00	99	90-110
Hardness, Total as CaCO ₃	SM 2340 C-1997(2011)	20.0	20.0	100	85-112
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	920	914	101	90-110
Sulfate	300.0	2.05	2.00	102	90-110

ALS Group USA, Corp.

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Analyzed: 03/25/22 - 04/08/22

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L**Basis:**NA**Lab Control Sample**

R2202484-LCS2

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Alkalinity, Total as CaCO ₃	SM 2320 B-1997(2011)	20.8	20.0	104	80-120
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	9.31	10.0	93	80-121
Sulfate	300.0	1.96	2.00	98	90-110



Subcontracted Analytical Parameters

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March 31, 2022

Analytical Report for Service Request No: R2202484

Janice Jaeger
ALS Environmental
1565 Jefferson Rd, Building 300
Suite 360
Rochester, NY 14623

RE: ILI - Region 9 Griffon Park / 452148.60007.03

Dear Janice Jaeger,

Enclosed are the results of the sample(s) submitted to our laboratory March 23, 2022
For your reference, these analyses have been assigned our service request number **R2202484**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 3260. You may also contact me via email at Luke.Rahn@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Luke Rahn
Project Manager



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Raw Data

Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdwlabservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.



Case Narrative

ALS Environmental—Kelso Laboratory
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Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: Parsons
Project: ILI - Region 9 Griffon Park
Sample Matrix: Water

Service Request: R2202484
Date Received: 03/23/2022

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

Sample Receipt:

Six water samples were received for analysis at ALS Environmental on 03/23/2022. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

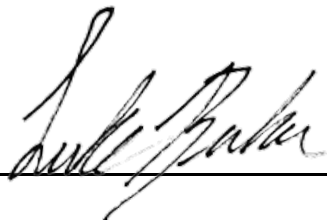
Organic LC:

Method PFC/537M, 03/30/2022: The control criteria was exceeded for one or more surrogates in Continuing Calibration Verification (CCV) KQ2205095-02. The recoveries of the associated native analytes were within control criteria, which indicated the analysis was in control. No further corrective action was appropriate.

Method PFC/537M, 03/30/2022: The upper control criterion was exceeded for one or more surrogates in samples 9-NIA-003-001-02, and 9-NIA-003-001-03. The associated native analytes were not detected above the Method Reporting Limit (MRL) in this sample. The error associated with an elevated recovery equated to a high bias. Assuming the native analytes performed similar to the labeled analogs, the effect on the reported results was minimal. The quality of the sample data was not significantly affected. No further corrective action was appropriate.

Method PFC/537M, 03/29/2022: The control criteria were exceeded for list surrogates in 9-NIA-003-001-02 MS KQ2204757-01 and DMS KQ2204757-02. The associated matrix spike recoveries of target compounds were in control, indicating the analysis was in control. The surrogate outlier was flagged accordingly. No further corrective action was appropriate.

Approved by



Date

03/31/2022



Chain of Custody

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Intra-Network Chain of Custody

1565 Jefferson Rd, Building 300 • Rochester, NY 14623 • 585-288-5380 • FAX 585-288-8475

ALS Contact: Janice Jaeger

Project Name: ILI - Region 9 Griffon Park
Project Number: 452148.60007.03
Project Manager: Maryanne Kosciwicz
Company: Parsons Engineering Science
QAP: LAB QAP

Lab Code	Client Sample ID	# of Cont.	Matrix	Sample		Date Received	Send To	PFAS PFC/537M
				Date	Time			
R2202484-001	9-NIA-003-001-01	2	Water	3/22/22	1410	3/23/22	KELSO	IV
R2202484-003	9-NIA-003-001-02	6	Water	3/22/22	1515	3/23/22	KELSO	IV
R2202484-004	9-NIA-003-001-03	2	Water	3/22/22	1640	3/23/22	KELSO	IV
R2202484-005	9-NIA-003-001-04	1	Water	3/22/22	1115	3/23/22	KELSO	IV
R2202484-006	9-NIA-003-001-05	2	Water	3/22/22	1645	3/23/22	KELSO	IV
R2202484-008	9-NIA-003-001-07	2	Water	3/22/22	1515	3/23/22	KELSO	IV

Folder Comments:

need Tier 2 and Tier 4

Run QC on sample R2202484-003 for PFC/537M/PFAS

Special Instructions/Comments NPDES pH Checked _____	Turnaround Requirements _____ RUSH (Surcharges Apply) PLEASE CIRCLE WORK DAYS 1 2 3 4 5 _____ STANDARD Requested FAX Date: _____ Requested Report Date: 04/08/22	Report Requirements _____ I. Results Only ☒ II. Results + QC Summaries _____ III. Results + QC and Calibration Summaries ☒ IV. Data Validation Report with Raw Data PQL/MDL/J <u>Y</u> EDD <u>Y</u>	Invoice Information PO# 58R2202484 Bill to
---	--	--	--

Relinquished By: _____

Received By: *[Signature]*

ALS Kelso 3-24-22 0950

Airbill Number: _____

Cooler Receipt and Preservation Form

Client: ALS - Rochester Service Request # 22202553
 Received: 3/24/22 Opened: 3/24/22 By: km Unloaded: 3/24/22 By: km

1. Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
 2. Samples were received in: (circle) Cooler Box Envelope Other NA
 3. Were custody seals on coolers? NA (Y) N If yes, how many and where? 2 Front
 If present, were custody seals intact? (Y) N If present, were they signed and dated? Y (N)

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp indicate with "X"	PM Notified If out of temp	Tracking Number NA	Filed
	<u>2.4</u>	<u>IR02</u>				<u>9889 5099 5842</u>	

4. Was a Temperature Blank present in cooler? NA Y (N) If yes, notate the temperature in the appropriate column above:
 If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":

5. Were samples received within the method specified temperature ranges? NA (Y) N
 If no, were they received on ice and same day as collected? If not, notate the cooler # below and notify the PM. NA Y N

If applicable, tissue samples were received: Frozen Partially Thawed Thawed

6. Packing material: Inserts (Baggies) Bubble Wrap Gel Packs (Wet Ice) Dry Ice Sleeves

7. Were custody papers properly filled out (ink, signed, etc.)? NA (Y) (N)
 8. Were samples received in good condition (unbroken) NA (Y) N
 9. Were all sample labels complete (ie, analysis, preservation, etc.)? NA (Y) N
 10. Did all sample labels and tags agree with custody papers? NA (Y) N
 11. Were appropriate bottles/containers and volumes received for the tests indicated? NA (Y) N
 12. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below (NA) Y N
 13. Were VOA vials received without headspace? Indicate in the table below (NA) Y N
 14. Was C12/Res negative? (NA) Y N
 15. Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? (NA) Y N Under filled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Head- space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: COC isn't signed



Per and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22 14:10
Date Received: 03/23/22 09:30

Sample Name: 9-NIA-003-001-01
Lab Code: R2202484-001

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkyl Sulfonic Acids (PFASs)							
Perfluorobutane sulfonic acid (PFBS)	4.3 U	4.3	0.28	1	03/29/22 19:02	3/24/22	
Perfluorohexane sulfonic acid (PFHxS)	4.3 U	4.3	1.3	1	03/29/22 19:02	3/24/22	
Perfluoroheptane sulfonic acid (PFHpS)	4.3 U	4.3	0.44	1	03/29/22 19:02	3/24/22	
Perfluorooctane sulfonic acid (PFOS)	1.7 U	1.7	0.44	1	03/29/22 19:02	3/24/22	
Perfluorodecane sulfonic acid (PFDS)	4.3 U	4.3	0.30	1	03/29/22 19:02	3/24/22	
Perfluoroalkyl Carboxylic Acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	4.3 U	4.3	0.40	1	03/29/22 19:02	3/24/22	
Perfluoropentanoic acid (PFPeA)	4.3 U	4.3	1.7	1	03/29/22 19:02	3/24/22	
Perfluorohexanoic acid (PFHxA)	9.2 U	9.2	8.8	1	03/29/22 19:02	3/24/22	
Perfluoroheptanoic acid (PFHpA)	4.3 U	4.3	0.63	1	03/29/22 19:02	3/24/22	
Perfluorooctanoic acid (PFOA)	1.7 U	1.7	0.35	1	03/29/22 19:02	3/24/22	
Perfluorononanoic acid (PFNA)	4.3 U	4.3	1.1	1	03/29/22 19:02	3/24/22	
Perfluorodecanoic acid (PFDA)	4.3 U	4.3	1.2	1	03/29/22 19:02	3/24/22	
Perfluoroundecanoic acid (PFUnDA)	4.3 U	4.3	1.5	1	03/29/22 19:02	3/24/22	
Perfluorododecanoic acid (PFDOA)	4.3 U	4.3	1.3	1	03/29/22 19:02	3/24/22	
Perfluorotridecanoic acid (PFTrDA)	4.3 U	4.3	1.3	1	03/29/22 19:02	3/24/22	
Perfluorotetradecanoic acid (PFTDA)	4.3 U	4.3	2.0	1	03/29/22 19:02	3/24/22	
Perfluoroalkyl Sulfonamido Substances							
Perfluorooctane sulfonamide (PFOSAm)	0.60 J	4.3	0.52	1	03/29/22 19:02	3/24/22	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	4.3 U	4.3	1.4	1	03/29/22 19:02	3/24/22	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	4.3 U	4.3	0.50	1	03/29/22 19:02	3/24/22	
Fluorotelomer Sulfonic Acids (FTSAs)							
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	4.3 U	4.3	0.55	1	03/29/22 19:02	3/24/22	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	4.3 U	4.3	0.15	1	03/29/22 19:02	3/24/22	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22 14:10
Date Received: 03/23/22 09:30

Sample Name: 9-NIA-003-001-01
Lab Code: R2202484-001

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	84	20 - 109	03/29/22 19:02	
18O2-PFHxS	97	26 - 122	03/29/22 19:02	
13C4-PFOS	80	25 - 121	03/29/22 19:02	
13C4-PFBA	87	27 - 124	03/29/22 19:02	
13C5-PFPeA	95	27 - 138	03/29/22 19:02	
13C2-PFHxA	101	28 - 132	03/29/22 19:02	
13C4-PFHpA	95	19 - 139	03/29/22 19:02	
13C4-PFOA	87	22 - 130	03/29/22 19:02	
13C5-PFNA	80	20 - 127	03/29/22 19:02	
13C2-PFDA	81	24 - 125	03/29/22 19:02	
13C2-PFUnDA	73	22 - 125	03/29/22 19:02	
13C2-PFDoDA	81	19 - 122	03/29/22 19:02	
13C2-PFTeDA	86	13 - 124	03/29/22 19:02	
13C8-FOSA	72	18 - 109	03/29/22 19:02	
D3-MeFOSAA	81	9 - 123	03/29/22 19:02	
D5-EtFOSAA	89	12 - 126	03/29/22 19:02	
13C2-6:2 FTS	93	10 - 226	03/29/22 19:02	
13C2-8:2 FTS	83	10 - 202	03/29/22 19:02	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22 15:15
Date Received: 03/23/22 09:30

Sample Name: 9-NIA-003-001-02
Lab Code: R2202484-003

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkyl Sulfonic Acids (PFASs)							
Perfluorobutane sulfonic acid (PFBS)	4.9	4.5	0.28	1	03/29/22 19:13	3/24/22	
Perfluorohexane sulfonic acid (PFHxS)	1.4 J	4.5	1.3	1	03/29/22 19:13	3/24/22	
Perfluoroheptane sulfonic acid (PFHpS)	4.5 U	4.5	0.44	1	03/29/22 19:13	3/24/22	
Perfluorooctane sulfonic acid (PFOS)	1.8 U	1.8	0.44	1	03/29/22 19:13	3/24/22	
Perfluorodecane sulfonic acid (PFDS)	4.5 U	4.5	0.30	1	03/29/22 19:13	3/24/22	
Perfluoroalkyl Carboxylic Acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	3.2 J	4.5	0.40	1	03/29/22 19:13	3/24/22	
Perfluoropentanoic acid (PFPeA)	4.5 U	4.5	1.7	1	03/29/22 19:13	3/24/22	
Perfluorohexanoic acid (PFHxA)	9.2 U	9.2	8.8	1	03/29/22 19:13	3/24/22	
Perfluoroheptanoic acid (PFHpA)	1.9 J	4.5	0.63	1	03/29/22 19:13	3/24/22	
Perfluorooctanoic acid (PFOA)	3.2	1.8	0.35	1	03/29/22 19:13	3/24/22	
Perfluorononanoic acid (PFNA)	4.5 U	4.5	1.1	1	03/29/22 19:13	3/24/22	
Perfluorodecanoic acid (PFDA)	4.5 U	4.5	1.2	1	03/29/22 19:13	3/24/22	
Perfluoroundecanoic acid (PFUnDA)	4.5 U	4.5	1.5	1	03/29/22 19:13	3/24/22	
Perfluorododecanoic acid (PFDOA)	4.5 U	4.5	1.3	1	03/29/22 19:13	3/24/22	
Perfluorotridecanoic acid (PFTrDA)	4.5 U	4.5	1.3	1	03/29/22 19:13	3/24/22	
Perfluorotetradecanoic acid (PFTDA)	4.5 U	4.5	2.0	1	03/29/22 19:13	3/24/22	
Perfluoroalkyl Sulfonamido Substances							
Perfluorooctane sulfonamide (PFOSAm)	4.5 U	4.5	0.52	1	03/29/22 19:13	3/24/22	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	4.5 U	4.5	1.4	1	03/29/22 19:13	3/24/22	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	4.5 U	4.5	0.50	1	03/29/22 19:13	3/24/22	
Fluorotelomer Sulfonic Acids (FTSAs)							
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	0.58 J	4.5	0.55	1	03/29/22 19:13	3/24/22	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	4.5 U	4.5	0.15	1	03/29/22 19:13	3/24/22	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22 15:15
Date Received: 03/23/22 09:30

Sample Name: 9-NIA-003-001-02
Lab Code: R2202484-003

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	68	20 - 109	03/29/22 19:13	
18O2-PFHxS	81	26 - 122	03/29/22 19:13	
13C4-PFOS	61	25 - 121	03/29/22 19:13	
13C4-PFBA	71	27 - 124	03/29/22 19:13	
13C5-PFPeA	68	27 - 138	03/29/22 19:13	
13C2-PFHxA	83	28 - 132	03/29/22 19:13	
13C4-PFHpA	79	19 - 139	03/29/22 19:13	
13C4-PFOA	80	22 - 130	03/29/22 19:13	
13C5-PFNA	77	20 - 127	03/29/22 19:13	
13C2-PFDA	74	24 - 125	03/29/22 19:13	
13C2-PFUnDA	73	22 - 125	03/29/22 19:13	
13C2-PFDoDA	67	19 - 122	03/29/22 19:13	
13C2-PFTeDA	68	13 - 124	03/29/22 19:13	
13C8-FOSA	57	18 - 109	03/29/22 19:13	
D3-MeFOSAA	70	9 - 123	03/29/22 19:13	
D5-EtFOSAA	84	12 - 126	03/29/22 19:13	
13C2-6:2 FTS	332	10 - 226	03/29/22 19:13	*
13C2-8:2 FTS	177	10 - 202	03/29/22 19:13	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22 16:40
Date Received: 03/23/22 09:30

Sample Name: 9-NIA-003-001-03
Lab Code: R2202484-004

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkyl Sulfonic Acids (PFASs)							
Perfluorobutane sulfonic acid (PFBS)	7.6	4.5	0.28	1	03/29/22 23:18	3/24/22	
Perfluorohexane sulfonic acid (PFHxS)	4.5 U	4.5	1.3	1	03/29/22 23:18	3/24/22	
Perfluoroheptane sulfonic acid (PFHpS)	4.5 U	4.5	0.44	1	03/29/22 23:18	3/24/22	
Perfluorooctane sulfonic acid (PFOS)	0.96 J	1.8	0.44	1	03/29/22 23:18	3/24/22	
Perfluorodecane sulfonic acid (PFDS)	4.5 U	4.5	0.30	1	03/29/22 23:18	3/24/22	
Perfluoroalkyl Carboxylic Acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	6.7	4.5	0.40	1	03/29/22 23:18	3/24/22	
Perfluoropentanoic acid (PFPeA)	2.1 J	4.5	1.7	1	03/29/22 23:18	3/24/22	
Perfluorohexanoic acid (PFHxA)	9.2 U	9.2	8.8	1	03/29/22 23:18	3/24/22	
Perfluoroheptanoic acid (PFHpA)	1.9 J	4.5	0.63	1	03/29/22 23:18	3/24/22	
Perfluorooctanoic acid (PFOA)	2.6	1.8	0.35	1	03/29/22 23:18	3/24/22	
Perfluorononanoic acid (PFNA)	4.5 U	4.5	1.1	1	03/29/22 23:18	3/24/22	
Perfluorodecanoic acid (PFDA)	4.5 U	4.5	1.2	1	03/29/22 23:18	3/24/22	
Perfluoroundecanoic acid (PFUnDA)	4.5 U	4.5	1.5	1	03/29/22 23:18	3/24/22	
Perfluorododecanoic acid (PFDOA)	4.5 U	4.5	1.3	1	03/29/22 23:18	3/24/22	
Perfluorotridecanoic acid (PFTrDA)	4.5 U	4.5	1.3	1	03/29/22 23:18	3/24/22	
Perfluorotetradecanoic acid (PFTDA)	4.5 U	4.5	2.0	1	03/29/22 23:18	3/24/22	
Perfluoroalkyl Sulfonamido Substances							
Perfluorooctane sulfonamide (PFOSAm)	4.5 U	4.5	0.52	1	03/29/22 23:18	3/24/22	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	4.5 U	4.5	1.4	1	03/29/22 23:18	3/24/22	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	4.5 U	4.5	0.50	1	03/29/22 23:18	3/24/22	
Fluorotelomer Sulfonic Acids (FTSAs)							
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	4.5 U	4.5	0.55	1	03/29/22 23:18	3/24/22	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	4.5 U	4.5	0.15	1	03/29/22 23:18	3/24/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22 16:40
Date Received: 03/23/22 09:30

Sample Name: 9-NIA-003-001-03
Lab Code: R2202484-004

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	70	20 - 109	03/29/22 23:18	
18O2-PFHxS	75	26 - 122	03/29/22 23:18	
13C4-PFOS	66	25 - 121	03/29/22 23:18	
13C4-PFBA	88	27 - 124	03/29/22 23:18	
13C5-PFPeA	75	27 - 138	03/29/22 23:18	
13C2-PFHxA	88	28 - 132	03/29/22 23:18	
13C4-PFHpA	67	19 - 139	03/29/22 23:18	
13C4-PFOA	78	22 - 130	03/29/22 23:18	
13C5-PFNA	79	20 - 127	03/29/22 23:18	
13C2-PFDA	73	24 - 125	03/29/22 23:18	
13C2-PFUnDA	63	22 - 125	03/29/22 23:18	
13C2-PFDoDA	54	19 - 122	03/29/22 23:18	
13C2-PFTeDA	58	13 - 124	03/29/22 23:18	
13C8-FOSA	59	18 - 109	03/29/22 23:18	
D3-MeFOSAA	51	9 - 123	03/29/22 23:18	
D5-EtFOSAA	52	12 - 126	03/29/22 23:18	
13C2-6:2 FTS	239	10 - 226	03/29/22 23:18	*
13C2-8:2 FTS	101	10 - 202	03/29/22 23:18	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22 11:15
Date Received: 03/23/22 09:30

Sample Name: 9-NIA-003-001-04
Lab Code: R2202484-005

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkyl Sulfonic Acids (PFSA's)							
Perfluorobutane sulfonic acid (PFBS)	4.6 U	4.6	0.28	1	03/29/22 23:28	3/24/22	
Perfluorohexane sulfonic acid (PFHxS)	4.6 U	4.6	1.3	1	03/29/22 23:28	3/24/22	
Perfluoroheptane sulfonic acid (PFHpS)	4.6 U	4.6	0.44	1	03/29/22 23:28	3/24/22	
Perfluorooctane sulfonic acid (PFOS)	1.9 U	1.9	0.44	1	03/29/22 23:28	3/24/22	
Perfluorodecane sulfonic acid (PFDS)	4.6 U	4.6	0.30	1	03/29/22 23:28	3/24/22	
Perfluoroalkyl Carboxylic Acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	4.6 U	4.6	0.40	1	03/29/22 23:28	3/24/22	
Perfluoropentanoic acid (PFPeA)	4.6 U	4.6	1.7	1	03/29/22 23:28	3/24/22	
Perfluorohexanoic acid (PFHxA)	9.3 U	9.3	8.8	1	03/29/22 23:28	3/24/22	
Perfluoroheptanoic acid (PFHpA)	4.6 U	4.6	0.63	1	03/29/22 23:28	3/24/22	
Perfluorooctanoic acid (PFOA)	1.9 U	1.9	0.35	1	03/29/22 23:28	3/24/22	
Perfluorononanoic acid (PFNA)	4.6 U	4.6	1.1	1	03/29/22 23:28	3/24/22	
Perfluorodecanoic acid (PFDA)	4.6 U	4.6	1.2	1	03/29/22 23:28	3/24/22	
Perfluoroundecanoic acid (PFUnDA)	4.6 U	4.6	1.5	1	03/29/22 23:28	3/24/22	
Perfluorododecanoic acid (PFDOA)	4.6 U	4.6	1.3	1	03/29/22 23:28	3/24/22	
Perfluorotridecanoic acid (PFTTrDA)	4.6 U	4.6	1.3	1	03/29/22 23:28	3/24/22	
Perfluorotetradecanoic acid (PFTDA)	4.6 U	4.6	2.0	1	03/29/22 23:28	3/24/22	
Perfluoroalkyl Sulfonamido Substances							
Perfluorooctane sulfonamide (PFOSAm)	4.6 U	4.6	0.52	1	03/29/22 23:28	3/24/22	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	4.6 U	4.6	1.4	1	03/29/22 23:28	3/24/22	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	4.6 U	4.6	0.50	1	03/29/22 23:28	3/24/22	
Fluorotelomer Sulfonic Acids (FTSAs)							
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	4.6 U	4.6	0.55	1	03/29/22 23:28	3/24/22	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	4.6 U	4.6	0.15	1	03/29/22 23:28	3/24/22	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22 11:15
Date Received: 03/23/22 09:30

Sample Name: 9-NIA-003-001-04
Lab Code: R2202484-005

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	89	20 - 109	03/29/22 23:28	
18O2-PFHxS	104	26 - 122	03/29/22 23:28	
13C4-PFOS	83	25 - 121	03/29/22 23:28	
13C4-PFBA	108	27 - 124	03/29/22 23:28	
13C5-PFPeA	105	27 - 138	03/29/22 23:28	
13C2-PFHxA	112	28 - 132	03/29/22 23:28	
13C4-PFHpA	104	19 - 139	03/29/22 23:28	
13C4-PFOA	108	22 - 130	03/29/22 23:28	
13C5-PFNA	102	20 - 127	03/29/22 23:28	
13C2-PFDA	82	24 - 125	03/29/22 23:28	
13C2-PFUnDA	77	22 - 125	03/29/22 23:28	
13C2-PFDoDA	64	19 - 122	03/29/22 23:28	
13C2-PFTeDA	77	13 - 124	03/29/22 23:28	
13C8-FOSA	69	18 - 109	03/29/22 23:28	
D3-MeFOSAA	72	9 - 123	03/29/22 23:28	
D5-EtFOSAA	78	12 - 126	03/29/22 23:28	
13C2-6:2 FTS	175	10 - 226	03/29/22 23:28	
13C2-8:2 FTS	94	10 - 202	03/29/22 23:28	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22 16:45
Date Received: 03/23/22 09:30

Sample Name: 9-NIA-003-001-05
Lab Code: R2202484-006

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkyl Sulfonic Acids (PFSA's)							
Perfluorobutane sulfonic acid (PFBS)	4.5 U	4.5	0.28	1	03/29/22 23:39	3/24/22	
Perfluorohexane sulfonic acid (PFHxS)	4.5 U	4.5	1.3	1	03/29/22 23:39	3/24/22	
Perfluoroheptane sulfonic acid (PFHpS)	4.5 U	4.5	0.44	1	03/29/22 23:39	3/24/22	
Perfluorooctane sulfonic acid (PFOS)	1.8 U	1.8	0.44	1	03/29/22 23:39	3/24/22	
Perfluorodecane sulfonic acid (PFDS)	4.5 U	4.5	0.30	1	03/29/22 23:39	3/24/22	
Perfluoroalkyl Carboxylic Acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	4.5 U	4.5	0.40	1	03/29/22 23:39	3/24/22	
Perfluoropentanoic acid (PFPeA)	4.5 U	4.5	1.7	1	03/29/22 23:39	3/24/22	
Perfluorohexanoic acid (PFHxA)	9.2 U	9.2	8.8	1	03/29/22 23:39	3/24/22	
Perfluoroheptanoic acid (PFHpA)	4.5 U	4.5	0.63	1	03/29/22 23:39	3/24/22	
Perfluorooctanoic acid (PFOA)	1.8 U	1.8	0.35	1	03/29/22 23:39	3/24/22	
Perfluorononanoic acid (PFNA)	4.5 U	4.5	1.1	1	03/29/22 23:39	3/24/22	
Perfluorodecanoic acid (PFDA)	4.5 U	4.5	1.2	1	03/29/22 23:39	3/24/22	
Perfluoroundecanoic acid (PFUnDA)	4.5 U	4.5	1.5	1	03/29/22 23:39	3/24/22	
Perfluorododecanoic acid (PFDOA)	4.5 U	4.5	1.3	1	03/29/22 23:39	3/24/22	
Perfluorotridecanoic acid (PFTTrDA)	4.5 U	4.5	1.3	1	03/29/22 23:39	3/24/22	
Perfluorotetradecanoic acid (PFTDA)	4.5 U	4.5	2.0	1	03/29/22 23:39	3/24/22	
Perfluoroalkyl Sulfonamido Substances							
Perfluorooctane sulfonamide (PFOSAm)	4.5 U	4.5	0.52	1	03/29/22 23:39	3/24/22	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	4.5 U	4.5	1.4	1	03/29/22 23:39	3/24/22	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	4.5 U	4.5	0.50	1	03/29/22 23:39	3/24/22	
Fluorotelomer Sulfonic Acids (FTSAs)							
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	4.5 U	4.5	0.55	1	03/29/22 23:39	3/24/22	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	4.5 U	4.5	0.15	1	03/29/22 23:39	3/24/22	

ALS Group USA, Corp.
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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22 16:45
Date Received: 03/23/22 09:30

Sample Name: 9-NIA-003-001-05
Lab Code: R2202484-006

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	77	20 - 109	03/29/22 23:39	
18O2-PFHxS	91	26 - 122	03/29/22 23:39	
13C4-PFOS	81	25 - 121	03/29/22 23:39	
13C4-PFBA	105	27 - 124	03/29/22 23:39	
13C5-PFPeA	91	27 - 138	03/29/22 23:39	
13C2-PFHxA	107	28 - 132	03/29/22 23:39	
13C4-PFHpA	96	19 - 139	03/29/22 23:39	
13C4-PFOA	106	22 - 130	03/29/22 23:39	
13C5-PFNA	99	20 - 127	03/29/22 23:39	
13C2-PFDA	80	24 - 125	03/29/22 23:39	
13C2-PFUnDA	76	22 - 125	03/29/22 23:39	
13C2-PFDoDA	61	19 - 122	03/29/22 23:39	
13C2-PFTeDA	66	13 - 124	03/29/22 23:39	
13C8-FOSA	66	18 - 109	03/29/22 23:39	
D3-MeFOSAA	67	9 - 123	03/29/22 23:39	
D5-EtFOSAA	60	12 - 126	03/29/22 23:39	
13C2-6:2 FTS	146	10 - 226	03/29/22 23:39	
13C2-8:2 FTS	88	10 - 202	03/29/22 23:39	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22 15:15
Date Received: 03/23/22 09:30

Sample Name: 9-NIA-003-001-07
Lab Code: R2202484-008

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkyl Sulfonic Acids (PFASs)							
Perfluorobutane sulfonic acid (PFBS)	6.0	4.4	0.28	1	03/29/22 23:49	3/24/22	
Perfluorohexane sulfonic acid (PFHxS)	4.4 U	4.4	1.3	1	03/29/22 23:49	3/24/22	
Perfluoroheptane sulfonic acid (PFHpS)	4.4 U	4.4	0.44	1	03/29/22 23:49	3/24/22	
Perfluorooctane sulfonic acid (PFOS)	1.2 J	1.8	0.44	1	03/29/22 23:49	3/24/22	
Perfluorodecane sulfonic acid (PFDS)	4.4 U	4.4	0.30	1	03/29/22 23:49	3/24/22	
Perfluoroalkyl Carboxylic Acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	4.1 J	4.4	0.40	1	03/29/22 23:49	3/24/22	
Perfluoropentanoic acid (PFPeA)	2.3 J	4.4	1.7	1	03/29/22 23:49	3/24/22	
Perfluorohexanoic acid (PFHxA)	9.2 U	9.2	8.8	1	03/29/22 23:49	3/24/22	
Perfluoroheptanoic acid (PFHpA)	1.2 J	4.4	0.63	1	03/29/22 23:49	3/24/22	
Perfluorooctanoic acid (PFOA)	3.1	1.8	0.35	1	03/29/22 23:49	3/24/22	
Perfluorononanoic acid (PFNA)	4.4 U	4.4	1.1	1	03/29/22 23:49	3/24/22	
Perfluorodecanoic acid (PFDA)	4.4 U	4.4	1.2	1	03/29/22 23:49	3/24/22	
Perfluoroundecanoic acid (PFUnDA)	4.4 U	4.4	1.5	1	03/29/22 23:49	3/24/22	
Perfluorododecanoic acid (PFDOA)	4.4 U	4.4	1.3	1	03/29/22 23:49	3/24/22	
Perfluorotridecanoic acid (PFTrDA)	4.4 U	4.4	1.3	1	03/29/22 23:49	3/24/22	
Perfluorotetradecanoic acid (PFTDA)	4.4 U	4.4	2.0	1	03/29/22 23:49	3/24/22	
Perfluoroalkyl Sulfonamido Substances							
Perfluorooctane sulfonamide (PFOSAm)	4.4 U	4.4	0.52	1	03/29/22 23:49	3/24/22	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	4.4 U	4.4	1.4	1	03/29/22 23:49	3/24/22	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	4.4 U	4.4	0.50	1	03/29/22 23:49	3/24/22	
Fluorotelomer Sulfonic Acids (FTSAs)							
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	4.4 U	4.4	0.55	1	03/29/22 23:49	3/24/22	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	4.4 U	4.4	0.15	1	03/29/22 23:49	3/24/22	

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dba ALS Environmental

Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22 15:15
Date Received: 03/23/22 09:30

Sample Name: 9-NIA-003-001-07
Lab Code: R2202484-008

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	62	20 - 109	03/29/22 23:49	
18O2-PFHxS	82	26 - 122	03/29/22 23:49	
13C4-PFOS	67	25 - 121	03/29/22 23:49	
13C4-PFBA	75	27 - 124	03/29/22 23:49	
13C5-PFPeA	61	27 - 138	03/29/22 23:49	
13C2-PFHxA	80	28 - 132	03/29/22 23:49	
13C4-PFHpA	64	19 - 139	03/29/22 23:49	
13C4-PFOA	86	22 - 130	03/29/22 23:49	
13C5-PFNA	88	20 - 127	03/29/22 23:49	
13C2-PFDA	82	24 - 125	03/29/22 23:49	
13C2-PFUnDA	77	22 - 125	03/29/22 23:49	
13C2-PFDoDA	58	19 - 122	03/29/22 23:49	
13C2-PFTeDA	59	13 - 124	03/29/22 23:49	
13C8-FOSA	62	18 - 109	03/29/22 23:49	
D3-MeFOSAA	68	9 - 123	03/29/22 23:49	
D5-EtFOSAA	59	12 - 126	03/29/22 23:49	
13C2-6:2 FTS	219	10 - 226	03/29/22 23:49	
13C2-8:2 FTS	117	10 - 202	03/29/22 23:49	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: KQ2204757-04

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkyl Sulfonic Acids (PFASs)							
Perfluorobutane sulfonic acid (PFBS)	5.0 U	5.0	0.28	1	03/29/22 18:41	3/24/22	
Perfluorohexane sulfonic acid (PFHxS)	5.0 U	5.0	1.3	1	03/29/22 18:41	3/24/22	
Perfluoroheptane sulfonic acid (PFHpS)	5.0 U	5.0	0.44	1	03/29/22 18:41	3/24/22	
Perfluorooctane sulfonic acid (PFOS)	2.0 U	2.0	0.44	1	03/29/22 18:41	3/24/22	
Perfluorodecane sulfonic acid (PFDS)	5.0 U	5.0	0.30	1	03/29/22 18:41	3/24/22	
Perfluoroalkyl Carboxylic Acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	5.0 U	5.0	0.40	1	03/29/22 18:41	3/24/22	
Perfluoropentanoic acid (PFPeA)	5.0 U	5.0	1.7	1	03/29/22 18:41	3/24/22	
Perfluorohexanoic acid (PFHxA)	10 U	10	8.8	1	03/29/22 18:41	3/24/22	
Perfluoroheptanoic acid (PFHpA)	5.0 U	5.0	0.63	1	03/29/22 18:41	3/24/22	
Perfluorooctanoic acid (PFOA)	2.0 U	2.0	0.35	1	03/29/22 18:41	3/24/22	
Perfluorononanoic acid (PFNA)	5.0 U	5.0	1.1	1	03/29/22 18:41	3/24/22	
Perfluorodecanoic acid (PFDA)	5.0 U	5.0	1.2	1	03/29/22 18:41	3/24/22	
Perfluoroundecanoic acid (PFUnDA)	5.0 U	5.0	1.5	1	03/29/22 18:41	3/24/22	
Perfluorododecanoic acid (PFDOA)	5.0 U	5.0	1.3	1	03/29/22 18:41	3/24/22	
Perfluorotridecanoic acid (PFTTrDA)	5.0 U	5.0	1.3	1	03/29/22 18:41	3/24/22	
Perfluorotetradecanoic acid (PFTDA)	5.0 U	5.0	2.0	1	03/29/22 18:41	3/24/22	
Perfluoroalkyl Sulfonamido Substances							
Perfluorooctane sulfonamide (PFOSAm)	5.0 U	5.0	0.52	1	03/29/22 18:41	3/24/22	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	5.0 U	5.0	1.4	1	03/29/22 18:41	3/24/22	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	5.0 U	5.0	0.50	1	03/29/22 18:41	3/24/22	
Fluorotelomer Sulfonic Acids (FTSAs)							
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	5.0 U	5.0	0.55	1	03/29/22 18:41	3/24/22	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	5.0 U	5.0	0.15	1	03/29/22 18:41	3/24/22	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2204757-04

Service Request: R2202484
Date Collected: NA
Date Received: NA
Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	63	20 - 109	03/29/22 18:41	
18O2-PFHxS	66	26 - 122	03/29/22 18:41	
13C4-PFOS	66	25 - 121	03/29/22 18:41	
13C4-PFBA	63	27 - 124	03/29/22 18:41	
13C5-PFPeA	73	27 - 138	03/29/22 18:41	
13C2-PFHxA	66	28 - 132	03/29/22 18:41	
13C4-PFHpA	71	19 - 139	03/29/22 18:41	
13C4-PFOA	71	22 - 130	03/29/22 18:41	
13C5-PFNA	69	20 - 127	03/29/22 18:41	
13C2-PFDA	65	24 - 125	03/29/22 18:41	
13C2-PFUnDA	63	22 - 125	03/29/22 18:41	
13C2-PFDoDA	62	19 - 122	03/29/22 18:41	
13C2-PFTeDA	67	13 - 124	03/29/22 18:41	
13C8-FOSA	59	18 - 109	03/29/22 18:41	
D3-MeFOSAA	61	9 - 123	03/29/22 18:41	
D5-EtFOSAA	73	12 - 126	03/29/22 18:41	
13C2-6:2 FTS	87	10 - 226	03/29/22 18:41	
13C2-8:2 FTS	78	10 - 202	03/29/22 18:41	

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484

SURROGATE RECOVERY SUMMARY
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Extraction Method: ALS SOP

Surrogate	Control Limits	9-NIA-003-001-01	9-NIA-003-001-02	9-NIA-003-001-03
		R2202484-001	R2202484-003	R2202484-004
13C3-PFBS	20-109	84	68	70
18O2-PFHxS	26-122	97	81	75
13C4-PFOS	25-121	80	61	66
13C4-PFBA	27-124	87	71	88
13C5-PFPeA	27-138	95	68	75
13C2-PFHxA	28-132	101	83	88
13C4-PFHpA	19-139	95	79	67
13C4-PFOA	22-130	87	80	78
13C5-PFNA	20-127	80	77	79
13C2-PFDA	24-125	81	74	73
13C2-PFUnDA	22-125	73	73	63
13C2-PFDoDA	19-122	81	67	54
13C2-PFTeDA	13-124	86	68	58
13C8-FOSA	18-109	72	57	59
D3-MeFOSAA	9-123	81	70	51
D5-EtFOSAA	12-126	89	84	52
13C2-6:2 FTS	10-226	93	332*	239*
13C2-8:2 FTS	10-202	83	177	101

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not acceptable.

ALS Group USA, Corp.
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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484

SURROGATE RECOVERY SUMMARY
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Extraction Method: ALS SOP

Surrogate	Control Limits	9-NIA-003-001-04	9-NIA-003-001-05	9-NIA-003-001-07
		R2202484-005	R2202484-006	R2202484-008
13C3-PFBS	20-109	89	77	62
18O2-PFHxS	26-122	104	91	82
13C4-PFOS	25-121	83	81	67
13C4-PFBA	27-124	108	105	75
13C5-PFPeA	27-138	105	91	61
13C2-PFHxA	28-132	112	107	80
13C4-PFHpA	19-139	104	96	64
13C4-PFOA	22-130	108	106	86
13C5-PFNA	20-127	102	99	88
13C2-PFDA	24-125	82	80	82
13C2-PFUnDA	22-125	77	76	77
13C2-PFDoDA	19-122	64	61	58
13C2-PFTeDA	13-124	77	66	59
13C8-FOSA	18-109	69	66	62
D3-MeFOSAA	9-123	72	67	68
D5-EtFOSAA	12-126	78	60	59
13C2-6:2 FTS	10-226	175	146	219
13C2-8:2 FTS	10-202	94	88	117

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not acceptable.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484

SURROGATE RECOVERY SUMMARY
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Extraction Method: ALS SOP

Surrogate	Control Limits	Method Blank KQ2204757-04	Lab Control Sample KQ2204757-03	9-NIA-003-001-02 KQ2204757-01
13C3-PFBS	20-109	63	74	79
18O2-PFHxS	26-122	66	71	71
13C4-PFOS	25-121	66	81	62
13C4-PFBA	27-124	63	79	70
13C5-PFPeA	27-138	73	87	75
13C2-PFHxA	28-132	66	91	70
13C4-PFHpA	19-139	71	101	81
13C4-PFOA	22-130	71	80	76
13C5-PFNA	20-127	69	76	79
13C2-PFDA	24-125	65	79	77
13C2-PFUnDA	22-125	63	66	64
13C2-PFDoDA	19-122	62	71	70
13C2-PFTeDA	13-124	67	88	83
13C8-FOSA	18-109	59	67	68
D3-MeFOSAA	9-123	61	65	91
D5-EtFOSAA	12-126	73	64	77
13C2-6:2 FTS	10-226	87	95	366*
13C2-8:2 FTS	10-202	78	92	206*

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not acceptable.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484

SURROGATE RECOVERY SUMMARY
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Extraction Method: ALS SOP

Surrogate	Control Limits	9-NIA-003-001-02
		KQ2204757-02
13C3-PFBS	20-109	79
18O2-PFHxS	26-122	72
13C4-PFOS	25-121	80
13C4-PFBA	27-124	84
13C5-PFPeA	27-138	74
13C2-PFHxA	28-132	86
13C4-PFHpA	19-139	98
13C4-PFOA	22-130	84
13C5-PFNA	20-127	82
13C2-PFDA	24-125	90
13C2-PFUnDA	22-125	70
13C2-PFDoDA	19-122	87
13C2-PFTeDA	13-124	83
13C8-FOSA	18-109	72
D3-MeFOSAA	9-123	88
D5-EtFOSAA	12-126	88
13C2-6:2 FTS	10-226	346*
13C2-8:2 FTS	10-202	218*

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with an pound (#) indicate the control criteria is not acceptable.

ALS Group USA, Corp.
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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03

Service Request: R2202484
Date Analyzed: 03/29/22 17:28

Internal Standard Area and RT SUMMARY
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

File ID: J:\LCMS06\Data\220329_B2\220329_057
Instrument ID: K-LCMS-06
Analysis Method: PFC/537M

Lab Code: KQ2205091-02
Analysis Lot: 759119
Signal ID: 1

	13C7-PFUnDA	
	Area	RT
Result ==>	5,156,142	5.096
Upper Limit ==>	10,312,284	6.10
Lower Limit ==>	2,578,071	4.10

Associated Analyses

Continuing Calibration Blank	KQ2205091-01	3399702	5.099
Continuing Calibration Blank	KQ2205091-03	2963806	5.106
Method Blank	KQ2204757-04	4180489	5.102
Lab Control Sample	KQ2204757-03	3436370	5.107
9-NIA-003-001-01	R2202484-001	3256833	5.111
9-NIA-003-001-02	R2202484-003	3951266	5.104
9-NIA-003-001-02MS	KQ2204757-01	3451952	5.107
9-NIA-003-001-02DMS	KQ2204757-02	3427531	5.110

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03

Service Request: R2202484
Date Analyzed: 03/29/22 22:57

Internal Standard Area and RT SUMMARY
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

File ID: J:\LCMS06\Data\220329_B3\220329_085
Instrument ID: K-LCMS-06
Analysis Method: PFC/537M

Lab Code: KQ2205095-02
Analysis Lot: 759122
Signal ID: 1

13C7-PFUnDA		
	Area	RT
Result ==>	3,662,284	5.094
Upper Limit ==>	7,324,568	6.09
Lower Limit ==>	1,831,142	4.09

Associated Analyses

Continuing Calibration Blank	KQ2205095-01	2366002	5.100
9-NIA-003-001-03	R2202484-004	3529813	5.104
9-NIA-003-001-04	R2202484-005	2803914	5.098
9-NIA-003-001-05	R2202484-006	2872206	5.099
9-NIA-003-001-07	R2202484-008	3969654	5.101

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Collected: 03/22/22
Date Received: 03/23/22
Date Analyzed: 03/29/22
Date Extracted: 03/24/22

Duplicate Matrix Spike Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Sample Name: 9-NIA-003-001-02
Lab Code: R2202484-003
Analysis Method: PFC/537M
Prep Method: ALS SOP

Units: ng/L
Basis: NA

Analyte Name	Sample Result	Matrix Spike KQ2204757-01			Duplicate Matrix Spike KQ2204757-02			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Perfluorobutane sulfonic acid (PFBS)	4.9	26.2	25.4	84	28.3	24.9	94	67-145	8	30
Perfluorohexane sulfonic acid (PFHxS)	1.4 J	33.0	26.1	121	29.2	25.6	108	65-148	12	30
Perfluoroheptane sulfonic acid (PFHpS)	4.5 U	30.3	27.2	111	29.6	26.8	111	60-162	2	30
Perfluorooctane sulfonic acid (PFOS)	1.8 U	33.5	26.5	126	29.3	26.1	112	67-135	13	30
Perfluorodecane sulfonic acid (PFDS)	4.5 U	33.4	27.6	121	30.0	27.1	111	60-129	11	30
Perfluorobutanoic acid (PFBA)	3.2 J	27.4	28.6	85	27.2	28.1	86	81-139	<1	30
Perfluoropentanoic acid (PFPeA)	4.5 U	27.5	28.6	96	28.9	28.1	103	66-159	5	30
Perfluorohexanoic acid (PFHxA)	9.2 U	34.9	28.6	122	28.7	28.1	102	65-149	20	30
Perfluoroheptanoic acid (PFHpA)	1.9 J	30.5	28.6	100	28.9	28.1	96	64-147	5	30
Perfluorooctanoic acid (PFOA)	3.2	34.6	28.6	110	30.3	28.1	96	59-147	13	30
Perfluorononanoic acid (PFNA)	4.5 U	30.8	28.6	108	27.0	28.1	96	72-145	13	30
Perfluorodecanoic acid (PFDA)	4.5 U	33.2	28.6	116	28.7	28.1	102	68-152	14	30
Perfluoroundecanoic acid (PFUnDA)	4.5 U	33.9	28.6	119	28.9	28.1	103	68-145	16	30
Perfluorododecanoic acid (PFDOA)	4.5 U	33.4	28.6	117	29.0	28.1	103	66-142	14	30
Perfluorotridecanoic acid (PFTrDA)	4.5 U	26.1	28.6	91	29.2	28.1	104	64-153	11	30
Perfluorotetradecanoic acid (PFTDA)	4.5 U	25.1	28.6	88	26.6	28.1	95	61-148	6	30
Perfluorooctane sulfonamide (PFOSAm)	4.5 U	27.2	28.6	95	29.1	28.1	104	71-134	7	30
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	4.5 U	26.0	28.6	91	29.6	28.1	106	66-162	13	30
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	4.5 U	32.8	28.6	115	39.6	28.1	141	68-149	19	30
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	0.58 J	24.5	27.2	88	27.7	26.7	102	77-150	12	30
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	4.5 U	25.0	27.4	91	26.1	26.9	97	65-166	4	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Analyzed: 03/29/22
Date Extracted: 03/24/22

Lab Control Sample Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Units: ng/L
Basis: NA
Analysis Lot: 759119

Lab Control Sample
KQ2204757-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	30.5	30.7	99	65-166
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	32.9	30.4	108	77-150
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	38.3	32.0	120	68-149
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	33.8	32.0	106	66-162
Perfluorobutane sulfonic acid (PFBS)	27.0	28.4	95	67-145
Perfluorobutanoic acid (PFBA)	32.2	32.0	101	81-139
Perfluorodecane sulfonic acid (PFDS)	32.2	30.9	104	60-129
Perfluorodecanoic acid (PFDA)	32.4	32.0	101	68-152
Perfluorododecanoic acid (PFDOA)	33.5	32.0	105	66-142
Perfluoroheptane sulfonic acid (PFHpS)	33.4	30.5	109	60-162
Perfluoroheptanoic acid (PFHpA)	29.8	32.0	93	64-147
Perfluorohexane sulfonic acid (PFHxS)	33.6	29.2	115	65-148
Perfluorohexanoic acid (PFHxA)	35.4	32.0	111	65-149
Perfluorononanoic acid (PFNA)	33.0	32.0	103	72-145
Perfluorooctane sulfonamide (PFOSAm)	31.6	32.0	99	71-134
Perfluorooctane sulfonic acid (PFOS)	30.5	29.7	103	67-135
Perfluorooctanoic acid (PFOA)	32.9	32.0	103	59-147
Perfluoropentanoic acid (PFPeA)	30.0	32.0	94	66-159
Perfluorotetradecanoic acid (PFTDA)	36.8	32.0	115	61-148
Perfluorotridecanoic acid (PFTrDA)	27.6	32.0	86	64-153
Perfluoroundecanoic acid (PFUnDA)	30.4	32.0	95	68-145

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Analyzed: 03/29/22 18:41
Date Extracted: 03/24/22

Method Blank Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Sample Name: Method Blank **Instrument ID:** K-LCMS-06
Lab Code: KQ2204757-04 **File ID:** J:\LCMS06\Data\220329_B2\220329_064
Analysis Method: PFC/537M **Analysis Lot:** 759119,759122
Prep Method: ALS SOP **Extraction Lot:** 397152

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ2204757-03	J:\LCMS06\Data\220329_B2\220329_065	03/29/22 18:52
9-NIA-003-001-01	R2202484-001	J:\LCMS06\Data\220329_B2\220329_066	03/29/22 19:02
9-NIA-003-001-02	R2202484-003	J:\LCMS06\Data\220329_B2\220329_067	03/29/22 19:13
9-NIA-003-001-02MS	KQ2204757-01	J:\LCMS06\Data\220329_B2\220329_068	03/29/22 19:23
9-NIA-003-001-02DMS	KQ2204757-02	J:\LCMS06\Data\220329_B2\220329_069	03/29/22 19:34
9-NIA-003-001-03	R2202484-004	J:\LCMS06\Data\220329_B3\220329_087	03/29/22 23:18
9-NIA-003-001-04	R2202484-005	J:\LCMS06\Data\220329_B3\220329_088	03/29/22 23:28
9-NIA-003-001-05	R2202484-006	J:\LCMS06\Data\220329_B3\220329_089	03/29/22 23:39
9-NIA-003-001-07	R2202484-008	J:\LCMS06\Data\220329_B3\220329_090	03/29/22 23:49

ALS Group USA, Corp.

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484
Date Analyzed: 03/29/22 18:52
Date Extracted: 03/24/22

Lab Control Sample Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Sample Name: Lab Control Sample **Instrument ID:** K-LCMS-06
Lab Code: KQ2204757-03 **File ID:** J:\LCMS06\Data\220329_B2\220329_065
Analysis Method: PFC/537M **Analysis Lot:** 759119,759122
Prep Method: ALS SOP **Extraction Lot:** 397152

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ2204757-04	J:\LCMS06\Data\220329_B2\220329_064	03/29/22 18:41
9-NIA-003-001-01	R2202484-001	J:\LCMS06\Data\220329_B2\220329_066	03/29/22 19:02
9-NIA-003-001-02	R2202484-003	J:\LCMS06\Data\220329_B2\220329_067	03/29/22 19:13
9-NIA-003-001-02MS	KQ2204757-01	J:\LCMS06\Data\220329_B2\220329_068	03/29/22 19:23
9-NIA-003-001-02DMS	KQ2204757-02	J:\LCMS06\Data\220329_B2\220329_069	03/29/22 19:34
9-NIA-003-001-03	R2202484-004	J:\LCMS06\Data\220329_B3\220329_087	03/29/22 23:18
9-NIA-003-001-04	R2202484-005	J:\LCMS06\Data\220329_B3\220329_088	03/29/22 23:28
9-NIA-003-001-05	R2202484-006	J:\LCMS06\Data\220329_B3\220329_089	03/29/22 23:39
9-NIA-003-001-07	R2202484-008	J:\LCMS06\Data\220329_B3\220329_090	03/29/22 23:49

ALS Group USA, Corp.
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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park

Service Request: R2202484
Calibration Date: 3/29/2022

Initial Calibration Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2200201
Instrument ID: K-LCMS-06

Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
01	KC2200201-01	PFC ICAL @ 0.05ppb	220329_031	03/29/2022 12:13
02	KC2200201-02	PFC ICAL @ 0.50ppb	220329_033	03/29/2022 12:34
03	KC2200201-03	PFC ICAL @ 1.0ppb	220329_034	03/29/2022 12:45
04	KC2200201-04	PFC ICAL @ 5.0ppb	220329_035	03/29/2022 12:55
05	KC2200201-05	PFC ICAL @ 10ppb	220329_036	03/29/2022 13:05
06	KC2200201-06	PFC ICAL @ 15ppb	220329_038	03/29/2022 13:26
07	KC2200201-07	PFC ICAL @ 0.10ppb	220329_053	03/29/2022 16:09

Analyte

13C2-6:2 FTS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1192	02	5.0000	0.1131	03	5.0000	0.0899	04	5.0000	0.1096
05	5.0000	0.1087	06	5.0000	0.1144	07	5.0000	0.113			

13C2-8:2 FTS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1087	02	5.0000	0.09635	03	5.0000	0.08265	04	5.0000	0.09754
05	5.0000	0.09462	06	5.0000	0.09886	07	5.0000	0.1024			

13C2-PFDA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.9761	02	5.0000	0.8627	03	5.0000	0.7473	04	5.0000	0.9201
05	5.0000	0.8334	06	5.0000	0.8799	07	5.0000	0.8941			

13C2-PFDoDA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	1.002	02	5.0000	0.9101	03	5.0000	0.7935	04	5.0000	0.9488
05	5.0000	0.932	06	5.0000	0.9271	07	5.0000	0.9327			

13C2-PFHxA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	5.0000	0.858	03	5.0000	0.7175	04	5.0000	0.9062	05	5.0000	0.8602
06	5.0000	0.8646	07	5.0000	0.8932						

13C2-PFTeDA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.9824	02	5.0000	0.8183	03	5.0000	0.6838	04	5.0000	0.8485
05	5.0000	0.823	06	5.0000	0.8286	07	5.0000	0.8839			

13C2-PFUnDA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.7478	02	5.0000	0.7307	03	5.0000	0.5812	04	5.0000	0.727
05	5.0000	0.726	06	5.0000	0.7238	07	5.0000	0.6925			

13C3-PFBS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1608	02	5.0000	0.1432	03	5.0000	0.1221	04	5.0000	0.1511

ALS Group USA, Corp.
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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park

Service Request: R2202484
Calibration Date: 3/29/2022

Initial Calibration Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2200201
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte

13C3-PFBS											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
05	5.0000	0.1509	06	5.0000	0.1557	07	5.0000	0.1509			
13C4-PFBA											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.6856	02	5.0000	0.6293	03	5.0000	0.5147	04	5.0000	0.6637
05	5.0000	0.6561	06	5.0000	0.6812	07	5.0000	0.6338			
13C4-PFHpA											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	1.169	02	5.0000	1.007	03	5.0000	0.8402	04	5.0000	1.028
05	5.0000	0.8805	06	5.0000	0.9578	07	5.0000	1.101			
13C4-PFOA											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	1.155	02	5.0000	1.067	03	5.0000	0.8825	04	5.0000	1.105
05	5.0000	1.056	06	5.0000	1.079	07	5.0000	1.102			
13C4-PFOS											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1738	02	5.0000	0.1626	03	5.0000	0.1311	04	5.0000	0.1687
05	5.0000	0.1655	06	5.0000	0.1706	07	5.0000	0.1625			
13C5-PFNA											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	1.073	02	5.0000	1.019	03	5.0000	0.8217	04	5.0000	1.015
05	5.0000	1.014	06	5.0000	1.044	07	5.0000	0.9919			
13C5-PFPeA											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.3656	02	5.0000	0.3355	03	5.0000	0.275	04	5.0000	0.3546
05	5.0000	0.3469	06	5.0000	0.3544	07	5.0000	0.3265			
13C8-FOSA											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.3917	02	5.0000	0.3687	03	5.0000	0.2984	04	5.0000	0.3776
05	5.0000	0.3814	06	5.0000	0.3878	07	5.0000	0.3751			
18O2-PFHxS											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1176	02	5.0000	0.1005	03	5.0000	0.08571	04	5.0000	0.1158
05	5.0000	0.1269	06	5.0000	0.1194	07	5.0000	0.09992			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0480	0.8878	07	0.0960	0.7757	02	0.4800	0.7713	03	0.9600	0.8111
04	4.8002	0.7852	05	9.6005	0.7424	06	14.4007	0.7648			

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park

Service Request: R2202484
Calibration Date: 3/29/2022

Initial Calibration Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2200201
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte

1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0476	1.436	07	0.0951	1.234	02	0.4756	1.06	03	0.9512	1.25
04	4.7558	1.126	05	9.5117	1.094	06	14.2676	1.063			

D3-MeFOSAA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	5.0000	0.1792	03	5.0000	0.1462	04	5.0000	0.1888	05	5.0000	0.1799
06	5.0000	0.1879	07	5.0000	0.1834						

D5-EtFOSAA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	5.0000	0.129	03	5.0000	0.1142	04	5.0000	0.121	05	5.0000	0.1173
06	5.0000	0.1211	07	5.0000	0.1166						

N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
07	0.1000	0.8454	02	0.5000	0.491	03	1.0000	0.5242	04	5.0000	0.6002
05	10.0000	0.642	06	15.0000	0.6757						

N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
07	0.1000	0.6968	02	0.5000	0.5024	03	1.0000	0.5841	04	5.0000	0.5793
05	10.0000	0.6304	06	15.0000	0.6225						

Perfluorobutane sulfonic acid (PFBS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0444	1.64	07	0.0887	1.586	02	0.4437	1.458	03	0.8874	1.384
04	4.4369	1.465	05	8.8737	1.528	06	13.3106	1.61			

Perfluorobutanoic acid (PFBA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.005	07	0.1000	0.9394	02	0.5000	0.8064	03	1.0000	0.8376
04	5.0000	0.8381	05	10.0000	0.8695	06	15.0000	0.9132			

Perfluorodecane sulfonic acid (PFDS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0482	0.6901	07	0.0965	0.6741	02	0.4823	0.6817	03	0.9647	0.6653
04	4.8233	0.6947	05	9.6467	0.7592	06	14.4700	0.7956			

Perfluorodecanoic acid (PFDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.114	07	0.1000	1.06	02	0.5000	0.8662	03	1.0000	0.9438
04	5.0000	0.9516	05	10.0000	1.017	06	15.0000	1.059			

Perfluorododecanoic acid (PFDOA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
07	0.1000	0.9622	02	0.5000	0.5745	03	1.0000	0.5804	04	5.0000	0.6285
05	10.0000	0.66	06	15.0000	0.6966						

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park

Service Request: R2202484
Calibration Date: 3/29/2022

Initial Calibration Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2200201
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte

Perfluoroheptane sulfonic acid (PFHpS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0477	1.31	07	0.0953	1.457	02	0.4767	1.182	03	0.9534	1.182
04	4.7672	1.135	05	9.5344	1.051	06	14.3016	1.228			

Perfluoroheptanoic acid (PFHpA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	0.9798	07	0.1000	0.7627	02	0.5000	0.7547	03	1.0000	0.7118
04	5.0000	0.6814	05	10.0000	0.7241	06	15.0000	0.8018			

Perfluorohexane sulfonic acid (PFHxS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0457	1.689	07	0.0913	1.716	02	0.4565	1.207	03	0.9131	1.371
04	4.5654	1.197	05	9.1308	1.129	06	13.6961	1.269			

Perfluorohexanoic acid (PFHxA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
07	0.1000	1.128	02	0.5000	0.935	03	1.0000	0.9798	04	5.0000	0.9584
05	10.0000	0.9628	06	15.0000	1.045						

Perfluorononanoic acid (PFNA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	0.9876	07	0.1000	0.9944	02	0.5000	0.8491	03	1.0000	0.8074
04	5.0000	0.864	05	10.0000	0.8659	06	15.0000	0.9211			

Perfluorooctane sulfonamide (PFOSAm)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.41	07	0.1000	1.501	02	0.5000	1.386	03	1.0000	1.4
04	5.0000	1.392	05	10.0000	1.438	06	15.0000	1.5			

Perfluorooctane sulfonic acid (PFOS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0465	0.7206	07	0.0929	0.7345	02	0.4646	0.6261	03	0.9292	0.6644
04	4.6461	0.6669	05	9.2923	0.6919	06	13.9385	0.7495			

Perfluorooctanoic acid (PFOA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.18	07	0.1000	1.275	02	0.5000	1.067	03	1.0000	1.111
04	5.0000	1.107	05	10.0000	1.155	06	15.0000	1.238			

Perfluoropentanoic acid (PFPeA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	3.022	07	0.1000	3.141	02	0.5000	2.222	03	1.0000	2.272
04	5.0000	2.236	05	10.0000	2.325	06	15.0000	2.445			

Perfluorotetradecanoic acid (PFTDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	0.7623	07	0.1000	0.7729	02	0.5000	0.6109	03	1.0000	0.629
04	5.0000	0.5989	05	10.0000	0.6207	06	15.0000	0.6733			

Client: Parsons
Project: ILI - Region 9 Griffon Park

Service Request: R2202484
Calibration Date: 3/29/2022

Initial Calibration Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2200201
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte

Perfluorotridecanoic acid (PFTrDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
07	0.1000	1.407	02	0.5000	1.062	03	1.0000	1.117	04	5.0000	1.172
05	10.0000	1.233	06	15.0000	1.304						

Perfluoroundecanoic acid (PFUnDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.262	07	0.1000	1.326	02	0.5000	1.076	03	1.0000	1.129
04	5.0000	1.112	05	10.0000	1.142	06	15.0000	1.19			

Client: Parsons
Project: ILI - Region 9 Griffon Park

Service Request: R2202484
Calibration Date: 3/29/2022

Initial Calibration Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2200201
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
13C2-6:2 FTS	SURR	Average RF	% RSD	8.6	≤20	0.1097	
13C2-8:2 FTS	SURR	Average RF	% RSD	8.2	≤20	0.0973	
13C2-PFDA	SURR	Average RF	% RSD	8.2	≤20	0.8734	
13C2-PFDoDA	SURR	Average RF	% RSD	6.9	≤20	0.9208	
13C2-PFHxA	SURR	Average RF	% RSD	8.0	≤20	0.85	
13C2-PFTeDA	SURR	Average RF	% RSD	10.6	≤20	0.8384	
13C2-PFUnDA	SURR	Average RF	% RSD	8.0	≤20	0.7042	
13C3-PFBS	SURR	Average RF	% RSD	8.5	≤20	0.1478	
13C4-PFBA	SURR	Average RF	% RSD	9.2	≤20	0.6378	
13C4-PFHpA	SURR	Average RF	% RSD	11.7	≤20	0.9977	
13C4-PFOA	SURR	Average RF	% RSD	8.1	≤20	1.064	
13C4-PFOS	SURR	Average RF	% RSD	8.8	≤20	0.1621	
13C5-PFNA	SURR	Average RF	% RSD	8.2	≤20	0.997	
13C5-PFPeA	SURR	Average RF	% RSD	9.0	≤20	0.3369	
13C8-FOSA	SURR	Average RF	% RSD	8.7	≤20	0.3687	
18O2-PFHxS	SURR	Average RF	% RSD	13.2	≤20	0.1094	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	TRG	Average RF	% RSD	6.0	≤20	0.7912	
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	TRG	Average RF	% RSD	11.5	≤20	1.18	
D3-MeFOSAA	SURR	Average RF	% RSD	8.9	≤20	0.1776	
D5-EtFOSAA	SURR	Average RF	% RSD	4.3	≤20	0.1199	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	TRG	Quadratic	COD	0.9997	≥0.99	0.6297	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	TRG	Quadratic	COD	0.9990	≥0.99	0.6026	
Perfluorobutane sulfonic acid (PFBS)	TRG	Average RF	% RSD	6.1	≤20	1.524	
Perfluorobutanoic acid (PFBA)	TRG	Average RF	% RSD	7.8	≤20	0.887	
Perfluorodecane sulfonic acid (PFDS)	TRG	Average RF	% RSD	6.9	≤20	0.7087	
Perfluorodecanoic acid (PFDA)	TRG	Average RF	% RSD	8.5	≤20	1.002	
Perfluorododecanoic acid (PFDOA)	TRG	Quadratic	COD	0.9999	≥0.99	0.6837	
Perfluoroheptane sulfonic acid (PFHpS)	TRG	Average RF	% RSD	10.7	≤20	1.221	
Perfluoroheptanoic acid (PFHpA)	TRG	Average RF	% RSD	12.8	≤20	0.7738	

Client: Parsons
Project: ILI - Region 9 Griffon Park

Service Request: R2202484
Calibration Date: 3/29/2022

Initial Calibration Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2200201
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
Perfluorohexane sulfonic acid (PFHxS)	TRG	Linear	R2	0.9967	≥0.99	1.368	
Perfluorohexanoic acid (PFHxA)	TRG	Linear	R2	0.9980	≥0.99	1.002	
Perfluorononanoic acid (PFNA)	TRG	Average RF	% RSD	8.0	≤20	0.8985	
Perfluorooctane sulfonamide (PFOSAm)	TRG	Average RF	% RSD	3.5	≤20	1.433	
Perfluorooctane sulfonic acid (PFOS)	TRG	Average RF	% RSD	6.4	≤20	0.6934	
Perfluorooctanoic acid (PFOA)	TRG	Average RF	% RSD	6.4	≤20	1.162	
Perfluoropentanoic acid (PFPeA)	TRG	Average RF	% RSD	15.5	≤20	2.523	
Perfluorotetradecanoic acid (PFTDA)	TRG	Average RF	% RSD	10.9	≤20	0.6669	
Perfluorotridecanoic acid (PFTrDA)	TRG	Average RF	% RSD	10.4	≤20	1.216	
Perfluoroundecanoic acid (PFUnDA)	TRG	Average RF	% RSD	7.6	≤20	1.177	

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park

Service Request: R2202484
Calibration Date: 3/29/2022

Initial Calibration Verification Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2200201
Instrument ID: K-LCMS-06

Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
08	KC2200201-08	PFC ICV @ 1.0ppb	220329_054	03/29/2022 16:19
09	KC2200201-09	EtFOSAA + MeFOSAA ICV @ 1ppb	220329_055	03/29/2022 16:39

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
Perfluorobutane sulfonic acid (PFBS)	0.887	0.845	1.524E0	1.452E0	-4.723	±30	Average RF
Perfluorohexane sulfonic acid (PFHxS)	0.913	0.925	1.368E0	1.259E0	1.29	±30	Linear
Perfluoroheptane sulfonic acid (PFHpS)	0.953	1.03	1.221E0	1.313E0	7.53	±30	Average RF
Perfluorooctane sulfonic acid (PFOS)	0.929	0.947	6.934E-1	7.064E-1	1.87	±30	Average RF
Perfluorodecane sulfonic acid (PFDS)	0.965	1.07	7.087E-1	7.892E-1	11.36	±30	Average RF
Perfluorobutanoic acid (PFBA)	1.00	0.964	8.87E-1	8.548E-1	-3.622	±30	Average RF
Perfluoropentanoic acid (PFPeA)	1.00	0.946	2.523E0	2.388E0	-5.359	±30	Average RF
Perfluorohexanoic acid (PFHxA)	1.00	1.03	1.002E0	1.03E0	2.78	±30	Linear
Perfluoroheptanoic acid (PFHpA)	1.00	0.878	7.738E-1	6.797E-1	-12.157	±30	Average RF
Perfluorooctanoic acid (PFOA)	1.00	0.969	1.162E0	1.125E0	-3.128	±30	Average RF
Perfluorononanoic acid (PFNA)	1.00	0.914	8.985E-1	8.214E-1	-8.583	±30	Average RF
Perfluorodecanoic acid (PFDA)	1.00	0.954	1.002E0	9.557E-1	-4.602	±30	Average RF
Perfluoroundecanoic acid (PFUnDA)	1.00	0.993	1.177E0	1.168E0	-0.702	±30	Average RF
Perfluorododecanoic acid (PFDOA)	1.00	1.01	6.837E-1	6.153E-1	1.23	±30	Quadratic
Perfluorotridecanoic acid (PFTrDA)	1.00	0.904	1.216E0	1.099E0	-9.620	±30	Average RF
Perfluorotetradecanoic acid (PFTDA)	1.00	1.14	6.669E-1	7.586E-1	13.76	±30	Average RF
Perfluorooctane sulfonamide (PFOSAm)	1.00	1.01	1.433E0	1.448E0	1.06	±30	Average RF
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.00	1.15	6.026E-1	6.663E-1	15.01	±30	Quadratic
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.00	1.25	6.297E-1	7.048E-1	25.06	±30	Quadratic
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	0.951	1.00	1.18E0	1.242E0	5.18	±30	Average RF
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	0.960	1.00	7.912E-1	8.263E-1	4.44	±30	Average RF

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
13C3-PFBS	5.00	4.17	1.478E-1	1.232E-1	-16.637	±30	Average RF
13C3-PFBS	5.00	5.35	1.478E-1	1.582E-1	7.06	±30	Average RF
18O2-PFHxS	5.00	4.64	1.094E-1	1.016E-1	-7.153	±30	Average RF
18O2-PFHxS	5.00	4.76	1.094E-1	1.042E-1	-4.719	±30	Average RF
13C4-PFOS	5.00	4.30	1.621E-1	1.393E-1	-14.061	±30	Average RF
13C4-PFOS	5.00	5.25	1.621E-1	1.702E-1	4.99	±30	Average RF
13C4-PFBA	5.00	5.19	6.378E-1	6.624E-1	3.86	±30	Average RF

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park

Service Request: R2202484
Calibration Date: 3/29/2022

Initial Calibration Verification Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2200201
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
13C4-PFBA	5.00	4.24	6.378E-1	5.403E-1	-15.283	±30	Average RF
13C5-PFPeA	5.00	5.17	3.369E-1	3.486E-1	3.46	±30	Average RF
13C5-PFPeA	5.00	4.30	3.369E-1	2.895E-1	-14.065	±30	Average RF
13C2-PFHxA	5.00	5.61	8.5E-1	9.534E-1	12.17	±30	Average RF
13C2-PFHxA	5.00	4.56	8.5E-1	7.747E-1	-8.854	±30	Average RF
13C4-PFHpA	5.00	4.32	9.977E-1	8.613E-1	-13.674	±30	Average RF
13C4-PFHpA	5.00	5.81	9.977E-1	1.16E0	16.30	±30	Average RF
13C4-PFOA	5.00	5.17	1.064E0	1.099E0	3.31	±30	Average RF
13C4-PFOA	5.00	4.32	1.064E0	9.183E-1	-13.679	±30	Average RF
13C5-PFNA	5.00	4.45	9.97E-1	8.881E-1	-10.920	±30	Average RF
13C5-PFNA	5.00	4.98	9.97E-1	9.93E-1	-0.404	±30	Average RF
13C2-PFDA	5.00	4.57	8.734E-1	7.98E-1	-8.626	±30	Average RF
13C2-PFDA	5.00	5.28	8.734E-1	9.227E-1	5.65	±30	Average RF
13C2-PFUnDA	5.00	4.91	7.042E-1	6.922E-1	-1.703	±30	Average RF
13C2-PFUnDA	5.00	4.24	7.042E-1	5.964E-1	-15.296	±30	Average RF
13C2-PFDoDA	5.00	4.41	9.208E-1	8.119E-1	-11.832	±30	Average RF
13C2-PFDoDA	5.00	5.52	9.208E-1	1.017E0	10.46	±30	Average RF
13C2-PFTeDA	5.00	6.54	8.384E-1	1.097E0	30.88*	±30	Average RF
13C2-PFTeDA	5.00	4.41	8.384E-1	7.399E-1	-11.748	±30	Average RF
13C8-FOSA	5.00	4.18	3.687E-1	3.084E-1	-16.340	±30	Average RF
13C8-FOSA	5.00	5.02	3.687E-1	3.705E-1	0.498	±30	Average RF
D3-MeFOSAA	5.00	3.69	1.776E-1	1.311E-1	-26.185	±30	Average RF
D5-EtFOSAA	5.00	3.58	1.199E-1	8.594E-2	-28.313	±30	Average RF
13C2-6:2 FTS	5.00	5.12	1.097E-1	1.124E-1	2.43	±30	Average RF
13C2-6:2 FTS	5.00	4.74	1.097E-1	1.041E-1	-5.100	±30	Average RF
13C2-8:2 FTS	5.00	5.38	9.73E-2	1.046E-1	7.54	±30	Average RF
13C2-8:2 FTS	5.00	4.61	9.73E-2	8.975E-2	-7.759	±30	Average RF

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03

Service Request: R2202484
Date Analyzed: 03/29/22 17:28

Continuing Calibration Verification (CCV) Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
File ID: J:\LCMS06\Data\220329_B2\220329_057
Signal ID: 1

Calibration Date: 3/29/2022
Calibration ID: KC2200201
Analysis Lot: 759119
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	Rec.	% Drift	Criteria	Curve Fit
Perfluorobutane sulfonic acid (PFBS)	0.887	0.844	1.5244	1.4507	95.2	NA	±30	Average RF
Perfluorohexane sulfonic acid (PFHxS)	0.913	0.816	1.3682	1.1152	89.4	-10.6	±30	Linear
Perfluoroheptane sulfonic acid (PFHpS)	0.953	0.784	1.2209	1.0033	82.2	NA	±30	Average RF
Perfluorooctane sulfonic acid (PFOS)	0.929	0.920	0.6934	0.6863	99.0	NA	±30	Average RF
Perfluorodecane sulfonic acid (PFDS)	0.965	1.10	0.7087	0.8112	114	NA	±30	Average RF
Perfluorobutanoic acid (PFBA)	1.00	0.927	0.887	0.8221	92.7	NA	±30	Average RF
Perfluoropentanoic acid (PFPeA)	1.00	0.861	2.5233	2.1714	86.1	NA	±30	Average RF
Perfluorohexanoic acid (PFHxA)	1.00	0.950	1.0016	0.9512	95.0	-5.1	±30	Linear
Perfluoroheptanoic acid (PFHpA)	1.00	0.864	0.7738	0.6683	86.4	NA	±30	Average RF
Perfluorooctanoic acid (PFOA)	1.00	0.988	1.1618	1.1473	98.8	NA	±30	Average RF
Perfluorononanoic acid (PFNA)	1.00	0.948	0.8985	0.8516	94.8	NA	±30	Average RF
Perfluorodecanoic acid (PFDA)	1.00	0.958	1.0018	0.9594	95.8	NA	±30	Average RF
Perfluoroundecanoic acid (PFUnDA)	1.00	0.900	1.1767	1.0594	90.0	NA	±30	Average RF
Perfluorododecanoic acid (PFDOA)	1.00	1.03	0.6837	0.6255	103	3.0	±30	Quadratic
Perfluorotridecanoic acid (PFTrDA)	1.00	0.895	1.2157	1.0874	89.5	NA	±30	Average RF
Perfluorotetradecanoic acid (PFTDA)	1.00	0.937	0.6669	0.625	93.7	NA	±30	Average RF
Perfluorooctane sulfonamide (PFOSAm)	1.00	0.962	1.4327	1.3787	96.2	NA	±30	Average RF
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.00	0.887	0.6026	0.514	88.7	-11.3	±30	Quadratic
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.00	0.793	0.6297	0.4503	79.3	-20.7	±30	Quadratic
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	0.951	0.943	1.1804	1.1705	99.2	NA	±30	Average RF
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	0.960	0.927	0.7912	0.7638	96.5	NA	±30	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	Rec.	% Drift	Criteria	Curve Fit
13C3-PFBS	5.00	3.80	0.1478	0.1123	76.0	NA	±30	Average RF
18O2-PFHxS	5.00	4.47	0.1094	0.0979	89.5	NA	±30	Average RF
13C4-PFOS	5.00	3.83	0.1621	0.1242	76.6	NA	±30	Average RF
13C4-PFBA	5.00	3.75	0.6378	0.4779	74.9	NA	±30	Average RF
13C5-PFPeA	5.00	3.90	0.3369	0.2629	78.0	NA	±30	Average RF
13C2-PFHxA	5.00	4.28	0.85	0.727	85.5	NA	±30	Average RF
13C4-PFHpA	5.00	3.69	0.9977	0.7356	73.7	NA	±30	Average RF
13C4-PFOA	5.00	3.91	1.0639	0.8315	78.2	NA	±30	Average RF

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Parsons

Service Request: R2202484

Project: ILI - Region 9 Griffon Park/452148.60007.03

Date Analyzed: 03/29/22 17:28

Continuing Calibration Verification (CCV) Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M

Calibration Date: 3/29/2022

File ID: J:\LCMS06\Data\220329_B2\220329_057

Calibration ID: KC2200201

Signal ID: 1

Analysis Lot: 759119

Units: ng/mL

13C5-PFNA	5.00	4.08	0.997	0.8137	81.6	NA	±30	Average RF
13C2-PFDA	5.00	3.89	0.8734	0.6794	77.8	NA	±30	Average RF
13C2-PFUnDA	5.00	4.20	0.7042	0.5914	84.0	NA	±30	Average RF
13C2-PFDoDA	5.00	4.03	0.9208	0.743	80.7	NA	±30	Average RF
13C2-PFTeDA	5.00	3.99	0.8384	0.6689	79.8	NA	±30	Average RF
13C8-FOSA	5.00	3.90	0.3687	0.2874	78.0	NA	±30	Average RF
D3-MeFOSAA	5.00	3.57	0.1776	0.1269	71.5	NA	±30	Average RF
D5-EtFOSAA	5.00	5.06	0.1199	0.1212	101	NA	±30	Average RF
13C2-6:2 FTS	5.00	3.81	0.1097	0.0836	76.2	NA	±30	Average RF
13C2-8:2 FTS	5.00	3.85	0.0973	0.0748	76.9	NA	±30	Average RF

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03

Service Request: R2202484
Date Analyzed: 03/29/22 22:57

Continuing Calibration Verification (CCV) Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
File ID: J:\LCMS06\Data\220329_B3\220329_085
Signal ID: 1

Calibration Date: 3/29/2022
Calibration ID: KC2200201
Analysis Lot: 759122
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	Rec.	% Drift	Criteria	Curve Fit
Perfluorobutane sulfonic acid (PFBS)	0.887	0.825	1.5244	1.417	92.9	NA	±30	Average RF
Perfluorohexane sulfonic acid (PFHxS)	0.913	0.964	1.3682	1.3114	106	5.6	±30	Linear
Perfluoroheptane sulfonic acid (PFHpS)	0.953	0.852	1.2209	1.0906	89.3	NA	±30	Average RF
Perfluorooctane sulfonic acid (PFOS)	0.929	0.868	0.6934	0.648	93.4	NA	±30	Average RF
Perfluorodecane sulfonic acid (PFDS)	0.965	0.928	0.7087	0.682	96.2	NA	±30	Average RF
Perfluorobutanoic acid (PFBA)	1.00	0.951	0.887	0.8435	95.1	NA	±30	Average RF
Perfluoropentanoic acid (PFPeA)	1.00	0.887	2.5233	2.2383	88.7	NA	±30	Average RF
Perfluorohexanoic acid (PFHxA)	1.00	0.947	1.0016	0.949	94.7	-5.3	±30	Linear
Perfluoroheptanoic acid (PFHpA)	1.00	0.881	0.7738	0.6819	88.1	NA	±30	Average RF
Perfluorooctanoic acid (PFOA)	1.00	0.927	1.1618	1.0774	92.7	NA	±30	Average RF
Perfluorononanoic acid (PFNA)	1.00	0.882	0.8985	0.7922	88.2	NA	±30	Average RF
Perfluorodecanoic acid (PFDA)	1.00	0.920	1.0018	0.9217	92.0	NA	±30	Average RF
Perfluoroundecanoic acid (PFUnDA)	1.00	0.931	1.1767	1.095	93.1	NA	±30	Average RF
Perfluorododecanoic acid (PFDOA)	1.00	0.996	0.6837	0.6054	99.6	-0.5	±30	Quadratic
Perfluorotridecanoic acid (PFTrDA)	1.00	0.821	1.2157	0.9981	82.1	NA	±30	Average RF
Perfluorotetradecanoic acid (PFTDA)	1.00	0.894	0.6669	0.5963	89.4	NA	±30	Average RF
Perfluorooctane sulfonamide (PFOSAm)	1.00	0.978	1.4327	1.4014	97.8	NA	±30	Average RF
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.00	0.943	0.6026	0.5464	94.3	-5.7	±30	Quadratic
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.00	0.832	0.6297	0.472	83.2	-16.8	±30	Quadratic
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	0.951	0.893	1.1804	1.1079	93.8	NA	±30	Average RF
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	0.960	0.936	0.7912	0.7716	97.5	NA	±30	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	Rec.	% Drift	Criteria	Curve Fit
13C3-PFBS	5.00	4.75	0.1478	0.1403	95.0	NA	±30	Average RF
18O2-PFHxS	5.00	5.38	0.1094	0.1177	108	NA	±30	Average RF
13C4-PFOS	5.00	4.45	0.1621	0.1443	89.0	NA	±30	Average RF
13C4-PFBA	5.00	5.73	0.6378	0.7303	115	NA	±30	Average RF
13C5-PFPeA	5.00	5.53	0.3369	0.3729	111	NA	±30	Average RF
13C2-PFHxA	5.00	6.23	0.85	1.0589	125	NA	±30	Average RF
13C4-PFHpA	5.00	5.87	0.9977	1.1721	117	NA	±30	Average RF
13C4-PFOA	5.00	5.72	1.0639	1.2168	114	NA	±30	Average RF

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03

Service Request: R2202484
Date Analyzed: 03/29/22 22:57

Continuing Calibration Verification (CCV) Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
File ID: J:\LCMS06\Data\220329_B3\220329_085
Signal ID: 1

Calibration Date: 3/29/2022
Calibration ID: KC2200201
Analysis Lot: 759122
Units: ng/mL

13C5-PFNA	5.00	5.42	0.997	1.0815	108	NA	±30	Average RF
13C2-PFDA	5.00	4.78	0.8734	0.835	95.6	NA	±30	Average RF
13C2-PFUnDA	5.00	4.26	0.7042	0.6006	85.3	NA	±30	Average RF
13C2-PFDoDA	5.00	4.05	0.9208	0.7459	81.0	NA	±30	Average RF
13C2-PFTeDA	5.00	4.26	0.8384	0.7148	85.3	NA	±30	Average RF
13C8-FOSA	5.00	4.38	0.3687	0.3229	87.6	NA	±30	Average RF
D3-MeFOSAA	5.00	4.12	0.1776	0.1464	82.4	NA	±30	Average RF
D5-EtFOSAA	5.00	5.41	0.1199	0.1296	108	NA	±30	Average RF
13C2-6:2 FTS	5.00	8.47	0.1097	0.1858	169*	NA	±30	Average RF
13C2-8:2 FTS	5.00	4.94	0.0973	0.0962	98.9	NA	±30	Average RF

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03

Service Request:R2202484

Analysis Run Log
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M**Analysis Lot:**759119**Instrument ID:**K-LCMS-06

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\LCMS06\Data\220329_B2\220329_057	Continuing Calibration Verification	KQ2205091-02	3/29/2022	17:28	
J:\LCMS06\Data\220329_B2\220329_058	Continuing Calibration Blank	KQ2205091-01	3/29/2022	17:39	
J:\LCMS06\Data\220329_B2\220329_063	Continuing Calibration Blank	KQ2205091-03	3/29/2022	18:31	
J:\LCMS06\Data\220329_B2\220329_064	Method Blank	KQ2204757-04	3/29/2022	18:41	
J:\LCMS06\Data\220329_B2\220329_065	Lab Control Sample	KQ2204757-03	3/29/2022	18:52	
J:\LCMS06\Data\220329_B2\220329_066	9-NIA-003-001-01	R2202484-001	3/29/2022	19:02	
J:\LCMS06\Data\220329_B2\220329_067	9-NIA-003-001-02	R2202484-003	3/29/2022	19:13	
J:\LCMS06\Data\220329_B2\220329_068	9-NIA-003-001-02 MS	KQ2204757-01	3/29/2022	19:23	
J:\LCMS06\Data\220329_B2\220329_069	9-NIA-003-001-02 DMS	KQ2204757-02	3/29/2022	19:34	

ALS Group USA, Corp.

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QA/QC Report

Client: Parsons**Service Request:**R2202484**Project:** ILI - Region 9 Griffon Park/452148.60007.03**Analysis Run Log****Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS****Analysis Method:** PFC/537M**Analysis Lot:**759122**Instrument ID:**K-LCMS-06

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\LCMS06\Data\220329_B3\220329_085	Continuing Calibration Verification	KQ2205095-02	3/29/2022	22:57	
J:\LCMS06\Data\220329_B3\220329_086	Continuing Calibration Blank	KQ2205095-01	3/29/2022	23:07	
J:\LCMS06\Data\220329_B3\220329_087	9-NIA-003-001-03	R2202484-004	3/29/2022	23:18	
J:\LCMS06\Data\220329_B3\220329_088	9-NIA-003-001-04	R2202484-005	3/29/2022	23:28	
J:\LCMS06\Data\220329_B3\220329_089	9-NIA-003-001-05	R2202484-006	3/29/2022	23:39	
J:\LCMS06\Data\220329_B3\220329_090	9-NIA-003-001-07	R2202484-008	3/29/2022	23:49	

ALS Group USA, Corp.
dba ALS Environmental

Prep Summary Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202484

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Prep Method: ALS SOP
Analytical Method: PFC/537M

Extraction Lot: 397152
Extraction Date: 03/24/22 12:56

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
Matrix Spike	KQ2204757-01MS	3/22/22	3/23/22	280.0000 mL	8 mL	
Duplicate Matrix Spike	KQ2204757-02DMS	3/22/22	3/23/22	285.0000 mL	8 mL	
Lab Control Sample	KQ2204757-03LCS	NA	NA	250 mL	8 mL	
Method Blank	KQ2204757-04MB	NA	NA	250 mL	8 mL	
9-NIA-003-001-01	R2202484-001	3/22/22	3/23/22	290.0000 mL	8 mL	
9-NIA-003-001-02	R2202484-003	3/22/22	3/23/22	280.0000 mL	8 mL	
9-NIA-003-001-03	R2202484-004	3/22/22	3/23/22	275.0000 mL	8 mL	
9-NIA-003-001-04	R2202484-005	3/22/22	3/23/22	270.0000 mL	8 mL	
9-NIA-003-001-05	R2202484-006	3/22/22	3/23/22	275.0000 mL	8 mL	
9-NIA-003-001-07	R2202484-008	3/22/22	3/23/22	285.0000 mL	8 mL	



April 13, 2022

Service Request No:R2202553

Mr. George Moreau
Parsons Engineering Science
301 Plainfield Road
Suite 350
Syracuse, NY 13212

Laboratory Results for: ILI - Region 9 Griffon Park

Dear Mr.Moreau,

Enclosed are the results of the sample(s) submitted to our laboratory March 24, 2022
For your reference, these analyses have been assigned our service request number **R2202553**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Janice Jaeger
Project Manager

CC: Maryanne
Kosciewicz

ADDRESS

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

PHONE +1 585 288 5380 | **FAX** +1 585 288 8475

ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com



Client: Parsons
Project: ILI - Region 9 Griffon Park
Sample Matrix: Water

Service Request: R2202553
Date Received: 03/24/2022

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

Sample Receipt:

Seven water samples were received for analysis at ALS Environmental on 03/24/2022. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

One or more samples were subcontracted to another laboratory for testing. The certified analytical report from the subcontractor has been included in its entirety at the end of this report and includes the name and address of the subcontracted laboratory.

Semivolatiles by GC/MS:

Method 8270D, 04/04/2022: The control limit was exceeded for one or more surrogates in the Continuing Calibration Verification (CCV). The surrogates were within acceptance limits for the associated field samples. The data quality was not significantly affected and no further corrective action was taken.

Metals:

No significant anomalies were noted with this analysis.

General Chemistry:

SM2540C, R2202553-007: The minimum target residue of 2.5mg, as described by the reference method, was not achieved. The laboratory Method Reporting Limit (MRL) of 10 mg/L is based on 100 mL of sample and 1 mg of residue. The analytical balances used by the laboratory are capable of accurate quantitation of 1 mg of residue.

Subcontracted Analytical Parameters:

No significant anomalies were noted with this analysis.

Volatiles by GC/MS:

Method 8260C, 03/28/2022: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 8260C, 03/28/2022: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) above the MRL in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Method 8260C, 03/28/2022: The upper control criterion was exceeded for one or more analytes in the Laboratory Control Sample (LCS). There were no detections of the analyte(s) above the MRL in the associated field samples. The error associated with elevated recovery equates to a high bias. The sample data is not significantly affected. No further corrective action was appropriate.

Approved by _____

Date 04/12/2022



Sample Receipt Information

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03

Service Request:R2202553

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R2202553-001	9-NIA-003-002-01	3/23/2022	0955
R2202553-002	9-NIA-003-002-02	3/23/2022	1145
R2202553-003	9-NIA-003-002-03	3/23/2022	1315
R2202553-004	9-NIA-003-002-05	3/23/2022	1420
R2202553-005	9-NIA-003-002-06	3/23/2022	1425
R2202553-006	9-NIA-003-002-07	3/23/2022	
R2202553-007	9-NIA-003-002-04	3/23/2022	1400

CHAIN-OF-CUSTODY / Analytical Request Document																
Section A Laboratory Information					Section B Client Information					COC #:		9-NIA-003-002				
Lab Name: ALS					Company: Parsons					Project Name:		ILI - Region 9				
Attention: Janice Jaeger					Attention: George Moreau					Project Site:		Griffon Park				
Address: 1565 Jefferson Road, Bldg 300, Suite 360 Rochester, NY 14623					Address: 301 Plainfield Road, Suite 350 Syracuse, NY 13212					Project Number:		452148.09000				
Phone: 585-288-5380					Phone: 315-552-9715					MS/MSD Composite (Y/N) 0 1 0 0 2 2 3 3 0 0 0 0		Preservative codes (for water only):				
Email: janice.jaeger@atsglobal.com					Email: George.H.Moreau@parsons.com											
Section C Deliverable Requirements					Section D Additional Information					PFAS Modified SV7 Modified Baseline VOCs, 8160 PAHs 8270SDM 1,4 - Dioxane 8270SDM Mod Bsh Met/Hg 6010/7470 Hard-S&H2 2340C Arsenite/COC 350.1/410.4 TOC 9060A SO4/CU/BSO 300.0 TDS 945400 Asbestos 3420 22008 Disinfect Mod Metals/Hg 6010/7470						
Report To: George.H.Moreau@parsons.com					Purchase Order No:											
Copy To: Lorraine.Weber@parsons.com; Laura.Drachenberg@parsons.com Maryanne.Kosciewicz@parsons.com; Heather.Fettig@parsons.com					TAT - 10 Day											
Deliverables: Level 2, CAT B Report, NYSEDEC EQUIS EDD																
Location ID		Start Depth (ft)	End Depth (ft)	Field Sample ID MUST BE UNIQUE	Sample Date	Sample Time	Sample Matrix	Sample Type	# of Cont.							
1 9-NIA-003-MW-05		7	17	9-NIA-003-002-01	03-23-22	0955	WG	N	18							
2 9-NIA-003-MW-04		7	17	9-NIA-003-002-02	03-23-22	1145	WG	N	18							
3 9-NIA-003-MW-03		5	10	9-NIA-003-002-03	03-23-22	1315	WG	N	18							
4 9-NIA-003-MW-				9-NIA-003-002-04			WG	FB	18							
5 Field QC		-	-	9-NIA-003-002-05	03-23-22	1420	WQ	FB	1							
6 Field QC		-	-	9-NIA-003-002-06	03-23-22	1425	WQ	EB	2							
7 Field QC		-	-	9-NIA-003-002-07	03-23-22	-	WQ	TB	3							
8 Field QC - Rinse		-	-	9-NIA-003-002-04	03-23-22	1400	WQ	EB	15							
9																
10																
Special Instructions:																
** - Additional bottles for Dissolved Mod Metals/Hg (unpreserved) will be collected when Turbidity is greater than 50 NTU. Lab to filter. Sample # 9-NIA-003-002-04 : one bottle of 1,4 Dioxane broke																
Samplers Name: Kellie Bogardus		Company: Parsons			Relinquished By:		Company:		Cooler Temp.:		Custody Seals Intact: Yes ☐ No ☐					
Shipment Method: FedEx		Date/Time: 03-23-22 1700			Accepted By:		Date/Time: 3/24/22 0820		Rec'd on Ice: Yes ☐ No ☐		Samples Intact: Yes ☐ No ☐					
Shipment Tracking No:		Date/Time:			Company: AL		Date/Time:		Cooler Temp.:		Custody Seals Intact: Yes ☐ No ☐					
									Rec'd on Ice: Yes ☐ No ☐		Samples Intact: Yes ☐ No ☐					
Preservatives: 0 = None; [1 = HCL]; [2 = HNO3]; [3 = H2SO4]; [4 = NaOH]; [5 = Zn Acetate]; [6 = MeOH]; [7 = NaHSO4]; 8 = Other (H3PO4):																

4

Persons Engineering Science
ILL - Region 9 Griffon Park





Cooler Receipt and Preservation Check Form

R2202553

Parsons Engineering Science
LI - Region 8 Griffon Park

5

Project/Client Palama Folder Number _____Cooler received on 3/24/22 by: @COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	Y <u>(N)</u>
2	Custody papers properly completed (ink, signed)?	<u>(Y)</u> N
3	Did all bottles arrive in good condition (unbroken)?	Y <u>(N)</u>
4	Circle: Wet Ice Dry Ice Gel packs present?	<u>(Y)</u> N

5a	Perchlorate samples have required headspace?	Y N <u>(NA)</u>
5b	Did <u>VOA</u> vials <u>Alk</u> or Sulfide have sig* bubbles?	<u>(Y)</u> N NA
6	Where did the bottles originate?	<u>ALS/ROC</u> CLIENT
7	Soil VOA received as: Bulk Encore 5035set	<u>(NA)</u>

8. Temperature Readings Date: 3/24/22 Time: 0905 ID: IR#7 (IR#11) From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>2.1</u>	<u>2.7</u>	<u>2.5</u>	<u>4.0</u>	<u>4.7</u>		
Within 0-6°C?	<u>(Y)</u> N	<u>(Y)</u> N	<u>(Y)</u> N	<u>(Y)</u> N	<u>(Y)</u> N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule
& Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by @ on 3/24/22 at 0920
5035 samples placed in storage location: _____ by _____ on _____ at _____ within 48 hours of sampling? Y N

Cooler Breakdown/Preservation Check**: Date: 3/24/22 Time: 1415 by: @

9. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES (NO)
10. Did all bottle labels and tags agree with custody papers? (YES) NO
11. Were correct containers used for the tests indicated? YES NO
12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO
13. Air Samples: Cassettes / Tubes Intact Y / N with MS Y / N Canisters Pressurized Tedlar® Bags Inflated (N/A)

pH	Lot of test paper	Reagent	Preserved?	Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
≥12		NaOH							
≤2	<u>225322</u>	HNO ₃	<u>✓</u>	<u>1121071</u>					
≤2		H ₂ SO ₄	<u>✓</u>	<u>2120-10, 226057</u>					
<4		NaHSO ₄							
5-9		For 608pest		No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522		If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃							
		ZnAcetate	-						
		HCl	**						

**VOAs and 1664 Not to be tested before analysis.
Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 2621, 21-11-11, 21-12-14, 111521-0AA0, 1-021-008, 80409-C269, 110821-1C1-
Explain all Discrepancies/ Other Comments:

headspace: 6 vials TB
all alk except -03

-04 12 and 13 is blank

no't broken: 1 vial ~~at~~ TOC -002-01
1 22nd number ~~-03~~ -003-03

HPROD	BULK
HTR	FLDT
<u>(SUB)</u>	HGFB
ALS	LL3541

Labels secondary reviewed by: @PC Secondary Review: 2/24/30/22 *significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter

ALS Group USA, Corp.
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Internal Chain of Custody Report

Client: Parsons Engineering Science
Project: ILI - Region 9 Griffon Park/452148.60007.03

Service Request: R2202553

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R2202553-001.01	8260C				
		3/24/2022	1412	SMO / GLAFORCE	
		3/24/2022	1415	R-001 / GLAFORCE	
		3/25/2022	1407	In Lab / FNAEGLER	
		3/25/2022	1409	R-001-S08 / FNAEGLER	
R2202553-001.02					
		3/24/2022	1412	SMO / GLAFORCE	
		3/24/2022	1415	R-001 / GLAFORCE	
R2202553-001.03					
		3/24/2022	1412	SMO / GLAFORCE	
		3/24/2022	1415	R-001 / GLAFORCE	
R2202553-001.04	SM 2340 C-1997(2011)				
		3/24/2022	1412	SMO / GLAFORCE	
		3/25/2022	1252	R-015 / GESMERIAN	
		3/25/2022	1253	RT000833 / GESMERIAN	
R2202553-001.05	SM 2540 C-1997(2011),300.0,300.0,300.0				
		3/24/2022	1412	SMO / GLAFORCE	
		3/28/2022	1220	R-017 / GLAFORCE	
		3/28/2022	1221	RT000006 / GLAFORCE	
R2202553-001.06	410.4,350.1				
		3/24/2022	1412	SMO / GLAFORCE	
		3/25/2022	0914	RT000657 / GESMERIAN	
		3/25/2022	0914	R-016 / GESMERIAN	
R2202553-001.07	8270D SIM				
		3/24/2022	1412	SMO / GLAFORCE	
		3/24/2022	1415	R-002 / GLAFORCE	
		3/29/2022	1100	In Lab / AFELSER	
		3/30/2022	1237	R-002 / AFELSER	
R2202553-001.08					
		3/24/2022	1412	SMO / GLAFORCE	
		3/24/2022	1415	R-002 / GLAFORCE	
R2202553-001.09					

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Internal Chain of Custody Report

Client: Parsons Engineering Science
Project: ILI - Region 9 Griffon Park/452148.60007.03

Service Request: R2202553

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R2202553-001.10	PFC/537M	3/24/2022	1412	SMO / GLAFORCE	3/28/2022
		3/24/2022	1415	SUBBED / GLAFORCE	3/28/2022
		3/26/2022	0901	OLC 20 / SMO2	3/28/2022
		3/26/2022	0914	K-DELILAH / SMO2	3/28/2022
		3/28/2022	0927	In Lab / AMOORE	3/28/2022
		3/28/2022	1829	K-Disposed / LILLIANSMITH	3/28/2022
		R2202553-001.11	SM 2320 B-1997(2011)	3/24/2022	1412
3/24/2022	1415			SUBBED / GLAFORCE	
3/26/2022	0901			OLC 20 / SMO2	
3/26/2022	0914			K-DELILAH / SMO2	
R2202553-001.12	SM 5310 C-2000(2011)	3/24/2022	1412	SMO / GLAFORCE	
		3/28/2022	1408	R-014 / GLAFORCE	
		3/28/2022	1409	RT000684 / GLAFORCE	
		R2202553-001.13		3/24/2022	1412
3/25/2022	0918			RT000814 / GESMERIAN	
3/25/2022	0919			R-017 / GESMERIAN	
4/11/2022	1632			R-002 / GESMERIAN	
R2202553-001.15	8270D	3/24/2022	1412	SMO / GLAFORCE	
		3/25/2022	0918	RT000814 / GESMERIAN	
		3/25/2022	0919	R-017 / GESMERIAN	
		4/11/2022	1632	R-002 / GESMERIAN	
R2202553-001.16		3/24/2022	1412	SMO / GLAFORCE	
		3/24/2022	1415	R-002 / GLAFORCE	
R2202553-001.17	7470A	3/24/2022	1412	SMO / GLAFORCE	

Client: Parsons Engineering Science
Project: ILI - Region 9 Griffon Park/452148.60007.03

Client: Parsons Engineering Science

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Internal Chain of Custody Report

Client: Parsons Engineering Science

Service Request: R2202553

Project: ILI - Region 9 Griffon Park/452148.60007.03

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
		3/24/2022	1412	SMO / GLAFORCE	
		3/24/2022	1415	R-002 / GLAFORCE	
R2202553-002.08	8270D SIM				
		3/24/2022	1412	SMO / GLAFORCE	
		3/24/2022	1415	R-002 / GLAFORCE	
		3/29/2022	1100	In Lab / AFELSER	
		3/30/2022	1237	R-002 / AFELSER	
R2202553-002.09	PFC/537M				
		3/24/2022	1412	SMO / GLAFORCE	3/28/2022
		3/24/2022	1415	SUBBED / GLAFORCE	3/28/2022
		3/26/2022	0901	OLC 20 / SMO2	3/28/2022
		3/26/2022	0914	K-DELILAH / SMO2	3/28/2022
		3/28/2022	0927	In Lab / AMOORE	3/28/2022
		3/28/2022	1829	K-Disposed / LILLIANSMITH	3/28/2022
R2202553-002.10					
		3/24/2022	1412	SMO / GLAFORCE	
		3/24/2022	1415	SUBBED / GLAFORCE	
		3/26/2022	0901	OLC 20 / SMO2	
		3/26/2022	0914	K-DELILAH / SMO2	
R2202553-002.11	SM 2320 B-1997(2011)				
		3/24/2022	1412	SMO / GLAFORCE	
		3/28/2022	1408	R-014 / GLAFORCE	
		3/28/2022	1409	RT000684 / GLAFORCE	
R2202553-002.12	SM 5310 C-2000(2011)				
		3/24/2022	1412	SMO / GLAFORCE	
		3/25/2022	0918	RT000814 / GESMERIAN	
		3/25/2022	0919	R-017 / GESMERIAN	
		4/11/2022	1632	R-002 / GESMERIAN	
R2202553-002.13					
		3/24/2022	1412	SMO / GLAFORCE	
		3/25/2022	0918	RT000814 / GESMERIAN	
		3/25/2022	0919	R-017 / GESMERIAN	
		4/11/2022	1632	R-002 / GESMERIAN	
R2202553-002.14					

Internal Chain of Custody Report

Service Request: R2202553Page 12 of 123

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Internal Chain of Custody Report

Client: Parsons Engineering Science
Project: ILI - Region 9 Griffon Park/452148.60007.03

Service Request: R2202553

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
	SM 2340 C-1997(2011)	3/24/2022	1412	SMO / GLAFORCE	
		3/25/2022	1252	RT000833 / GESMERIAN	
		3/25/2022	1252	R-015 / GESMERIAN	
R2202553-003.05					
	300.0,300.0,300.0,SM 2540 C-1997(2011)	3/24/2022	1412	SMO / GLAFORCE	
		3/28/2022	1220	R-017 / GLAFORCE	
		3/28/2022	1221	RT000006 / GLAFORCE	
R2202553-003.06					
	410.4,350.1	3/24/2022	1412	SMO / GLAFORCE	
		3/25/2022	0914	RT000657 / GESMERIAN	
		3/25/2022	0914	R-016 / GESMERIAN	
R2202553-003.07					
		3/24/2022	1412	SMO / GLAFORCE	
		3/24/2022	1415	R-002 / GLAFORCE	
R2202553-003.08					
	8270D SIM	3/24/2022	1412	SMO / GLAFORCE	
		3/24/2022	1415	R-002 / GLAFORCE	
		3/29/2022	1100	In Lab / AFELSER	
		3/30/2022	1238	R-002 / AFELSER	
R2202553-003.09					
	PFC/537M	3/24/2022	1412	SMO / GLAFORCE	3/28/2022
		3/24/2022	1415	SUBBED / GLAFORCE	3/28/2022
		3/26/2022	0905	OLC 21 / SMO2	3/28/2022
		3/26/2022	0914	K-DELILAH / SMO2	3/28/2022
		3/28/2022	0927	In Lab / AMOORE	3/28/2022
		3/28/2022	1829	K-Disposed / LILLIANSMITH	3/28/2022
R2202553-003.10					
		3/24/2022	1412	SMO / GLAFORCE	
		3/24/2022	1415	SUBBED / GLAFORCE	
		3/29/2022	1559	K-OLC / SMO2	
		3/29/2022	1600	OLC 22 / SMO2	
R2202553-003.11					
	SM 2320 B-1997(2011)	3/24/2022	1412	SMO / GLAFORCE	

Internal Chain of Custody Report

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Internal Chain of Custody Report

Client: Parsons Engineering Science

Service Request: R2202553

Project: ILI - Region 9 Griffon Park/452148.60007.03

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
	8260C	3/24/2022	1412	SMO / GLAFORCE	
		3/24/2022	1415	R-001 / GLAFORCE	
		3/25/2022	1407	In Lab / FNAEGLER	
		3/25/2022	1409	R-001-S08 / FNAEGLER	
		R2202553-007.02			
		3/24/2022	1412	SMO / GLAFORCE	
		3/24/2022	1415	R-001 / GLAFORCE	
R2202553-007.03					
		3/24/2022	1412	SMO / GLAFORCE	
		3/24/2022	1415	R-001 / GLAFORCE	
R2202553-007.04					
	SM 2340 C-1997(2011)	3/24/2022	1412	SMO / GLAFORCE	
		3/25/2022	1252	R-015 / GESMERIAN	
		3/25/2022	1253	RT000833 / GESMERIAN	
		R2202553-007.05			
	300.0,300.0,300.0,SM 2540 C-1997(2011)	3/24/2022	1412	SMO / GLAFORCE	
		3/28/2022	1220	R-017 / GLAFORCE	
		3/28/2022	1221	RT000006 / GLAFORCE	
		R2202553-007.06			
	410.4,350.1	3/24/2022	1412	SMO / GLAFORCE	
		3/25/2022	0914	RT000657 / GESMERIAN	
		3/25/2022	0914	R-016 / GESMERIAN	
R2202553-007.07					
	8270D SIM	3/24/2022	1412	SMO / GLAFORCE	
		3/24/2022	1415	R-002 / GLAFORCE	
		3/29/2022	1100	In Lab / AFELSER	
		3/30/2022	1238	R-002 / AFELSER	
R2202553-007.11					
	SM 2320 B-1997(2011)	3/24/2022	1412	SMO / GLAFORCE	
		3/28/2022	1408	R-014 / GLAFORCE	
		3/28/2022	1409	RT000684 / GLAFORCE	
		R2202553-007.12			

Internal Chain of Custody Report

Service Request: R2202553Page 17 of 123



Miscellaneous Forms

ALS Environmental—Rochester Laboratory

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REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.	+	Correlation coefficient for MSA is <0.995.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).	N	Inorganics- Matrix spike recovery was outside laboratory limits.
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.	N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.	S	Concentration has been determined using Method of Standard Additions (MSA).
E	Organics- Concentration has exceeded the calibration range for that specific analysis.	W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.	P	Concentration >40% difference between the two GC columns.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.	C	Confirmed by GC/MS
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.	Q	DoD reports: indicates a pesticide/Aroclor is not confirmed ($\geq 100\%$ Difference between two GC columns).
#	Spike was diluted out.	X	See Case Narrative for discussion.
		MRL	Method Reporting Limit. Also known as:
		LOQ	Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
		MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
		LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
		ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Rochester Lab ID # for State Accreditations¹



NELAP States
Florida ID # E87674
New Hampshire ID # 2941
New York ID # 10145
Pennsylvania ID# 68-786
Virginia #460167

Non-NELAP States
Connecticut ID #PH0556
Delaware Approved
Maine ID #NY01587
North Carolina #36701
North Carolina #676
Rhode Island LAO00333

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to <https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental>

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

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Analyst Summary report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03

Service Request: R2202553

Sample Name: 9-NIA-003-002-01
Lab Code: R2202553-001
Sample Matrix: Water

Date Collected: 03/23/22
Date Received: 03/24/22

Analysis Method	Extracted/Digested By	Analyzed By
300.0		KWONG
350.1		MROGERSON
410.4		SMEDBURY
6010C	BDIAMOND	KMCLAEN
7470A	BDIAMOND	BDIAMOND
8260C		FNAEGLER
8270D	AMOSSES	AMOSSES
8270D SIM	AFELSER	AFELSER
PFC/537M	AMOORE	MSESSIONS
SM 2320 B-1997(2011)		KAWONG
SM 2340 C-1997(2011)		STALARICO
SM 2540 C-1997(2011)		CLOI
SM 5310 C-2000(2011)		CWOODS

Sample Name: 9-NIA-003-002-02
Lab Code: R2202553-002
Sample Matrix: Water

Date Collected: 03/23/22
Date Received: 03/24/22

Analysis Method	Extracted/Digested By	Analyzed By
300.0		KWONG
350.1		MROGERSON
410.4		SMEDBURY
6010C	BDIAMOND	KMCLAEN
7470A	BDIAMOND	BDIAMOND
8260C		FNAEGLER
8270D	AMOSSES	AMOSSES
8270D SIM	AFELSER	AFELSER
PFC/537M	AMOORE	MSESSIONS
SM 2320 B-1997(2011)		CLOI
SM 2340 C-1997(2011)		STALARICO
SM 2540 C-1997(2011)		CLOI
SM 5310 C-2000(2011)		CWOODS

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Analyst Summary report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03

Service Request: R2202553

Sample Name: 9-NIA-003-002-03
Lab Code: R2202553-003
Sample Matrix: Water

Date Collected: 03/23/22**Date Received:** 03/24/22

Analysis Method	Extracted/Digested By	Analyzed By
300.0		KWONG
350.1		MROGERSON
410.4		SMEDBURY
6010C	BDIAMOND	KMCLAEN
7470A	BDIAMOND	BDIAMOND
8260C		FNAEGLER
8270D	AMOSSES	AMOSSES
8270D SIM	AFELSER	AFELSER
PFC/537M	AMOORE	MSESSIONS
SM 2320 B-1997(2011)		KAWONG
SM 2340 C-1997(2011)		STALARICO
SM 2540 C-1997(2011)		CLOI
SM 5310 C-2000(2011)		CWOODS

Sample Name: 9-NIA-003-002-05
Lab Code: R2202553-004
Sample Matrix: Water

Date Collected: 03/23/22**Date Received:** 03/24/22

Analysis Method	Extracted/Digested By	Analyzed By
PFC/537M	AMOORE	MSESSIONS

Sample Name: 9-NIA-003-002-06
Lab Code: R2202553-005
Sample Matrix: Water

Date Collected: 03/23/22**Date Received:** 03/24/22

Analysis Method	Extracted/Digested By	Analyzed By
PFC/537M	AMOORE	MSESSIONS

ALS Group USA, Corp.

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Analyst Summary report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03

Service Request: R2202553

Sample Name: 9-NIA-003-002-07
Lab Code: R2202553-006
Sample Matrix: Water

Date Collected: 03/23/22
Date Received: 03/24/22

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: 9-NIA-003-002-04
Lab Code: R2202553-007
Sample Matrix: Water

Date Collected: 03/23/22
Date Received: 03/24/22

Analysis Method**Extracted/Digested By****Analyzed By**

300.0		KWONG
350.1		MROGERSON
410.4		SMEDBURY
6010C	BDIAMOND	KMCLAEN
7470A	BDIAMOND	BDIAMOND
8260C		FNAEGLER
8270D	AMOSSES	AMOSSES
8270D SIM	AFELSER	AFELSER
SM 2320 B-1997(2011)		CLOI
SM 2340 C-1997(2011)		STALARICO
SM 2540 C-1997(2011)		CLOI
SM 5310 C-2000(2011)		CWOODS



INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9034 Sulfide Acid Soluble	9030B
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7199	3060A
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction
For analytical methods not listed, the preparation method is the same as the analytical method reference.	



Sample Results

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Volatile Organic Compounds by GC/MS

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Phone (585) 288-5380 Fax (585) 288-8475

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Collected: 03/23/22 09:55
Date Received: 03/24/22 08:20

Sample Name: 9-NIA-003-002-01
Lab Code: R2202553-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	1.0 U	1.0	0.20	1	03/28/22 18:43	
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.20	1	03/28/22 18:43	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	03/28/22 18:43	
1,1,2-Trichloroethane	1.0 U	1.0	0.20	1	03/28/22 18:43	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	03/28/22 18:43	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.20	1	03/28/22 18:43	
1,2,3-Trichloropropane	1.0 U	1.0	0.26	1	03/28/22 18:43	
1,2-Dibromo-3-chloropropane (DBCP)	2.0 U	2.0	0.45	1	03/28/22 18:43	
1,2-Dibromoethane	1.0 U	1.0	0.20	1	03/28/22 18:43	
1,2-Dichlorobenzene	1.0 U	1.0	0.20	1	03/28/22 18:43	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	03/28/22 18:43	
1,2-Dichloropropane	1.0 U	1.0	0.20	1	03/28/22 18:43	
1,4-Dichlorobenzene	0.65 J	1.0	0.20	1	03/28/22 18:43	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	03/28/22 18:43	
2-Hexanone	5.0 U	5.0	0.20	1	03/28/22 18:43	
4-Methyl-2-pentanone	5.0 U	5.0	0.20	1	03/28/22 18:43	
Acetone	5.0 U	5.0	5.0	1	03/28/22 18:43	
Acrylonitrile	10 U	10	0.90	1	03/28/22 18:43	
Benzene	1.0 U	1.0	0.20	1	03/28/22 18:43	
Bromochloromethane	1.0 U	1.0	0.20	1	03/28/22 18:43	
Bromodichloromethane	1.0 U	1.0	0.20	1	03/28/22 18:43	
Bromoform	1.0 U	1.0	0.25	1	03/28/22 18:43	
Bromomethane	1.0 U	1.0	0.70	1	03/28/22 18:43	
Carbon Disulfide	1.0 U	1.0	0.42	1	03/28/22 18:43	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	03/28/22 18:43	
Chlorobenzene	0.26 J	1.0	0.20	1	03/28/22 18:43	
Chloroethane	1.0 U	1.0	0.23	1	03/28/22 18:43	
Chloroform	1.0 U	1.0	0.24	1	03/28/22 18:43	
Chloromethane	1.0 U	1.0	0.28	1	03/28/22 18:43	
Dibromochloromethane	1.0 U	1.0	0.20	1	03/28/22 18:43	
Dibromomethane	1.0 U	1.0	0.20	1	03/28/22 18:43	
Methylene Chloride	1.0 U	1.0	0.65	1	03/28/22 18:43	
Ethylbenzene	1.0 U	1.0	0.20	1	03/28/22 18:43	
Iodomethane	5.0 U	5.0	4.3	1	03/28/22 18:43	
Styrene	1.0 U	1.0	0.20	1	03/28/22 18:43	
Tetrachloroethene (PCE)	1.0 U	1.0	0.21	1	03/28/22 18:43	
Toluene	1.0 U	1.0	0.20	1	03/28/22 18:43	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	03/28/22 18:43	
Trichlorofluoromethane (CFC 11)	1.0 U	1.0	0.24	1	03/28/22 18:43	
Vinyl Acetate	2.0 U	2.0	1.1	1	03/28/22 18:43	
Vinyl Chloride	1.0 U	1.0	0.20	1	03/28/22 18:43	
Xylenes, Total	3.0 U	3.0	0.23	1	03/28/22 18:43	
cis-1,2-Dichloroethene	1.0 U	1.0	0.23	1	03/28/22 18:43	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Collected: 03/23/22 09:55
Date Received: 03/24/22 08:20

Sample Name: 9-NIA-003-002-01
Lab Code: R2202553-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
cis-1,3-Dichloropropene	1.0 U	1.0	0.20	1	03/28/22 18:43	
m,p-Xylenes	2.0 U	2.0	0.20	1	03/28/22 18:43	
o-Xylene	1.0 U	1.0	0.20	1	03/28/22 18:43	
trans-1,2-Dichloroethene	1.0 U	1.0	0.20	1	03/28/22 18:43	
trans-1,3-Dichloropropene	1.0 U	1.0	0.23	1	03/28/22 18:43	
trans-1,4-Dichloro-2-butene	1.0 U	1.0	0.78	1	03/28/22 18:43	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	85 - 122	03/28/22 18:43	
Dibromofluoromethane	101	80 - 116	03/28/22 18:43	
Toluene-d8	103	87 - 121	03/28/22 18:43	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Collected: 03/23/22 11:45
Date Received: 03/24/22 08:20

Sample Name: 9-NIA-003-002-02
Lab Code: R2202553-002

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	1.0 U	1.0	0.20	1	03/28/22 19:04	
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.20	1	03/28/22 19:04	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	03/28/22 19:04	
1,1,2-Trichloroethane	1.0 U	1.0	0.20	1	03/28/22 19:04	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	03/28/22 19:04	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.20	1	03/28/22 19:04	
1,2,3-Trichloropropane	1.0 U	1.0	0.26	1	03/28/22 19:04	
1,2-Dibromo-3-chloropropane (DBCP)	2.0 U	2.0	0.45	1	03/28/22 19:04	
1,2-Dibromoethane	1.0 U	1.0	0.20	1	03/28/22 19:04	
1,2-Dichlorobenzene	1.0 U	1.0	0.20	1	03/28/22 19:04	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	03/28/22 19:04	
1,2-Dichloropropane	1.0 U	1.0	0.20	1	03/28/22 19:04	
1,4-Dichlorobenzene	1.0 U	1.0	0.20	1	03/28/22 19:04	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	03/28/22 19:04	
2-Hexanone	5.0 U	5.0	0.20	1	03/28/22 19:04	
4-Methyl-2-pentanone	5.0 U	5.0	0.20	1	03/28/22 19:04	
Acetone	5.0 U	5.0	5.0	1	03/28/22 19:04	
Acrylonitrile	10 U	10	0.90	1	03/28/22 19:04	
Benzene	1.0 U	1.0	0.20	1	03/28/22 19:04	
Bromochloromethane	1.0 U	1.0	0.20	1	03/28/22 19:04	
Bromodichloromethane	1.0 U	1.0	0.20	1	03/28/22 19:04	
Bromoform	1.0 U	1.0	0.25	1	03/28/22 19:04	
Bromomethane	1.0 U	1.0	0.70	1	03/28/22 19:04	
Carbon Disulfide	1.0 U	1.0	0.42	1	03/28/22 19:04	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	03/28/22 19:04	
Chlorobenzene	1.0 U	1.0	0.20	1	03/28/22 19:04	
Chloroethane	1.0 U	1.0	0.23	1	03/28/22 19:04	
Chloroform	1.0 U	1.0	0.24	1	03/28/22 19:04	
Chloromethane	1.0 U	1.0	0.28	1	03/28/22 19:04	
Dibromochloromethane	1.0 U	1.0	0.20	1	03/28/22 19:04	
Dibromomethane	1.0 U	1.0	0.20	1	03/28/22 19:04	
Methylene Chloride	1.0 U	1.0	0.65	1	03/28/22 19:04	
Ethylbenzene	1.0 U	1.0	0.20	1	03/28/22 19:04	
Iodomethane	5.0 U	5.0	4.3	1	03/28/22 19:04	
Styrene	1.0 U	1.0	0.20	1	03/28/22 19:04	
Tetrachloroethene (PCE)	1.0 U	1.0	0.21	1	03/28/22 19:04	
Toluene	1.0 U	1.0	0.20	1	03/28/22 19:04	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	03/28/22 19:04	
Trichlorofluoromethane (CFC 11)	1.0 U	1.0	0.24	1	03/28/22 19:04	
Vinyl Acetate	2.0 U	2.0	1.1	1	03/28/22 19:04	
Vinyl Chloride	1.0 U	1.0	0.20	1	03/28/22 19:04	
Xylenes, Total	3.0 U	3.0	0.23	1	03/28/22 19:04	
cis-1,2-Dichloroethene	1.0 U	1.0	0.23	1	03/28/22 19:04	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Collected: 03/23/22 11:45
Date Received: 03/24/22 08:20

Sample Name: 9-NIA-003-002-02
Lab Code: R2202553-002

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
cis-1,3-Dichloropropene	1.0 U	1.0	0.20	1	03/28/22 19:04	
m,p-Xylenes	2.0 U	2.0	0.20	1	03/28/22 19:04	
o-Xylene	1.0 U	1.0	0.20	1	03/28/22 19:04	
trans-1,2-Dichloroethene	1.0 U	1.0	0.20	1	03/28/22 19:04	
trans-1,3-Dichloropropene	1.0 U	1.0	0.23	1	03/28/22 19:04	
trans-1,4-Dichloro-2-butene	1.0 U	1.0	0.78	1	03/28/22 19:04	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85 - 122	03/28/22 19:04	
Dibromofluoromethane	101	80 - 116	03/28/22 19:04	
Toluene-d8	105	87 - 121	03/28/22 19:04	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Collected: 03/23/22 13:15
Date Received: 03/24/22 08:20

Sample Name: 9-NIA-003-002-03
Lab Code: R2202553-003

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	1.0 U	1.0	0.20	1	03/28/22 19:26	
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.20	1	03/28/22 19:26	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	03/28/22 19:26	
1,1,2-Trichloroethane	1.0 U	1.0	0.20	1	03/28/22 19:26	
1,1-Dichloroethane (1,1-DCA)	0.23 J	1.0	0.20	1	03/28/22 19:26	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.20	1	03/28/22 19:26	
1,2,3-Trichloropropane	1.0 U	1.0	0.26	1	03/28/22 19:26	
1,2-Dibromo-3-chloropropane (DBCP)	2.0 U	2.0	0.45	1	03/28/22 19:26	
1,2-Dibromoethane	1.0 U	1.0	0.20	1	03/28/22 19:26	
1,2-Dichlorobenzene	1.0 U	1.0	0.20	1	03/28/22 19:26	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	03/28/22 19:26	
1,2-Dichloropropane	1.0 U	1.0	0.20	1	03/28/22 19:26	
1,4-Dichlorobenzene	1.0 U	1.0	0.20	1	03/28/22 19:26	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	03/28/22 19:26	
2-Hexanone	5.0 U	5.0	0.20	1	03/28/22 19:26	
4-Methyl-2-pentanone	5.0 U	5.0	0.20	1	03/28/22 19:26	
Acetone	5.0 U	5.0	5.0	1	03/28/22 19:26	
Acrylonitrile	10 U	10	0.90	1	03/28/22 19:26	
Benzene	1.0 U	1.0	0.20	1	03/28/22 19:26	
Bromochloromethane	1.0 U	1.0	0.20	1	03/28/22 19:26	
Bromodichloromethane	1.0 U	1.0	0.20	1	03/28/22 19:26	
Bromoform	1.0 U	1.0	0.25	1	03/28/22 19:26	
Bromomethane	1.0 U	1.0	0.70	1	03/28/22 19:26	
Carbon Disulfide	1.0 U	1.0	0.42	1	03/28/22 19:26	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	03/28/22 19:26	
Chlorobenzene	1.0 U	1.0	0.20	1	03/28/22 19:26	
Chloroethane	1.0 U	1.0	0.23	1	03/28/22 19:26	
Chloroform	1.0 U	1.0	0.24	1	03/28/22 19:26	
Chloromethane	1.0 U	1.0	0.28	1	03/28/22 19:26	
Dibromochloromethane	1.0 U	1.0	0.20	1	03/28/22 19:26	
Dibromomethane	1.0 U	1.0	0.20	1	03/28/22 19:26	
Methylene Chloride	1.0 U	1.0	0.65	1	03/28/22 19:26	
Ethylbenzene	1.0 U	1.0	0.20	1	03/28/22 19:26	
Iodomethane	5.0 U	5.0	4.3	1	03/28/22 19:26	
Styrene	1.0 U	1.0	0.20	1	03/28/22 19:26	
Tetrachloroethene (PCE)	1.0 U	1.0	0.21	1	03/28/22 19:26	
Toluene	1.0 U	1.0	0.20	1	03/28/22 19:26	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	03/28/22 19:26	
Trichlorofluoromethane (CFC 11)	1.0 U	1.0	0.24	1	03/28/22 19:26	
Vinyl Acetate	2.0 U	2.0	1.1	1	03/28/22 19:26	
Vinyl Chloride	1.0 U	1.0	0.20	1	03/28/22 19:26	
Xylenes, Total	3.0 U	3.0	0.23	1	03/28/22 19:26	
cis-1,2-Dichloroethene	1.0 U	1.0	0.23	1	03/28/22 19:26	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Collected: 03/23/22 13:15
Date Received: 03/24/22 08:20

Sample Name: 9-NIA-003-002-03
Lab Code: R2202553-003

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
cis-1,3-Dichloropropene	1.0 U	1.0	0.20	1	03/28/22 19:26	
m,p-Xylenes	2.0 U	2.0	0.20	1	03/28/22 19:26	
o-Xylene	1.0 U	1.0	0.20	1	03/28/22 19:26	
trans-1,2-Dichloroethene	1.0 U	1.0	0.20	1	03/28/22 19:26	
trans-1,3-Dichloropropene	1.0 U	1.0	0.23	1	03/28/22 19:26	
trans-1,4-Dichloro-2-butene	1.0 U	1.0	0.78	1	03/28/22 19:26	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85 - 122	03/28/22 19:26	
Dibromofluoromethane	99	80 - 116	03/28/22 19:26	
Toluene-d8	103	87 - 121	03/28/22 19:26	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Collected: 03/23/22
Date Received: 03/24/22 08:20

Sample Name: 9-NIA-003-002-07
Lab Code: R2202553-006

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	1.0 U	1.0	0.20	1	03/28/22 17:59	
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.20	1	03/28/22 17:59	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	03/28/22 17:59	
1,1,2-Trichloroethane	1.0 U	1.0	0.20	1	03/28/22 17:59	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	03/28/22 17:59	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.20	1	03/28/22 17:59	
1,2,3-Trichloropropane	1.0 U	1.0	0.26	1	03/28/22 17:59	
1,2-Dibromo-3-chloropropane (DBCP)	2.0 U	2.0	0.45	1	03/28/22 17:59	
1,2-Dibromoethane	1.0 U	1.0	0.20	1	03/28/22 17:59	
1,2-Dichlorobenzene	1.0 U	1.0	0.20	1	03/28/22 17:59	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	03/28/22 17:59	
1,2-Dichloropropane	1.0 U	1.0	0.20	1	03/28/22 17:59	
1,4-Dichlorobenzene	1.0 U	1.0	0.20	1	03/28/22 17:59	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	03/28/22 17:59	
2-Hexanone	5.0 U	5.0	0.20	1	03/28/22 17:59	
4-Methyl-2-pentanone	5.0 U	5.0	0.20	1	03/28/22 17:59	
Acetone	5.0 U	5.0	5.0	1	03/28/22 17:59	
Acrylonitrile	10 U	10	0.90	1	03/28/22 17:59	
Benzene	1.0 U	1.0	0.20	1	03/28/22 17:59	
Bromochloromethane	1.0 U	1.0	0.20	1	03/28/22 17:59	
Bromodichloromethane	1.0 U	1.0	0.20	1	03/28/22 17:59	
Bromoform	1.0 U	1.0	0.25	1	03/28/22 17:59	
Bromomethane	1.0 U	1.0	0.70	1	03/28/22 17:59	
Carbon Disulfide	1.0 U	1.0	0.42	1	03/28/22 17:59	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	03/28/22 17:59	
Chlorobenzene	1.0 U	1.0	0.20	1	03/28/22 17:59	
Chloroethane	1.0 U	1.0	0.23	1	03/28/22 17:59	
Chloroform	1.0 U	1.0	0.24	1	03/28/22 17:59	
Chloromethane	1.0 U	1.0	0.28	1	03/28/22 17:59	
Dibromochloromethane	1.0 U	1.0	0.20	1	03/28/22 17:59	
Dibromomethane	1.0 U	1.0	0.20	1	03/28/22 17:59	
Methylene Chloride	1.0 U	1.0	0.65	1	03/28/22 17:59	
Ethylbenzene	1.0 U	1.0	0.20	1	03/28/22 17:59	
Iodomethane	5.0 U	5.0	4.3	1	03/28/22 17:59	
Styrene	1.0 U	1.0	0.20	1	03/28/22 17:59	
Tetrachloroethene (PCE)	1.0 U	1.0	0.21	1	03/28/22 17:59	
Toluene	1.0 U	1.0	0.20	1	03/28/22 17:59	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	03/28/22 17:59	
Trichlorofluoromethane (CFC 11)	1.0 U	1.0	0.24	1	03/28/22 17:59	
Vinyl Acetate	2.0 U	2.0	1.1	1	03/28/22 17:59	
Vinyl Chloride	1.0 U	1.0	0.20	1	03/28/22 17:59	
Xylenes, Total	3.0 U	3.0	0.23	1	03/28/22 17:59	
cis-1,2-Dichloroethene	1.0 U	1.0	0.23	1	03/28/22 17:59	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Collected: 03/23/22
Date Received: 03/24/22 08:20

Sample Name: 9-NIA-003-002-07
Lab Code: R2202553-006

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
cis-1,3-Dichloropropene	1.0 U	1.0	0.20	1	03/28/22 17:59	
m,p-Xylenes	2.0 U	2.0	0.20	1	03/28/22 17:59	
o-Xylene	1.0 U	1.0	0.20	1	03/28/22 17:59	
trans-1,2-Dichloroethene	1.0 U	1.0	0.20	1	03/28/22 17:59	
trans-1,3-Dichloropropene	1.0 U	1.0	0.23	1	03/28/22 17:59	
trans-1,4-Dichloro-2-butene	1.0 U	1.0	0.78	1	03/28/22 17:59	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85 - 122	03/28/22 17:59	
Dibromofluoromethane	99	80 - 116	03/28/22 17:59	
Toluene-d8	105	87 - 121	03/28/22 17:59	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Collected: 03/23/22 14:00
Date Received: 03/24/22 08:20

Sample Name: 9-NIA-003-002-04
Lab Code: R2202553-007

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	1.0 U	1.0	0.20	1	03/28/22 18:21	
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.20	1	03/28/22 18:21	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	03/28/22 18:21	
1,1,2-Trichloroethane	1.0 U	1.0	0.20	1	03/28/22 18:21	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	03/28/22 18:21	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.20	1	03/28/22 18:21	
1,2,3-Trichloropropane	1.0 U	1.0	0.26	1	03/28/22 18:21	
1,2-Dibromo-3-chloropropane (DBCP)	2.0 U	2.0	0.45	1	03/28/22 18:21	
1,2-Dibromoethane	1.0 U	1.0	0.20	1	03/28/22 18:21	
1,2-Dichlorobenzene	1.0 U	1.0	0.20	1	03/28/22 18:21	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	03/28/22 18:21	
1,2-Dichloropropane	1.0 U	1.0	0.20	1	03/28/22 18:21	
1,4-Dichlorobenzene	1.0 U	1.0	0.20	1	03/28/22 18:21	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	03/28/22 18:21	
2-Hexanone	5.0 U	5.0	0.20	1	03/28/22 18:21	
4-Methyl-2-pentanone	5.0 U	5.0	0.20	1	03/28/22 18:21	
Acetone	5.0 U	5.0	5.0	1	03/28/22 18:21	
Acrylonitrile	10 U	10	0.90	1	03/28/22 18:21	
Benzene	1.0 U	1.0	0.20	1	03/28/22 18:21	
Bromochloromethane	1.0 U	1.0	0.20	1	03/28/22 18:21	
Bromodichloromethane	1.0 U	1.0	0.20	1	03/28/22 18:21	
Bromoform	1.0 U	1.0	0.25	1	03/28/22 18:21	
Bromomethane	1.0 U	1.0	0.70	1	03/28/22 18:21	
Carbon Disulfide	1.0 U	1.0	0.42	1	03/28/22 18:21	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	03/28/22 18:21	
Chlorobenzene	1.0 U	1.0	0.20	1	03/28/22 18:21	
Chloroethane	1.0 U	1.0	0.23	1	03/28/22 18:21	
Chloroform	1.0 U	1.0	0.24	1	03/28/22 18:21	
Chloromethane	1.0 U	1.0	0.28	1	03/28/22 18:21	
Dibromochloromethane	1.0 U	1.0	0.20	1	03/28/22 18:21	
Dibromomethane	1.0 U	1.0	0.20	1	03/28/22 18:21	
Methylene Chloride	1.0 U	1.0	0.65	1	03/28/22 18:21	
Ethylbenzene	1.0 U	1.0	0.20	1	03/28/22 18:21	
Iodomethane	5.0 U	5.0	4.3	1	03/28/22 18:21	
Styrene	1.0 U	1.0	0.20	1	03/28/22 18:21	
Tetrachloroethene (PCE)	1.0 U	1.0	0.21	1	03/28/22 18:21	
Toluene	1.0 U	1.0	0.20	1	03/28/22 18:21	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	03/28/22 18:21	
Trichlorofluoromethane (CFC 11)	1.0 U	1.0	0.24	1	03/28/22 18:21	
Vinyl Acetate	2.0 U	2.0	1.1	1	03/28/22 18:21	
Vinyl Chloride	1.0 U	1.0	0.20	1	03/28/22 18:21	
Xylenes, Total	3.0 U	3.0	0.23	1	03/28/22 18:21	
cis-1,2-Dichloroethene	1.0 U	1.0	0.23	1	03/28/22 18:21	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Sample Name: 9-NIA-003-002-04
Lab Code: R2202553-007

Service Request: R2202553
Date Collected: 03/23/22 14:00
Date Received: 03/24/22 08:20

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
cis-1,3-Dichloropropene	1.0 U	1.0	0.20	1	03/28/22 18:21	
m,p-Xylenes	2.0 U	2.0	0.20	1	03/28/22 18:21	
o-Xylene	1.0 U	1.0	0.20	1	03/28/22 18:21	
trans-1,2-Dichloroethene	1.0 U	1.0	0.20	1	03/28/22 18:21	
trans-1,3-Dichloropropene	1.0 U	1.0	0.23	1	03/28/22 18:21	
trans-1,4-Dichloro-2-butene	1.0 U	1.0	0.78	1	03/28/22 18:21	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	85 - 122	03/28/22 18:21	
Dibromofluoromethane	102	80 - 116	03/28/22 18:21	
Toluene-d8	107	87 - 121	03/28/22 18:21	



Semivolatile Organic Compounds by GC/MS

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Collected: 03/23/22 09:55
Date Received: 03/24/22 08:20

Sample Name: 9-NIA-003-002-01
Lab Code: R2202553-001

Units: ug/L
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Acenaphthene	0.20 U	0.20	0.055	1	04/04/22 20:09	3/29/22	
Acenaphthylene	0.20 U	0.20	0.053	1	04/04/22 20:09	3/29/22	
Anthracene	0.20 U	0.20	0.071	1	04/04/22 20:09	3/29/22	
Benz(a)anthracene	0.20 U	0.20	0.087	1	04/04/22 20:09	3/29/22	
Benzo(b)fluoranthene	0.20 U	0.20	0.065	1	04/04/22 20:09	3/29/22	
Benzo(k)fluoranthene	0.20 U	0.20	0.070	1	04/04/22 20:09	3/29/22	
Benzo(g,h,i)perylene	0.20 U	0.20	0.11	1	04/04/22 20:09	3/29/22	
Benzo(a)pyrene	0.080 J	0.20	0.075	1	04/04/22 20:09	3/29/22	
Chrysene	0.20 U	0.20	0.089	1	04/04/22 20:09	3/29/22	
Dibenz(a,h)anthracene	0.20 U	0.20	0.095	1	04/04/22 20:09	3/29/22	
Fluoranthene	0.20 U	0.20	0.098	1	04/04/22 20:09	3/29/22	
Fluorene	0.20 U	0.20	0.065	1	04/04/22 20:09	3/29/22	
Indeno(1,2,3-cd)pyrene	0.20 U	0.20	0.11	1	04/04/22 20:09	3/29/22	
Naphthalene	0.20 U	0.20	0.058	1	04/04/22 20:09	3/29/22	
Phenanthrene	0.20 U	0.20	0.10	1	04/04/22 20:09	3/29/22	
Pyrene	0.20 U	0.20	0.11	1	04/04/22 20:09	3/29/22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	69	27 - 133	04/04/22 20:09	
Nitrobenzene-d5	63	31 - 167	04/04/22 20:09	
p-Terphenyl-d14	82	25 - 151	04/04/22 20:09	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Collected: 03/23/22 11:45
Date Received: 03/24/22 08:20

Sample Name: 9-NIA-003-002-02
Lab Code: R2202553-002

Units: ug/L
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Acenaphthene	0.87	0.20	0.055	1	04/04/22 20:37	3/29/22	
Acenaphthylene	0.20 U	0.20	0.053	1	04/04/22 20:37	3/29/22	
Anthracene	0.20 U	0.20	0.071	1	04/04/22 20:37	3/29/22	
Benz(a)anthracene	0.20 U	0.20	0.087	1	04/04/22 20:37	3/29/22	
Benzo(b)fluoranthene	0.20 U	0.20	0.065	1	04/04/22 20:37	3/29/22	
Benzo(k)fluoranthene	0.20 U	0.20	0.070	1	04/04/22 20:37	3/29/22	
Benzo(g,h,i)perylene	0.20 U	0.20	0.11	1	04/04/22 20:37	3/29/22	
Benzo(a)pyrene	0.20 U	0.20	0.075	1	04/04/22 20:37	3/29/22	
Chrysene	0.20 U	0.20	0.089	1	04/04/22 20:37	3/29/22	
Dibenz(a,h)anthracene	0.20 U	0.20	0.095	1	04/04/22 20:37	3/29/22	
Fluoranthene	0.20 U	0.20	0.098	1	04/04/22 20:37	3/29/22	
Fluorene	0.69	0.20	0.065	1	04/04/22 20:37	3/29/22	
Indeno(1,2,3-cd)pyrene	0.20 U	0.20	0.11	1	04/04/22 20:37	3/29/22	
Naphthalene	0.20 U	0.20	0.058	1	04/04/22 20:37	3/29/22	
Phenanthrene	0.20 U	0.20	0.10	1	04/04/22 20:37	3/29/22	
Pyrene	0.20 U	0.20	0.11	1	04/04/22 20:37	3/29/22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	72	27 - 133	04/04/22 20:37	
Nitrobenzene-d5	64	31 - 167	04/04/22 20:37	
p-Terphenyl-d14	87	25 - 151	04/04/22 20:37	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Collected: 03/23/22 13:15
Date Received: 03/24/22 08:20

Sample Name: 9-NIA-003-002-03
Lab Code: R2202553-003

Units: ug/L
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Acenaphthene	0.20 U	0.20	0.057	1	04/04/22 21:06	3/29/22	
Acenaphthylene	0.20 U	0.20	0.055	1	04/04/22 21:06	3/29/22	
Anthracene	0.20 U	0.20	0.073	1	04/04/22 21:06	3/29/22	
Benz(a)anthracene	0.20 U	0.20	0.089	1	04/04/22 21:06	3/29/22	
Benzo(b)fluoranthene	0.20 U	0.20	0.067	1	04/04/22 21:06	3/29/22	
Benzo(k)fluoranthene	0.20 U	0.20	0.072	1	04/04/22 21:06	3/29/22	
Benzo(g,h,i)perylene	0.20 U	0.20	0.12	1	04/04/22 21:06	3/29/22	
Benzo(a)pyrene	0.20 U	0.20	0.077	1	04/04/22 21:06	3/29/22	
Chrysene	0.20 U	0.20	0.091	1	04/04/22 21:06	3/29/22	
Dibenz(a,h)anthracene	0.20 U	0.20	0.097	1	04/04/22 21:06	3/29/22	
Fluoranthene	0.20 U	0.20	0.10	1	04/04/22 21:06	3/29/22	
Fluorene	0.089 J	0.20	0.067	1	04/04/22 21:06	3/29/22	
Indeno(1,2,3-cd)pyrene	0.20 U	0.20	0.12	1	04/04/22 21:06	3/29/22	
Naphthalene	0.20 U	0.20	0.060	1	04/04/22 21:06	3/29/22	
Phenanthrene	0.20 U	0.20	0.11	1	04/04/22 21:06	3/29/22	
Pyrene	0.20 U	0.20	0.12	1	04/04/22 21:06	3/29/22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	74	27 - 133	04/04/22 21:06	
Nitrobenzene-d5	68	31 - 167	04/04/22 21:06	
p-Terphenyl-d14	91	25 - 151	04/04/22 21:06	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Collected: 03/23/22 14:00
Date Received: 03/24/22 08:20

Sample Name: 9-NIA-003-002-04
Lab Code: R2202553-007

Units: ug/L
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Acenaphthene	0.20 U	0.20	0.055	1	04/04/22 21:35	3/29/22	
Acenaphthylene	0.20 U	0.20	0.053	1	04/04/22 21:35	3/29/22	
Anthracene	0.20 U	0.20	0.071	1	04/04/22 21:35	3/29/22	
Benz(a)anthracene	0.20 U	0.20	0.087	1	04/04/22 21:35	3/29/22	
Benzo(b)fluoranthene	0.20 U	0.20	0.065	1	04/04/22 21:35	3/29/22	
Benzo(k)fluoranthene	0.20 U	0.20	0.070	1	04/04/22 21:35	3/29/22	
Benzo(g,h,i)perylene	0.20 U	0.20	0.11	1	04/04/22 21:35	3/29/22	
Benzo(a)pyrene	0.20 U	0.20	0.075	1	04/04/22 21:35	3/29/22	
Chrysene	0.20 U	0.20	0.089	1	04/04/22 21:35	3/29/22	
Dibenz(a,h)anthracene	0.20 U	0.20	0.095	1	04/04/22 21:35	3/29/22	
Fluoranthene	0.20 U	0.20	0.098	1	04/04/22 21:35	3/29/22	
Fluorene	0.20 U	0.20	0.065	1	04/04/22 21:35	3/29/22	
Indeno(1,2,3-cd)pyrene	0.20 U	0.20	0.11	1	04/04/22 21:35	3/29/22	
Naphthalene	0.20 U	0.20	0.058	1	04/04/22 21:35	3/29/22	
Phenanthrene	0.20 U	0.20	0.10	1	04/04/22 21:35	3/29/22	
Pyrene	0.20 U	0.20	0.11	1	04/04/22 21:35	3/29/22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	68	27 - 133	04/04/22 21:35	
Nitrobenzene-d5	62	31 - 167	04/04/22 21:35	
p-Terphenyl-d14	92	25 - 151	04/04/22 21:35	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Collected: 03/23/22 09:55
Date Received: 03/24/22 08:20

Sample Name: 9-NIA-003-002-01
Lab Code: R2202553-001

Units: ug/L
Basis: NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	0.11	0.040	0.027	1	04/04/22 18:35	3/29/22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,4-Dioxane-d8	119	64 - 124	04/04/22 18:35	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Collected: 03/23/22 11:45
Date Received: 03/24/22 08:20

Sample Name: 9-NIA-003-002-02
Lab Code: R2202553-002

Units: ug/L
Basis: NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	0.040 U	0.040	0.027	1	03/30/22 13:06	3/29/22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,4-Dioxane-d8	116	64 - 124	03/30/22 13:06	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Collected: 03/23/22 13:15
Date Received: 03/24/22 08:20

Sample Name: 9-NIA-003-002-03
Lab Code: R2202553-003

Units: ug/L
Basis: NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	0.055	0.040	0.027	1	04/04/22 18:52	3/29/22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,4-Dioxane-d8	112	64 - 124	04/04/22 18:52	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Sample Name: 9-NIA-003-002-04
Lab Code: R2202553-007

Service Request: R2202553
Date Collected: 03/23/22 14:00
Date Received: 03/24/22 08:20

Units: ug/L
Basis: NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	0.040 U	0.040	0.027	1	03/30/22 13:41	3/29/22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,4-Dioxane-d8	123	64 - 124	03/30/22 13:41	



Metals

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METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: Parsons	Service Request: 9-NIA-003-002-01
Project No.: R2202553	Date Collected: 3/23/2022
Project Name:	Date Received: 3/24/2022
Matrix: WATER	Units: ug/L
	Basis:

Sample Name: 9-NIA-003-002-01	Lab Code: R2202553-001
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Analyte	Analysis Method	PQL	MDL	Dil. Factor	Result	C	Q
Aluminum	6010C	100	23.0	1.0	24.2	J	
Antimony	6010C	60.0	6.3	1.0	60.0	U	
Arsenic	6010C	10.0	5.5	1.0	10.0	U	
Barium	6010C	20.0	3.0	1.0	982		
Beryllium	6010C	3.0	0.130	1.0	3.0	U	
Boron	6010C	200	12.0	1.0	598		
Cadmium	6010C	5.0	0.350	1.0	5.0	U	
Mercury	7470A	0.200	0.077	1.0	0.200	U	
Calcium	6010C	1000	220	1.0	220000		
Chromium	6010C	10.0	1.4	1.0	10.0	U	
Cobalt	6010C	50.0	0.890	1.0	50.0	U	
Copper	6010C	20.0	3.9	1.0	20.0	U	
Iron	6010C	100	61.0	1.0	27500		
Lead	6010C	50.0	2.1	1.0	50.0	U	
Magnesium	6010C	1000	29.0	1.0	64600		
Manganese	6010C	10.0	3.7	1.0	425		
Nickel	6010C	40.0	2.6	1.0	2.7	J	
Potassium	6010C	2000	380	1.0	31300		
Selenium	6010C	10.0	6.4	1.0	10.0	U	
Silver	6010C	10.0	0.570	1.0	10.0	U	
Sodium	6010C	1000	130	1.0	53000		
Thallium	6010C	10.0	6.6	1.0	10.0	U	
Vanadium	6010C	50.0	0.670	1.0	50.0	U	
Zinc	6010C	20.0	2.4	1.0	6.3	J	

% Solids: 0.0

Comments:

METALS
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INORGANIC ANALYSIS DATA PACKAGE

Client: Parsons	Service Request: 9-NIA-003-002-01
Project No.: R2202553	Date Collected: 3/23/2022
Project Name:	Date Received: 3/24/2022
Matrix: WATER	Units: ug/L
	Basis:

Sample Name: 9-NIA-003-002-02	Lab Code: R2202553-002
-------------------------------	------------------------

Analyte	Analysis Method	PQL	MDL	Dil. Factor	Result	C	Q
Aluminum	6010C	100	23.0	1.0	26.5	J	
Antimony	6010C	60.0	6.3	1.0	60.0	U	
Arsenic	6010C	10.0	5.5	1.0	10.0	U	
Barium	6010C	20.0	3.0	1.0	139		
Beryllium	6010C	3.0	0.130	1.0	3.0	U	
Boron	6010C	200	12.0	1.0	34.0	J	
Cadmium	6010C	5.0	0.350	1.0	5.0	U	
Mercury	7470A	0.200	0.077	1.0	0.200	U	
Calcium	6010C	1000	220	1.0	57800		
Chromium	6010C	10.0	1.4	1.0	10.0	U	
Cobalt	6010C	50.0	0.890	1.0	50.0	U	
Copper	6010C	20.0	3.9	1.0	20.0	U	
Iron	6010C	100	61.0	1.0	9470		
Lead	6010C	50.0	2.1	1.0	50.0	U	
Magnesium	6010C	1000	29.0	1.0	24200		
Manganese	6010C	10.0	3.7	1.0	140		
Nickel	6010C	40.0	2.6	1.0	40.0	U	
Potassium	6010C	2000	380	1.0	1850	J	
Selenium	6010C	10.0	6.4	1.0	10.0	U	
Silver	6010C	10.0	0.570	1.0	10.0	U	
Sodium	6010C	1000	130	1.0	2870		
Thallium	6010C	10.0	6.6	1.0	10.0	U	
Vanadium	6010C	50.0	0.670	1.0	50.0	U	
Zinc	6010C	20.0	2.4	1.0	68.1		

% Solids: 0.0

Comments:

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: Parsons	Service Request: 9-NIA-003-002-01
Project No.: R2202553	Date Collected: 3/23/2022
Project Name:	Date Received: 3/24/2022
Matrix: WATER	Units: ug/L
	Basis:

Sample Name: 9-NIA-003-002-03	Lab Code: R2202553-003
-------------------------------	------------------------

Analyte	Analysis Method	PQL	MDL	Dil. Factor	Result	C	Q
Aluminum	6010C	100	23.0	1.0	31.3	J	
Antimony	6010C	60.0	6.3	1.0	60.0	U	
Arsenic	6010C	10.0	5.5	1.0	10.0	U	
Barium	6010C	20.0	3.0	1.0	998		
Beryllium	6010C	3.0	0.130	1.0	3.0	U	
Boron	6010C	200	12.0	1.0	596		
Cadmium	6010C	5.0	0.350	1.0	0.600	J	
Mercury	7470A	0.200	0.077	1.0	0.200	U	
Calcium	6010C	1000	220	1.0	232000		
Chromium	6010C	10.0	1.4	1.0	10.0	U	
Cobalt	6010C	50.0	0.890	1.0	50.0	U	
Copper	6010C	20.0	3.9	1.0	20.0	U	
Iron	6010C	100	61.0	1.0	40200		
Lead	6010C	50.0	2.1	1.0	50.0	U	
Magnesium	6010C	1000	29.0	1.0	40800		
Manganese	6010C	10.0	3.7	1.0	378		
Nickel	6010C	40.0	2.6	1.0	3.6	J	
Potassium	6010C	2000	380	1.0	16500		
Selenium	6010C	10.0	6.4	1.0	10.0	U	
Silver	6010C	10.0	0.570	1.0	10.0	U	
Sodium	6010C	1000	130	1.0	45200		
Thallium	6010C	10.0	6.6	1.0	10.0	U	
Vanadium	6010C	50.0	0.670	1.0	50.0	U	
Zinc	6010C	20.0	2.4	1.0	8.2	J	

% Solids: 0.0

Comments:

METALS
- 1 -
INORGANIC ANALYSIS DATA PACKAGE

Client: Parsons	Service Request: 9-NIA-003-002-01
Project No.: R2202553	Date Collected: 3/23/2022
Project Name:	Date Received: 3/24/2022
Matrix: WATER	Units: ug/L
	Basis:

Sample Name: 9-NIA-003-002-04	Lab Code: R2202553-007
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Analyte	Analysis Method	PQL	MDL	Dil. Factor	Result	C	Q
Aluminum	6010C	100	23.0	1.0	100	U	
Antimony	6010C	60.0	6.3	1.0	60.0	U	
Arsenic	6010C	10.0	5.5	1.0	10.0	U	
Barium	6010C	20.0	3.0	1.0	20.0	U	
Beryllium	6010C	3.0	0.130	1.0	3.0	U	
Boron	6010C	200	12.0	1.0	200	U	
Cadmium	6010C	5.0	0.350	1.0	5.0	U	
Mercury	7470A	0.200	0.077	1.0	0.200	U	
Calcium	6010C	1000	220	1.0	1000	U	
Chromium	6010C	10.0	1.4	1.0	10.0	U	
Cobalt	6010C	50.0	0.890	1.0	50.0	U	
Copper	6010C	20.0	3.9	1.0	20.0	U	
Iron	6010C	100	61.0	1.0	100	U	
Lead	6010C	50.0	2.1	1.0	50.0	U	
Magnesium	6010C	1000	29.0	1.0	1000	U	
Manganese	6010C	10.0	3.7	1.0	10.0	U	
Nickel	6010C	40.0	2.6	1.0	40.0	U	
Potassium	6010C	2000	380	1.0	2000	U	
Selenium	6010C	10.0	6.4	1.0	10.0	U	
Silver	6010C	10.0	0.570	1.0	10.0	U	
Sodium	6010C	1000	130	1.0	287	J	
Thallium	6010C	10.0	6.6	1.0	10.0	U	
Vanadium	6010C	50.0	0.670	1.0	50.0	U	
Zinc	6010C	20.0	2.4	1.0	20.0	U	

% Solids: 0.0

Comments:



General Chemistry

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water
Sample Name: 9-NIA-003-002-01
Lab Code: R2202553-001

Service Request: R2202553
Date Collected: 03/23/22 09:55
Date Received: 03/24/22 08:20

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Q
Alkalinity, Total as CaCO ₃	SM 2320 B-1997(2011)	848	mg/L	6.0	5.4	3	03/29/22 07:50	
Ammonia as Nitrogen, undistilled	350.1	11.7	mg/L	1.0	0.6	20	03/29/22 22:09	
Bromide	300.0	1.0 U	mg/L	1.0	0.4	10	03/27/22 08:03	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	13.0	mg/L	1.0	0.5	1	03/31/22 21:00	
Chemical Oxygen Demand, Total	410.4	34.7	mg/L	5.0	3.8	1	03/25/22 18:35	
Chloride	300.0	54.1	mg/L	2.0	0.5	10	03/27/22 08:03	
Hardness, Total as CaCO ₃	SM 2340 C-1997(2011)	800	mg/L	20	7	1	03/28/22 15:30	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	973	mg/L	10	9	1	03/25/22 12:30	
Sulfate	300.0	17.5	mg/L	2.0	0.4	10	03/27/22 08:03	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water
Sample Name: 9-NIA-003-002-02
Lab Code: R2202553-002

Service Request: R2202553
Date Collected: 03/23/22 11:45
Date Received: 03/24/22 08:20
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Q
Alkalinity, Total as CaCO ₃	SM 2320 B-1997(2011)	228	mg/L	2.0	1.8	1	03/25/22 17:45	
Ammonia as Nitrogen, undistilled	350.1	0.440	mg/L	0.050	0.026	1	03/29/22 21:00	
Bromide	300.0	1.0 U	mg/L	1.0	0.4	10	03/27/22 08:10	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	4.8	mg/L	1.0	0.5	1	03/31/22 21:21	
Chemical Oxygen Demand, Total	410.4	8.9	mg/L	5.0	3.8	1	03/25/22 18:35	
Chloride	300.0	2.9	mg/L	2.0	0.5	10	03/27/22 08:10	
Hardness, Total as CaCO ₃	SM 2340 C-1997(2011)	255	mg/L	20	7	1	03/28/22 15:30	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	254	mg/L	10	9	1	03/25/22 12:30	
Sulfate	300.0	3.6	mg/L	2.0	0.4	10	03/27/22 08:10	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water
Sample Name: 9-NIA-003-002-03
Lab Code: R2202553-003

Service Request: R2202553
Date Collected: 03/23/22 13:15
Date Received: 03/24/22 08:20

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Q
Alkalinity, Total as CaCO ₃	SM 2320 B-1997(2011)	748	mg/L	6.0	5.4	3	03/29/22 07:58	
Ammonia as Nitrogen, undistilled	350.1	0.881	mg/L	0.050	0.026	1	03/29/22 21:02	
Bromide	300.0	1.0 U	mg/L	1.0	0.4	10	03/27/22 08:29	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	8.1	mg/L	1.0	0.5	1	03/31/22 21:41	
Chemical Oxygen Demand, Total	410.4	17.5	mg/L	5.0	3.8	1	03/25/22 18:35	
Chloride	300.0	54.8	mg/L	2.0	0.5	10	03/27/22 08:29	
Hardness, Total as CaCO ₃	SM 2340 C-1997(2011)	760	mg/L	20	7	1	03/28/22 15:30	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	903	mg/L	10	9	1	03/25/22 12:30	
Sulfate	300.0	2.4	mg/L	2.0	0.4	10	03/27/22 08:29	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water
Sample Name: 9-NIA-003-002-04
Lab Code: R2202553-007

Service Request: R2202553
Date Collected: 03/23/22 14:00
Date Received: 03/24/22 08:20

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	2.0 U	mg/L	2.0	1.8	1	03/25/22 15:14	
Ammonia as Nitrogen, undistilled	350.1	0.050 U	mg/L	0.050	0.026	1	03/29/22 21:03	
Bromide	300.0	1.0 U	mg/L	1.0	0.4	10	03/27/22 08:35	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	0.5	1	03/31/22 22:02	
Chemical Oxygen Demand, Total	410.4	5.0 U	mg/L	5.0	3.8	1	03/25/22 18:35	
Chloride	300.0	2.0 U	mg/L	2.0	0.5	10	03/27/22 08:35	
Hardness, Total as CaCO3	SM 2340 C-1997(2011)	2.0 U	mg/L	2.0	0.7	1	03/28/22 15:30	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	10 U	mg/L	10	9	1	03/25/22 12:30	
Sulfate	300.0	2.0 U	mg/L	2.0	0.4	10	03/27/22 08:35	



QC Summary Forms

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Volatile Organic Compounds by GC/MS

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: EPA 5030C

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		85-122	80-116	87-121
9-NIA-003-002-01	R2202553-001	101	101	103
9-NIA-003-002-02	R2202553-002	97	101	105
9-NIA-003-002-03	R2202553-003	98	99	103
9-NIA-003-002-07	R2202553-006	98	99	105
9-NIA-003-002-04	R2202553-007	103	102	107
Method Blank	RQ2203048-04	91	94	98
Lab Control Sample	RQ2203048-03	94	95	99

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ2203048-04

Service Request: R2202553
Date Collected: NA
Date Received: NA

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	1.0 U	1.0	0.20	1	03/28/22 12:59	
1,1,1-Trichloroethane (TCA)	1.0 U	1.0	0.20	1	03/28/22 12:59	
1,1,2,2-Tetrachloroethane	1.0 U	1.0	0.20	1	03/28/22 12:59	
1,1,2-Trichloroethane	1.0 U	1.0	0.20	1	03/28/22 12:59	
1,1-Dichloroethane (1,1-DCA)	1.0 U	1.0	0.20	1	03/28/22 12:59	
1,1-Dichloroethene (1,1-DCE)	1.0 U	1.0	0.20	1	03/28/22 12:59	
1,2,3-Trichloropropane	1.0 U	1.0	0.26	1	03/28/22 12:59	
1,2-Dibromo-3-chloropropane (DBCP)	2.0 U	2.0	0.45	1	03/28/22 12:59	
1,2-Dibromoethane	1.0 U	1.0	0.20	1	03/28/22 12:59	
1,2-Dichlorobenzene	1.0 U	1.0	0.20	1	03/28/22 12:59	
1,2-Dichloroethane	1.0 U	1.0	0.20	1	03/28/22 12:59	
1,2-Dichloropropane	1.0 U	1.0	0.20	1	03/28/22 12:59	
1,4-Dichlorobenzene	1.0 U	1.0	0.20	1	03/28/22 12:59	
2-Butanone (MEK)	5.0 U	5.0	0.78	1	03/28/22 12:59	
2-Hexanone	5.0 U	5.0	0.20	1	03/28/22 12:59	
4-Methyl-2-pentanone	5.0 U	5.0	0.20	1	03/28/22 12:59	
Acetone	5.0 U	5.0	5.0	1	03/28/22 12:59	
Acrylonitrile	10 U	10	0.90	1	03/28/22 12:59	
Benzene	1.0 U	1.0	0.20	1	03/28/22 12:59	
Bromochloromethane	1.0 U	1.0	0.20	1	03/28/22 12:59	
Bromodichloromethane	1.0 U	1.0	0.20	1	03/28/22 12:59	
Bromoform	1.0 U	1.0	0.25	1	03/28/22 12:59	
Bromomethane	1.0 U	1.0	0.70	1	03/28/22 12:59	
Carbon Disulfide	1.0 U	1.0	0.42	1	03/28/22 12:59	
Carbon Tetrachloride	1.0 U	1.0	0.34	1	03/28/22 12:59	
Chlorobenzene	1.0 U	1.0	0.20	1	03/28/22 12:59	
Chloroethane	1.0 U	1.0	0.23	1	03/28/22 12:59	
Chloroform	1.0 U	1.0	0.24	1	03/28/22 12:59	
Chloromethane	1.0 U	1.0	0.28	1	03/28/22 12:59	
Dibromochloromethane	1.0 U	1.0	0.20	1	03/28/22 12:59	
Dibromomethane	1.0 U	1.0	0.20	1	03/28/22 12:59	
Methylene Chloride	1.0 U	1.0	0.65	1	03/28/22 12:59	
Ethylbenzene	1.0 U	1.0	0.20	1	03/28/22 12:59	
Iodomethane	5.0 U	5.0	4.3	1	03/28/22 12:59	
Styrene	1.0 U	1.0	0.20	1	03/28/22 12:59	
Tetrachloroethene (PCE)	1.0 U	1.0	0.21	1	03/28/22 12:59	
Toluene	1.0 U	1.0	0.20	1	03/28/22 12:59	
Trichloroethene (TCE)	1.0 U	1.0	0.20	1	03/28/22 12:59	
Trichlorofluoromethane (CFC 11)	1.0 U	1.0	0.24	1	03/28/22 12:59	
Vinyl Acetate	2.0 U	2.0	1.1	1	03/28/22 12:59	
Vinyl Chloride	1.0 U	1.0	0.20	1	03/28/22 12:59	
Xylenes, Total	3.0 U	3.0	0.23	1	03/28/22 12:59	
cis-1,2-Dichloroethene	1.0 U	1.0	0.23	1	03/28/22 12:59	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ2203048-04

Service Request: R2202553
Date Collected: NA
Date Received: NA

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
cis-1,3-Dichloropropene	1.0 U	1.0	0.20	1	03/28/22 12:59	
m,p-Xylenes	2.0 U	2.0	0.20	1	03/28/22 12:59	
o-Xylene	1.0 U	1.0	0.20	1	03/28/22 12:59	
trans-1,2-Dichloroethene	1.0 U	1.0	0.20	1	03/28/22 12:59	
trans-1,3-Dichloropropene	1.0 U	1.0	0.23	1	03/28/22 12:59	
trans-1,4-Dichloro-2-butene	1.0 U	1.0	0.78	1	03/28/22 12:59	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	03/28/22 12:59	
Dibromofluoromethane	94	80 - 116	03/28/22 12:59	
Toluene-d8	98	87 - 121	03/28/22 12:59	

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Analyzed: 03/28/22

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ2203048-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	8260C	20.9	20.0	104	76-129
1,1,1-Trichloroethane (TCA)	8260C	18.8	20.0	94	75-125
1,1,2,2-Tetrachloroethane	8260C	19.8	20.0	99	78-126
1,1,2-Trichloroethane	8260C	20.1	20.0	100	82-121
1,1-Dichloroethane (1,1-DCA)	8260C	21.3	20.0	106	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	19.2	20.0	96	71-118
1,2,3-Trichloropropane	8260C	19.6	20.0	98	75-118
1,2-Dibromo-3-chloropropane (DBCP)	8260C	22.4	20.0	112	55-136
1,2-Dibromoethane	8260C	19.5	20.0	97	82-127
1,2-Dichlorobenzene	8260C	19.0	20.0	95	80-119
1,2-Dichloroethane	8260C	18.6	20.0	93	71-127
1,2-Dichloropropane	8260C	20.9	20.0	105	80-119
1,4-Dichlorobenzene	8260C	18.4	20.0	92	79-119
2-Butanone (MEK)	8260C	21.8	20.0	109	61-137
2-Hexanone	8260C	19.7	20.0	99	63-124
4-Methyl-2-pentanone	8260C	21.1	20.0	106	66-124
Acetone	8260C	21.9	20.0	109	40-161
Acrylonitrile	8260C	118	100	118	71-130
Benzene	8260C	19.7	20.0	98	79-119
Bromochloromethane	8260C	20.1	20.0	100	81-126
Bromodichloromethane	8260C	19.7	20.0	99	81-123
Bromoform	8260C	21.4	20.0	107	65-146
Bromomethane	8260C	16.6	20.0	83	42-166
Carbon Disulfide	8260C	17.3	20.0	86	66-128
Carbon Tetrachloride	8260C	18.3	20.0	92	70-127
Chlorobenzene	8260C	19.3	20.0	96	80-121
Chloroethane	8260C	21.3	20.0	106	62-131
Chloroform	8260C	19.0	20.0	95	79-120
Chloromethane	8260C	30.3	20.0	151 *	65-135
Dibromochloromethane	8260C	20.2	20.0	101	72-128
Dibromomethane	8260C	19.5	20.0	98	80-118
Methylene Chloride	8260C	20.1	20.0	101	73-122
Ethylbenzene	8260C	19.0	20.0	95	76-120

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Superset Reference:22-0000622284 rev 00

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Analyzed: 03/28/22

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ2203048-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Iodomethane	8260C	14.2	20.0	71	18-160
Styrene	8260C	19.9	20.0	100	80-124
Tetrachloroethene (PCE)	8260C	18.5	20.0	92	72-125
Toluene	8260C	19.3	20.0	97	79-119
Trichloroethene (TCE)	8260C	19.1	20.0	95	74-122
Trichlorofluoromethane (CFC 11)	8260C	17.4	20.0	87	71-136
Vinyl Acetate	8260C	22.3	20.0	112	52-174
Vinyl Chloride	8260C	23.9	20.0	120	74-159
cis-1,2-Dichloroethene	8260C	20.5	20.0	102	80-121
cis-1,3-Dichloropropene	8260C	21.3	20.0	107	77-122
m,p-Xylenes	8260C	40.0	40.0	100	80-126
o-Xylene	8260C	19.4	20.0	97	79-123
trans-1,2-Dichloroethene	8260C	20.3	20.0	101	73-118
trans-1,3-Dichloropropene	8260C	20.9	20.0	105	71-133
trans-1,4-Dichloro-2-butene	8260C	19.9	20.0	100	39-137



Semivolatile Organic Compounds by GC/MS

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553

SURROGATE RECOVERY SUMMARY
Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Extraction Method: EPA 3510C

Sample Name	Lab Code	2-Fluorobiphenyl	Nitrobenzene-d5	p-Terphenyl-d14
		27-133	31-167	25-151
9-NIA-003-002-01	R2202553-001	69	63	82
9-NIA-003-002-02	R2202553-002	72	64	87
9-NIA-003-002-03	R2202553-003	74	68	91
9-NIA-003-002-04	R2202553-007	68	62	92
Method Blank	RQ2203151-01	62	60	91
Lab Control Sample	RQ2203151-02	75	67	90
Duplicate Lab Control Sample	RQ2203151-03	80	73	91

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ2203151-01

Service Request: R2202553
Date Collected: NA
Date Received: NA

Units: ug/L
Basis: NA

Low Level Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Acenaphthene	0.20 U	0.20	0.055	1	04/04/22 15:51	3/29/22	
Acenaphthylene	0.20 U	0.20	0.053	1	04/04/22 15:51	3/29/22	
Anthracene	0.20 U	0.20	0.071	1	04/04/22 15:51	3/29/22	
Benz(a)anthracene	0.20 U	0.20	0.087	1	04/04/22 15:51	3/29/22	
Benzo(b)fluoranthene	0.20 U	0.20	0.065	1	04/04/22 15:51	3/29/22	
Benzo(k)fluoranthene	0.20 U	0.20	0.070	1	04/04/22 15:51	3/29/22	
Benzo(g,h,i)perylene	0.20 U	0.20	0.11	1	04/04/22 15:51	3/29/22	
Benzo(a)pyrene	0.20 U	0.20	0.075	1	04/04/22 15:51	3/29/22	
Chrysene	0.20 U	0.20	0.089	1	04/04/22 15:51	3/29/22	
Dibenz(a,h)anthracene	0.20 U	0.20	0.095	1	04/04/22 15:51	3/29/22	
Fluoranthene	0.20 U	0.20	0.098	1	04/04/22 15:51	3/29/22	
Fluorene	0.20 U	0.20	0.065	1	04/04/22 15:51	3/29/22	
Indeno(1,2,3-cd)pyrene	0.20 U	0.20	0.11	1	04/04/22 15:51	3/29/22	
Naphthalene	0.20 U	0.20	0.058	1	04/04/22 15:51	3/29/22	
Phenanthrene	0.20 U	0.20	0.10	1	04/04/22 15:51	3/29/22	
Pyrene	0.20 U	0.20	0.11	1	04/04/22 15:51	3/29/22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	62	27 - 133	04/04/22 15:51	
Nitrobenzene-d5	60	31 - 167	04/04/22 15:51	
p-Terphenyl-d14	91	25 - 151	04/04/22 15:51	

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Analyzed: 04/04/22

Duplicate Lab Control Sample Summary
Low Level Semivolatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Analyte Name	Analytical Method	Result	Lab Control Sample		Duplicate Lab Control Sample					RPD Limit
			Spike Amount	% Rec	Result	Spike Amount	% Rec	RPD		
Acenaphthene	8270D	4.24	6.00	71	4.55	6.00	76	48-118	7	30
Acenaphthylene	8270D	4.65	6.00	77	5.06	6.00	84	48-121	8	30
Anthracene	8270D	4.67	6.00	78	4.86	6.00	81	52-124	4	30
Benz(a)anthracene	8270D	4.36	6.00	73	4.54	6.00	76	54-120	4	30
Benzo(b)fluoranthene	8270D	4.97	6.00	83	5.05	6.00	84	57-117	2	30
Benzo(k)fluoranthene	8270D	5.13	6.00	85	5.12	6.00	85	59-123	<1	30
Benzo(g,h,i)perylene	8270D	4.88	6.00	81	4.63	6.00	77	47-154	5	30
Benzo(a)pyrene	8270D	5.68	6.00	95	5.69	6.00	95	57-124	<1	30
Chrysene	8270D	5.05	6.00	84	5.36	6.00	89	58-124	6	30
Dibenz(a,h)anthracene	8270D	4.34	6.00	72	3.93	6.00	65	43-147	10	30
Fluoranthene	8270D	4.87	6.00	81	4.94	6.00	82	50-117	1	30
Fluorene	8270D	4.54	6.00	76	4.89	6.00	82	47-107	8	30
Indeno(1,2,3-cd)pyrene	8270D	4.65	6.00	78	4.38	6.00	73	55-129	6	30
Naphthalene	8270D	3.26	6.00	54	3.54	6.00	59	37-114	8	30
Phenanthrene	8270D	4.40	6.00	73	4.53	6.00	76	54-116	3	30
Pyrene	8270D	4.87	6.00	81	5.14	6.00	86	56-123	5	30

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553

SURROGATE RECOVERY SUMMARY
1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Extraction Method: EPA 3535A

Sample Name	Lab Code	1,4-Dioxane-d8
		64-124
9-NIA-003-002-01	R2202553-001	119
9-NIA-003-002-02	R2202553-002	116
9-NIA-003-002-03	R2202553-003	112
9-NIA-003-002-04	R2202553-007	123
Method Blank	RQ2203149-01	121
Lab Control Sample	RQ2203149-02	114
Duplicate Lab Control Sample	RQ2203149-03	114

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ2203149-01

Service Request: R2202553
Date Collected: NA
Date Received: NA

Units: ug/L
Basis: NA

1,4-Dioxane by GC/MS

Analysis Method: 8270D SIM
Prep Method: EPA 3535A

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,4-Dioxane	0.040 U	0.040	0.027	1	03/30/22 10:12	3/29/22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,4-Dioxane-d8	121	64 - 124	03/30/22 10:12	

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Analyzed: 04/04/22

Duplicate Lab Control Sample Summary
1,4-Dioxane by GC/MS

Units:ug/L
Basis:NA

			Lab Control Sample			Duplicate Lab Control Sample				
			RQ2203149-02			RQ2203149-03				
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,4-Dioxane	8270D SIM	11.1	10.0	111	11.1	10.0	111	58-124	<1	30



Metals

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BLANKS

Contract: R2202553

Lab Code: Case No.: SAS No.: SDG NO.: 9-NIA-003-00

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L, ppt, or mg/kg): UG/L

Analyte	Initial Calib. Blank ug/L	Continuing Calibration Blank ug/L						Preparation Blank		M
		1	2	3						
Aluminum	23.00 U	23.00 U	23.00 U	23.00 U			23.000	U		P
Antimony	7.70 J	6.30 U	6.30 U	6.30 U			6.300	U		P
Arsenic	5.50 U	5.50 U	5.50 U	5.50 U			5.500	U		P
Barium	3.00 U	3.00 U	3.00 U	3.00 U			3.000	U		P
Beryllium	0.13 U	0.13 U	0.13 U	0.13 U			0.130	U		P
Boron	12.00 U	12.00 U	12.00 U	12.00 U			12.000	U		P
Cadmium	0.35 U	0.35 U	0.35 U	0.35 U			0.350	U		P
Mercury	0.077 U	0.077 U	0.077 U	0.077 U			0.077	U		CV
Calcium	220.00 U	220.00 U	220.00 U	220.00 U			220.000	U		P
Chromium	1.40 U	1.40 U	1.40 U	1.40 U			1.400	U		P
Cobalt	0.89 U	0.89 U	0.89 U	0.89 U			0.890	U		P
Copper	3.90 U	3.90 U	3.90 U	3.90 U			3.900	U		P
Iron	61.00 U	61.00 U	61.00 U	61.00 U			61.000	U		P
Lead	2.10 U	2.10 U	2.10 U	2.10 U			2.100	U		P
Magnesium	29.00 U	29.00 U	29.00 U	29.00 U			29.000	U		P
Manganese	3.70 U	3.70 U	3.70 U	3.70 U			3.700	U		P
Nickel	2.60 U	2.60 U	2.60 U	2.60 U			2.600	U		P
Potassium	380.00 U	380.00 U	380.00 U	380.00 U			380.000	U		P
Selenium	6.40 U	6.40 U	6.40 U	6.40 U			6.400	U		P
Silver	0.57 U	-0.60 J	-0.60 J	-0.60 J			0.570	U		P
Sodium	130.00 U	130.00 U	130.00 U	130.00 U			130.000	U		P
Thallium	6.60 U	6.60 U	6.60 U	6.60 U			6.600	U		P
Vanadium	0.67 U	0.67 U	0.67 U	0.67 U			0.670	U		P
Zinc	2.40 U	2.40 U	2.40 U	2.40 U			2.400	U		P

Comments:

METALS

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BLANKS

Contract: R2202553

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG NO.: 9-NIA-003-00

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L, ppt, or mg/kg): UG/L

Analyte	Initial Calib. Blank ug/L	C	Continuing Calibration Blank ug/L						Preparation Blank	C	M
			1	C	2	C	3	C			
Aluminum			23.00	U	23.00	U	23.00	U			P
Antimony			6.30	U	6.30	U	6.30	U			P
Arsenic			5.50	U	5.50	U	5.50	U			P
Barium			3.00	U	3.00	U	3.00	U			P
Beryllium			0.13	U	0.13	U	0.13	U			P
Boron			12.00	U	12.00	U	12.00	U			P
Cadmium			0.40	J	0.35	U	0.40	J			P
Mercury			0.077	U	0.077	U					CV
Calcium			220.00	U	220.00	U	220.00	U			P
Chromium			1.40	U	1.40	U	1.40	U			P
Cobalt			0.89	U	0.89	U	0.89	U			P
Copper			3.90	U	3.90	U	3.90	U			P
Iron			61.00	U	61.00	U	61.00	U			P
Lead			2.10	U	2.10	U	2.10	U			P
Magnesium			29.00	U	29.00	U	29.00	U			P
Manganese			3.70	U	3.70	U	3.70	U			P
Nickel			2.60	U	2.60	U	2.60	U			P
Potassium			380.00	U	380.00	U	380.00	U			P
Selenium			6.40	U	6.40	U	6.40	U			P
Silver			-0.60	J	-0.70	J	-0.70	J			P
Sodium			130.00	U	130.00	U	130.00	U			P
Thallium			6.60	U	6.60	U	6.60	U			P
Vanadium			0.67	U	0.67	U	0.67	U			P
Zinc			2.40	U	2.40	U	2.40	U			P

Comments:

METALS

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LABORATORY CONTROL SAMPLE

Contract: R2202553

Lab Code: Case No.: SAS No.: SDG NO.: 9-NIA-003-00

Solid LCS Source:

Aqueous LCS Source: CPI

Analyte	Aqueous (ug/L			Solid (mg/K					
	True	Found	%R	True	Found	C	Limits	%R	
Aluminum	2000	1990	100						
Antimony	500	477	95						
Arsenic	40	39	98						
Barium	2000	2040	102						
Beryllium	50	47	94						
Boron	1000	965	96						
Cadmium	50	51	102						
Mercury	1.000	0.960	96						
Calcium	2000	2060	103						
Chromium	200	205	102						
Cobalt	500	495	99						
Copper	250	237	95						
Iron	1000	980	98						
Lead	500	507	101						
Magnesium	2000	2040	102						
Manganese	500	496	99						
Nickel	500	507	101						
Potassium	20000	19300	96						
Selenium	1010	1020	101						
Silver	50	47	94						
Sodium	20000	20400	102						
Thallium	2000	1850	92						
Vanadium	500	500	100						
Zinc	500	497	99						

Comments:



General Chemistry

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R2202553-MB1

Service Request: R2202553
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Q
Alkalinity, Total as CaCO ₃	SM 2320 B-1997(2011)	2.0 U	mg/L	2.0	1.8	1	03/25/22 13:47	
Ammonia as Nitrogen, undistilled	350.1	0.050 U	mg/L	0.050	0.026	1	03/29/22 20:38	
Bromide	300.0	0.10 U	mg/L	0.10	0.04	1	03/27/22 07:05	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	0.5	1	03/31/22 19:36	
Chemical Oxygen Demand, Total	410.4	5.0 U	mg/L	5.0	3.8	1	03/25/22 18:35	
Chloride	300.0	0.20 U	mg/L	0.20	0.05	1	03/27/22 07:05	
Hardness, Total as CaCO ₃	SM 2340 C-1997(2011)	2.0 U	mg/L	2.0	0.7	1	03/28/22 15:30	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	10 U	mg/L	10	9	1	03/25/22 12:30	
Sulfate	300.0	0.20 U	mg/L	0.20	0.04	1	03/27/22 07:05	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R2202553-MB2

Service Request: R2202553
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Alkalinity, Total as CaCO ₃	SM 2320 B-1997(2011)	2.0 U	mg/L	2.0	1	03/29/22 05:08	
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	10 U	mg/L	10	1	03/25/22 12:30	

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Collected: 03/23/22
Date Received: 03/24/22
Date Analyzed: 03/25/22

Duplicate Matrix Spike Summary
Chemical Oxygen Demand, Total

Sample Name: 9-NIA-003-002-01
Lab Code: R2202553-001
Analysis Method: 410.4

Units: mg/L
Basis: NA

Analyte Name	Sample Result	Matrix Spike R2202553-001MS			Duplicate Matrix Spike R2202553-001DMS			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Chemical Oxygen Demand, Total	34.7	54.9	25.0	81 *	53.1	25.0	73 *	90-110	3	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Analyzed: 03/25/22 - 03/31/22

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R2202553-LCS1

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	20.8	20.0	104	80-120
Ammonia as Nitrogen, undistilled	350.1	0.254	0.250	102	90-110
Bromide	300.0	1.03	1.00	103	90-110
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	9.70	10.0	97	80-121
Chemical Oxygen Demand, Total	410.4	48.8	50.0	98	90-110
Chloride	300.0	2.09	2.00	104	90-110
Hardness, Total as CaCO3	SM 2340 C-1997(2011)	20.0	20.0	100	85-112
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	928	914	101	90-110
Sulfate	300.0	2.11	2.00	106	90-110

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Analyzed: 03/25/22 - 03/29/22

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L**Basis:**NA**Lab Control Sample**

R2202553-LCS2

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Alkalinity, Total as CaCO ₃	SM 2320 B-1997(2011)	19.1	20.0	96	80-120
Solids, Total Dissolved (TDS)	SM 2540 C-1997(2011)	918	914	100	90-110



Subcontracted Analytical Parameters

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March 31, 2022

Analytical Report for Service Request No: R2202553

Janice Jaeger
ALS Environmental
1565 Jefferson Rd, Building 300
Suite 360
Rochester, NY 14623

RE: ILI - Region 9 Griffon Park / 452148.60007.03

Dear Janice Jaeger,

Enclosed are the results of the sample(s) submitted to our laboratory March 24, 2022
For your reference, these analyses have been assigned our service request number **R2202553**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 3260. You may also contact me via email at Luke.Rahn@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Luke Rahn
Project Manager



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Table of Contents

Acronyms

Qualifiers

State Certifications, Accreditations, And Licenses

Case Narrative

Chain of Custody

Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS

Raw Data

Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjllabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdwlabservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.



Case Narrative

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: Parsons
Project: ILI - Region 9 Griffon Park
Sample Matrix: Water

Service Request: R2202553
Date Received: 03/24/2022

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

Sample Receipt:

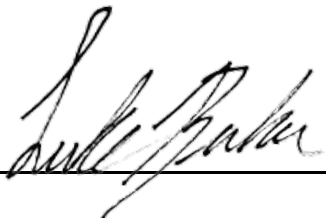
Five water samples were received for analysis at ALS Environmental on 03/24/2022. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Organic LC:

Method PFC/537M, 03/30/2022: Insufficient sample volume was received to perform a Matrix Spike/Matrix Spike Duplicate (MS/MSD). A Laboratory Control Sample/Duplicate Laboratory Control Sample (LCS/DLCS) was analyzed and reported in lieu of the MS/MSD for these samples.

Method PFC/537M, 03/30/2022: The control criteria was exceeded for one or more surrogates in Continuing Calibration Verification (CCV) KQ2205107-02. The recoveries of the associated native analytes were within control criteria, which indicated the analysis was in control. No further corrective action was appropriate.

Approved by



Date

03/31/2022



Chain of Custody

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
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Intra-Network Chain of Custody

1565 Jefferson Rd, Building 300 • Rochester, NY 14623 • 585-288-5380 • FAX 585-288-8475

ALS Contact: Janice Jaeger

Project Name: ILI - Region 9 Griffon Park
Project Number: 452148.60007.03
Project Manager: Maryanne Kosciwicz
Company: Parsons Engineering Science
QAP: LAB QAP

PFAS
PFC/537M

Lab Code	Client Sample ID	# of Cont.	Matrix	Sample Date	Time	Date Received	Send To	
R2202553-001	9-NIA-003-002-01	2	Water	3/23/22	0955	3/24/22	KELSO	IV
R2202553-002	9-NIA-003-002-02	2	Water	3/23/22	1145	3/24/22	KELSO	IV
R2202553-003	9-NIA-003-002-03	2	Water	3/23/22	1315	3/24/22	KELSO	IV
R2202553-004	9-NIA-003-002-05	1	Water	3/23/22	1420	3/24/22	KELSO	IV
R2202553-005	9-NIA-003-002-06	2	Water	3/23/22	1425	3/24/22	KELSO	IV

Folder Comments:

need Tier 2 and Tier 4

Special Instructions/Comments NPDES pH Checked _____	Turnaround Requirements _____ RUSH (Surcharges Apply) PLEASE CIRCLE WORK DAYS 1 2 3 4 5 ☒ STANDARD Requested FAX Date: _____ Requested Report Date: 04/08/22	Report Requirements _____ I. Results Only ☒ II. Results + QC Summaries _____ III. Results + QC and Calibration Summaries ☒ IV. Data Validation Report with Raw Data PQL/MDL/J <u>Y</u> EDD <u>Y</u>	Invoice Information PO# 58R2202553 Bill to
--	--	--	--

Relinquished By:

Sevgi Lefter 3/24/22 1415

Received By:

JA 3/25/22 1010

Airbill Number:

PM LL

Cooler Receipt and Preservation Form

Client Rochester Service Request K22-12207553
 Received: 3/15/22 Opened: 3/15/22 By: PA Unloaded: 3/18/22 By: PA

1. Samples were received via? USPS Fed Ex UPS DHL PDX Courier Hand Delivered
 2. Samples were received in: (circle) Cooler Box Envelope Other NA
 3. Were custody seals on coolers? NA Y N If yes, how many and where? _____
 If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample Temp	IR Gun	Cooler #/COC ID / NA	Out of temp indicate with "X"	PM Notified If out of temp	Tracking Number NA	Filed
<u>1.4</u>		<u>1802</u>				<u>088950995956</u>	

4. Was a Temperature Blank present in cooler? NA Y N If yes, notate the temperature in the appropriate column above:
 If no, take the temperature of a representative sample bottle contained within the cooler; notate in the column "Sample Temp":

5. Were samples received within the method specified temperature ranges?

NA Y N
NA Y N

If no, were they received on ice and same day as collected? If not, notate the cooler # below and notify the PM.

If applicable, tissue samples were received: Frozen Partially Thawed Thawed

6. Packing material: Inserts Baggies Bubble Wrap Gel Packs Wet Ice Dry Ice Sleeves

7. Were custody papers properly filled out (ink, signed, etc.)?

NA Y N

8. Were samples received in good condition (unbroken)

NA Y N

9. Were all sample labels complete (ie, analysis, preservation, etc.)?

NA Y N

10. Did all sample labels and tags agree with custody papers?

NA Y N

11. Were appropriate bottles/containers and volumes received for the tests indicated?

NA Y N

12. Were the pH-preserved bottles (see SMO GEN SOP) received at the appropriate pH? Indicate in the table below

NA Y N

13. Were VOA vials received without headspace? Indicate in the table below.

NA Y N

14. Was C12/Res negative?

NA Y N

15. Were 100ml sterile microbiology bottles filled exactly to the 100ml mark? NA Y N Under filled Overfilled

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count	Bottle Type	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, Resolutions: _____



Per and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

ALS Environmental—Kelso Laboratory
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Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Collected: 03/23/22 09:55
Date Received: 03/24/22 08:20

Sample Name: 9-NIA-003-002-01
Lab Code: R2202553-001

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkyl Sulfonic Acids (PFSA's)							
Perfluorobutane sulfonic acid (PFBS)	1.5 J	4.4	0.28	1	03/30/22 15:15	3/28/22	
Perfluorohexane sulfonic acid (PFHxS)	2.5 J	4.4	1.3	1	03/30/22 15:15	3/28/22	
Perfluoroheptane sulfonic acid (PFHpS)	4.4 U	4.4	0.44	1	03/30/22 15:15	3/28/22	
Perfluorooctane sulfonic acid (PFOS)	1.8 U	1.8	0.44	1	03/30/22 15:15	3/28/22	
Perfluorodecane sulfonic acid (PFDS)	4.4 U	4.4	0.30	1	03/30/22 15:15	3/28/22	
Perfluoroalkyl Carboxylic Acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	4.4 U	4.4	0.40	1	03/30/22 15:15	3/28/22	
Perfluoropentanoic acid (PFPeA)	2.2 J	4.4	1.7	1	03/30/22 15:15	3/28/22	
Perfluorohexanoic acid (PFHxA)	9.2 U	9.2	8.8	1	03/30/22 15:15	3/28/22	
Perfluoroheptanoic acid (PFHpA)	4.4 U	4.4	0.63	1	03/30/22 15:15	3/28/22	
Perfluorooctanoic acid (PFOA)	3.5	1.8	0.35	1	03/30/22 15:15	3/28/22	
Perfluorononanoic acid (PFNA)	4.4 U	4.4	1.1	1	03/30/22 15:15	3/28/22	
Perfluorodecanoic acid (PFDA)	4.4 U	4.4	1.2	1	03/30/22 15:15	3/28/22	
Perfluoroundecanoic acid (PFUnDA)	4.4 U	4.4	1.5	1	03/30/22 15:15	3/28/22	
Perfluorododecanoic acid (PFDOA)	4.4 U	4.4	1.3	1	03/30/22 15:15	3/28/22	
Perfluorotridecanoic acid (PFTrDA)	4.4 U	4.4	1.3	1	03/30/22 15:15	3/28/22	
Perfluorotetradecanoic acid (PFTDA)	4.4 U	4.4	2.0	1	03/30/22 15:15	3/28/22	
Perfluoroalkyl Sulfonamido Substances							
Perfluorooctane sulfonamide (PFOSAm)	4.4 U	4.4	0.52	1	03/30/22 15:15	3/28/22	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	4.4 U	4.4	1.4	1	03/30/22 15:15	3/28/22	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	4.4 U	4.4	0.50	1	03/30/22 15:15	3/28/22	
Fluorotelomer Sulfonic Acids (FTSAs)							
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	0.60 J	4.4	0.55	1	03/30/22 15:15	3/28/22	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	4.4 U	4.4	0.15	1	03/30/22 15:15	3/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Collected: 03/23/22 09:55
Date Received: 03/24/22 08:20

Sample Name: 9-NIA-003-002-01
Lab Code: R2202553-001

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	56	20 - 109	03/30/22 15:15	
18O2-PFHxS	68	26 - 122	03/30/22 15:15	
13C4-PFOS	65	25 - 121	03/30/22 15:15	
13C4-PFBA	72	27 - 124	03/30/22 15:15	
13C5-PFPeA	60	27 - 138	03/30/22 15:15	
13C2-PFHxA	74	28 - 132	03/30/22 15:15	
13C4-PFHpA	73	19 - 139	03/30/22 15:15	
13C4-PFOA	80	22 - 130	03/30/22 15:15	
13C5-PFNA	81	20 - 127	03/30/22 15:15	
13C2-PFDA	76	24 - 125	03/30/22 15:15	
13C2-PFUnDA	72	22 - 125	03/30/22 15:15	
13C2-PFDoDA	62	19 - 122	03/30/22 15:15	
13C2-PFTeDA	64	13 - 124	03/30/22 15:15	
13C8-FOSA	58	18 - 109	03/30/22 15:15	
D3-MeFOSAA	72	9 - 123	03/30/22 15:15	
D5-EtFOSAA	83	12 - 126	03/30/22 15:15	
13C2-6:2 FTS	206	10 - 226	03/30/22 15:15	
13C2-8:2 FTS	127	10 - 202	03/30/22 15:15	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Collected: 03/23/22 11:45
Date Received: 03/24/22 08:20

Sample Name: 9-NIA-003-002-02
Lab Code: R2202553-002

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkyl Sulfonic Acids (PFASs)							
Perfluorobutane sulfonic acid (PFBS)	11	4.5	0.28	1	03/30/22 15:25	3/28/22	
Perfluorohexane sulfonic acid (PFHxS)	4.5 U	4.5	1.3	1	03/30/22 15:25	3/28/22	
Perfluoroheptane sulfonic acid (PFHpS)	4.5 U	4.5	0.44	1	03/30/22 15:25	3/28/22	
Perfluorooctane sulfonic acid (PFOS)	0.70 J	1.8	0.44	1	03/30/22 15:25	3/28/22	
Perfluorodecane sulfonic acid (PFDS)	4.5 U	4.5	0.30	1	03/30/22 15:25	3/28/22	
Perfluoroalkyl Carboxylic Acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	6.9	4.5	0.40	1	03/30/22 15:25	3/28/22	
Perfluoropentanoic acid (PFPeA)	4.5 U	4.5	1.7	1	03/30/22 15:25	3/28/22	
Perfluorohexanoic acid (PFHxA)	9.2 U	9.2	8.8	1	03/30/22 15:25	3/28/22	
Perfluoroheptanoic acid (PFHpA)	4.5 U	4.5	0.63	1	03/30/22 15:25	3/28/22	
Perfluorooctanoic acid (PFOA)	1.2 J	1.8	0.35	1	03/30/22 15:25	3/28/22	
Perfluorononanoic acid (PFNA)	4.5 U	4.5	1.1	1	03/30/22 15:25	3/28/22	
Perfluorodecanoic acid (PFDA)	4.5 U	4.5	1.2	1	03/30/22 15:25	3/28/22	
Perfluoroundecanoic acid (PFUnDA)	4.5 U	4.5	1.5	1	03/30/22 15:25	3/28/22	
Perfluorododecanoic acid (PFDOA)	4.5 U	4.5	1.3	1	03/30/22 15:25	3/28/22	
Perfluorotridecanoic acid (PFTTrDA)	4.5 U	4.5	1.3	1	03/30/22 15:25	3/28/22	
Perfluorotetradecanoic acid (PFTDA)	4.5 U	4.5	2.0	1	03/30/22 15:25	3/28/22	
Perfluoroalkyl Sulfonamido Substances							
Perfluorooctane sulfonamide (PFOSAm)	4.5 U	4.5	0.52	1	03/30/22 15:25	3/28/22	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	4.5 U	4.5	1.4	1	03/30/22 15:25	3/28/22	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	4.5 U	4.5	0.50	1	03/30/22 15:25	3/28/22	
Fluorotelomer Sulfonic Acids (FTSAs)							
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	4.5 U	4.5	0.55	1	03/30/22 15:25	3/28/22	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	4.5 U	4.5	0.15	1	03/30/22 15:25	3/28/22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Collected: 03/23/22 11:45
Date Received: 03/24/22 08:20

Sample Name: 9-NIA-003-002-02
Lab Code: R2202553-002

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	83	20 - 109	03/30/22 15:25	
18O2-PFHxS	96	26 - 122	03/30/22 15:25	
13C4-PFOS	84	25 - 121	03/30/22 15:25	
13C4-PFBA	101	27 - 124	03/30/22 15:25	
13C5-PFPeA	96	27 - 138	03/30/22 15:25	
13C2-PFHxA	110	28 - 132	03/30/22 15:25	
13C4-PFHpA	99	19 - 139	03/30/22 15:25	
13C4-PFOA	117	22 - 130	03/30/22 15:25	
13C5-PFNA	105	20 - 127	03/30/22 15:25	
13C2-PFDA	88	24 - 125	03/30/22 15:25	
13C2-PFUnDA	82	22 - 125	03/30/22 15:25	
13C2-PFDoDA	76	19 - 122	03/30/22 15:25	
13C2-PFTeDA	79	13 - 124	03/30/22 15:25	
13C8-FOSA	68	18 - 109	03/30/22 15:25	
D3-MeFOSAA	78	9 - 123	03/30/22 15:25	
D5-EtFOSAA	92	12 - 126	03/30/22 15:25	
13C2-6:2 FTS	193	10 - 226	03/30/22 15:25	
13C2-8:2 FTS	100	10 - 202	03/30/22 15:25	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Collected: 03/23/22 13:15
Date Received: 03/24/22 08:20

Sample Name: 9-NIA-003-002-03
Lab Code: R2202553-003

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkyl Sulfonic Acids (PFASs)							
Perfluorobutane sulfonic acid (PFBS)	1.6 J	4.3	0.28	1	03/30/22 15:35	3/28/22	
Perfluorohexane sulfonic acid (PFHxS)	4.3 U	4.3	1.3	1	03/30/22 15:35	3/28/22	
Perfluoroheptane sulfonic acid (PFHpS)	4.3 U	4.3	0.44	1	03/30/22 15:35	3/28/22	
Perfluorooctane sulfonic acid (PFOS)	0.67 J	1.7	0.44	1	03/30/22 15:35	3/28/22	
Perfluorodecane sulfonic acid (PFDS)	4.3 U	4.3	0.30	1	03/30/22 15:35	3/28/22	
Perfluoroalkyl Carboxylic Acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	5.9	4.3	0.40	1	03/30/22 15:35	3/28/22	
Perfluoropentanoic acid (PFPeA)	4.3 U	4.3	1.7	1	03/30/22 15:35	3/28/22	
Perfluorohexanoic acid (PFHxA)	9.2 U	9.2	8.8	1	03/30/22 15:35	3/28/22	
Perfluoroheptanoic acid (PFHpA)	1.1 J	4.3	0.63	1	03/30/22 15:35	3/28/22	
Perfluorooctanoic acid (PFOA)	1.5 J	1.7	0.35	1	03/30/22 15:35	3/28/22	
Perfluorononanoic acid (PFNA)	4.3 U	4.3	1.1	1	03/30/22 15:35	3/28/22	
Perfluorodecanoic acid (PFDA)	4.3 U	4.3	1.2	1	03/30/22 15:35	3/28/22	
Perfluoroundecanoic acid (PFUnDA)	4.3 U	4.3	1.5	1	03/30/22 15:35	3/28/22	
Perfluorododecanoic acid (PFDOA)	4.3 U	4.3	1.3	1	03/30/22 15:35	3/28/22	
Perfluorotridecanoic acid (PFTrDA)	4.3 U	4.3	1.3	1	03/30/22 15:35	3/28/22	
Perfluorotetradecanoic acid (PFTDA)	4.3 U	4.3	2.0	1	03/30/22 15:35	3/28/22	
Perfluoroalkyl Sulfonamido Substances							
Perfluorooctane sulfonamide (PFOSAm)	4.3 U	4.3	0.52	1	03/30/22 15:35	3/28/22	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	4.3 U	4.3	1.4	1	03/30/22 15:35	3/28/22	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	4.3 U	4.3	0.50	1	03/30/22 15:35	3/28/22	
Fluorotelomer Sulfonic Acids (FTSAs)							
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	4.3 U	4.3	0.55	1	03/30/22 15:35	3/28/22	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	4.3 U	4.3	0.15	1	03/30/22 15:35	3/28/22	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Collected: 03/23/22 13:15
Date Received: 03/24/22 08:20

Sample Name: 9-NIA-003-002-03
Lab Code: R2202553-003

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	82	20 - 109	03/30/22 15:35	
18O2-PFHxS	105	26 - 122	03/30/22 15:35	
13C4-PFOS	81	25 - 121	03/30/22 15:35	
13C4-PFBA	103	27 - 124	03/30/22 15:35	
13C5-PFPeA	90	27 - 138	03/30/22 15:35	
13C2-PFHxA	116	28 - 132	03/30/22 15:35	
13C4-PFHpA	98	19 - 139	03/30/22 15:35	
13C4-PFOA	106	22 - 130	03/30/22 15:35	
13C5-PFNA	101	20 - 127	03/30/22 15:35	
13C2-PFDA	82	24 - 125	03/30/22 15:35	
13C2-PFUnDA	77	22 - 125	03/30/22 15:35	
13C2-PFDoDA	63	19 - 122	03/30/22 15:35	
13C2-PFTeDA	66	13 - 124	03/30/22 15:35	
13C8-FOSA	67	18 - 109	03/30/22 15:35	
D3-MeFOSAA	66	9 - 123	03/30/22 15:35	
D5-EtFOSAA	58	12 - 126	03/30/22 15:35	
13C2-6:2 FTS	172	10 - 226	03/30/22 15:35	
13C2-8:2 FTS	84	10 - 202	03/30/22 15:35	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Collected: 03/23/22 14:20
Date Received: 03/24/22 08:20

Sample Name: 9-NIA-003-002-05
Lab Code: R2202553-004

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkyl Sulfonic Acids (PFASs)							
Perfluorobutane sulfonic acid (PFBS)	4.2 U	4.2	0.28	1	03/30/22 15:46	3/28/22	
Perfluorohexane sulfonic acid (PFHxS)	4.2 U	4.2	1.3	1	03/30/22 15:46	3/28/22	
Perfluoroheptane sulfonic acid (PFHpS)	4.2 U	4.2	0.44	1	03/30/22 15:46	3/28/22	
Perfluorooctane sulfonic acid (PFOS)	1.7 U	1.7	0.44	1	03/30/22 15:46	3/28/22	
Perfluorodecane sulfonic acid (PFDS)	4.2 U	4.2	0.30	1	03/30/22 15:46	3/28/22	
Perfluoroalkyl Carboxylic Acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	4.2 U	4.2	0.40	1	03/30/22 15:46	3/28/22	
Perfluoropentanoic acid (PFPeA)	4.2 U	4.2	1.7	1	03/30/22 15:46	3/28/22	
Perfluorohexanoic acid (PFHxA)	9.2 U	9.2	8.8	1	03/30/22 15:46	3/28/22	
Perfluoroheptanoic acid (PFHpA)	4.2 U	4.2	0.63	1	03/30/22 15:46	3/28/22	
Perfluorooctanoic acid (PFOA)	1.7 U	1.7	0.35	1	03/30/22 15:46	3/28/22	
Perfluorononanoic acid (PFNA)	4.2 U	4.2	1.1	1	03/30/22 15:46	3/28/22	
Perfluorodecanoic acid (PFDA)	4.2 U	4.2	1.2	1	03/30/22 15:46	3/28/22	
Perfluoroundecanoic acid (PFUnDA)	4.2 U	4.2	1.5	1	03/30/22 15:46	3/28/22	
Perfluorododecanoic acid (PFDOA)	4.2 U	4.2	1.3	1	03/30/22 15:46	3/28/22	
Perfluorotridecanoic acid (PFTrDA)	4.2 U	4.2	1.3	1	03/30/22 15:46	3/28/22	
Perfluorotetradecanoic acid (PFTDA)	4.2 U	4.2	2.0	1	03/30/22 15:46	3/28/22	
Perfluoroalkyl Sulfonamido Substances							
Perfluorooctane sulfonamide (PFOSAm)	4.2 U	4.2	0.52	1	03/30/22 15:46	3/28/22	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	4.2 U	4.2	1.4	1	03/30/22 15:46	3/28/22	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	4.2 U	4.2	0.50	1	03/30/22 15:46	3/28/22	
Fluorotelomer Sulfonic Acids (FTSAs)							
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	4.2 U	4.2	0.55	1	03/30/22 15:46	3/28/22	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	4.2 U	4.2	0.15	1	03/30/22 15:46	3/28/22	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Collected: 03/23/22 14:20
Date Received: 03/24/22 08:20

Sample Name: 9-NIA-003-002-05
Lab Code: R2202553-004

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	84	20 - 109	03/30/22 15:46	
18O2-PFHxS	96	26 - 122	03/30/22 15:46	
13C4-PFOS	81	25 - 121	03/30/22 15:46	
13C4-PFBA	99	27 - 124	03/30/22 15:46	
13C5-PFPeA	101	27 - 138	03/30/22 15:46	
13C2-PFHxA	116	28 - 132	03/30/22 15:46	
13C4-PFHpA	113	19 - 139	03/30/22 15:46	
13C4-PFOA	102	22 - 130	03/30/22 15:46	
13C5-PFNA	95	20 - 127	03/30/22 15:46	
13C2-PFDA	82	24 - 125	03/30/22 15:46	
13C2-PFUnDA	76	22 - 125	03/30/22 15:46	
13C2-PFDoDA	66	19 - 122	03/30/22 15:46	
13C2-PFTeDA	77	13 - 124	03/30/22 15:46	
13C8-FOSA	66	18 - 109	03/30/22 15:46	
D3-MeFOSAA	75	9 - 123	03/30/22 15:46	
D5-EtFOSAA	84	12 - 126	03/30/22 15:46	
13C2-6:2 FTS	166	10 - 226	03/30/22 15:46	
13C2-8:2 FTS	95	10 - 202	03/30/22 15:46	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Collected: 03/23/22 14:25
Date Received: 03/24/22 08:20

Sample Name: 9-NIA-003-002-06
Lab Code: R2202553-005

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkyl Sulfonic Acids (PFASs)							
Perfluorobutane sulfonic acid (PFBS)	4.2 U	4.2	0.28	1	03/30/22 15:56	3/28/22	
Perfluorohexane sulfonic acid (PFHxS)	4.2 U	4.2	1.3	1	03/30/22 15:56	3/28/22	
Perfluoroheptane sulfonic acid (PFHpS)	4.2 U	4.2	0.44	1	03/30/22 15:56	3/28/22	
Perfluorooctane sulfonic acid (PFOS)	1.7 U	1.7	0.44	1	03/30/22 15:56	3/28/22	
Perfluorodecane sulfonic acid (PFDS)	4.2 U	4.2	0.30	1	03/30/22 15:56	3/28/22	
Perfluoroalkyl Carboxylic Acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	4.2 U	4.2	0.40	1	03/30/22 15:56	3/28/22	
Perfluoropentanoic acid (PFPeA)	4.2 U	4.2	1.7	1	03/30/22 15:56	3/28/22	
Perfluorohexanoic acid (PFHxA)	9.2 U	9.2	8.8	1	03/30/22 15:56	3/28/22	
Perfluoroheptanoic acid (PFHpA)	4.2 U	4.2	0.63	1	03/30/22 15:56	3/28/22	
Perfluorooctanoic acid (PFOA)	1.7 U	1.7	0.35	1	03/30/22 15:56	3/28/22	
Perfluorononanoic acid (PFNA)	4.2 U	4.2	1.1	1	03/30/22 15:56	3/28/22	
Perfluorodecanoic acid (PFDA)	4.2 U	4.2	1.2	1	03/30/22 15:56	3/28/22	
Perfluoroundecanoic acid (PFUnDA)	4.2 U	4.2	1.5	1	03/30/22 15:56	3/28/22	
Perfluorododecanoic acid (PFDOA)	4.2 U	4.2	1.3	1	03/30/22 15:56	3/28/22	
Perfluorotridecanoic acid (PFTrDA)	4.2 U	4.2	1.3	1	03/30/22 15:56	3/28/22	
Perfluorotetradecanoic acid (PFTDA)	4.2 U	4.2	2.0	1	03/30/22 15:56	3/28/22	
Perfluoroalkyl Sulfonamido Substances							
Perfluorooctane sulfonamide (PFOSAm)	4.2 U	4.2	0.52	1	03/30/22 15:56	3/28/22	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	4.2 U	4.2	1.4	1	03/30/22 15:56	3/28/22	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	4.2 U	4.2	0.50	1	03/30/22 15:56	3/28/22	
Fluorotelomer Sulfonic Acids (FTSAs)							
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	4.2 U	4.2	0.55	1	03/30/22 15:56	3/28/22	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	4.2 U	4.2	0.15	1	03/30/22 15:56	3/28/22	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Collected: 03/23/22 14:25
Date Received: 03/24/22 08:20

Sample Name: 9-NIA-003-002-06
Lab Code: R2202553-005

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	84	20 - 109	03/30/22 15:56	
18O2-PFHxS	111	26 - 122	03/30/22 15:56	
13C4-PFOS	93	25 - 121	03/30/22 15:56	
13C4-PFBA	111	27 - 124	03/30/22 15:56	
13C5-PFPeA	99	27 - 138	03/30/22 15:56	
13C2-PFHxA	131	28 - 132	03/30/22 15:56	
13C4-PFHpA	108	19 - 139	03/30/22 15:56	
13C4-PFOA	115	22 - 130	03/30/22 15:56	
13C5-PFNA	108	20 - 127	03/30/22 15:56	
13C2-PFDA	93	24 - 125	03/30/22 15:56	
13C2-PFUnDA	87	22 - 125	03/30/22 15:56	
13C2-PFDoDA	80	19 - 122	03/30/22 15:56	
13C2-PFTeDA	78	13 - 124	03/30/22 15:56	
13C8-FOSA	73	18 - 109	03/30/22 15:56	
D3-MeFOSAA	77	9 - 123	03/30/22 15:56	
D5-EtFOSAA	84	12 - 126	03/30/22 15:56	
13C2-6:2 FTS	170	10 - 226	03/30/22 15:56	
13C2-8:2 FTS	107	10 - 202	03/30/22 15:56	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: KQ2204896-03

Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Perfluoroalkyl Sulfonic Acids (PFSA)							
Perfluorobutane sulfonic acid (PFBS)	5.0 U	5.0	0.28	1	03/30/22 12:38	3/28/22	
Perfluorohexane sulfonic acid (PFHxS)	5.0 U	5.0	1.3	1	03/30/22 12:38	3/28/22	
Perfluoroheptane sulfonic acid (PFHpS)	5.0 U	5.0	0.44	1	03/30/22 12:38	3/28/22	
Perfluorooctane sulfonic acid (PFOS)	2.0 U	2.0	0.44	1	03/30/22 12:38	3/28/22	
Perfluorodecane sulfonic acid (PFDS)	5.0 U	5.0	0.30	1	03/30/22 12:38	3/28/22	
Perfluoroalkyl Carboxylic Acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	5.0 U	5.0	0.40	1	03/30/22 12:38	3/28/22	
Perfluoropentanoic acid (PFPeA)	5.0 U	5.0	1.7	1	03/30/22 12:38	3/28/22	
Perfluorohexanoic acid (PFHxA)	10 U	10	8.8	1	03/30/22 12:38	3/28/22	
Perfluoroheptanoic acid (PFHpA)	5.0 U	5.0	0.63	1	03/30/22 12:38	3/28/22	
Perfluorooctanoic acid (PFOA)	2.0 U	2.0	0.35	1	03/30/22 12:38	3/28/22	
Perfluorononanoic acid (PFNA)	5.0 U	5.0	1.1	1	03/30/22 12:38	3/28/22	
Perfluorodecanoic acid (PFDA)	5.0 U	5.0	1.2	1	03/30/22 12:38	3/28/22	
Perfluoroundecanoic acid (PFUnDA)	5.0 U	5.0	1.5	1	03/30/22 12:38	3/28/22	
Perfluorododecanoic acid (PFDOA)	5.0 U	5.0	1.3	1	03/30/22 12:38	3/28/22	
Perfluorotridecanoic acid (PFTrDA)	5.0 U	5.0	1.3	1	03/30/22 12:38	3/28/22	
Perfluorotetradecanoic acid (PFTDA)	5.0 U	5.0	2.0	1	03/30/22 12:38	3/28/22	
Perfluoroalkyl Sulfonamido Substances							
Perfluorooctane sulfonamide (PFOSAm)	5.0 U	5.0	0.52	1	03/30/22 12:38	3/28/22	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	5.0 U	5.0	1.4	1	03/30/22 12:38	3/28/22	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	5.0 U	5.0	0.50	1	03/30/22 12:38	3/28/22	
Fluorotelomer Sulfonic Acids (FTSAs)							
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	5.0 U	5.0	0.55	1	03/30/22 12:38	3/28/22	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	5.0 U	5.0	0.15	1	03/30/22 12:38	3/28/22	

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Analytical Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: KQ2204896-03

Service Request: R2202553
Date Collected: NA
Date Received: NA
Units: ng/L
Basis: NA

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
13C3-PFBS	88	20 - 109	03/30/22 12:38	
18O2-PFHxS	94	26 - 122	03/30/22 12:38	
13C4-PFOS	85	25 - 121	03/30/22 12:38	
13C4-PFBA	108	27 - 124	03/30/22 12:38	
13C5-PFPeA	112	27 - 138	03/30/22 12:38	
13C2-PFHxA	115	28 - 132	03/30/22 12:38	
13C4-PFHpA	138	19 - 139	03/30/22 12:38	
13C4-PFOA	111	22 - 130	03/30/22 12:38	
13C5-PFNA	101	20 - 127	03/30/22 12:38	
13C2-PFDA	86	24 - 125	03/30/22 12:38	
13C2-PFUnDA	73	22 - 125	03/30/22 12:38	
13C2-PFDoDA	64	19 - 122	03/30/22 12:38	
13C2-PFTeDA	79	13 - 124	03/30/22 12:38	
13C8-FOSA	75	18 - 109	03/30/22 12:38	
D3-MeFOSAA	72	9 - 123	03/30/22 12:38	
D5-EtFOSAA	87	12 - 126	03/30/22 12:38	
13C2-6:2 FTS	183	10 - 226	03/30/22 12:38	
13C2-8:2 FTS	110	10 - 202	03/30/22 12:38	

ALS Group USA, Corp.
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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553

SURROGATE RECOVERY SUMMARY
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Extraction Method: ALS SOP

Surrogate	Control Limits	9-NIA-003-002-01	9-NIA-003-002-02	9-NIA-003-002-03
		R2202553-001	R2202553-002	R2202553-003
13C3-PFBS	20-109	56	83	82
18O2-PFHxS	26-122	68	96	105
13C4-PFOS	25-121	65	84	81
13C4-PFBA	27-124	72	101	103
13C5-PFPeA	27-138	60	96	90
13C2-PFHxA	28-132	74	110	116
13C4-PFHpA	19-139	73	99	98
13C4-PFOA	22-130	80	117	106
13C5-PFNA	20-127	81	105	101
13C2-PFDA	24-125	76	88	82
13C2-PFUnDA	22-125	72	82	77
13C2-PFDoDA	19-122	62	76	63
13C2-PFTeDA	13-124	64	79	66
13C8-FOSA	18-109	58	68	67
D3-MeFOSAA	9-123	72	78	66
D5-EtFOSAA	12-126	83	92	58
13C2-6:2 FTS	10-226	206	193	172
13C2-8:2 FTS	10-202	127	100	84

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with a pound (#) indicate the control criteria is not acceptable.

ALS Group USA, Corp.
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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553

SURROGATE RECOVERY SUMMARY
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Extraction Method: ALS SOP

Surrogate	Control Limits	9-NIA-003-002-05	9-NIA-003-002-06	Method Blank
		R2202553-004	R2202553-005	KQ2204896-03
13C3-PFBS	20-109	84	84	88
18O2-PFHxS	26-122	96	111	94
13C4-PFOS	25-121	81	93	85
13C4-PFBA	27-124	99	111	108
13C5-PFPeA	27-138	101	99	112
13C2-PFHxA	28-132	116	131	115
13C4-PFHpA	19-139	113	108	138
13C4-PFOA	22-130	102	115	111
13C5-PFNA	20-127	95	108	101
13C2-PFDA	24-125	82	93	86
13C2-PFUnDA	22-125	76	87	73
13C2-PFDoDA	19-122	66	80	64
13C2-PFTeDA	13-124	77	78	79
13C8-FOSA	18-109	66	73	75
D3-MeFOSAA	9-123	75	77	72
D5-EtFOSAA	12-126	84	84	87
13C2-6:2 FTS	10-226	166	170	183
13C2-8:2 FTS	10-202	95	107	110

Results flagged with an asterisk (*) indicate values outside control criteria.
Results flagged with an pound (#) indicate the control criteria is not acceptable.

ALS Group USA, Corp.
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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553

SURROGATE RECOVERY SUMMARY
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Extraction Method: ALS SOP

Surrogate	Control Limits	Lab Control Sample	Duplicate Lab Control Sample
		KQ2204896-01	KQ2204896-02
13C3-PFBS	20-109	82	81
18O2-PFHxS	26-122	97	95
13C4-PFOS	25-121	87	88
13C4-PFBA	27-124	106	105
13C5-PFPeA	27-138	99	100
13C2-PFHxA	28-132	111	111
13C4-PFHpA	19-139	120	105
13C4-PFOA	22-130	111	108
13C5-PFNA	20-127	101	98
13C2-PFDA	24-125	88	88
13C2-PFUnDA	22-125	76	77
13C2-PFDoDA	19-122	68	66
13C2-PFTeDA	13-124	71	72
13C8-FOSA	18-109	67	73
D3-MeFOSAA	9-123	73	72
D5-EtFOSAA	12-126	85	87
13C2-6:2 FTS	10-226	168	164
13C2-8:2 FTS	10-202	101	100

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with an pound (#) indicate the control criteria is not acceptable.

ALS Group USA, Corp.
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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03

Service Request: R2202553
Date Analyzed: 03/30/22 11:35

Internal Standard Area and RT SUMMARY
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

File ID: J:\LCMS06\Data\220330_B2\220330_004
Instrument ID: K-LCMS-06
Analysis Method: PFC/537M

Lab Code: KQ2205107-02
Analysis Lot: 759167
Signal ID: 1

	13C7-PFUnDA	
	Area	RT
Result ==>	3,760,527	5.088
Upper Limit ==>	7,521,054	6.09
Lower Limit ==>	1,880,264	4.09

Associated Analyses

Continuing Calibration Blank	KQ2205107-01	2316651	5.093
Method Blank	KQ2204896-03	3045093	5.088
Lab Control Sample	KQ2204896-01	3102424	5.086
Duplicate Lab Control Sample	KQ2204896-02	3200039	5.085
9-NIA-003-002-01	R2202553-001	4029157	5.095
9-NIA-003-002-02	R2202553-002	3326119	5.090
9-NIA-003-002-03	R2202553-003	3163570	5.100
9-NIA-003-002-05	R2202553-004	3055675	5.092
9-NIA-003-002-06	R2202553-005	3108264	5.095

ALS Group USA, Corp.
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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Analyzed: 03/30/22
Date Extracted: 03/28/22

Duplicate Lab Control Sample Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
Prep Method: ALS SOP

Units: ng/L
Basis: NA
Analysis Lot: 759167

Analyte Name	Lab Control Sample KQ2204896-01			Duplicate Lab Control Sample KQ2204896-02					
	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	35.5	30.7	115	32.7	30.7	107	65-166	8	30
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	38.1	30.4	125	31.6	30.4	104	77-150	18	30
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	39.3	32.0	123	31.7	32.0	99	68-149	21	30
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	40.7	32.0	127	26.7	32.0	84	66-162	42 *	30
Perfluorobutane sulfonic acid (PFBS)	34.6	28.4	122	30.3	28.4	107	67-145	13	30
Perfluorobutanoic acid (PFBA)	38.1	32.0	119	33.6	32.0	105	81-139	12	30
Perfluorodecane sulfonic acid (PFDS)	37.4	30.9	121	32.7	30.9	106	60-129	13	30
Perfluorodecanoic acid (PFDA)	36.8	32.0	115	32.2	32.0	101	68-152	13	30
Perfluorododecanoic acid (PFDOA)	40.9	32.0	128	38.1	32.0	119	66-142	7	30
Perfluoroheptane sulfonic acid (PFHpS)	35.5	30.5	116	29.6	30.5	97	60-162	18	30
Perfluoroheptanoic acid (PFHpA)	36.8	32.0	115	34.3	32.0	107	64-147	7	30
Perfluorohexane sulfonic acid (PFHxS)	35.0	29.2	120	27.9	29.2	96	65-148	23	30
Perfluorohexanoic acid (PFHxA)	37.7	32.0	118	32.9	32.0	103	65-149	14	30
Perfluorononanoic acid (PFNA)	36.8	32.0	115	34.8	32.0	109	72-145	6	30
Perfluorooctane sulfonamide (PFOSAm)	38.7	32.0	121	32.9	32.0	103	71-134	16	30
Perfluorooctane sulfonic acid (PFOS)	35.1	29.7	118	31.4	29.7	105	67-135	11	30
Perfluorooctanoic acid (PFOA)	38.7	32.0	121	34.5	32.0	108	59-147	12	30
Perfluoropentanoic acid (PFPeA)	37.0	32.0	116	32.6	32.0	102	66-159	13	30
Perfluorotetradecanoic acid (PFTDA)	37.6	32.0	117	32.2	32.0	101	61-148	15	30
Perfluorotridecanoic acid (PFTrDA)	32.7	32.0	102	28.0	32.0	87	64-153	16	30
Perfluoroundecanoic acid (PFUnDA)	36.7	32.0	115	34.5	32.0	108	68-145	6	30

ALS Group USA, Corp.

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Analyzed: 03/30/22 12:38
Date Extracted: 03/28/22

Method Blank Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Sample Name:	Method Blank	Instrument ID:	K-LCMS-06
Lab Code:	KQ2204896-03	File ID:	J:\LCMS06\Data\220330_B2\220330_010
Analysis Method:	PFC/537M	Analysis Lot:	759167
Prep Method:	ALS SOP	Extraction Lot:	397267

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	KQ2204896-01	J:\LCMS06\Data\220330_B2\220330_011	03/30/22 12:48
Duplicate Lab Control Sample	KQ2204896-02	J:\LCMS06\Data\220330_B2\220330_012	03/30/22 12:59
9-NIA-003-002-01	R2202553-001	J:\LCMS06\Data\220330_B2\220330_025	03/30/22 15:15
9-NIA-003-002-02	R2202553-002	J:\LCMS06\Data\220330_B2\220330_026	03/30/22 15:25
9-NIA-003-002-03	R2202553-003	J:\LCMS06\Data\220330_B2\220330_027	03/30/22 15:35
9-NIA-003-002-05	R2202553-004	J:\LCMS06\Data\220330_B2\220330_028	03/30/22 15:46
9-NIA-003-002-06	R2202553-005	J:\LCMS06\Data\220330_B2\220330_029	03/30/22 15:56

ALS Group USA, Corp.

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553
Date Analyzed: 03/30/22 12:48
Date Extracted: 03/28/22

Lab Control Sample Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Sample Name: Lab Control Sample **Instrument ID:** K-LCMS-06
Lab Code: KQ2204896-01 **File ID:** J:\LCMS06\Data\220330_B2\220330_011
Analysis Method: PFC/537M **Analysis Lot:** 759167
Prep Method: ALS SOP **Extraction Lot:** 397267

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	KQ2204896-03	J:\LCMS06\Data\220330_B2\220330_010	03/30/22 12:38
Duplicate Lab Control Sample	KQ2204896-02	J:\LCMS06\Data\220330_B2\220330_012	03/30/22 12:59
9-NIA-003-002-01	R2202553-001	J:\LCMS06\Data\220330_B2\220330_025	03/30/22 15:15
9-NIA-003-002-02	R2202553-002	J:\LCMS06\Data\220330_B2\220330_026	03/30/22 15:25
9-NIA-003-002-03	R2202553-003	J:\LCMS06\Data\220330_B2\220330_027	03/30/22 15:35
9-NIA-003-002-05	R2202553-004	J:\LCMS06\Data\220330_B2\220330_028	03/30/22 15:46
9-NIA-003-002-06	R2202553-005	J:\LCMS06\Data\220330_B2\220330_029	03/30/22 15:56

ALS Group USA, Corp.
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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park

Service Request: R2202553
Calibration Date: 3/29/2022

Initial Calibration Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2200201
Instrument ID: K-LCMS-06

Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
01	KC2200201-01	PFC ICAL @ 0.05ppb	220329_031	03/29/2022 12:13
02	KC2200201-02	PFC ICAL @ 0.50ppb	220329_033	03/29/2022 12:34
03	KC2200201-03	PFC ICAL @ 1.0ppb	220329_034	03/29/2022 12:45
04	KC2200201-04	PFC ICAL @ 5.0ppb	220329_035	03/29/2022 12:55
05	KC2200201-05	PFC ICAL @ 10ppb	220329_036	03/29/2022 13:05
06	KC2200201-06	PFC ICAL @ 15ppb	220329_038	03/29/2022 13:26
07	KC2200201-07	PFC ICAL @ 0.10ppb	220329_053	03/29/2022 16:09

Analyte

13C2-6:2 FTS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1192	02	5.0000	0.1131	03	5.0000	0.0899	04	5.0000	0.1096
05	5.0000	0.1087	06	5.0000	0.1144	07	5.0000	0.113			

13C2-8:2 FTS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1087	02	5.0000	0.09635	03	5.0000	0.08265	04	5.0000	0.09754
05	5.0000	0.09462	06	5.0000	0.09886	07	5.0000	0.1024			

13C2-PFDA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.9761	02	5.0000	0.8627	03	5.0000	0.7473	04	5.0000	0.9201
05	5.0000	0.8334	06	5.0000	0.8799	07	5.0000	0.8941			

13C2-PFDoDA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	1.002	02	5.0000	0.9101	03	5.0000	0.7935	04	5.0000	0.9488
05	5.0000	0.932	06	5.0000	0.9271	07	5.0000	0.9327			

13C2-PFHxA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	5.0000	0.858	03	5.0000	0.7175	04	5.0000	0.9062	05	5.0000	0.8602
06	5.0000	0.8646	07	5.0000	0.8932						

13C2-PFTeDA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.9824	02	5.0000	0.8183	03	5.0000	0.6838	04	5.0000	0.8485
05	5.0000	0.823	06	5.0000	0.8286	07	5.0000	0.8839			

13C2-PFUnDA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.7478	02	5.0000	0.7307	03	5.0000	0.5812	04	5.0000	0.727
05	5.0000	0.726	06	5.0000	0.7238	07	5.0000	0.6925			

13C3-PFBS

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1608	02	5.0000	0.1432	03	5.0000	0.1221	04	5.0000	0.1511

ALS Group USA, Corp.
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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park

Service Request: R2202553
Calibration Date: 3/29/2022

Initial Calibration Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2200201
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte

13C3-PFBS											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
05	5.0000	0.1509	06	5.0000	0.1557	07	5.0000	0.1509			
13C4-PFBA											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.6856	02	5.0000	0.6293	03	5.0000	0.5147	04	5.0000	0.6637
05	5.0000	0.6561	06	5.0000	0.6812	07	5.0000	0.6338			
13C4-PFHpA											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	1.169	02	5.0000	1.007	03	5.0000	0.8402	04	5.0000	1.028
05	5.0000	0.8805	06	5.0000	0.9578	07	5.0000	1.101			
13C4-PFOA											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	1.155	02	5.0000	1.067	03	5.0000	0.8825	04	5.0000	1.105
05	5.0000	1.056	06	5.0000	1.079	07	5.0000	1.102			
13C4-PFOS											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1738	02	5.0000	0.1626	03	5.0000	0.1311	04	5.0000	0.1687
05	5.0000	0.1655	06	5.0000	0.1706	07	5.0000	0.1625			
13C5-PFNA											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	1.073	02	5.0000	1.019	03	5.0000	0.8217	04	5.0000	1.015
05	5.0000	1.014	06	5.0000	1.044	07	5.0000	0.9919			
13C5-PFPeA											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.3656	02	5.0000	0.3355	03	5.0000	0.275	04	5.0000	0.3546
05	5.0000	0.3469	06	5.0000	0.3544	07	5.0000	0.3265			
13C8-FOSA											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.3917	02	5.0000	0.3687	03	5.0000	0.2984	04	5.0000	0.3776
05	5.0000	0.3814	06	5.0000	0.3878	07	5.0000	0.3751			
18O2-PFHxS											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	5.0000	0.1176	02	5.0000	0.1005	03	5.0000	0.08571	04	5.0000	0.1158
05	5.0000	0.1269	06	5.0000	0.1194	07	5.0000	0.09992			
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)											
#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0480	0.8878	07	0.0960	0.7757	02	0.4800	0.7713	03	0.9600	0.8111
04	4.8002	0.7852	05	9.6005	0.7424	06	14.4007	0.7648			

ALS Group USA, Corp.
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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park

Service Request: R2202553
Calibration Date: 3/29/2022

Initial Calibration Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2200201
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte

1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0476	1.436	07	0.0951	1.234	02	0.4756	1.06	03	0.9512	1.25
04	4.7558	1.126	05	9.5117	1.094	06	14.2676	1.063			

D3-MeFOSAA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	5.0000	0.1792	03	5.0000	0.1462	04	5.0000	0.1888	05	5.0000	0.1799
06	5.0000	0.1879	07	5.0000	0.1834						

D5-EtFOSAA

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
02	5.0000	0.129	03	5.0000	0.1142	04	5.0000	0.121	05	5.0000	0.1173
06	5.0000	0.1211	07	5.0000	0.1166						

N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
07	0.1000	0.8454	02	0.5000	0.491	03	1.0000	0.5242	04	5.0000	0.6002
05	10.0000	0.642	06	15.0000	0.6757						

N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
07	0.1000	0.6968	02	0.5000	0.5024	03	1.0000	0.5841	04	5.0000	0.5793
05	10.0000	0.6304	06	15.0000	0.6225						

Perfluorobutane sulfonic acid (PFBS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0444	1.64	07	0.0887	1.586	02	0.4437	1.458	03	0.8874	1.384
04	4.4369	1.465	05	8.8737	1.528	06	13.3106	1.61			

Perfluorobutanoic acid (PFBA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.005	07	0.1000	0.9394	02	0.5000	0.8064	03	1.0000	0.8376
04	5.0000	0.8381	05	10.0000	0.8695	06	15.0000	0.9132			

Perfluorodecane sulfonic acid (PFDS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0482	0.6901	07	0.0965	0.6741	02	0.4823	0.6817	03	0.9647	0.6653
04	4.8233	0.6947	05	9.6467	0.7592	06	14.4700	0.7956			

Perfluorodecanoic acid (PFDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.114	07	0.1000	1.06	02	0.5000	0.8662	03	1.0000	0.9438
04	5.0000	0.9516	05	10.0000	1.017	06	15.0000	1.059			

Perfluorododecanoic acid (PFDOA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
07	0.1000	0.9622	02	0.5000	0.5745	03	1.0000	0.5804	04	5.0000	0.6285
05	10.0000	0.66	06	15.0000	0.6966						

ALS Group USA, Corp.
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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park

Service Request: R2202553
Calibration Date: 3/29/2022

Initial Calibration Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2200201
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte

Perfluoroheptane sulfonic acid (PFHpS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0477	1.31	07	0.0953	1.457	02	0.4767	1.182	03	0.9534	1.182
04	4.7672	1.135	05	9.5344	1.051	06	14.3016	1.228			

Perfluoroheptanoic acid (PFHpA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	0.9798	07	0.1000	0.7627	02	0.5000	0.7547	03	1.0000	0.7118
04	5.0000	0.6814	05	10.0000	0.7241	06	15.0000	0.8018			

Perfluorohexane sulfonic acid (PFHxS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0457	1.689	07	0.0913	1.716	02	0.4565	1.207	03	0.9131	1.371
04	4.5654	1.197	05	9.1308	1.129	06	13.6961	1.269			

Perfluorohexanoic acid (PFHxA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
07	0.1000	1.128	02	0.5000	0.935	03	1.0000	0.9798	04	5.0000	0.9584
05	10.0000	0.9628	06	15.0000	1.045						

Perfluorononanoic acid (PFNA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	0.9876	07	0.1000	0.9944	02	0.5000	0.8491	03	1.0000	0.8074
04	5.0000	0.864	05	10.0000	0.8659	06	15.0000	0.9211			

Perfluorooctane sulfonamide (PFOSAm)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.41	07	0.1000	1.501	02	0.5000	1.386	03	1.0000	1.4
04	5.0000	1.392	05	10.0000	1.438	06	15.0000	1.5			

Perfluorooctane sulfonic acid (PFOS)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0465	0.7206	07	0.0929	0.7345	02	0.4646	0.6261	03	0.9292	0.6644
04	4.6461	0.6669	05	9.2923	0.6919	06	13.9385	0.7495			

Perfluorooctanoic acid (PFOA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.18	07	0.1000	1.275	02	0.5000	1.067	03	1.0000	1.111
04	5.0000	1.107	05	10.0000	1.155	06	15.0000	1.238			

Perfluoropentanoic acid (PFPeA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	3.022	07	0.1000	3.141	02	0.5000	2.222	03	1.0000	2.272
04	5.0000	2.236	05	10.0000	2.325	06	15.0000	2.445			

Perfluorotetradecanoic acid (PFTDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	0.7623	07	0.1000	0.7729	02	0.5000	0.6109	03	1.0000	0.629
04	5.0000	0.5989	05	10.0000	0.6207	06	15.0000	0.6733			

Client: Parsons
Project: ILI - Region 9 Griffon Park

Service Request: R2202553
Calibration Date: 3/29/2022

Initial Calibration Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2200201
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte

Perfluorotridecanoic acid (PFTrDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
07	0.1000	1.407	02	0.5000	1.062	03	1.0000	1.117	04	5.0000	1.172
05	10.0000	1.233	06	15.0000	1.304						

Perfluoroundecanoic acid (PFUnDA)

#	Amount	RF	#	Amount	RF	#	Amount	RF	#	Amount	RF
01	0.0500	1.262	07	0.1000	1.326	02	0.5000	1.076	03	1.0000	1.129
04	5.0000	1.112	05	10.0000	1.142	06	15.0000	1.19			

Client: Parsons
Project: ILI - Region 9 Griffon Park

Service Request: R2202553
Calibration Date: 3/29/2022

Initial Calibration Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2200201
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
13C2-6:2 FTS	SURR	Average RF	% RSD	8.6	≤20	0.1097	
13C2-8:2 FTS	SURR	Average RF	% RSD	8.2	≤20	0.0973	
13C2-PFDA	SURR	Average RF	% RSD	8.2	≤20	0.8734	
13C2-PFDoDA	SURR	Average RF	% RSD	6.9	≤20	0.9208	
13C2-PFHxA	SURR	Average RF	% RSD	8.0	≤20	0.85	
13C2-PFTeDA	SURR	Average RF	% RSD	10.6	≤20	0.8384	
13C2-PFUnDA	SURR	Average RF	% RSD	8.0	≤20	0.7042	
13C3-PFBS	SURR	Average RF	% RSD	8.5	≤20	0.1478	
13C4-PFBA	SURR	Average RF	% RSD	9.2	≤20	0.6378	
13C4-PFHpA	SURR	Average RF	% RSD	11.7	≤20	0.9977	
13C4-PFOA	SURR	Average RF	% RSD	8.1	≤20	1.064	
13C4-PFOS	SURR	Average RF	% RSD	8.8	≤20	0.1621	
13C5-PFNA	SURR	Average RF	% RSD	8.2	≤20	0.997	
13C5-PFPeA	SURR	Average RF	% RSD	9.0	≤20	0.3369	
13C8-FOSA	SURR	Average RF	% RSD	8.7	≤20	0.3687	
18O2-PFHxS	SURR	Average RF	% RSD	13.2	≤20	0.1094	
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	TRG	Average RF	% RSD	6.0	≤20	0.7912	
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	TRG	Average RF	% RSD	11.5	≤20	1.18	
D3-MeFOSAA	SURR	Average RF	% RSD	8.9	≤20	0.1776	
D5-EtFOSAA	SURR	Average RF	% RSD	4.3	≤20	0.1199	
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	TRG	Quadratic	COD	0.9997	≥0.99	0.6297	
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	TRG	Quadratic	COD	0.9990	≥0.99	0.6026	
Perfluorobutane sulfonic acid (PFBS)	TRG	Average RF	% RSD	6.1	≤20	1.524	
Perfluorobutanoic acid (PFBA)	TRG	Average RF	% RSD	7.8	≤20	0.887	
Perfluorodecane sulfonic acid (PFDS)	TRG	Average RF	% RSD	6.9	≤20	0.7087	
Perfluorodecanoic acid (PFDA)	TRG	Average RF	% RSD	8.5	≤20	1.002	
Perfluorododecanoic acid (PFDOA)	TRG	Quadratic	COD	0.9999	≥0.99	0.6837	
Perfluoroheptane sulfonic acid (PFHpS)	TRG	Average RF	% RSD	10.7	≤20	1.221	
Perfluoroheptanoic acid (PFHpA)	TRG	Average RF	% RSD	12.8	≤20	0.7738	

Client: Parsons
Project: ILI - Region 9 Griffon Park

Service Request: R2202553
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Initial Calibration Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2200201

Signal ID: 1

Instrument ID: K-LCMS-06

Analyte Name	Compound Type	Calibration Evaluation				Calibration Evaluation	
		Fit Type	Eval	Eval Result	Control Criteria	Average RRF	Minimum RRF
Perfluorohexane sulfonic acid (PFHxS)	TRG	Linear	R2	0.9967	≥0.99	1.368	
Perfluorohexanoic acid (PFHxA)	TRG	Linear	R2	0.9980	≥0.99	1.002	
Perfluorononanoic acid (PFNA)	TRG	Average RF	% RSD	8.0	≤20	0.8985	
Perfluorooctane sulfonamide (PFOSAm)	TRG	Average RF	% RSD	3.5	≤20	1.433	
Perfluorooctane sulfonic acid (PFOS)	TRG	Average RF	% RSD	6.4	≤20	0.6934	
Perfluorooctanoic acid (PFOA)	TRG	Average RF	% RSD	6.4	≤20	1.162	
Perfluoropentanoic acid (PFPeA)	TRG	Average RF	% RSD	15.5	≤20	2.523	
Perfluorotetradecanoic acid (PFTDA)	TRG	Average RF	% RSD	10.9	≤20	0.6669	
Perfluorotridecanoic acid (PFTrDA)	TRG	Average RF	% RSD	10.4	≤20	1.216	
Perfluoroundecanoic acid (PFUnDA)	TRG	Average RF	% RSD	7.6	≤20	1.177	

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park

Service Request: R2202553
Calibration Date: 3/29/2022

Initial Calibration Verification Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2200201
Instrument ID: K-LCMS-06

Signal ID: 1

#	Lab Code	Sample Name	File Location	Acquisition Date
08	KC2200201-08	PFC ICV @ 1.0ppb	220329_054	03/29/2022 16:19
09	KC2200201-09	EtFOSAA + MeFOSAA ICV @ 1ppb	220329_055	03/29/2022 16:39

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
Perfluorobutane sulfonic acid (PFBS)	0.887	0.845	1.524E0	1.452E0	-4.723	±30	Average RF
Perfluorohexane sulfonic acid (PFHxS)	0.913	0.925	1.368E0	1.259E0	1.29	±30	Linear
Perfluoroheptane sulfonic acid (PFHpS)	0.953	1.03	1.221E0	1.313E0	7.53	±30	Average RF
Perfluorooctane sulfonic acid (PFOS)	0.929	0.947	6.934E-1	7.064E-1	1.87	±30	Average RF
Perfluorodecane sulfonic acid (PFDS)	0.965	1.07	7.087E-1	7.892E-1	11.36	±30	Average RF
Perfluorobutanoic acid (PFBA)	1.00	0.964	8.87E-1	8.548E-1	-3.622	±30	Average RF
Perfluoropentanoic acid (PFPeA)	1.00	0.946	2.523E0	2.388E0	-5.359	±30	Average RF
Perfluorohexanoic acid (PFHxA)	1.00	1.03	1.002E0	1.03E0	2.78	±30	Linear
Perfluoroheptanoic acid (PFHpA)	1.00	0.878	7.738E-1	6.797E-1	-12.157	±30	Average RF
Perfluorooctanoic acid (PFOA)	1.00	0.969	1.162E0	1.125E0	-3.128	±30	Average RF
Perfluorononanoic acid (PFNA)	1.00	0.914	8.985E-1	8.214E-1	-8.583	±30	Average RF
Perfluorodecanoic acid (PFDA)	1.00	0.954	1.002E0	9.557E-1	-4.602	±30	Average RF
Perfluoroundecanoic acid (PFUnDA)	1.00	0.993	1.177E0	1.168E0	-0.702	±30	Average RF
Perfluorododecanoic acid (PFDOA)	1.00	1.01	6.837E-1	6.153E-1	1.23	±30	Quadratic
Perfluorotridecanoic acid (PFTrDA)	1.00	0.904	1.216E0	1.099E0	-9.620	±30	Average RF
Perfluorotetradecanoic acid (PFTDA)	1.00	1.14	6.669E-1	7.586E-1	13.76	±30	Average RF
Perfluorooctane sulfonamide (PFOSAm)	1.00	1.01	1.433E0	1.448E0	1.06	±30	Average RF
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.00	1.15	6.026E-1	6.663E-1	15.01	±30	Quadratic
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.00	1.25	6.297E-1	7.048E-1	25.06	±30	Quadratic
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	0.951	1.00	1.18E0	1.242E0	5.18	±30	Average RF
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	0.960	1.00	7.912E-1	8.263E-1	4.44	±30	Average RF

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
13C3-PFBS	5.00	4.17	1.478E-1	1.232E-1	-16.637	±30	Average RF
13C3-PFBS	5.00	5.35	1.478E-1	1.582E-1	7.06	±30	Average RF
18O2-PFHxS	5.00	4.76	1.094E-1	1.042E-1	-4.719	±30	Average RF
18O2-PFHxS	5.00	4.64	1.094E-1	1.016E-1	-7.153	±30	Average RF
13C4-PFOS	5.00	5.25	1.621E-1	1.702E-1	4.99	±30	Average RF
13C4-PFOS	5.00	4.30	1.621E-1	1.393E-1	-14.061	±30	Average RF
13C4-PFBA	5.00	4.24	6.378E-1	5.403E-1	-15.283	±30	Average RF

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park

Service Request: R2202553
Calibration Date: 3/29/2022

Initial Calibration Verification Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Calibration ID: KC2200201
Instrument ID: K-LCMS-06

Signal ID: 1

Analyte Name	Expected	Result	Average RF	SSV RF	% D	Criteria	Curve Fit
13C4-PFBA	5.00	5.19	6.378E-1	6.624E-1	3.86	±30	Average RF
13C5-PFPeA	5.00	5.17	3.369E-1	3.486E-1	3.46	±30	Average RF
13C5-PFPeA	5.00	4.30	3.369E-1	2.895E-1	-14.065	±30	Average RF
13C2-PFHxA	5.00	4.56	8.5E-1	7.747E-1	-8.854	±30	Average RF
13C2-PFHxA	5.00	5.61	8.5E-1	9.534E-1	12.17	±30	Average RF
13C4-PFHpA	5.00	4.32	9.977E-1	8.613E-1	-13.674	±30	Average RF
13C4-PFHpA	5.00	5.81	9.977E-1	1.16E0	16.30	±30	Average RF
13C4-PFOA	5.00	4.32	1.064E0	9.183E-1	-13.679	±30	Average RF
13C4-PFOA	5.00	5.17	1.064E0	1.099E0	3.31	±30	Average RF
13C5-PFNA	5.00	4.45	9.97E-1	8.881E-1	-10.920	±30	Average RF
13C5-PFNA	5.00	4.98	9.97E-1	9.93E-1	-0.404	±30	Average RF
13C2-PFDA	5.00	4.57	8.734E-1	7.98E-1	-8.626	±30	Average RF
13C2-PFDA	5.00	5.28	8.734E-1	9.227E-1	5.65	±30	Average RF
13C2-PFUnDA	5.00	4.24	7.042E-1	5.964E-1	-15.296	±30	Average RF
13C2-PFUnDA	5.00	4.91	7.042E-1	6.922E-1	-1.703	±30	Average RF
13C2-PFDoDA	5.00	5.52	9.208E-1	1.017E0	10.46	±30	Average RF
13C2-PFDoDA	5.00	4.41	9.208E-1	8.119E-1	-11.832	±30	Average RF
13C2-PFTeDA	5.00	6.54	8.384E-1	1.097E0	30.88*	±30	Average RF
13C2-PFTeDA	5.00	4.41	8.384E-1	7.399E-1	-11.748	±30	Average RF
13C8-FOSA	5.00	5.02	3.687E-1	3.705E-1	0.498	±30	Average RF
13C8-FOSA	5.00	4.18	3.687E-1	3.084E-1	-16.340	±30	Average RF
D3-MeFOSAA	5.00	3.69	1.776E-1	1.311E-1	-26.185	±30	Average RF
D5-EtFOSAA	5.00	3.58	1.199E-1	8.594E-2	-28.313	±30	Average RF
13C2-6:2 FTS	5.00	4.74	1.097E-1	1.041E-1	-5.100	±30	Average RF
13C2-6:2 FTS	5.00	5.12	1.097E-1	1.124E-1	2.43	±30	Average RF
13C2-8:2 FTS	5.00	4.61	9.73E-2	8.975E-2	-7.759	±30	Average RF
13C2-8:2 FTS	5.00	5.38	9.73E-2	1.046E-1	7.54	±30	Average RF

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03

Service Request: R2202553
Date Analyzed: 03/30/22 11:35

Continuing Calibration Verification (CCV) Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M
File ID: J:\LCMS06\Data\220330_B2\220330_004
Signal ID: 1

Calibration Date: 3/29/2022
Calibration ID: KC2200201
Analysis Lot: 759167
Units: ng/mL

Analyte Name	Expected	Result	Average RF	CCV RF	Rec.	% Drift	Criteria	Curve Fit
Perfluorobutane sulfonic acid (PFBS)	0.887	0.884	1.5244	1.5189	99.6	NA	±30	Average RF
Perfluorohexane sulfonic acid (PFHxS)	0.913	0.892	1.3682	1.2154	97.7	-2.3	±30	Linear
Perfluoroheptane sulfonic acid (PFHpS)	0.953	0.925	1.2209	1.1842	97.0	NA	±30	Average RF
Perfluorooctane sulfonic acid (PFOS)	0.929	0.896	0.6934	0.6688	96.5	NA	±30	Average RF
Perfluorodecane sulfonic acid (PFDS)	0.965	0.995	0.7087	0.731	103	NA	±30	Average RF
Perfluorobutanoic acid (PFBA)	1.00	0.956	0.887	0.8478	95.6	NA	±30	Average RF
Perfluoropentanoic acid (PFPeA)	1.00	0.889	2.5233	2.2436	88.9	NA	±30	Average RF
Perfluorohexanoic acid (PFHxA)	1.00	0.939	1.0016	0.941	93.9	-6.1	±30	Linear
Perfluoroheptanoic acid (PFHpA)	1.00	0.958	0.7738	0.7415	95.8	NA	±30	Average RF
Perfluorooctanoic acid (PFOA)	1.00	1.01	1.1618	1.175	101	NA	±30	Average RF
Perfluorononanoic acid (PFNA)	1.00	0.974	0.8985	0.8753	97.4	NA	±30	Average RF
Perfluorodecanoic acid (PFDA)	1.00	0.940	1.0018	0.9415	94.0	NA	±30	Average RF
Perfluoroundecanoic acid (PFUnDA)	1.00	0.955	1.1767	1.1242	95.5	NA	±30	Average RF
Perfluorododecanoic acid (PFDOA)	1.00	0.949	0.6837	0.578	94.9	-5.2	±30	Quadratic
Perfluorotridecanoic acid (PFTrDA)	1.00	0.864	1.2157	1.05	86.4	NA	±30	Average RF
Perfluorotetradecanoic acid (PFTDA)	1.00	0.907	0.6669	0.6048	90.7	NA	±30	Average RF
Perfluorooctane sulfonamide (PFOSAm)	1.00	0.943	1.4327	1.3515	94.3	NA	±30	Average RF
N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA)	1.00	0.966	0.6026	0.5597	96.6	-3.4	±30	Quadratic
N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA)	1.00	0.865	0.6297	0.4903	86.5	-13.5	±30	Quadratic
1H, 1H, 2H, 2H-Perfluorooctanesulfonic acid (6:2 FTS)	0.951	0.960	1.1804	1.1916	101	NA	±30	Average RF
1H, 1H, 2H, 2H-Perfluorodecanesulfonic acid (8:2 FTS)	0.960	0.973	0.7912	0.8015	101	NA	±30	Average RF

Analyte Name	Expected	Result	Average RF	CCV RF	Rec.	% Drift	Criteria	Curve Fit
13C3-PFBS	5.00	4.37	0.1478	0.1291	87.3	NA	±30	Average RF
18O2-PFHxS	5.00	4.67	0.1094	0.1021	93.4	NA	±30	Average RF
13C4-PFOS	5.00	4.40	0.1621	0.1427	88.0	NA	±30	Average RF
13C4-PFBA	5.00	5.44	0.6378	0.6945	109	NA	±30	Average RF
13C5-PFPeA	5.00	5.40	0.3369	0.3639	108	NA	±30	Average RF
13C2-PFHxA	5.00	5.34	0.85	0.9076	107	NA	±30	Average RF
13C4-PFHpA	5.00	5.18	0.9977	1.0331	104	NA	±30	Average RF
13C4-PFOA	5.00	5.42	1.0639	1.1541	108	NA	±30	Average RF

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QA/QC Report

Client: Parsons

Service Request: R2202553

Project: ILI - Region 9 Griffon Park/452148.60007.03

Date Analyzed: 03/30/22 11:35

Continuing Calibration Verification (CCV) Summary
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M

Calibration Date: 3/29/2022

File ID: J:\LCMS06\Data\220330_B2\220330_004

Calibration ID: KC2200201

Signal ID: 1

Analysis Lot: 759167

Units: ng/mL

13C5-PFNA	5.00	5.08	0.997	1.0123	102	NA	±30	Average RF
13C2-PFDA	5.00	4.64	0.8734	0.8109	92.8	NA	±30	Average RF
13C2-PFUnDA	5.00	4.06	0.7042	0.5713	81.1	NA	±30	Average RF
13C2-PFDoDA	5.00	3.93	0.9208	0.7237	78.6	NA	±30	Average RF
13C2-PFTeDA	5.00	4.03	0.8384	0.676	80.6	NA	±30	Average RF
13C8-FOSA	5.00	4.17	0.3687	0.3078	83.5	NA	±30	Average RF
D3-MeFOSAA	5.00	4.11	0.1776	0.1459	82.2	NA	±30	Average RF
D5-EtFOSAA	5.00	5.71	0.1199	0.1369	114	NA	±30	Average RF
13C2-6:2 FTS	5.00	8.54	0.1097	0.1874	171*	NA	±30	Average RF
13C2-8:2 FTS	5.00	5.12	0.0973	0.0996	102	NA	±30	Average RF

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QA/QC Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03

Service Request:R2202553

Analysis Run Log
Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Analysis Method: PFC/537M

Analysis Lot:759167

Instrument ID:K-LCMS-06

Raw Data File	Sample Name	Lab Code	Date Analyzed	Time Analyzed	Q
J:\LCMS06\Data\220330_B2\220330_004	Continuing Calibration Verification	KQ2205107-02	3/30/2022	11:35	
J:\LCMS06\Data\220330_B2\220330_005	Continuing Calibration Blank	KQ2205107-01	3/30/2022	11:46	
J:\LCMS06\Data\220330_B2\220330_010	Method Blank	KQ2204896-03	3/30/2022	12:38	
J:\LCMS06\Data\220330_B2\220330_011	Lab Control Sample	KQ2204896-01	3/30/2022	12:48	
J:\LCMS06\Data\220330_B2\220330_012	Duplicate Lab Control Sample	KQ2204896-02	3/30/2022	12:59	
J:\LCMS06\Data\220330_B2\220330_013	ZZZZZZZ	ZZZZZZZ	3/30/2022	13:09	
J:\LCMS06\Data\220330_B2\220330_014	ZZZZZZZ	ZZZZZZZ	3/30/2022	13:20	
J:\LCMS06\Data\220330_B2\220330_015	ZZZZZZZ	ZZZZZZZ	3/30/2022	13:30	
J:\LCMS06\Data\220330_B2\220330_016	ZZZZZZZ	ZZZZZZZ	3/30/2022	13:41	
J:\LCMS06\Data\220330_B2\220330_017	ZZZZZZZ	ZZZZZZZ	3/30/2022	13:51	
J:\LCMS06\Data\220330_B2\220330_018	ZZZZZZZ	ZZZZZZZ	3/30/2022	14:02	
J:\LCMS06\Data\220330_B2\220330_019	ZZZZZZZ	ZZZZZZZ	3/30/2022	14:12	
J:\LCMS06\Data\220330_B2\220330_020	ZZZZZZZ	ZZZZZZZ	3/30/2022	14:22	
J:\LCMS06\Data\220330_B2\220330_021	ZZZZZZZ	ZZZZZZZ	3/30/2022	14:33	
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J:\LCMS06\Data\220330_B2\220330_025	9-NIA-003-002-01	R2202553-001	3/30/2022	15:15	
J:\LCMS06\Data\220330_B2\220330_026	9-NIA-003-002-02	R2202553-002	3/30/2022	15:25	
J:\LCMS06\Data\220330_B2\220330_027	9-NIA-003-002-03	R2202553-003	3/30/2022	15:35	
J:\LCMS06\Data\220330_B2\220330_028	9-NIA-003-002-05	R2202553-004	3/30/2022	15:46	
J:\LCMS06\Data\220330_B2\220330_029	9-NIA-003-002-06	R2202553-005	3/30/2022	15:56	

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Prep Summary Report

Client: Parsons
Project: ILI - Region 9 Griffon Park/452148.60007.03
Sample Matrix: Water

Service Request: R2202553

Per- and Polyfluoroalkyl Substances (PFAS) by LC/MS/MS

Prep Method: ALS SOP
Analytical Method: PFC/537M

Extraction Lot: 397267
Extraction Date: 03/28/22 09:07

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Amount	Percent Solids
Lab Control Sample	KQ2204896-01LCS	NA	NA	250 mL	8 mL	
Duplicate Lab Control Sample	KQ2204896-02DLCS	NA	NA	250 mL	8 mL	
Method Blank	KQ2204896-03MB	NA	NA	250 mL	8 mL	
9-NIA-003-002-01	R2202553-001	3/23/22	3/24/22	285.0000 mL	8 mL	
9-NIA-003-002-02	R2202553-002	3/23/22	3/24/22	280.0000 mL	8 mL	
9-NIA-003-002-03	R2202553-003	3/23/22	3/24/22	290.0000 mL	8 mL	
9-NIA-003-002-05	R2202553-004	3/23/22	3/24/22	295.0000 mL	8 mL	
9-NIA-003-002-06	R2202553-005	3/23/22	3/24/22	295.0000 mL	8 mL	