



Washington State Department of Ecology
Southwest Region - Toxics Cleanup Program/VCP
PO Box 47775
Olympia, Washington 98504-7775

Your Reference
Facility Site ID: 1328,
Cleanup Site ID: 5012,
VCP Site No: SW1187

Mott MacDonald
1601 5th Avenue
Suite 800
Seattle
WA 98101
United States of America

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mottmac.com

Former Birds Eye Foods Tacoma, Third Quarter 2023 Groundwater Monitoring Event Summary Report

July 31, 2024

Dear Andrew:

This letter report summarizes the third quarter 2023 (2023 Q3) groundwater sampling event performed at the former Birds Eye Foods facility located at 3403 South 35th Street, Tacoma, Washington. Petroleum-related contamination in soil was identified in a portion of the facility, referred to as the “Boiler Room Site” (Site), which was the subject of a 2011 Remedial Investigation/Feasibility Study (2011 RI/FS) (Pacific Groundwater Group 2011). The preferred remedial alternative identified in the 2011 RI/FS includes an environmental restrictive covenant and long-term groundwater quality monitoring in a network of four well pairs. In 2013 the Washington State Department of Ecology (Ecology) determined that no further remedial action is necessary to clean up contamination at the Boiler Room Site, dependent on the continued performance and effectiveness of the post-cleanup controls and groundwater quality monitoring. Ecology's 2019 Periodic Review Report concluded that the cleanup actions completed at the Site continue to be protective of human health and the environment, that the requirements of the restrictive covenant are being satisfactorily met, and that no additional remedial actions are needed (Ecology 2019).

The Boiler Room Site is jointly regulated by Ecology and by the Tacoma – Pierce County Health Department (TPCHD). The 2023 Q3 sampling event was performed, and this summary report was prepared, to satisfy both the Ecology and TPCHD groundwater monitoring requirements.

Analytical results for groundwater samples collected in 2023 Q3 indicate that the preferred remedial alternative identified in the 2011 RI/FS is effective; the petroleum contamination in soil is not resulting in a dissolved plume with concentrations exceeding the Model Toxics Control Act (MTCA) Method A cleanup levels.

This work was performed, and this report prepared, in accordance with hydrogeologic practices generally accepted at this time and in this area for the

exclusive use of Birds Eye Foods, for specific application to the project Site. No other warranty, express or implied, is made.

1 Boiler Room Site Monitoring Programs

As regulating agencies, groundwater monitoring at the Site is required by both Ecology and TPCHD and the monitoring programs are described below. The analytical suites are the same for both the Ecology- and TPCHD-required programs (Section 1.3), but the schedules and well networks differ.

The 2023 Q3 monitoring event was conducted to satisfy both the Voluntary Cleanup Program (VCP) Long-Term Monitoring Program required by Ecology and the Semi-Annual Groundwater Monitoring Program required by TPCHD.

1.1 Ecology-Required VCP Long-Term Monitoring Program

The Birds Eye Foods Long-Term Groundwater Monitoring Plan (herein VCP Monitoring Plan) (Pacific Groundwater Group 2012) was reviewed by Ecology under the VCP framework of MTCA. The VCP Monitoring Plan describes the monitoring program objectives, well network, schedule, sampling protocols, contaminants of concern, and Site cleanup levels. The 2023 Q3 groundwater samples were collected in compliance with the VCP Monitoring Plan.

Monitoring Well Network and Schedule

For the Boiler Room Site monitoring well pairs, shallow wells have the suffix “S”; deep wells have the suffix “D”. At each pair, the shallow and deep wells are approximately five lateral feet from each other. Well construction information is summarized in Table 1 and well locations are shown on Figure 1. The long-term monitoring well network is presented in Figure 1 and consists of:

MW-9S	MW-12S	MW-13S	MW-14S
MW-9D	MW-12D	MW-13D	MW-14D

As described in the VCP Monitoring Plan, the preferred remedial alternative identified in the 2011 RI/FS includes groundwater quality monitoring in 8 wells at the following frequency:

- 4 quarters of monitoring in Year 1
- 1 event every 18 months in Years 2 – 10

This schedule is subject to change following Ecology Periodic Reviews¹ that are performed at five-year intervals (5-Year Reviews). Modifications to the groundwater monitoring program were not made as part of the 2019 Periodic Review.

The four quarters of consecutive monitoring in Year 1 were completed in 2013 Q1. The 2023 Q3 monitoring represents the seventh event at an 18-month interval and Year 11. The next sampling event under the VCP Monitoring Program is scheduled for 2025 Q1.

¹ The Boiler Room Site No Further Action is dated July 8, 2013; the first Periodic Review was completed in 2019 (Ecology 2019) and concluded that cleanup actions continue to be protective of human health and the environment, that the requirements of the Restrictive Covenant are being satisfactorily met, and that no additional remedial actions are needed at this time.

1.2 TPCHD-Required Semi-Annual Groundwater Monitoring Program

TPCHD regulates the Boiler Room Site as an open underground storage tank (UST) Site. Due to the presence of contaminated soil below the water table at the Boiler Room Site, TPCHD requires on-going groundwater monitoring to assess the efficacy of remedial actions and to monitor for potential contaminant migration (Marek undated; received June 13, 2013).

Monitoring Well Network and Schedule

The semi-annual monitoring events involve sampling wells MW-9S, MW-9D, MW-12S, and MW-12D (Figure 1), which are a subset of the VCP Long-Term Monitoring Program. Semi-annual monitoring is required in the spring and fall. The next sampling event under the Semi-Annual Monitoring Program was due in 2024 Q1; however, sampling was not performed due to contracting delays between Conagra and Mott MacDonald as communicated to TPCHD on May 21, 2024 (personal communication between Keith Johnston, TPCHD, and Inger Jackson, Mott MacDonald).

1.3 Chemicals of Concern and Site Cleanup Levels

The analytical suite for groundwater monitoring at the Boiler Room Site is:

- Northwest Total Petroleum Hydrocarbons – Gasoline Range Organics (NWTPH-G), and Diesel-Range and Heavy Oil-Range Organics (NWTPH-Dx)
- BTEX Compounds: Benzene, Toluene, Ethylbenzene, and Xylenes (EPA Method 8260²)
- PAHs: Polycyclic Aromatic Hydrocarbons (EPA Method 8270E with selected ion monitoring modification to achieve required reporting limits)

As described in the 2011 RI/FS and Long-Term Monitoring Plan, standard MTCA Method A Unrestricted Land Use cleanup levels are applicable to the Boiler Room Site to evaluate the relative chemical effects from soil contamination at the Site on groundwater quality. MTCA Method A meets the criteria of WAC 173-340-704(1) because there are few hazardous substances at the Site and numerical Method A standards have been established. Site-groundwater cleanup levels are presented in Tables 2 and 3, and are consistent with the 2011 RI/FS.

2 2023 Q3 Groundwater Sampling Summary

Groundwater quality samples for the 2023 Q3 monitoring event were collected from the Boiler Room Site long-term well network in compliance with the Semi-Annual Groundwater Monitoring Plan (Pacific Groundwater Group 2013) and TPCHD requirements (Marek undated; received June 13, 2013) on September 26th and 27th, 2023 by representatives of Mott MacDonald.

The monitoring wells were purged and sampled using new, disposable tubing and peristaltic pumps. Low flow purging and sampling techniques were used to minimize turbidity in the groundwater samples. During purging, field meters were

² As stated in reports for sampling events performed between September 2015 and March 2017, groundwater samples collected at the Boiler Room Site between 2001 and March 2015 were analyzed for BTEX compounds by EPA Method 8021. Subsequently, ARI discontinued analyzing water samples for BTEX compounds by Method 8021 and informed PGG that "Ecology is moving away from that method as it gives false positives" (Bottem 2015). Therefore, samples collected at the Boiler Room Site in 2020 Q3 were analyzed for BTEX compounds by EPA 8260. ARI's BTEX reporting limits for EPA 8260 are equal to or less than those for EPA 8021.

used to monitor pH, specific conductance, temperature, and turbidity. Samples were collected when these field parameters had stabilized or after a minimum of three casing volumes had been purged. Purge water was drummed and temporarily stored onsite prior to offsite treatment and disposal.

Groundwater samples were delivered to Analytical Resources, Inc. (ARI), a Washington State certified laboratory, on September 27th, 2023. Samples were delivered in ice chests following standard chain-of-custody procedures. Groundwater samples were analyzed according to Ecology and/or U.S. Environmental Protection Agency methods for the site chemicals of concern.

2.1 Analytical Results

The 2023 Q3 groundwater monitoring analytical results are summarized in Tables 2 and 3. The analytical lab reports are presented in Appendix A. Site contaminants of concern were not detected in the groundwater samples. The analytical reporting limits were less than or equal to corresponding Site cleanup levels.

The 2023 Q3 groundwater analytical results indicate the preferred remedial alternative identified in the 2011 RI/FS is effective; the petroleum contamination in soil at the Boiler Room Site is not resulting in a dissolved plume with concentrations exceeding MTCA Method A groundwater cleanup levels.

Quality assurance/quality control (QA/QC) data associated with the Boiler Room Site 2023 Q3 groundwater samples were reviewed by Mott MacDonald. All requested analyses were performed and the QA/QC assessments indicated acceptable results with the following notation:

- Matrix Spikes (MS) and Matrix Spike Duplicates (MSD) are types of QA/QC samples. The lab prepares the MS/MSDs by adding known spikes of target analytes to samples collected in the field. Recoveries of the spikes from the MS assess the effects of interferences caused by the specific sample matrix. MSDs are replicates of the MS to check for precision and bias of a method for a specific sample matrix. During the 2023 Q3 sampling event, additional volume for MS/MSD analysis was collected from MW-12D. The MSD was not analyzed for diesel- and heavy oil-range organics because the vial broke during the extraction process and the MSD volume was lost. Since MS/MSD recovery limits are advisory only (lab report 23J0033) and diesel- and heavy oil-range organics were not detected in the 2023 Q3 samples, no corrective actions were required, and the data are considered acceptable for purposes of the monitoring program without qualification.

Consistent with the VCP Monitoring Plan, field QA/QC included a blind field duplicate labeled MW-19S that was collected at well MW-9S and analyzed to evaluate analytical precision. No Site chemicals of concern were detected in either the 2023 Q3 field duplicate MW-19S or MW-9S.

2.2 Groundwater Flow Direction

Water levels measured in the shallow well network during the 2023 Q3 sampling event (Table 2, measurements made September 26th and 27th, 2023) were used to generate elevation contours of the water table (Figure 1). The contours reflect a very flat water table, varying only 0.25 feet, or 3 inches, across the Site. The groundwater flow direction during the 2023 Q3 event was toward the south.

3 References

- Bottem, Kelly. 2015. Email from Kelly Bottem, ARI, to Inger Jackson, Pacific Groundwater Group re: AMQ4 Maytown. September 29, 2015.
- Marek, undated. Birds Eye Foods – UST Site Tacoma, WA. Letter from Mr. Steve Marek, Director Environmental Health Division Tacoma – Pierce County Health Department to Mr. Scott Fehseke, Pinnacle Foods, LLC. Digital version of letter received by Pinnacle Foods, LLC via email on June 13, 2013.
- Pacific Groundwater Group, 2011. Birds Eye Foods Tacoma, WA 2011 Remedial Investigation/Feasibility Study. Consultant's report prepared for Pinnacle Foods Group, LLC. December 16, 2011.
- Pacific Groundwater Group, 2012. Birds Eye Foods, Tacoma Boiler Room Site Long-Term Groundwater Monitoring Plan VCP Site Number SW1187. Consultant's re-port prepared for Pinnacle Foods Group, LLC. October 23, 2012
- Washington State Department of Ecology, 2007. Model Toxics Control Act Statute and Regulation. WAC 173-340. Publication No. 94-06. Revised November 2007.
- Washington State Department of Ecology, 2014. Cleanup Levels and Risk Calculations (CLARC) Data Tables – May 2014 update.
<https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx>
- Washington State Department of Ecology, 2019. Periodic Review Report Final Birds Eye Foods Facility; Site ID#: 1328; Cleanup Site ID#: 5012; 3303 South 35th Street Tacoma, Washington 98409. Southwest Regional Office Toxics Cleanup Program. February 2019.

4 Closing

We hope this data contributes to your understanding of the Site and groundwater monitoring data. Please contact Inger Jackson at Mott MacDonald with questions.

Sincerely,



Inger Jackson, LHG
Senior Project Scientist
206-329-0138
inger.jackson@mottmac.com

cc Allison Torrence
Keith Johnston

Conagra Brands
Tacoma - Pierce County Health
Department

Attachments

Table 1. VCP Long-Term Monitoring Well Network Construction Details, Birds Eye Boiler Room Site

Table 2. Summary of Groundwater Quality Data, Birds Eye Foods, 2023 Q3

Table 3. Summary of Polycyclic Aromatic Hydrocarbons (PAH, SW8270D), Birds Eye Foods, 2023 Q3

Figure 1. VCP Long-Term Monitoring Well Network and 2023 Q3 Water Table Contours

Appendix A. ARI Lab Report3 23J0033

Table 1. VCP Long-Term Monitoring Well Network Construction Details, Birds Eye Boiler Room Site

Units, Datum*		MW-9S	MW-9D	MW-12S	MW-12D	MW-13S	MW-13D	MW-14S	MW-14D
Unique Well ID (UWID)				BHL 104	BHL 103	BHL 106	BHL 105	BHL 108	BHL 107
Location Information									
Township/Range-Section		21N/R3E-07	21N/R3E-07	21N/R3E-07	21N/R3E-07	21N/R3E-07	21N/R3E-07	21N/R3E-07	21N/R3E-07
Northing	feet, NAD 83/91 WA South	697261.9	697257.9	697590.9	697585.0	697449.3	697457.4	697375.4	697375.0
Easting	feet, NAD 83/91 WA South	1148195.0	1148194.9	1148259.2	1148259.1	1148109.1	1148110.2	1148314.6	1148326.9
Ground Surface Elevation	feet, NAVD 88	247.67	247.64	248.24	248.19	247.23	247.24	249.45	249.43
Measuring Point Elevation	feet, NAVD 88	246.99	247.14	247.86	247.90	246.89	246.98	249.08	249.10
Construction Information									
Date Completed		10/22/1991	8/24/1992	4/23/2012	4/23/2012	4/24/2012	4/24/2012	4/26/2012	4/25/2012
Diameter	inches	2	2	2	2	2	2	2	2
Depth Drilled	feet bgs	37	82	35	75	35	75	35	75
Top of Screen	feet bgs	22	77	20	63	20	63	20	63
Bottom of Screen	feet bgs	37	82	35	73	35	73	35	73
Depth Completed	feet bgs	37	82	35	73	35	73	35	73
Monument Type		← Sherwood High Traffic Flush Monument →							

* Vertical and Horizontal Datums use the Washington State Reference Network

bgs = below ground surface

Table 2: Summary of Groundwater Quality Data, Birds Eye Foods, 2023 Q3

CONSTITUENT	UNITS	Site Cleanup Levels*	MW-9S	MW-9D	MW-12S	MW-12D	MW-13S	MW-13D	MW-14S	MW-14D
Field Parameters										
Depth to Water	feet		22.1	22.19	22.72	22.78	21.86	21.78	24.06	23.89
pH, Field	std. units		6.53	6.88	7.01	7.58	6.98	7.68	6.93	7.69
Specific Conductance, Field	umhos/cm		340.3	332.3	507.1	530.1	141.1	366.1	407.5	411.5
Temperature (C)	C		16.5	16	16.3	15.4	14.9	14.8	14.8	14.6
Turbidity, Field	NTU		1.77	0.05 U	23.66	3.65	1.85	1.48	3.28	0.05 U
NWTPH Analytes										
Diesel Range Organics	mg/L	0.5	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Gasoline Range Organics	mg/L	0.8	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Oil Range Organics	mg/L	0.5	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
BTEX (EPA 8260)										
Benzene	ug/L	5	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Ethylbenzene	ug/L	700	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Toluene	ug/L	1000	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
o-Xylene	ug/L		0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Xylene Isomers, m+p	ug/L		0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U

*Cleanup Levels based on MTCA Method A.

MTCA Cleanup Levels: Gasoline Range Organics 0.8 mg/L if benzene present, 1.0 mg/L if benzene not present; Xylenes 1000 ug/L (individual cleanup levels for m+p xylenes and o-xylenes not established); Benzo(a)pyrene cleanup level represents the total concentration that all carcinogenic PAHs must meet using the toxicity equivalency method in WAC 173-340-708(8). See Table 3 for PAHs and text if carcinogenic PAHs detected in groundwater samples for this event.

NWTPH-Dx analysis with silica gel cleanup, consistent with historical site analyses

Lower case qualifiers assigned by PGG QA/QC data reviewer.

Upper case qualifiers assigned by lab.

Bold text indicates constituent detected at or above method reporting limit.

U - Compound not detected

J - Concentration estimated

B - Compound detected in blank

Table 3: Summary of Polycyclic Aromatic Hydrocarbon (PAH, SW8270D) Data, Birds Eye Foods, 2023 Q3

CONSTITUENT	UNITS	Site Cleanup	MW-9S	MW-9D	MW-12S	MW-12D	MW-13S	MW-13D	MW-14S	MW-14D
		Levels*								
Carcinogenic PAHs										
Benzo(a)anthracene	ug/L	0.1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(a)pyrene	ug/L		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(b)fluoranthene	ug/L		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(k)fluoranthene	ug/L		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Chrysene	ug/L		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Dibenzo(a,h)anthracene	ug/L		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Indeno(1,2,3-cd)pyrene	ug/L		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Non-Carcinogenic PAHs										
Acenaphthene	ug/L	160	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Acenaphthylene	ug/L		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Anthracene	ug/L		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo(g,h,i)perylene	ug/L		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Fluoranthene	ug/L		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Fluorene	ug/L		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Naphthalene	ug/L		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Phenanthrene	ug/L		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Pyrene	ug/L		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U

*Cleanup Levels based on MTCA Method A.

MTCA Cleanup Levels: Gasoline Range Organics 0.8 mg/L if benzene present, 1.0 mg/L if benzene not present; Xylenes 1000 ug/L (individual cleanup levels for m+p xylenes and o-xylenes not established); Benzo(a)pyrene cleanup level represents the total concentration that all carcinogenic PAHs must meet using the toxicity equivalency method in WAC 173-340-708(8). See Table 3 for PAHs and text if carcinogenic PAHs detected in groundwater samples for this event.

NWTPH-Dx analysis with silica gel cleanup, consistent with historical site analyses

Lower case qualifiers assigned by PGG QA/QC data reviewer.

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Bold text indicates constituent detected at or above method reporting limit.

U - Compound not detected

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K:\RUSS\BirdsEye\GIS\MonitoringNetwork_2023Q3\WL.mxd - 10/31/2023



- Long-Term Monitoring Well Network with Water Table Elevation in Feet
- Water Table Elevation Contours in Feet NAVD88
- Tacoma Production Wells
- ➔ Groundwater Flow Direction



Figure 1
VCP Long-Term Monitoring
Well Network & 2023 Q3
Water Table Contours

Birds Eye
2023 Q3 Monitoring Report

M
MOTT
MACDONALD



Appendix A Analytical Lab Report



Analytical Resources, LLC
Analytical Chemists and Consultants
Tukwila, WA

25 October 2023

Inger Jackson
Mott MacDonald
1601 5th Avenue Suite 800
Seattle, WA 98101

RE: Birds Eye (518300040)

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

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

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

Associated Work Order(s)
23J0033

Associated SDG ID(s)
N/A

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

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

Analytical Resources, LLC

Kelly Bottem, Client Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: 2350033 Turn-around Requested: Standard

ARI Client Company: Mott MacDonald/PGG Phone: _____

Client Contact: Inger Jackson

Client Project Name: Birds Eye

Client Project #: 518300040 Samplers: Ashley Parkhurst/Cheyenne Stice

Page: 1 of 1

Date: _____ Ice Present? Yes

No. of Coolers: 4 Cooler Temps: See Col



Analytical Resources, LLC
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID					Analysis Requested								Notes/Comments	
Date	Time	Matrix	No. Containers		BTEX + G	NUTPHDX w/ silica gel	SIMS PAH							
MW-12S	9/26/23	0935	W	9	5	2	2							
MW-12D	9/26/23	1130	W	27	15	6	6						MS/MSD volumes included	
MW-9S	9/26/23	1200	W	9	5	2	2							
MW-9D	9/26/23	1550	W	9	5	2	2							
MW-19S	9/26/23	1210	W	9	5	2	2							
MW-13S	9/26/23	1425	W	9	5	2	2							
MW-13D	9/27/23	1110	W	9	5	2	2							
MW-14S	9/27/23	1250	W	9	5	2	2							
MW-14D	9/27/23	1150	W	9	5	2	2							
Comments/Special Instructions					Relinquished by:				Received by:					
EDD in PGG Format + EIM Format					(Signature) <u>[Signature]</u>				(Signature) <u>[Signature]</u>					
					Printed Name: <u>Ashley Parkhurst</u>				Printed Name: <u>Jacob Walter</u>					
					Company: <u>Mott MacDonald</u>				Company: <u>ARI, LLC</u>					
					Date & Time: <u>9/27/2023 1428</u>				Date & Time: <u>9/27/23 1428</u>					

Limits of Liability: ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, notwithstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.



Mott MacDonald
1601 5th Avenue Suite 800
Seattle WA, 98101

Project: Birds Eye
Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-12S	23J0033-01	Water	26-Sep-2023 09:35	27-Sep-2023 14:28
MW-12D	23J0033-02	Water	26-Sep-2023 11:30	27-Sep-2023 14:28
MW-9S	23J0033-03	Water	26-Sep-2023 12:00	27-Sep-2023 14:28
MW-9D	23J0033-04	Water	26-Sep-2023 15:50	27-Sep-2023 14:28
MW-19S	23J0033-05	Water	26-Sep-2023 12:10	27-Sep-2023 14:28
MW-13S	23J0033-06	Water	26-Sep-2023 14:25	27-Sep-2023 14:28
MW-13D	23J0033-07	Water	27-Sep-2023 11:10	27-Sep-2023 14:28
MW-14S	23J0033-08	Water	27-Sep-2023 12:50	27-Sep-2023 14:28
MW-14D	23J0033-09	Water	27-Sep-2023 11:50	27-Sep-2023 14:28
Trip Blanks	23J0033-10	Water	26-Sep-2023 09:35	27-Sep-2023 14:28



Mott MacDonald
1601 5th Avenue Suite 800
Seattle WA, 98101

Project: Birds Eye
Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

Work Order Case Narrative

Gasoline by NWTPH-g (GC/MS)

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

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

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

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

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

Volatiles - EPA Method SW8260D

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

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

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

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

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

Polynuclear Aromatic Hydrocarbons (PAH) - EPA Method SW8270E-SIM

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

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.



Mott MacDonald
1601 5th Avenue Suite 800
Seattle WA, 98101

Project: Birds Eye
Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

The surrogate percent recoveries were within control limits.

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

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

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

Diesel/Heavy Oil Range Organics - WA-Ecology Method NW-TPHDx

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

Initial and continuing calibrations were within method requirements.

The surrogate percent recoveries were within control limits.

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

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

The matrix spike percent recoveries were within advisory control limits. The matrix spike duplicate was lost during the extraction process.

The associated samples were not silica cleaned as requested on the COC. The samples were non-detect and per the client the data has been reported without silica clean ups.



Analytical Resources, LLC
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Moff MacDonald

Project Name: Birds Eye

COC No(s): _____ (NA)

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

Assigned ARI Job No: 230033

Tracking No: _____ (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler? YES (NO)

Were custody papers included with the cooler? YES NO

Were custody papers properly filled out (ink, signed, etc.) YES NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 1428

5.1 5.7 4.3 4.6

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: 1009708

Cooler Accepted by: JA Date: 09/27/23 Time: 1428

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? YES (NO)

What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____

Was sufficient ice used (if appropriate)? NA YES NO

How were bottles sealed in plastic bags? Individually Grouped (Not)

Did all bottles arrive in good condition (unbroken)? YES NO

Were all bottle labels complete and legible? YES NO

Did the number of containers listed on COC match with the number of containers received? YES NO

Did all bottle labels and tags agree with custody papers? YES NO

Were all bottles used correct for the requested analyses? YES NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs) ... (NA) YES NO

Were all VOC vials free of air bubbles? NA YES NO

Was sufficient amount of sample sent in each bottle? YES NO

Date VOC Trip Blank was made at ARI: _____ NA 09/25/23

Were the sample(s) split by ARI? (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: mo Date: 10/02/23 Time: 1528 Labels checked by: mo

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

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: _____ Date: _____



Mott MacDonald
1601 5th Avenue Suite 800
Seattle WA, 98101

Project: Birds Eye
Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

MW-12S
23J0033-01 (Water)

Volatile Organic Compounds

Method: EPA 8260D

Sampled: 09/26/2023 09:35

Instrument: NT3 Analyst: TWC

Analyzed: 10/04/2023 15:49

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 23J0033-01 E

Preparation Batch: BLJ0126

Sample Size: 10 mL

Prepared: 10/04/2023

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Benzene	71-43-2	1	0.20	ND	ug/L	U
Toluene	108-88-3	1	0.20	ND	ug/L	U
Ethylbenzene	100-41-4	1	0.20	ND	ug/L	U
m,p-Xylene	179601-23-1	1	0.40	ND	ug/L	U
o-Xylene	95-47-6	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			80-129 %	110	%	
Surrogate: Toluene-d8			80-120 %	98.8	%	
Surrogate: 4-Bromofluorobenzene			80-120 %	100	%	
Surrogate: 1,2-Dichlorobenzene-d4			80-120 %	102	%	



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Project: Birds Eye
Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

MW-12S
23J0033-01 (Water)

Volatile Organic Compounds

Method: NWTPHg

Sampled: 09/26/2023 09:35

Instrument: NT3 Analyst: TWC

Analyzed: 10/04/2023 15:49

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 23J0033-01 E

Preparation Batch: BLJ0126

Sample Size: 10 mL

Prepared: 10/04/2023

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Gasoline Range Organics (Tol-Nap)	GRO	1	100	ND	ug/L	U
Surrogate: Toluene-d8			80-120 %	98.8	%	
Surrogate: 4-Bromofluorobenzene			80-120 %	100	%	



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Project: Birds Eye
Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

MW-12S
23J0033-01 (Water)

Semivolatile Organic Compounds - SIM

Method: EPA 8270E-SIM

Sampled: 09/26/2023 09:35

Instrument: NT8 Analyst: JZ

Analyzed: 10/06/2023 19:42

Sample Preparation:

Preparation Method: EPA 3520C (Liq Liq)

Extract ID: 23J0033-01 B 01

Preparation Batch: BLJ0070

Sample Size: 500 mL

Prepared: 10/03/2023

Final Volume: 0.5 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Naphthalene	91-20-3	1	0.10	ND	ug/L	U
2-Methylnaphthalene	91-57-6	1	0.10	ND	ug/L	U
1-Methylnaphthalene	90-12-0	1	0.10	ND	ug/L	U
Acenaphthylene	208-96-8	1	0.10	ND	ug/L	U
Acenaphthene	83-32-9	1	0.10	ND	ug/L	U
Dibenzofuran	132-64-9	1	0.10	ND	ug/L	U
Fluorene	86-73-7	1	0.10	ND	ug/L	U
Phenanthrene	85-01-8	1	0.10	ND	ug/L	U
Anthracene	120-12-7	1	0.10	ND	ug/L	U
Fluoranthene	206-44-0	1	0.10	ND	ug/L	U
Pyrene	129-00-0	1	0.10	ND	ug/L	U
Benzo(a)anthracene	56-55-3	1	0.10	ND	ug/L	U
Chrysene	218-01-9	1	0.10	ND	ug/L	U
Benzo(b)fluoranthene	205-99-2	1	0.10	ND	ug/L	U
Benzo(k)fluoranthene	207-08-9	1	0.10	ND	ug/L	U
Benzo(j)fluoranthene	205-82-3	1	0.10	ND	ug/L	U
Benzo(a)fluoranthenes, Total		1	0.20	ND	ug/L	U
Benzo(a)pyrene	50-32-8	1	0.10	ND	ug/L	U
Indeno(1,2,3-cd)pyrene	193-39-5	1	0.10	ND	ug/L	U
Dibenzo(a,h)anthracene	53-70-3	1	0.10	ND	ug/L	U
Benzo(g,h,i)perylene	191-24-2	1	0.10	ND	ug/L	U
Surrogate: 2-Methylnaphthalene-d10			31-120 %	52.1	%	
Surrogate: Dibenzo[a,h]anthracene-d14			10-125 %	71.2	%	



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Project: Birds Eye
Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

MW-12S
23J0033-01 (Water)

Petroleum Hydrocarbons

Method: NWTPH-Dx

Sampled: 09/26/2023 09:35

Instrument: FID4 Analyst: NRB

Analyzed: 10/19/2023 15:14

Sample Preparation:

Preparation Method: EPA 3510C SepF

Extract ID: 23J0033-01 A 01

Preparation Batch: BLJ0068

Sample Size: 500 mL

Prepared: 10/03/2023

Final Volume: 1 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Diesel Range Organics (C12-C24)	DRO	1	0.100	ND	mg/L	U
Motor Oil Range Organics (C24-C38)	RRO	1	0.200	ND	mg/L	U
Surrogate: o-Terphenyl			50-150 %	87.5	%	



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Project: Birds Eye
Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

MW-12D
23J0033-02 (Water)

Volatile Organic Compounds

Method: EPA 8260D
Instrument: NT3 Analyst: TWC

Sampled: 09/26/2023 11:30

Analyzed: 10/04/2023 16:11

Sample Preparation: Preparation Method: EPA 5030C (Purge and Trap)
Preparation Batch: BLJ0126 Sample Size: 10 mL
Prepared: 10/04/2023 Final Volume: 10 mL

Extract ID: 23J0033-02 M

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Benzene	71-43-2	1	0.20	ND	ug/L	U
Toluene	108-88-3	1	0.20	ND	ug/L	U
Ethylbenzene	100-41-4	1	0.20	ND	ug/L	U
m,p-Xylene	179601-23-1	1	0.40	ND	ug/L	U
o-Xylene	95-47-6	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			80-129 %	112	%	
Surrogate: Toluene-d8			80-120 %	96.4	%	
Surrogate: 4-Bromofluorobenzene			80-120 %	101	%	
Surrogate: 1,2-Dichlorobenzene-d4			80-120 %	100	%	



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Project: Birds Eye
Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

MW-12D
23J0033-02 (Water)

Volatile Organic Compounds

Method: NWTPHg

Sampled: 09/26/2023 11:30

Instrument: NT3 Analyst: TWC

Analyzed: 10/04/2023 16:11

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 23J0033-02 M

Preparation Batch: BLJ0126

Sample Size: 10 mL

Prepared: 10/04/2023

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Gasoline Range Organics (Tol-Nap)	GRO	1	100	ND	ug/L	U
Surrogate: Toluene-d8			80-120 %	96.4	%	
Surrogate: 4-Bromofluorobenzene			80-120 %	101	%	



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Project: Birds Eye
Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

MW-12D
23J0033-02 (Water)

Semivolatile Organic Compounds - SIM

Method: EPA 8270E-SIM

Sampled: 09/26/2023 11:30

Instrument: NT8 Analyst: JZ

Analyzed: 10/09/2023 15:00

Sample Preparation:

Preparation Method: EPA 3520C (Liq Liq)

Extract ID: 23J0033-02 C 01

Preparation Batch: BLJ0070

Sample Size: 500 mL

Prepared: 10/03/2023

Final Volume: 0.5 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Naphthalene	91-20-3	1	0.10	ND	ug/L	U
2-Methylnaphthalene	91-57-6	1	0.10	ND	ug/L	U
1-Methylnaphthalene	90-12-0	1	0.10	ND	ug/L	U
Acenaphthylene	208-96-8	1	0.10	ND	ug/L	U
Acenaphthene	83-32-9	1	0.10	ND	ug/L	U
Dibenzofuran	132-64-9	1	0.10	ND	ug/L	U
Fluorene	86-73-7	1	0.10	ND	ug/L	U
Phenanthrene	85-01-8	1	0.10	ND	ug/L	U
Anthracene	120-12-7	1	0.10	ND	ug/L	U
Fluoranthene	206-44-0	1	0.10	ND	ug/L	U
Pyrene	129-00-0	1	0.10	ND	ug/L	U
Benzo(a)anthracene	56-55-3	1	0.10	ND	ug/L	U
Chrysene	218-01-9	1	0.10	ND	ug/L	U
Benzo(b)fluoranthene	205-99-2	1	0.10	ND	ug/L	U
Benzo(k)fluoranthene	207-08-9	1	0.10	ND	ug/L	U
Benzo(j)fluoranthene	205-82-3	1	0.10	ND	ug/L	U
Benzofluoranthenes, Total		1	0.20	ND	ug/L	U
Benzo(a)pyrene	50-32-8	1	0.10	ND	ug/L	U
Indeno(1,2,3-cd)pyrene	193-39-5	1	0.10	ND	ug/L	U
Dibenzo(a,h)anthracene	53-70-3	1	0.10	ND	ug/L	U
Benzo(g,h,i)perylene	191-24-2	1	0.10	ND	ug/L	U
Surrogate: 2-Methylnaphthalene-d10			31-120 %	43.6	%	
Surrogate: Dibenzo[a,h]anthracene-d14			10-125 %	65.7	%	



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Project: Birds Eye
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Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

MW-12D
23J0033-02 (Water)

Petroleum Hydrocarbons

Method: NWTPH-Dx

Sampled: 09/26/2023 11:30

Instrument: FID4 Analyst: NRB

Analyzed: 10/19/2023 15:34

Sample Preparation:

Preparation Method: EPA 3510C SepF

Extract ID: 23J0033-02 A 01

Preparation Batch: BLJ0068

Sample Size: 500 mL

Prepared: 10/03/2023

Final Volume: 1 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Diesel Range Organics (C12-C24)	DRO	1	0.100	ND	mg/L	U
Motor Oil Range Organics (C24-C38)	RRO	1	0.200	ND	mg/L	U
Surrogate: o-Terphenyl			50-150 %	87.0	%	



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Project: Birds Eye
Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

MW-9S
23J0033-03 (Water)

Volatile Organic Compounds

Method: EPA 8260D
Instrument: NT3 Analyst: TWC

Sampled: 09/26/2023 12:00

Analyzed: 10/04/2023 16:34

Sample Preparation: Preparation Method: EPA 5030C (Purge and Trap)
Preparation Batch: BLJ0126 Sample Size: 10 mL
Prepared: 10/04/2023 Final Volume: 10 mL

Extract ID: 23J0033-03 F

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Benzene	71-43-2	1	0.20	ND	ug/L	U
Toluene	108-88-3	1	0.20	ND	ug/L	U
Ethylbenzene	100-41-4	1	0.20	ND	ug/L	U
m,p-Xylene	179601-23-1	1	0.40	ND	ug/L	U
o-Xylene	95-47-6	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			80-129 %	108	%	
Surrogate: Toluene-d8			80-120 %	97.8	%	
Surrogate: 4-Bromofluorobenzene			80-120 %	99.8	%	
Surrogate: 1,2-Dichlorobenzene-d4			80-120 %	102	%	



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Project: Birds Eye
Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

MW-9S
23J0033-03 (Water)

Volatile Organic Compounds

Method: NWTPHg

Sampled: 09/26/2023 12:00

Instrument: NT3 Analyst: TWC

Analyzed: 10/04/2023 16:34

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 23J0033-03 F

Preparation Batch: BLJ0126

Sample Size: 10 mL

Prepared: 10/04/2023

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Gasoline Range Organics (Tol-Nap)	GRO	1	100	ND	ug/L	U
Surrogate: Toluene-d8			80-120 %	97.8	%	
Surrogate: 4-Bromofluorobenzene			80-120 %	99.8	%	



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Reported:
25-Oct-2023 13:34

MW-9S
23J0033-03 (Water)

Semivolatile Organic Compounds - SIM

Method: EPA 8270E-SIM

Sampled: 09/26/2023 12:00

Instrument: NT8 Analyst: JZ

Analyzed: 10/09/2023 16:22

Sample Preparation:

Preparation Method: EPA 3520C (Liq Liq)

Extract ID: 23J0033-03 B 01

Preparation Batch: BLJ0070

Sample Size: 500 mL

Prepared: 10/03/2023

Final Volume: 0.5 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Naphthalene	91-20-3	1	0.10	ND	ug/L	U
2-Methylnaphthalene	91-57-6	1	0.10	ND	ug/L	U
1-Methylnaphthalene	90-12-0	1	0.10	ND	ug/L	U
Acenaphthylene	208-96-8	1	0.10	ND	ug/L	U
Acenaphthene	83-32-9	1	0.10	ND	ug/L	U
Dibenzofuran	132-64-9	1	0.10	ND	ug/L	U
Fluorene	86-73-7	1	0.10	ND	ug/L	U
Phenanthrene	85-01-8	1	0.10	ND	ug/L	U
Anthracene	120-12-7	1	0.10	ND	ug/L	U
Fluoranthene	206-44-0	1	0.10	ND	ug/L	U
Pyrene	129-00-0	1	0.10	ND	ug/L	U
Benzo(a)anthracene	56-55-3	1	0.10	ND	ug/L	U
Chrysene	218-01-9	1	0.10	ND	ug/L	U
Benzo(b)fluoranthene	205-99-2	1	0.10	ND	ug/L	U
Benzo(k)fluoranthene	207-08-9	1	0.10	ND	ug/L	U
Benzo(j)fluoranthene	205-82-3	1	0.10	ND	ug/L	U
Benzofluoranthenes, Total		1	0.20	ND	ug/L	U
Benzo(a)pyrene	50-32-8	1	0.10	ND	ug/L	U
Indeno(1,2,3-cd)pyrene	193-39-5	1	0.10	ND	ug/L	U
Dibenzo(a,h)anthracene	53-70-3	1	0.10	ND	ug/L	U
Benzo(g,h,i)perylene	191-24-2	1	0.10	ND	ug/L	U
Surrogate: 2-Methylnaphthalene-d10			31-120 %	66.4	%	
Surrogate: Dibenzo[a,h]anthracene-d14			10-125 %	86.5	%	



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Project: Birds Eye
Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

MW-9S
23J0033-03 (Water)

Petroleum Hydrocarbons

Method: NWTPH-Dx

Sampled: 09/26/2023 12:00

Instrument: FID4 Analyst: NRB

Analyzed: 10/19/2023 15:55

Sample Preparation:

Preparation Method: EPA 3510C SepF

Extract ID: 23J0033-03 A 01

Preparation Batch: BLJ0068

Sample Size: 500 mL

Prepared: 10/03/2023

Final Volume: 1 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Diesel Range Organics (C12-C24)	DRO	1	0.100	ND	mg/L	U
Motor Oil Range Organics (C24-C38)	RRO	1	0.200	ND	mg/L	U
Surrogate: o-Terphenyl			50-150 %	50.4	%	



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Project: Birds Eye
Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

MW-9D
23J0033-04 (Water)

Volatile Organic Compounds

Method: EPA 8260D
Instrument: NT3 Analyst: TWC

Sampled: 09/26/2023 15:50

Analyzed: 10/04/2023 16:56

Sample Preparation: Preparation Method: EPA 5030C (Purge and Trap)
Preparation Batch: BLJ0126 Sample Size: 10 mL
Prepared: 10/04/2023 Final Volume: 10 mL

Extract ID: 23J0033-04 E

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Benzene	71-43-2	1	0.20	ND	ug/L	U
Toluene	108-88-3	1	0.20	ND	ug/L	U
Ethylbenzene	100-41-4	1	0.20	ND	ug/L	U
m,p-Xylene	179601-23-1	1	0.40	ND	ug/L	U
o-Xylene	95-47-6	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			80-129 %	106	%	
Surrogate: Toluene-d8			80-120 %	95.4	%	
Surrogate: 4-Bromofluorobenzene			80-120 %	98.3	%	
Surrogate: 1,2-Dichlorobenzene-d4			80-120 %	105	%	



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Project: Birds Eye
Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

MW-9D
23J0033-04 (Water)

Volatile Organic Compounds

Method: NWTPHg
Instrument: NT3 Analyst: TWC

Sampled: 09/26/2023 15:50

Analyzed: 10/04/2023 16:56

Sample Preparation: Preparation Method: EPA 5030C (Purge and Trap)
Preparation Batch: BLJ0126 Sample Size: 10 mL
Prepared: 10/04/2023 Final Volume: 10 mL

Extract ID: 23J0033-04 E

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Gasoline Range Organics (Tol-Nap)	GRO	1	100	ND	ug/L	U
Surrogate: Toluene-d8			80-120 %	95.4	%	
Surrogate: 4-Bromofluorobenzene			80-120 %	98.3	%	



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Project: Birds Eye
Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

MW-9D
23J0033-04 (Water)

Semivolatile Organic Compounds - SIM

Method: EPA 8270E-SIM

Sampled: 09/26/2023 15:50

Instrument: NT8 Analyst: JZ

Analyzed: 10/09/2023 16:49

Sample Preparation:

Preparation Method: EPA 3520C (Liq Liq)

Extract ID: 23J0033-04 B 01

Preparation Batch: BLJ0070

Sample Size: 500 mL

Prepared: 10/03/2023

Final Volume: 0.5 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Naphthalene	91-20-3	1	0.10	ND	ug/L	U
2-Methylnaphthalene	91-57-6	1	0.10	ND	ug/L	U
1-Methylnaphthalene	90-12-0	1	0.10	ND	ug/L	U
Acenaphthylene	208-96-8	1	0.10	ND	ug/L	U
Acenaphthene	83-32-9	1	0.10	ND	ug/L	U
Dibenzofuran	132-64-9	1	0.10	ND	ug/L	U
Fluorene	86-73-7	1	0.10	ND	ug/L	U
Phenanthrene	85-01-8	1	0.10	ND	ug/L	U
Anthracene	120-12-7	1	0.10	ND	ug/L	U
Fluoranthene	206-44-0	1	0.10	ND	ug/L	U
Pyrene	129-00-0	1	0.10	ND	ug/L	U
Benzo(a)anthracene	56-55-3	1	0.10	ND	ug/L	U
Chrysene	218-01-9	1	0.10	ND	ug/L	U
Benzo(b)fluoranthene	205-99-2	1	0.10	ND	ug/L	U
Benzo(k)fluoranthene	207-08-9	1	0.10	ND	ug/L	U
Benzo(j)fluoranthene	205-82-3	1	0.10	ND	ug/L	U
Benzo(a)fluoranthenes, Total		1	0.20	ND	ug/L	U
Benzo(a)pyrene	50-32-8	1	0.10	ND	ug/L	U
Indeno(1,2,3-cd)pyrene	193-39-5	1	0.10	ND	ug/L	U
Dibenzo(a,h)anthracene	53-70-3	1	0.10	ND	ug/L	U
Benzo(g,h,i)perylene	191-24-2	1	0.10	ND	ug/L	U
Surrogate: 2-Methylnaphthalene-d10			31-120 %	61.1	%	
Surrogate: Dibenzo[a,h]anthracene-d14			10-125 %	94.0	%	



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Project: Birds Eye
Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

MW-9D
23J0033-04 (Water)

Petroleum Hydrocarbons

Method: NWTPH-Dx

Sampled: 09/26/2023 15:50

Instrument: FID4 Analyst: NRB

Analyzed: 10/19/2023 16:15

Sample Preparation:

Preparation Method: EPA 3510C SepF

Extract ID: 23J0033-04 A 01

Preparation Batch: BLJ0068

Sample Size: 500 mL

Prepared: 10/03/2023

Final Volume: 1 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Diesel Range Organics (C12-C24)	DRO	1	0.100	ND	mg/L	U
Motor Oil Range Organics (C24-C38)	RRO	1	0.200	ND	mg/L	U
Surrogate: o-Terphenyl			50-150 %	81.7	%	



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Project: Birds Eye
Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

MW-19S
23J0033-05 (Water)

Volatile Organic Compounds

Method: EPA 8260D

Sampled: 09/26/2023 12:10

Instrument: NT3 Analyst: TWC

Analyzed: 10/04/2023 17:18

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 23J0033-05 E

Preparation Batch: BLJ0126

Sample Size: 10 mL

Prepared: 10/04/2023

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Benzene	71-43-2	1	0.20	ND	ug/L	U
Toluene	108-88-3	1	0.20	ND	ug/L	U
Ethylbenzene	100-41-4	1	0.20	ND	ug/L	U
m,p-Xylene	179601-23-1	1	0.40	ND	ug/L	U
o-Xylene	95-47-6	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			80-129 %	97.6	%	
Surrogate: Toluene-d8			80-120 %	98.3	%	
Surrogate: 4-Bromofluorobenzene			80-120 %	98.9	%	
Surrogate: 1,2-Dichlorobenzene-d4			80-120 %	104	%	



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Project: Birds Eye
Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

MW-19S
23J0033-05 (Water)

Volatile Organic Compounds

Method: NWTPHg

Sampled: 09/26/2023 12:10

Instrument: NT3 Analyst: TWC

Analyzed: 10/04/2023 17:18

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 23J0033-05 E

Preparation Batch: BLJ0126

Sample Size: 10 mL

Prepared: 10/04/2023

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Gasoline Range Organics (Tol-Nap)	GRO	1	100	ND	ug/L	U
Surrogate: Toluene-d8			80-120 %	98.3	%	
Surrogate: 4-Bromofluorobenzene			80-120 %	98.9	%	



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Project: Birds Eye
Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

MW-19S
23J0033-05 (Water)

Semivolatile Organic Compounds - SIM

Method: EPA 8270E-SIM

Sampled: 09/26/2023 12:10

Instrument: NT8 Analyst: JZ

Analyzed: 10/09/2023 17:16

Sample Preparation:

Preparation Method: EPA 3520C (Liq Liq)

Extract ID: 23J0033-05 B 01

Preparation Batch: BLJ0070

Sample Size: 500 mL

Prepared: 10/03/2023

Final Volume: 0.5 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Naphthalene	91-20-3	1	0.10	ND	ug/L	U
2-Methylnaphthalene	91-57-6	1	0.10	ND	ug/L	U
1-Methylnaphthalene	90-12-0	1	0.10	ND	ug/L	U
Acenaphthylene	208-96-8	1	0.10	ND	ug/L	U
Acenaphthene	83-32-9	1	0.10	ND	ug/L	U
Dibenzofuran	132-64-9	1	0.10	ND	ug/L	U
Fluorene	86-73-7	1	0.10	ND	ug/L	U
Phenanthrene	85-01-8	1	0.10	ND	ug/L	U
Anthracene	120-12-7	1	0.10	ND	ug/L	U
Fluoranthene	206-44-0	1	0.10	ND	ug/L	U
Pyrene	129-00-0	1	0.10	ND	ug/L	U
Benzo(a)anthracene	56-55-3	1	0.10	ND	ug/L	U
Chrysene	218-01-9	1	0.10	ND	ug/L	U
Benzo(b)fluoranthene	205-99-2	1	0.10	ND	ug/L	U
Benzo(k)fluoranthene	207-08-9	1	0.10	ND	ug/L	U
Benzo(j)fluoranthene	205-82-3	1	0.10	ND	ug/L	U
Benzo(a)fluoranthenes, Total		1	0.20	ND	ug/L	U
Benzo(a)pyrene	50-32-8	1	0.10	ND	ug/L	U
Indeno(1,2,3-cd)pyrene	193-39-5	1	0.10	ND	ug/L	U
Dibenzo(a,h)anthracene	53-70-3	1	0.10	ND	ug/L	U
Benzo(g,h,i)perylene	191-24-2	1	0.10	ND	ug/L	U
Surrogate: 2-Methylnaphthalene-d10			31-120 %	56.0	%	
Surrogate: Dibenzo[a,h]anthracene-d14			10-125 %	76.2	%	



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Project: Birds Eye
Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

MW-19S
23J0033-05 (Water)

Petroleum Hydrocarbons

Method: NWTPH-Dx

Sampled: 09/26/2023 12:10

Instrument: FID4 Analyst: NRB

Analyzed: 10/19/2023 16:36

Sample Preparation:

Preparation Method: EPA 3510C SepF

Extract ID: 23J0033-05 A 01

Preparation Batch: BLJ0068

Sample Size: 500 mL

Prepared: 10/03/2023

Final Volume: 1 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Diesel Range Organics (C12-C24)	DRO	1	0.100	ND	mg/L	U
Motor Oil Range Organics (C24-C38)	RRO	1	0.200	ND	mg/L	U
Surrogate: o-Terphenyl			50-150 %	91.3	%	



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Project: Birds Eye
Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

MW-13S
23J0033-06 (Water)

Volatile Organic Compounds

Method: EPA 8260D

Sampled: 09/26/2023 14:25

Instrument: NT3 Analyst: TWC

Analyzed: 10/04/2023 17:40

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 23J0033-06 E

Preparation Batch: BLJ0126

Sample Size: 10 mL

Prepared: 10/04/2023

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Benzene	71-43-2	1	0.20	ND	ug/L	U
Toluene	108-88-3	1	0.20	ND	ug/L	U
Ethylbenzene	100-41-4	1	0.20	ND	ug/L	U
m,p-Xylene	179601-23-1	1	0.40	ND	ug/L	U
o-Xylene	95-47-6	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			80-129 %	100	%	
Surrogate: Toluene-d8			80-120 %	98.3	%	
Surrogate: 4-Bromofluorobenzene			80-120 %	91.4	%	
Surrogate: 1,2-Dichlorobenzene-d4			80-120 %	105	%	



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Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

MW-13S
23J0033-06 (Water)

Volatile Organic Compounds

Method: NWTPHg	Sampled: 09/26/2023 14:25
Instrument: NT3 Analyst: TWC	Analyzed: 10/04/2023 17:40
Sample Preparation:	Preparation Method: EPA 5030C (Purge and Trap)
	Preparation Batch: BLJ0126
	Sample Size: 10 mL
	Prepared: 10/04/2023
	Final Volume: 10 mL
	Extract ID: 23J0033-06 E

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Gasoline Range Organics (Tol-Nap)	GRO	1	100	ND	ug/L	U
Surrogate: Toluene-d8			80-120 %	98.3	%	
Surrogate: 4-Bromofluorobenzene			80-120 %	91.4	%	



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Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

MW-13S
23J0033-06 (Water)

Semivolatile Organic Compounds - SIM

Method: EPA 8270E-SIM

Sampled: 09/26/2023 14:25

Instrument: NT8 Analyst: JZ

Analyzed: 10/09/2023 17:43

Sample Preparation:

Preparation Method: EPA 3520C (Liq Liq)

Extract ID: 23J0033-06 B 01

Preparation Batch: BLJ0070

Sample Size: 500 mL

Prepared: 10/03/2023

Final Volume: 0.5 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Naphthalene	91-20-3	1	0.10	ND	ug/L	U
2-Methylnaphthalene	91-57-6	1	0.10	ND	ug/L	U
1-Methylnaphthalene	90-12-0	1	0.10	ND	ug/L	U
Acenaphthylene	208-96-8	1	0.10	ND	ug/L	U
Acenaphthene	83-32-9	1	0.10	ND	ug/L	U
Dibenzofuran	132-64-9	1	0.10	ND	ug/L	U
Fluorene	86-73-7	1	0.10	ND	ug/L	U
Phenanthrene	85-01-8	1	0.10	ND	ug/L	U
Anthracene	120-12-7	1	0.10	ND	ug/L	U
Fluoranthene	206-44-0	1	0.10	ND	ug/L	U
Pyrene	129-00-0	1	0.10	ND	ug/L	U
Benzo(a)anthracene	56-55-3	1	0.10	ND	ug/L	U
Chrysene	218-01-9	1	0.10	ND	ug/L	U
Benzo(b)fluoranthene	205-99-2	1	0.10	ND	ug/L	U
Benzo(k)fluoranthene	207-08-9	1	0.10	ND	ug/L	U
Benzo(j)fluoranthene	205-82-3	1	0.10	ND	ug/L	U
Benzofluoranthenes, Total		1	0.20	ND	ug/L	U
Benzo(a)pyrene	50-32-8	1	0.10	ND	ug/L	U
Indeno(1,2,3-cd)pyrene	193-39-5	1	0.10	ND	ug/L	U
Dibenzo(a,h)anthracene	53-70-3	1	0.10	ND	ug/L	U
Benzo(g,h,i)perylene	191-24-2	1	0.10	ND	ug/L	U
Surrogate: 2-Methylnaphthalene-d10			31-120 %	58.0	%	
Surrogate: Dibenzo[a,h]anthracene-d14			10-125 %	76.4	%	



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Project Number: 518300040
Project Manager: Inger Jackson

Reported:
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MW-13S
23J0033-06 (Water)

Petroleum Hydrocarbons

Method: NWTPH-Dx

Sampled: 09/26/2023 14:25

Instrument: FID4 Analyst: NRB

Analyzed: 10/19/2023 16:56

Sample Preparation:

Preparation Method: EPA 3510C SepF

Extract ID: 23J0033-06 A 01

Preparation Batch: BLJ0068

Sample Size: 500 mL

Prepared: 10/03/2023

Final Volume: 1 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Diesel Range Organics (C12-C24)	DRO	1	0.100	ND	mg/L	U
Motor Oil Range Organics (C24-C38)	RRO	1	0.200	ND	mg/L	U
Surrogate: o-Terphenyl			50-150 %	84.1	%	



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Project: Birds Eye
Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

MW-13D
23J0033-07 (Water)

Volatile Organic Compounds

Method: EPA 8260D

Sampled: 09/27/2023 11:10

Instrument: NT3 Analyst: TWC

Analyzed: 10/04/2023 18:02

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 23J0033-07 E

Preparation Batch: BLJ0126

Sample Size: 10 mL

Prepared: 10/04/2023

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Benzene	71-43-2	1	0.20	ND	ug/L	U
Toluene	108-88-3	1	0.20	ND	ug/L	U
Ethylbenzene	100-41-4	1	0.20	ND	ug/L	U
m,p-Xylene	179601-23-1	1	0.40	ND	ug/L	U
o-Xylene	95-47-6	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			80-129 %	101	%	
Surrogate: Toluene-d8			80-120 %	97.6	%	
Surrogate: 4-Bromofluorobenzene			80-120 %	99.2	%	
Surrogate: 1,2-Dichlorobenzene-d4			80-120 %	104	%	



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Project: Birds Eye
Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

MW-13D
23J0033-07 (Water)

Volatile Organic Compounds

Method: NWTPHg

Sampled: 09/27/2023 11:10

Instrument: NT3 Analyst: TWC

Analyzed: 10/04/2023 18:02

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 23J0033-07 E

Preparation Batch: BLJ0126

Sample Size: 10 mL

Prepared: 10/04/2023

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Gasoline Range Organics (Tol-Nap)	GRO	1	100	ND	ug/L	U
Surrogate: Toluene-d8			80-120 %	97.6	%	
Surrogate: 4-Bromofluorobenzene			80-120 %	99.2	%	



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Project: Birds Eye
Project Number: 518300040
Project Manager: Inger Jackson

Reported:
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MW-13D
23J0033-07 (Water)

Semivolatile Organic Compounds - SIM

Method: EPA 8270E-SIM

Sampled: 09/27/2023 11:10

Instrument: NT8 Analyst: JZ

Analyzed: 10/09/2023 18:11

Sample Preparation:

Preparation Method: EPA 3520C (Liq Liq)

Extract ID: 23J0033-07 B 01

Preparation Batch: BLJ0070

Sample Size: 500 mL

Prepared: 10/03/2023

Final Volume: 0.5 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Naphthalene	91-20-3	1	0.10	ND	ug/L	U
2-Methylnaphthalene	91-57-6	1	0.10	ND	ug/L	U
1-Methylnaphthalene	90-12-0	1	0.10	ND	ug/L	U
Acenaphthylene	208-96-8	1	0.10	ND	ug/L	U
Acenaphthene	83-32-9	1	0.10	ND	ug/L	U
Dibenzofuran	132-64-9	1	0.10	ND	ug/L	U
Fluorene	86-73-7	1	0.10	ND	ug/L	U
Phenanthrene	85-01-8	1	0.10	ND	ug/L	U
Anthracene	120-12-7	1	0.10	ND	ug/L	U
Fluoranthene	206-44-0	1	0.10	ND	ug/L	U
Pyrene	129-00-0	1	0.10	ND	ug/L	U
Benzo(a)anthracene	56-55-3	1	0.10	ND	ug/L	U
Chrysene	218-01-9	1	0.10	ND	ug/L	U
Benzo(b)fluoranthene	205-99-2	1	0.10	ND	ug/L	U
Benzo(k)fluoranthene	207-08-9	1	0.10	ND	ug/L	U
Benzo(j)fluoranthene	205-82-3	1	0.10	ND	ug/L	U
Benzo(a)fluoranthenes, Total		1	0.20	ND	ug/L	U
Benzo(a)pyrene	50-32-8	1	0.10	ND	ug/L	U
Indeno(1,2,3-cd)pyrene	193-39-5	1	0.10	ND	ug/L	U
Dibenzo(a,h)anthracene	53-70-3	1	0.10	ND	ug/L	U
Benzo(g,h,i)perylene	191-24-2	1	0.10	ND	ug/L	U
Surrogate: 2-Methylnaphthalene-d10			31-120 %	49.0	%	
Surrogate: Dibenzo[a,h]anthracene-d14			10-125 %	62.0	%	



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Project: Birds Eye
Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

MW-13D
23J0033-07 (Water)

Petroleum Hydrocarbons

Method: NWTPH-Dx

Sampled: 09/27/2023 11:10

Instrument: FID4 Analyst: NRB

Analyzed: 10/19/2023 17:16

Sample Preparation:

Preparation Method: EPA 3510C SepF

Extract ID: 23J0033-07 A 01

Preparation Batch: BLJ0068

Sample Size: 500 mL

Prepared: 10/03/2023

Final Volume: 1 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Diesel Range Organics (C12-C24)	DRO	1	0.100	ND	mg/L	U
Motor Oil Range Organics (C24-C38)	RRO	1	0.200	ND	mg/L	U
Surrogate: o-Terphenyl			50-150 %	89.3	%	



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Project: Birds Eye
Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

MW-14S
23J0033-08 (Water)

Volatile Organic Compounds

Method: EPA 8260D
Instrument: NT3 Analyst: TWC

Sampled: 09/27/2023 12:50
Analyzed: 10/04/2023 18:24

Sample Preparation: Preparation Method: EPA 5030C (Purge and Trap)
Preparation Batch: BLJ0126 Sample Size: 10 mL
Prepared: 10/04/2023 Final Volume: 10 mL

Extract ID: 23J0033-08 E

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Benzene	71-43-2	1	0.20	ND	ug/L	U
Toluene	108-88-3	1	0.20	ND	ug/L	U
Ethylbenzene	100-41-4	1	0.20	ND	ug/L	U
m,p-Xylene	179601-23-1	1	0.40	ND	ug/L	U
o-Xylene	95-47-6	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			80-129 %	105	%	
Surrogate: Toluene-d8			80-120 %	95.9	%	
Surrogate: 4-Bromofluorobenzene			80-120 %	108	%	
Surrogate: 1,2-Dichlorobenzene-d4			80-120 %	105	%	



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Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

MW-14S
23J0033-08 (Water)

Volatile Organic Compounds

Method: NWTPHg
Instrument: NT3 Analyst: TWC

Sampled: 09/27/2023 12:50
Analyzed: 10/04/2023 18:24

Sample Preparation: Preparation Method: EPA 5030C (Purge and Trap)
Preparation Batch: BLJ0126 Sample Size: 10 mL
Prepared: 10/04/2023 Final Volume: 10 mL

Extract ID: 23J0033-08 E

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Gasoline Range Organics (Tol-Nap)	GRO	1	100	ND	ug/L	U
Surrogate: Toluene-d8			80-120 %	95.9	%	
Surrogate: 4-Bromofluorobenzene			80-120 %	108	%	



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Project: Birds Eye
Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

MW-14S
23J0033-08 (Water)

Semivolatile Organic Compounds - SIM

Method: EPA 8270E-SIM

Sampled: 09/27/2023 12:50

Instrument: NT8 Analyst: JZ

Analyzed: 10/06/2023 23:47

Sample Preparation:

Preparation Method: EPA 3520C (Liq Liq)

Extract ID: 23J0033-08 B 01

Preparation Batch: BLJ0070

Sample Size: 500 mL

Prepared: 10/03/2023

Final Volume: 0.5 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Naphthalene	91-20-3	1	0.10	ND	ug/L	U
2-Methylnaphthalene	91-57-6	1	0.10	ND	ug/L	U
1-Methylnaphthalene	90-12-0	1	0.10	ND	ug/L	U
Acenaphthylene	208-96-8	1	0.10	ND	ug/L	U
Acenaphthene	83-32-9	1	0.10	ND	ug/L	U
Dibenzofuran	132-64-9	1	0.10	ND	ug/L	U
Fluorene	86-73-7	1	0.10	ND	ug/L	U
Phenanthrene	85-01-8	1	0.10	ND	ug/L	U
Anthracene	120-12-7	1	0.10	ND	ug/L	U
Fluoranthene	206-44-0	1	0.10	ND	ug/L	U
Pyrene	129-00-0	1	0.10	ND	ug/L	U
Benzo(a)anthracene	56-55-3	1	0.10	ND	ug/L	U
Chrysene	218-01-9	1	0.10	ND	ug/L	U
Benzo(b)fluoranthene	205-99-2	1	0.10	ND	ug/L	U
Benzo(k)fluoranthene	207-08-9	1	0.10	ND	ug/L	U
Benzo(j)fluoranthene	205-82-3	1	0.10	ND	ug/L	U
Benzofluoranthenes, Total		1	0.20	ND	ug/L	U
Benzo(a)pyrene	50-32-8	1	0.10	ND	ug/L	U
Indeno(1,2,3-cd)pyrene	193-39-5	1	0.10	ND	ug/L	U
Dibenzo(a,h)anthracene	53-70-3	1	0.10	ND	ug/L	U
Benzo(g,h,i)perylene	191-24-2	1	0.10	ND	ug/L	U
Surrogate: 2-Methylnaphthalene-d10			31-120 %	55.5	%	
Surrogate: Dibenzo[a,h]anthracene-d14			10-125 %	79.4	%	



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Seattle WA, 98101

Project: Birds Eye
Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

MW-14S
23J0033-08 (Water)

Petroleum Hydrocarbons

Method: NWTPH-Dx

Sampled: 09/27/2023 12:50

Instrument: FID4 Analyst: NRB

Analyzed: 10/19/2023 17:37

Sample Preparation:

Preparation Method: EPA 3510C SepF

Extract ID: 23J0033-08 A 01

Preparation Batch: BLJ0068

Sample Size: 500 mL

Prepared: 10/03/2023

Final Volume: 1 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Diesel Range Organics (C12-C24)	DRO	1	0.100	ND	mg/L	U
Motor Oil Range Organics (C24-C38)	RRO	1	0.200	ND	mg/L	U
Surrogate: o-Terphenyl			50-150 %	78.4	%	



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Project: Birds Eye
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Reported:
25-Oct-2023 13:34

MW-14D
23J0033-09 (Water)

Volatile Organic Compounds

Method: EPA 8260D

Sampled: 09/27/2023 11:50

Instrument: NT3 Analyst: TWC

Analyzed: 10/04/2023 18:47

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 23J0033-09 F

Preparation Batch: BLJ0126

Sample Size: 10 mL

Prepared: 10/04/2023

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Benzene	71-43-2	1	0.20	ND	ug/L	U
Toluene	108-88-3	1	0.20	ND	ug/L	U
Ethylbenzene	100-41-4	1	0.20	ND	ug/L	U
m,p-Xylene	179601-23-1	1	0.40	ND	ug/L	U
o-Xylene	95-47-6	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			80-129 %	104	%	
Surrogate: Toluene-d8			80-120 %	97.2	%	
Surrogate: 4-Bromofluorobenzene			80-120 %	91.4	%	
Surrogate: 1,2-Dichlorobenzene-d4			80-120 %	103	%	



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Reported:
25-Oct-2023 13:34

MW-14D
23J0033-09 (Water)

Volatile Organic Compounds

Method: NWTPHg

Sampled: 09/27/2023 11:50

Instrument: NT3 Analyst: TWC

Analyzed: 10/04/2023 18:47

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 23J0033-09 F

Preparation Batch: BLJ0126

Sample Size: 10 mL

Prepared: 10/04/2023

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Gasoline Range Organics (Tol-Nap)	GRO	1	100	ND	ug/L	U
Surrogate: Toluene-d8			80-120 %	97.2	%	
Surrogate: 4-Bromofluorobenzene			80-120 %	91.4	%	



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Reported:
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MW-14D
23J0033-09 (Water)

Semivolatile Organic Compounds - SIM

Method: EPA 8270E-SIM

Sampled: 09/27/2023 11:50

Instrument: NT8 Analyst: JZ

Analyzed: 10/09/2023 18:38

Sample Preparation:

Preparation Method: EPA 3520C (Liq Liq)

Extract ID: 23J0033-09 B 01

Preparation Batch: BLJ0070

Sample Size: 500 mL

Prepared: 10/03/2023

Final Volume: 0.5 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Naphthalene	91-20-3	1	0.10	ND	ug/L	U
2-Methylnaphthalene	91-57-6	1	0.10	ND	ug/L	U
1-Methylnaphthalene	90-12-0	1	0.10	ND	ug/L	U
Acenaphthylene	208-96-8	1	0.10	ND	ug/L	U
Acenaphthene	83-32-9	1	0.10	ND	ug/L	U
Dibenzofuran	132-64-9	1	0.10	ND	ug/L	U
Fluorene	86-73-7	1	0.10	ND	ug/L	U
Phenanthrene	85-01-8	1	0.10	ND	ug/L	U
Anthracene	120-12-7	1	0.10	ND	ug/L	U
Fluoranthene	206-44-0	1	0.10	ND	ug/L	U
Pyrene	129-00-0	1	0.10	ND	ug/L	U
Benzo(a)anthracene	56-55-3	1	0.10	ND	ug/L	U
Chrysene	218-01-9	1	0.10	ND	ug/L	U
Benzo(b)fluoranthene	205-99-2	1	0.10	ND	ug/L	U
Benzo(k)fluoranthene	207-08-9	1	0.10	ND	ug/L	U
Benzo(j)fluoranthene	205-82-3	1	0.10	ND	ug/L	U
Benzofluoranthenes, Total		1	0.20	ND	ug/L	U
Benzo(a)pyrene	50-32-8	1	0.10	ND	ug/L	U
Indeno(1,2,3-cd)pyrene	193-39-5	1	0.10	ND	ug/L	U
Dibenzo(a,h)anthracene	53-70-3	1	0.10	ND	ug/L	U
Benzo(g,h,i)perylene	191-24-2	1	0.10	ND	ug/L	U
Surrogate: 2-Methylnaphthalene-d10			31-120 %	44.2	%	
Surrogate: Dibenzo[a,h]anthracene-d14			10-125 %	62.5	%	



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Reported:
25-Oct-2023 13:34

MW-14D
23J0033-09 (Water)

Petroleum Hydrocarbons

Method: NWTPH-Dx

Sampled: 09/27/2023 11:50

Instrument: FID4 Analyst: NRB

Analyzed: 10/19/2023 17:57

Sample Preparation:

Preparation Method: EPA 3510C SepF

Extract ID: 23J0033-09 A 01

Preparation Batch: BLJ0068

Sample Size: 500 mL

Prepared: 10/03/2023

Final Volume: 1 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Diesel Range Organics (C12-C24)	DRO	1	0.100	ND	mg/L	U
Motor Oil Range Organics (C24-C38)	RRO	1	0.200	ND	mg/L	U
Surrogate: o-Terphenyl			50-150 %	93.2	%	



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Reported:
25-Oct-2023 13:34

Trip Blanks
23J0033-10 (Water)

Volatile Organic Compounds

Method: EPA 8260D

Sampled: 09/26/2023 09:35

Instrument: NT3 Analyst: TWC

Analyzed: 10/04/2023 13:36

Sample Preparation:

Preparation Method: EPA 5030C (Purge and Trap)

Extract ID: 23J0033-10 D

Preparation Batch: BLJ0126

Sample Size: 10 mL

Prepared: 10/04/2023

Final Volume: 10 mL

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Benzene	71-43-2	1	0.20	ND	ug/L	U
Toluene	108-88-3	1	0.20	ND	ug/L	U
Ethylbenzene	100-41-4	1	0.20	ND	ug/L	U
m,p-Xylene	179601-23-1	1	0.40	ND	ug/L	U
o-Xylene	95-47-6	1	0.20	ND	ug/L	U
Surrogate: 1,2-Dichloroethane-d4			80-129 %	107	%	
Surrogate: Toluene-d8			80-120 %	99.3	%	
Surrogate: 4-Bromofluorobenzene			80-120 %	100	%	
Surrogate: 1,2-Dichlorobenzene-d4			80-120 %	101	%	



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Project Number: 518300040
Project Manager: Inger Jackson

Reported:
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Trip Blanks
23J0033-10 (Water)

Volatile Organic Compounds

Method: NWTPHg
Instrument: NT3 Analyst: TWC

Sampled: 09/26/2023 09:35
Analyzed: 10/04/2023 13:36

Sample Preparation: Preparation Method: EPA 5030C (Purge and Trap)
Preparation Batch: BLJ0126 Sample Size: 10 mL
Prepared: 10/04/2023 Final Volume: 10 mL

Extract ID: 23J0033-10 D

Analyte	CAS Number	Dilution	Reporting Limit	Result	Units	Notes
Gasoline Range Organics (Tol-Nap)	GRO	1	100	ND	ug/L	U
Surrogate: Toluene-d8			80-120 %	99.3	%	
Surrogate: 4-Bromofluorobenzene			80-120 %	100	%	



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Project Number: 518300040
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Reported:
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Analysis by: Analytical Resources, LLC

Volatile Organic Compounds - Quality Control

Batch BLJ0126 - NWTPHg

Instrument: NT3 Analyst: TWC

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BLJ0126-BLK1)		Prepared: 04-Oct-2023 Analyzed: 04-Oct-2023 13:14								
Gasoline Range Organics (Tol-Nap)	ND	100	ug/L							U
Surrogate: Toluene-d8	4.83		ug/L	5.00		96.6	80-120			
Surrogate: 4-Bromofluorobenzene	4.93		ug/L	5.00		98.6	80-120			



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Reported:
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Analysis by: Analytical Resources, LLC

Volatile Organic Compounds - Quality Control

Batch BLJ0126 - EPA 8260D

Instrument: NT3 Analyst: TWC

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Blank (BLJ0126-BLK2)									
Prepared: 04-Oct-2023 Analyzed: 04-Oct-2023 13:14									
Benzene	ND	0.20	ug/L						U
Toluene	ND	0.20	ug/L						U
Ethylbenzene	ND	0.20	ug/L						U
m,p-Xylene	ND	0.40	ug/L						U
o-Xylene	ND	0.20	ug/L						U
Surrogate: 1,2-Dichloroethane-d4	4.98		ug/L	5.00		99.6	80-129		
Surrogate: Toluene-d8	4.83		ug/L	5.00		96.6	80-120		
Surrogate: 4-Bromofluorobenzene	4.93		ug/L	5.00		98.6	80-120		
Surrogate: 1,2-Dichlorobenzene-d4	4.86		ug/L	5.00		97.3	80-120		



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Volatile Organic Compounds - Quality Control

Batch BLJ0126 - NWTPHg

Instrument: NT3 Analyst: TWC

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
LCS (BLJ0126-BS1)		Prepared: 04-Oct-2023 Analyzed: 04-Oct-2023 11:23							
Gasoline Range Organics (Tol-Nap)	977	100	ug/L	1000		97.7 72-128			
Surrogate: Toluene-d8	4.83		ug/L	5.00		96.6 80-120			
Surrogate: 4-Bromofluorobenzene	5.19		ug/L	5.00		104 80-120			



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Reported:
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Analysis by: Analytical Resources, LLC

Volatile Organic Compounds - Quality Control

Batch BLJ0126 - EPA 8260D

Instrument: NT3 Analyst: TWC

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
LCS (BLJ0126-BS2)									
Prepared: 04-Oct-2023 Analyzed: 04-Oct-2023 11:45									
Benzene	10.0	0.20	ug/L	10.0		100	80-120		
Toluene	9.95	0.20	ug/L	10.0		99.5	80-120		
Ethylbenzene	10.2	0.20	ug/L	10.0		102	80-120		
m,p-Xylene	20.7	0.40	ug/L	20.0		104	80-121		
o-Xylene	10.2	0.20	ug/L	10.0		102	80-121		
Surrogate: 1,2-Dichloroethane-d4	5.06		ug/L	5.00		101	80-129		
Surrogate: Toluene-d8	4.90		ug/L	5.00		98.0	80-120		
Surrogate: 4-Bromofluorobenzene	4.90		ug/L	5.00		98.0	80-120		
Surrogate: 1,2-Dichlorobenzene-d4	4.94		ug/L	5.00		98.7	80-120		



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Volatile Organic Compounds - Quality Control

Batch BLJ0126 - NWTPHg

Instrument: NT3 Analyst: TWC

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS Dup (BLJ0126-BSD1)		Prepared: 04-Oct-2023 Analyzed: 04-Oct-2023 12:08								
Gasoline Range Organics (Tol-Nap)	938	100	ug/L	1000		93.8	72-128	4.12	30	
Surrogate: Toluene-d8	4.77		ug/L	5.00		95.5	80-120			
Surrogate: 4-Bromofluorobenzene	4.90		ug/L	5.00		98.0	80-120			



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Volatile Organic Compounds - Quality Control

Batch BLJ0126 - EPA 8260D

Instrument: NT3 Analyst: TWC

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS Dup (BLJ0126-BSD2)		Prepared: 04-Oct-2023 Analyzed: 04-Oct-2023 12:30								
Benzene	10.3	0.20	ug/L	10.0		103	80-120	2.36	30	
Toluene	10.3	0.20	ug/L	10.0		103	80-120	3.42	30	
Ethylbenzene	10.6	0.20	ug/L	10.0		106	80-120	4.11	30	
m,p-Xylene	22.0	0.40	ug/L	20.0		110	80-121	6.07	30	
o-Xylene	10.8	0.20	ug/L	10.0		108	80-121	5.79	30	
Surrogate: 1,2-Dichloroethane-d4	4.93		ug/L	5.00		98.6	80-129			
Surrogate: Toluene-d8	4.92		ug/L	5.00		98.4	80-120			
Surrogate: 4-Bromofluorobenzene	4.95		ug/L	5.00		99.0	80-120			
Surrogate: 1,2-Dichlorobenzene-d4	5.04		ug/L	5.00		101	80-120			



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Analysis by: Analytical Resources, LLC

Volatile Organic Compounds - Quality Control

Batch BLJ0126 - NWTPHg

Instrument: NT3 Analyst: TWC

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Matrix Spike (BLJ0126-MS1)		Source: 23J0033-02		Prepared: 04-Oct-2023		Analyzed: 04-Oct-2023 19:09				
Gasoline Range Organics (Tol-Nap)	881	100	ug/L	1000	ND	88.1	72-128			
Surrogate: Toluene-d8	4.79		ug/L	5.00	4.82	95.8	80-120			
Surrogate: 4-Bromofluorobenzene	5.19		ug/L	5.00	5.03	104	80-120			

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



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Volatile Organic Compounds - Quality Control

Batch BLJ0126 - EPA 8260D

Instrument: NT3 Analyst: TWC

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Matrix Spike (BLJ0126-MS2)		Source: 23J0033-02		Prepared: 04-Oct-2023		Analyzed: 04-Oct-2023 22:09				
Benzene	9.13	0.20	ug/L	10.0	ND	91.3	80-120			
Toluene	9.06	0.20	ug/L	10.0	ND	90.6	80-120			
Ethylbenzene	8.94	0.20	ug/L	10.0	ND	89.4	80-120			
m,p-Xylene	18.2	0.40	ug/L	20.0	ND	91.1	80-121			
o-Xylene	9.08	0.20	ug/L	10.0	ND	90.8	80-121			
Surrogate: 1,2-Dichloroethane-d4	5.16		ug/L	5.00	5.59	103	80-129			
Surrogate: Toluene-d8	4.96		ug/L	5.00	4.82	99.2	80-120			
Surrogate: 4-Bromofluorobenzene	5.12		ug/L	5.00	5.03	102	80-120			
Surrogate: 1,2-Dichlorobenzene-d4	5.18		ug/L	5.00	5.01	104	80-120			

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



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Analysis by: Analytical Resources, LLC

Volatile Organic Compounds - Quality Control

Batch BLJ0126 - NWTPHg

Instrument: NT3 Analyst: TWC

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Matrix Spike Dup (BLJ0126-MSD1)		Source: 23J0033-02		Prepared: 04-Oct-2023		Analyzed: 04-Oct-2023 19:31				
Gasoline Range Organics (Tol-Nap)	889	100	ug/L	1000	ND	88.9	72-128	0.88	30	
Surrogate: Toluene-d8	4.92		ug/L	5.00	4.82	98.5	80-120			
Surrogate: 4-Bromofluorobenzene	4.96		ug/L	5.00	5.03	99.2	80-120			

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



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Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

Analysis by: Analytical Resources, LLC

Volatile Organic Compounds - Quality Control

Batch BLJ0126 - EPA 8260D

Instrument: NT3 Analyst: TWC

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Matrix Spike Dup (BLJ0126-MSD2)		Source: 23J0033-02		Prepared: 04-Oct-2023		Analyzed: 04-Oct-2023 22:31				
Benzene	8.18	0.20	ug/L	10.0	ND	81.8	80-120	11.00	30	
Toluene	8.59	0.20	ug/L	10.0	ND	85.9	80-120	5.29	30	
Ethylbenzene	8.12	0.20	ug/L	10.0	ND	81.2	80-120	9.63	30	
m,p-Xylene	16.3	0.40	ug/L	20.0	ND	81.6	80-121	11.00	30	
o-Xylene	8.18	0.20	ug/L	10.0	ND	81.8	80-121	10.40	30	
Surrogate: 1,2-Dichloroethane-d4	5.34		ug/L	5.00	5.59	107	80-129			
Surrogate: Toluene-d8	5.43		ug/L	5.00	4.82	109	80-120			
Surrogate: 4-Bromofluorobenzene	5.18		ug/L	5.00	5.03	104	80-120			
Surrogate: 1,2-Dichlorobenzene-d4	4.96		ug/L	5.00	5.01	99.2	80-120			

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



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Analysis by: Analytical Resources, LLC

Volatile Organic Compounds - Quality Control

Batch BLJ0126 - EPA 8260D

Analysis by: Analytical Resources, LLC

Semivolatile Organic Compounds - SIM - Quality Control

Batch BLJ0070 - EPA 8270E-SIM

Instrument: NT8 Analyst: JZ

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BLJ0070-BLK1)		Prepared: 03-Oct-2023 Analyzed: 06-Oct-2023 20:09								
Naphthalene	ND	0.10	ug/L							U
2-Methylnaphthalene	ND	0.10	ug/L							U
1-Methylnaphthalene	ND	0.10	ug/L							U
Acenaphthylene	ND	0.10	ug/L							U
Acenaphthene	ND	0.10	ug/L							U
Dibenzofuran	ND	0.10	ug/L							U
Fluorene	ND	0.10	ug/L							U
Phenanthrene	ND	0.10	ug/L							U
Anthracene	ND	0.10	ug/L							U
Fluoranthene	ND	0.10	ug/L							U
Pyrene	ND	0.10	ug/L							U
Benzo(a)anthracene	ND	0.10	ug/L							U
Chrysene	ND	0.10	ug/L							U
Benzo(b)fluoranthene	ND	0.10	ug/L							U
Benzo(k)fluoranthene	ND	0.10	ug/L							U
Benzo(j)fluoranthene	ND	0.10	ug/L							U
Benzofluoranthenes, Total	ND	0.20	ug/L							U
Benzo(a)pyrene	ND	0.10	ug/L							U
Indeno(1,2,3-cd)pyrene	ND	0.10	ug/L							U
Dibenzo(a,h)anthracene	ND	0.10	ug/L							U
Benzo(g,h,i)perylene	ND	0.10	ug/L							U
Surrogate: 2-Methylnaphthalene-d10	1.37		ug/L	3.00		45.5	31-120			
Surrogate: Dibenzo[a,h]anthracene-d14	2.14		ug/L	3.00		71.3	10-125			



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Project: Birds Eye
Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

Analysis by: Analytical Resources, LLC

Semivolatile Organic Compounds - SIM - Quality Control

Batch BLJ0070 - EPA 8270E-SIM

Instrument: NT8 Analyst: JZ

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (BLJ0070-BS1)		Prepared: 03-Oct-2023 Analyzed: 09-Oct-2023 14:25								
Naphthalene	1.34	0.10	ug/L	3.00		44.5	18-120			
2-Methylnaphthalene	1.30	0.10	ug/L	3.00		43.4	23-120			
1-Methylnaphthalene	1.30	0.10	ug/L	3.00		43.3	25-120			
Acenaphthylene	0.95	0.10	ug/L	3.00		31.7	15-120			
Acenaphthene	1.34	0.10	ug/L	3.00		44.7	23-120			
Dibenzofuran	1.39	0.10	ug/L	3.00		46.4	26-120			
Fluorene	1.38	0.10	ug/L	3.00		46.0	27-120			
Phenanthrene	1.60	0.10	ug/L	3.00		53.5	27-120			
Anthracene	1.33	0.10	ug/L	3.00		44.2	20-120			
Fluoranthene	1.66	0.10	ug/L	3.00		55.3	32-120			
Pyrene	1.79	0.10	ug/L	3.00		59.7	26-120			
Benzo(a)anthracene	1.56	0.10	ug/L	3.00		52.0	25-120			
Chrysene	1.77	0.10	ug/L	3.00		59.1	31-120			
Benzo(b)fluoranthene	3.33	0.10	ug/L	3.00		111	31-150			
Benzo(k)fluoranthene	2.97	0.10	ug/L	3.00		98.8	34-144			
Benzo(j)fluoranthene	3.16	0.10	ug/L	3.00		105	33-153			
Benzo(a)pyrene	1.76	0.10	ug/L	3.00		58.7	20-120			
Indeno(1,2,3-cd)pyrene	2.84	0.10	ug/L	3.00		94.5	46-130			
Dibenzo(a,h)anthracene	3.08	0.10	ug/L	3.00		103	43-146			
Benzo(g,h,i)perylene	2.91	0.10	ug/L	3.00		97.2	40-144			
Surrogate: 2-Methylnaphthalene-d10	1.48		ug/L	3.00		49.3	31-120			
Surrogate: Dibenzo[a,h]anthracene-d14	2.18		ug/L	3.00		72.7	10-125			



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Seattle WA, 98101

Project: Birds Eye
Project Number: 518300040
Project Manager: Inger Jackson

Reported:
25-Oct-2023 13:34

Analysis by: Analytical Resources, LLC

Semivolatile Organic Compounds - SIM - Quality Control

Batch BLJ0070 - EPA 8270E-SIM

Instrument: NT8 Analyst: JZ

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Matrix Spike (BLJ0070-MS1)		Source: 23J0033-02		Prepared: 03-Oct-2023		Analyzed: 09-Oct-2023 15:27				
Naphthalene	1.38	0.10	ug/L	3.00	ND	46.1	18-120			
2-Methylnaphthalene	1.41	0.10	ug/L	3.00	ND	46.8	23-120			
1-Methylnaphthalene	1.40	0.10	ug/L	3.00	ND	46.8	25-120			
Acenaphthylene	1.07	0.10	ug/L	3.00	ND	35.5	15-120			
Acenaphthene	1.39	0.10	ug/L	3.00	ND	46.3	23-120			
Dibenzofuran	1.48	0.10	ug/L	3.00	ND	49.5	26-120			
Fluorene	1.51	0.10	ug/L	3.00	ND	50.3	27-120			
Phenanthrene	1.67	0.10	ug/L	3.00	ND	55.7	27-120			
Anthracene	1.36	0.10	ug/L	3.00	ND	45.3	20-120			
Fluoranthene	1.76	0.10	ug/L	3.00	ND	58.6	32-120			
Pyrene	1.96	0.10	ug/L	3.00	ND	65.2	26-120			
Benzo(a)anthracene	1.65	0.10	ug/L	3.00	ND	55.1	25-120			
Chrysene	1.90	0.10	ug/L	3.00	ND	63.4	31-120			
Benzo(b)fluoranthene	3.39	0.10	ug/L	3.00	ND	113	31-150			
Benzo(k)fluoranthene	3.11	0.10	ug/L	3.00	ND	104	34-144			
Benzo(j)fluoranthene	3.36	0.10	ug/L	3.00	ND	112	33-153			
Benzo(a)fluoranthene, Total	9.86	0.20	ug/L	9.00	ND	110	33-148			
Benzo(a)pyrene	1.87	0.10	ug/L	3.00	ND	62.3	20-120			
Indeno(1,2,3-cd)pyrene	2.92	0.10	ug/L	3.00	ND	97.3	46-130			
Dibenzo(a,h)anthracene	3.45	0.10	ug/L	3.00	ND	115	43-146			
Benzo(g,h,i)perylene	3.06	0.10	ug/L	3.00	ND	102	40-144			
Surrogate: 2-Methylnaphthalene-d10	1.54		ug/L	3.00	1.31	51.2	31-120			
Surrogate: Dibenzo[a,h]anthracene-d14	2.32		ug/L	3.00	1.97	77.2	10-125			

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



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Semivolatile Organic Compounds - SIM - Quality Control

Batch BLJ0070 - EPA 8270E-SIM

Instrument: NT8 Analyst: JZ

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Matrix Spike Dup (BLJ0070-MSD1)		Source: 23J0033-02		Prepared: 03-Oct-2023		Analyzed: 09-Oct-2023 15:54				
Naphthalene	1.44	0.10	ug/L	3.00	ND	48.1	18-120	4.26	30	
2-Methylnaphthalene	1.40	0.10	ug/L	3.00	ND	46.7	23-120	0.36	30	
1-Methylnaphthalene	1.44	0.10	ug/L	3.00	ND	48.1	25-120	2.75	30	
Acenaphthylene	1.06	0.10	ug/L	3.00	ND	35.2	15-120	1.04	30	
Acenaphthene	1.40	0.10	ug/L	3.00	ND	46.8	23-120	1.04	30	
Dibenzofuran	1.46	0.10	ug/L	3.00	ND	48.7	26-120	1.67	30	
Fluorene	1.46	0.10	ug/L	3.00	ND	48.6	27-120	3.36	30	
Phenanthrene	1.66	0.10	ug/L	3.00	ND	55.4	27-120	0.55	30	
Anthracene	1.38	0.10	ug/L	3.00	ND	46.0	20-120	1.50	30	
Fluoranthene	1.74	0.10	ug/L	3.00	ND	57.8	32-120	1.24	30	
Pyrene	1.88	0.10	ug/L	3.00	ND	62.8	26-120	3.70	30	
Benzo(a)anthracene	1.59	0.10	ug/L	3.00	ND	53.0	25-120	3.99	30	
Chrysene	1.82	0.10	ug/L	3.00	ND	60.8	31-120	4.24	30	
Benzo(b)fluoranthene	3.20	0.10	ug/L	3.00	ND	107	31-150	5.79	30	
Benzo(k)fluoranthene	2.98	0.10	ug/L	3.00	ND	99.3	34-144	4.16	30	
Benzo(j)fluoranthene	3.12	0.10	ug/L	3.00	ND	104	33-153	7.32	30	
Benzo(a)pyrene	1.77	0.10	ug/L	3.00	ND	59.1	20-120	5.23	30	
Indeno(1,2,3-cd)pyrene	2.74	0.10	ug/L	3.00	ND	91.2	46-130	6.45	30	
Dibenzo(a,h)anthracene	3.07	0.10	ug/L	3.00	ND	102	43-146	11.70	30	
Benzo(g,h,i)perylene	2.88	0.10	ug/L	3.00	ND	96.0	40-144	6.00	30	
Surrogate: 2-Methylnaphthalene-d10	1.56		ug/L	3.00	1.31	52.2	31-120			
Surrogate: Dibenzo[a,h]anthracene-d14	2.10		ug/L	3.00	1.97	70.1	10-125			

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Semivolatile Organic Compounds - SIM - Quality Control

Batch BLJ0070 - EPA 8270E-SIM

Analysis by: Analytical Resources, LLC

Petroleum Hydrocarbons - Quality Control

Batch BLJ0068 - NWTPH-Dx

Instrument: FID4 Analyst: NRB

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Blank (BLJ0068-BLK1)				Prepared: 03-Oct-2023 Analyzed: 19-Oct-2023 14:13						
Diesel Range Organics (C12-C24)	ND	0.100	mg/L							U
Motor Oil Range Organics (C24-C38)	ND	0.200	mg/L							U
Surrogate: o-Terphenyl	0.199		mg/L	0.225		88.4	50-150			



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Analysis by: Analytical Resources, LLC

Petroleum Hydrocarbons - Quality Control

Batch BLJ0068 - NWTPH-Dx

Instrument: FID4 Analyst: NRB

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
LCS (BLJ0068-BS1)				Prepared: 03-Oct-2023		Analyzed: 19-Oct-2023 14:33			
Diesel Range Organics (C12-C24)	2.39	0.100	mg/L	3.00		79.8	56-120		
Surrogate: o-Terphenyl	0.198		mg/L	0.225		87.8	50-150		



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Petroleum Hydrocarbons - Quality Control

Batch BLJ0068 - NWTPH-Dx

Instrument: FID4 Analyst: NRB

QC Sample/Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Matrix Spike (BLJ0068-MS1)		Source: 23J0033-02		Prepared: 03-Oct-2023 Analyzed: 19-Oct-2023 14:53						
Diesel Range Organics (C12-C24)	2.58	0.100	mg/L	3.00	ND	84.6	56-120			
Surrogate: <i>o</i> -Terphenyl	0.193		mg/L	0.225	0.196	85.9	50-150			

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Certified Analyses included in this Report

Analyte	Certifications
EPA 8260D in Water	
Benzene	DoD-ELAP,ADEC,NELAP,WADOE
Benzene	DoD-ELAP,ADEC,NELAP,WADOE
Benzene	DoD-ELAP,ADEC,NELAP,WADOE
Benzene	DoD-ELAP,ADEC,NELAP,WADOE
Toluene	DoD-ELAP,ADEC,NELAP,WADOE
Toluene	DoD-ELAP,ADEC,NELAP,WADOE
Toluene	DoD-ELAP,ADEC,NELAP,WADOE
Toluene	DoD-ELAP,ADEC,NELAP,WADOE
Ethylbenzene	DoD-ELAP,ADEC,NELAP,WADOE
Ethylbenzene	DoD-ELAP,ADEC,NELAP,WADOE
Ethylbenzene	DoD-ELAP,ADEC,NELAP,WADOE
Ethylbenzene	DoD-ELAP,ADEC,NELAP,WADOE
m,p-Xylene	DoD-ELAP,ADEC,NELAP,WADOE
m,p-Xylene	DoD-ELAP,ADEC,NELAP,WADOE
m,p-Xylene	DoD-ELAP,ADEC,NELAP,WADOE
m,p-Xylene	DoD-ELAP,ADEC,NELAP,WADOE
o-Xylene	DoD-ELAP,ADEC,NELAP,WADOE
o-Xylene	DoD-ELAP,ADEC,NELAP,WADOE
o-Xylene	DoD-ELAP,ADEC,NELAP,WADOE
o-Xylene	DoD-ELAP,ADEC,NELAP,WADOE
EPA 8270E-SIM in Water	
Naphthalene	DoD-ELAP
2-Methylnaphthalene	DoD-ELAP
1-Methylnaphthalene	DoD-ELAP
Acenaphthylene	DoD-ELAP
Acenaphthene	DoD-ELAP
Dibenzofuran	DoD-ELAP
Fluorene	DoD-ELAP
Phenanthrene	DoD-ELAP
Anthracene	DoD-ELAP



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Fluoranthene	DoD-ELAP
Pyrene	DoD-ELAP
Benzo(a)anthracene	DoD-ELAP
Chrysene	DoD-ELAP
Benzo(b)fluoranthene	DoD-ELAP
Benzo(k)fluoranthene	DoD-ELAP
Benzo(j)fluoranthene	DoD-ELAP
Benzofluoranthenes, Total	DoD-ELAP
Benzo(a)pyrene	DoD-ELAP
Indeno(1,2,3-cd)pyrene	DoD-ELAP
Dibenzo(a,h)anthracene	DoD-ELAP
Benzo(g,h,i)perylene	DoD-ELAP

NWTPH-Dx in Water

Diesel Range Organics (C12-C2	DoD-ELAP,NELAP,WADOE
Motor Oil Range Organics (C24-	DoD-ELAP,NELAP,WADOE

NWTPHg in Water

Gasoline Range Organics (Tol-N	WADOE,DoD-ELAP
Gasoline Range Organics (Tol-N	WADOE,DoD-ELAP
Gasoline Range Organics (Tol-N	WADOE,DoD-ELAP
Gasoline Range Organics (Tol-N	WADOE,DoD-ELAP

Code	Description	Number	Expires
ADEC	Alaska Dept of Environmental Conservation	17-015	03/28/2025
DoD-ELAP	DoD-Environmental Laboratory Accreditation Program, PJLA Testing	66169	02/28/2025
NELAP	ORELAP - Oregon Laboratory Accreditation Program	WA100006-012	05/12/2024



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Notes and Definitions

*	Flagged value is not within established control limits.
D	The reported value is from a dilution
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL)
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
[2C]	Indicates this result was quantified on the second column on a dual column analysis.