

Laboratory Report of Analysis

To: Kenai Watershed Forum
44129 Sterling Hwy
Soldotna, AK 99669

Report Number: **1231846**

Client Project: **Kenai River Baseline Water Qua**

Dear Benjamin Meyer,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of ten years in the event they are required for future reference. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. Any samples submitted to our laboratory will be retained for a maximum of fourteen (14) days from the date of this report unless other archiving requirements were included in the quote.

If there are any questions about the report or services performed during this project, please call Justin at (907) 562-2343. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America Inc.

Justin Nelson
Project Manager
Justin.Nelson@sgs.com

Date

Case Narrative

SGS Client: **Kenai Watershed Forum**

SGS Project: **1231846**

Project Name/Site: **Kenai River Baseline Water Qua**

Project Contact: **Benjamin Meyer**

Refer to sample receipt form for information on sample condition.

1231784001MSD (1711652) MSD

4500NO3-F - Nitrate/Nitrite - MSD recovery for total nitrate/nitrite is outside of QC criteria. Refer to LCS for accuracy requirements.

MB for HBN 1854932 [MXX/35860] (1712761) MB

200.8 - Metals analyte Zinc is detected in the MB above the LOQ. The associated sample concentrations are either less than the LOQ or greater than 5 times the concentration in the MB.

MB for HBN 1856254 [MXX/35877] (1714017) MB

200.8 - Metals analyte Zinc is detected in the MB above the LOQ. The associated sample concentrations are less than the LOQ or greater than 5 times the concentration in the MB.

Calcium, Iron, Magnesium, Zinc, & Copper by 200.7 were analyzed by SGS of Orlando, FL.

*QC comments may be associated with the field samples found in this report. When applicable, comments will be applied to associated field samples.

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Laboratory Qualifiers

Enclosed are the analytical results associated with the above work order. The results apply to the samples as received. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. This document is issued by the Company under its General Conditions of Service accessible at <<http://www.sgs.com/en/Terms-and-Conditions.aspx>>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the context or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 (JDW Chemistry & Microbiology (Provisionally Certified as of 6/05/2023 for Fluoride EPA300.0, Alkalinity SM2320B, Orthophosphate SM4500P-E and Beryllium, Copper and Mercury 200.8) & 17-021 (CS) for ADEC and 2944.01 for DOD ELAP/ISO17025 (RCRA methods: 1020B, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035A, 6020B, 7470A, 7471B, 8015C, 8021B, 8082A, 8260D, 8270D, 8270D-SIM, 9040C, 9045D, 9056A, 9060A, AK101 and AK102/103). SGS is only certified for the analytes listed on our Drinking Water Certification (DW methods: 200.8, 2130B, 2320B, 2510B, 300.0, 4500-CN-C,E, 4500-H-B, 4500-NO3-F, 4500-P-E and 524.2) and only those analytes will be reported to the State of Alaska for compliance. Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP and, when applicable, other regulatory authorities.

The following descriptors or qualifiers may be found in your report:

*	The analyte has exceeded allowable regulatory or control limits.
!	Surrogate out of control limits.
B	Indicates the analyte is found in a blank associated with the sample.
CCV/CVA/CVB	Continuing Calibration Verification
CCCV/CVC/CVCA/CVCB	Closing Continuing Calibration Verification
CL	Control Limit
DF	Analytical Dilution Factor
DL	Detection Limit (i.e., maximum method detection limit)
E	The analyte result is above the calibrated range.
GT	Greater Than
IB	Instrument Blank
ICV	Initial Calibration Verification
J	The quantitation is an estimation.
LCS(D)	Laboratory Control Spike (Duplicate)
LLQC/LLIQC	Low Level Quantitation Check
LOD	Limit of Detection (i.e., 1/2 of the LOQ)
LOQ	Limit of Quantitation (i.e., reporting or practical quantitation limit)
LT	Less Than
MB	Method Blank
MS(D)	Matrix Spike (Duplicate)
ND	Indicates the analyte is not detected.
RPD	Relative Percent Difference
TNTC	Too Numerous To Count
U	Indicates the analyte was analyzed for but not detected.

Note: Sample summaries which include a result for "Total Solids" have already been adjusted for moisture content. All DRO/RRO analyses are integrated per SOP.

Sample Summary

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Collected</u>	<u>Received</u>	<u>Matrix</u>
RM 0 - No Name Creek	1231846001	05/03/2023	05/04/2023	Water (Surface, Eff., Ground)
RM 1.5 - Kenai City Dock - DUP	1231846002	05/03/2023	05/04/2023	Water (Surface, Eff., Ground)
RM 1.5 - Kenai City Dock	1231846003	05/03/2023	05/04/2023	Water (Surface, Eff., Ground)
RM 6.5 - Cunningham Park	1231846004	05/03/2023	05/04/2023	Water (Surface, Eff., Ground)
RM 10 - Beaver Creek	1231846005	05/03/2023	05/04/2023	Water (Surface, Eff., Ground)
RM 12.5 Pillars	1231846006	05/03/2023	05/04/2023	Water (Surface, Eff., Ground)
RM 18 - Poacher's Cove	1231846007	05/03/2023	05/04/2023	Water (Surface, Eff., Ground)
RM 19 - Slikok Creek	1231846008	05/03/2023	05/04/2023	Water (Surface, Eff., Ground)
RM 21 - Soldotna Bridge	1231846009	05/03/2023	05/04/2023	Water (Surface, Eff., Ground)
RM 22 - Soldotna Creek	1231846010	05/02/2023	05/04/2023	Water (Surface, Eff., Ground)
RM 23 - Swiftwater Park	1231846011	05/02/2023	05/04/2023	Water (Surface, Eff., Ground)
RM 30 - Funny River	1231846012	05/02/2023	05/04/2023	Water (Surface, Eff., Ground)
RM 31 - Morgan's Landing	1231846013	05/02/2023	05/04/2023	Water (Surface, Eff., Ground)
RM 36 - Moose River	1231846014	05/02/2023	05/04/2023	Water (Surface, Eff., Ground)
RM 36 - Moose River-DUP	1231846015	05/02/2023	05/04/2023	Water (Surface, Eff., Ground)
RM 40 - Bing's Landing	1231846016	05/02/2023	05/04/2023	Water (Surface, Eff., Ground)
RM 43 - Upstream of Dow Island	1231846017	05/02/2023	05/04/2023	Water (Surface, Eff., Ground)
RM 44 - Mouth of Killee River	1231846018	05/02/2023	05/04/2023	Water (Surface, Eff., Ground)
RM 50 - Skilak Lake Ourflow	1231846019	05/02/2023	05/04/2023	Water (Surface, Eff., Ground)
RM 70 - Jim's Landing	1231846020	05/02/2023	05/04/2023	Water (Surface, Eff., Ground)
RM 74 - Russian River	1231846021	05/02/2023	05/04/2023	Water (Surface, Eff., Ground)
RM 82 - Kenai Lake Bridge	1231846022	05/02/2023	05/04/2023	Water (Surface, Eff., Ground)
RM 79.5 - Juneau Creek	1231846023	05/02/2023	05/04/2023	Water (Surface, Eff., Ground)
RM 0 - No Name Creek-FB	1231846024	05/02/2023	05/04/2023	Water (Surface, Eff., Ground)
RM 12.5 - Pillars - FieldBlank	1231846025	05/02/2023	05/04/2023	Water (Surface, Eff., Ground)

Method

EP200.8
SM21 4500NO3-F
SM21 4500P-B,E

Method Description

Metals in Drinking Water by ICP-MS DISO
Nitrate/Nitrite Flow injection Pres.
Total Phosphorus (W)

Detectable Results Summary

Client Sample ID: RM 0 - No Name Creek

Lab Sample ID: 1231846001

	<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Diss. Metals by ICP/MS (Provisional Be,Cu 65)	Copper	2.95J	ug/L
Dissolved Metals by ICP/MS	Cadmium	0.595	ug/L
	Chromium	24.1	ug/L
	Zinc	19.6	ug/L
Waters Department	Total Nitrate/Nitrite-N	0.294	mg/L
	Total Phosphorus	0.0237J	mg/L

Client Sample ID: RM 1.5 - Kenai City Dock - DUP

Lab Sample ID: 1231846002

	<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Diss. Metals by ICP/MS (Provisional Be,Cu 65)	Copper	276	ug/L
Dissolved Metals by ICP/MS	Chromium	3.26J	ug/L
	Lead	0.576J	ug/L
	Zinc	9.46J	ug/L
Waters Department	Total Nitrate/Nitrite-N	0.466	mg/L
	Total Phosphorus	0.315	mg/L

Client Sample ID: RM 1.5 - Kenai City Dock

Lab Sample ID: 1231846003

	<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Diss. Metals by ICP/MS (Provisional Be,Cu 65)	Copper	150	ug/L
Dissolved Metals by ICP/MS	Chromium	3.47J	ug/L
	Zinc	9.97J	ug/L
Waters Department	Total Nitrate/Nitrite-N	0.345	mg/L
	Total Phosphorus	0.339	mg/L

Client Sample ID: RM 6.5 - Cunningham Park

Lab Sample ID: 1231846004

	<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Diss. Metals by ICP/MS (Provisional Be,Cu 65)	Copper	8.92	ug/L
Dissolved Metals by ICP/MS	Arsenic	2.24J	ug/L
	Cadmium	0.494J	ug/L
	Lead	0.533J	ug/L
	Zinc	8.94J	ug/L
Waters Department	Total Nitrate/Nitrite-N	0.198J	mg/L
	Total Phosphorus	0.309	mg/L

Client Sample ID: RM 10 - Beaver Creek

Lab Sample ID: 1231846005

	<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Diss. Metals by ICP/MS (Provisional Be,Cu 65)	Copper	3.60	ug/L
Dissolved Metals by ICP/MS	Arsenic	3.04J	ug/L
	Lead	0.732J	ug/L
	Zinc	8.73J	ug/L
Waters Department	Total Nitrate/Nitrite-N	0.0526J	mg/L
	Total Phosphorus	0.220	mg/L

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Detectable Results Summary

Client Sample ID: RM 12.5 Pillars

Lab Sample ID: 1231846006

	<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Diss. Metals by ICP/MS (Provisional Be,Cu 65)	Copper	1.45J	ug/L
Dissolved Metals by ICP/MS	Arsenic	2.65J	ug/L
	Zinc	7.00J	ug/L
Waters Department	Total Nitrate/Nitrite-N	0.133J	mg/L
	Total Phosphorus	0.0509	mg/L

Client Sample ID: RM 18 - Poacher's Cove

Lab Sample ID: 1231846007

	<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Diss. Metals by ICP/MS (Provisional Be,Cu 65)	Copper	1.42J	ug/L
Dissolved Metals by ICP/MS	Arsenic	2.34J	ug/L
	Zinc	7.47J	ug/L
Waters Department	Total Nitrate/Nitrite-N	0.161J	mg/L
	Total Phosphorus	0.0420	mg/L

Client Sample ID: RM 19 - Slikok Creek

Lab Sample ID: 1231846008

	<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Diss. Metals by ICP/MS (Provisional Be,Cu 65)	Copper	1.57J	ug/L
Dissolved Metals by ICP/MS	Arsenic	1.72J	ug/L
	Zinc	21.2	ug/L
Waters Department	Total Nitrate/Nitrite-N	0.113J	mg/L
	Total Phosphorus	0.0227J	mg/L

Client Sample ID: RM 21 - Soldotna Bridge

Lab Sample ID: 1231846009

	<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Diss. Metals by ICP/MS (Provisional Be,Cu 65)	Copper	1.13J	ug/L
Dissolved Metals by ICP/MS	Arsenic	1.88J	ug/L
	Zinc	12.5	ug/L
Waters Department	Total Nitrate/Nitrite-N	0.146J	mg/L
	Total Phosphorus	0.0316J	mg/L

Client Sample ID: RM 22 - Soldotna Creek

Lab Sample ID: 1231846010

	<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Dissolved Metals by ICP/MS	Arsenic	5.29	ug/L
	Zinc	7.94J	ug/L
Waters Department	Total Nitrate/Nitrite-N	0.130J	mg/L
	Total Phosphorus	0.104	mg/L

Client Sample ID: RM 23 - Swiftwater Park

Lab Sample ID: 1231846011

	<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Diss. Metals by ICP/MS (Provisional Be,Cu 65)	Copper	1.31J	ug/L
Dissolved Metals by ICP/MS	Zinc	13.7	ug/L
Waters Department	Total Nitrate/Nitrite-N	0.555	mg/L
	Total Phosphorus	0.0386J	mg/L

Detectable Results Summary

Client Sample ID: **RM 12.5 - Pillars - FieldBlank**

Lab Sample ID: 1231846025

Dissolved Metals by ICP/MS

Parameter

Zinc

Result

8.97J

Units

ug/L

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Results of RM 0 - No Name Creek

Client Sample ID: RM 0 - No Name Creek
Client Project ID: Kenai River Baseline Water Qua
Lab Sample ID: 1231846001
Lab Project ID: 1231846

Collection Date: 05/03/23 10:30
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Diss. Metals by ICP/MS (Provisional Be,Cu 6520

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Copper	2.95	J	3.00	1.00	1.50	ug/L	1		05/19/23 20:08

Batch Information

Analytical Batch: MMS11946
Analytical Method: EP200.8
Analyst: ACF
Analytical Date/Time: 06/06/23 13:54
Container ID: 1231846001-C

Prep Batch: MXX35898
Prep Method: E200.2
Prep Date/Time: 06/01/23 16:04
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:08
Container ID: 1231846001-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Results of RM 0 - No Name Creek

Client Sample ID: **RM 0 - No Name Creek**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846001
Lab Project ID: 1231846

Collection Date: 05/03/23 10:30
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Dissolved Metals by ICP/MS

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Arsenic	2.50	U	5.00	1.50	2.50	ug/L	1		05/19/23 20:08
Cadmium	0.595		0.500	0.150	0.250	ug/L	1		05/19/23 20:08
Chromium	24.1		5.00	2.50	2.50	ug/L	1		05/19/23 20:08
Lead	1.00	U	2.00	0.500	1.00	ug/L	1		05/19/23 20:08
Zinc	19.6		10.0	3.10	5.00	ug/L	1		06/06/23 13:54

Batch Information

Analytical Batch: MMS11946
Analytical Method: EP200.8
Analyst: ACF
Analytical Date/Time: 06/06/23 13:54
Container ID: 1231846001-C

Prep Batch: MXX35898
Prep Method: E200.2
Prep Date/Time: 06/01/23 16:04
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:08
Container ID: 1231846001-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Results of RM 0 - No Name Creek

Client Sample ID: RM 0 - No Name Creek
Client Project ID: Kenai River Baseline Water Qua
Lab Sample ID: 1231846001
Lab Project ID: 1231846

Collection Date: 05/03/23 10:30
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Nitrate/Nitrite-N	0.294		0.200	0.0500	0.100	mg/L	2		05/05/23 14:28

Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 14:28
Container ID: 1231846001-A

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0237	J	0.0400	0.0120	0.0200	mg/L	1		05/17/23 16:43

Batch Information

Analytical Batch: WDA5503
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/17/23 16:43
Container ID: 1231846001-A

Prep Batch: WXX14745
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/17/23 12:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of RM 1.5 - Kenai City Dock - DUP

Client Sample ID: **RM 1.5 - Kenai City Dock - DUP**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846002
Lab Project ID: 1231846

Collection Date: 05/03/23 13:37
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Diss. Metals by ICP/MS (Provisional Be,Cu 6520)

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Copper	276		3.00	1.00	1.50	ug/L	1		05/19/23 20:17

Batch Information

Analytical Batch: MMS11940
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/30/23 18:21
Container ID: 1231846002-C

Prep Batch: MXX35877
Prep Method: E200.2
Prep Date/Time: 05/23/23 13:45
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:17
Container ID: 1231846002-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Results of RM 1.5 - Kenai City Dock - DUP

Client Sample ID: **RM 1.5 - Kenai City Dock - DUP**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846002
Lab Project ID: 1231846

Collection Date: 05/03/23 13:37
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Dissolved Metals by ICP/MS

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Arsenic	2.50	U	5.00	1.50	2.50	ug/L	1		05/19/23 20:17
Cadmium	0.250	U	0.500	0.150	0.250	ug/L	1		05/19/23 20:17
Chromium	3.26	J	5.00	2.50	2.50	ug/L	1		05/19/23 20:17
Lead	0.576	J	2.00	0.500	1.00	ug/L	1		05/19/23 20:17
Zinc	9.46	J	10.0	3.10	5.00	ug/L	1		05/30/23 18:21

Batch Information

Analytical Batch: MMS11940
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/30/23 18:21
Container ID: 1231846002-C

Prep Batch: MXX35877
Prep Method: E200.2
Prep Date/Time: 05/23/23 13:45
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:17
Container ID: 1231846002-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Results of RM 1.5 - Kenai City Dock - DUP

Client Sample ID: RM 1.5 - Kenai City Dock - DUP
Client Project ID: Kenai River Baseline Water Qua
Lab Sample ID: 1231846002
Lab Project ID: 1231846

Collection Date: 05/03/23 13:37
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Nitrate/Nitrite-N	0.466	0.200		0.0500	0.100	mg/L	2		05/05/23 14:30

Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 14:30
Container ID: 1231846002-A

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.315	0.0400		0.0120	0.0200	mg/L	1		05/17/23 16:44

Batch Information

Analytical Batch: WDA5503
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/17/23 16:44
Container ID: 1231846002-A

Prep Batch: WXX14745
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/17/23 12:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of RM 1.5 - Kenai City Dock

Client Sample ID: **RM 1.5 - Kenai City Dock**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846003
Lab Project ID: 1231846

Collection Date: 05/03/23 13:53
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Diss. Metals by ICP/MS (Provisional Be,Cu 6520)

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Copper	150		3.00	1.00	1.50	ug/L	1		05/19/23 20:20

Batch Information

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:20
Container ID: 1231846003-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Results of RM 1.5 - Kenai City Dock

Client Sample ID: **RM 1.5 - Kenai City Dock**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846003
Lab Project ID: 1231846

Collection Date: 05/03/23 13:53
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Dissolved Metals by ICP/MS

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Arsenic	2.50	U	5.00	1.50	2.50	ug/L	1		05/19/23 20:20
Cadmium	0.250	U	0.500	0.150	0.250	ug/L	1		05/19/23 20:20
Chromium	3.47	J	5.00	2.50	2.50	ug/L	1		05/19/23 20:20
Lead	1.00	U	2.00	0.500	1.00	ug/L	1		05/19/23 20:20
Zinc	9.97	J	10.0	3.10	5.00	ug/L	1		05/19/23 20:20

Batch Information

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:20
Container ID: 1231846003-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Results of RM 1.5 - Kenai City Dock

Client Sample ID: **RM 1.5 - Kenai City Dock**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846003
Lab Project ID: 1231846

Collection Date: 05/03/23 13:53
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Nitrate/Nitrite-N	0.345	0.200		0.0500	0.100	mg/L	2		05/05/23 14:32

Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 14:32
Container ID: 1231846003-A

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.339	0.0400		0.0120	0.0200	mg/L	1		05/17/23 16:45

Batch Information

Analytical Batch: WDA5503
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/17/23 16:45
Container ID: 1231846003-A

Prep Batch: WXX14745
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/17/23 12:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of RM 6.5 - Cunningham Park

Client Sample ID: **RM 6.5 - Cunningham Park**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846004
Lab Project ID: 1231846

Collection Date: 05/03/23 09:22
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Diss. Metals by ICP/MS (Provisional Be,Cu 6520)

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Copper	8.92		3.00	1.00	1.50	ug/L	1		05/19/23 20:22

Batch Information

Analytical Batch: MMS11940
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/30/23 18:23
Container ID: 1231846004-C

Prep Batch: MXX35877
Prep Method: E200.2
Prep Date/Time: 05/23/23 13:45
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:22
Container ID: 1231846004-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Results of RM 6.5 - Cunningham Park

Client Sample ID: **RM 6.5 - Cunningham Park**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846004
Lab Project ID: 1231846

Collection Date: 05/03/23 09:22
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Dissolved Metals by ICP/MS

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Arsenic	2.24	J	5.00	1.50	2.50	ug/L	1		05/19/23 20:22
Cadmium	0.494	J	0.500	0.150	0.250	ug/L	1		05/19/23 20:22
Chromium	2.50	U	5.00	2.50	2.50	ug/L	1		05/19/23 20:22
Lead	0.533	J	2.00	0.500	1.00	ug/L	1		05/19/23 20:22
Zinc	8.94	J	10.0	3.10	5.00	ug/L	1		05/30/23 18:23

Batch Information

Analytical Batch: MMS11940
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/30/23 18:23
Container ID: 1231846004-C

Prep Batch: MXX35877
Prep Method: E200.2
Prep Date/Time: 05/23/23 13:45
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:22
Container ID: 1231846004-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Results of RM 6.5 - Cunningham Park

Client Sample ID: **RM 6.5 - Cunningham Park**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846004
Lab Project ID: 1231846

Collection Date: 05/03/23 09:22
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Nitrate/Nitrite-N	0.198	J	0.200	0.0500	0.100	mg/L	2		05/05/23 14:39

Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 14:39
Container ID: 1231846004-A

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.309		0.0400	0.0120	0.0200	mg/L	1		05/17/23 16:46

Batch Information

Analytical Batch: WDA5503
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/17/23 16:46
Container ID: 1231846004-A

Prep Batch: WXX14745
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/17/23 12:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of RM 10 - Beaver Creek

Client Sample ID: **RM 10 - Beaver Creek**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846005
Lab Project ID: 1231846

Collection Date: 05/03/23 10:05
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Diss. Metals by ICP/MS (Provisional Be,Cu 6520)

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Copper	3.60		3.00	1.00	1.50	ug/L	1		05/19/23 20:25

Batch Information

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:25
Container ID: 1231846005-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Results of RM 10 - Beaver Creek

Client Sample ID: **RM 10 - Beaver Creek**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846005
Lab Project ID: 1231846

Collection Date: 05/03/23 10:05
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Dissolved Metals by ICP/MS

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Arsenic	3.04	J	5.00	1.50	2.50	ug/L	1		05/19/23 20:25
Cadmium	0.250	U	0.500	0.150	0.250	ug/L	1		05/19/23 20:25
Chromium	2.50	U	5.00	2.50	2.50	ug/L	1		05/19/23 20:25
Lead	0.732	J	2.00	0.500	1.00	ug/L	1		05/19/23 20:25
Zinc	8.73	J	10.0	3.10	5.00	ug/L	1		05/19/23 20:25

Batch Information

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:25
Container ID: 1231846005-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Results of RM 10 - Beaver Creek

Client Sample ID: **RM 10 - Beaver Creek**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846005
Lab Project ID: 1231846

Collection Date: 05/03/23 10:05
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Nitrate/Nitrite-N	0.0526	J	0.200	0.0500	0.100	mg/L	2		05/05/23 14:44

Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 14:44
Container ID: 1231846005-A

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.220		0.0400	0.0120	0.0200	mg/L	1		05/17/23 16:47

Batch Information

Analytical Batch: WDA5503
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/17/23 16:47
Container ID: 1231846005-A

Prep Batch: WXX14745
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/17/23 12:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of RM 12.5 Pillars

Client Sample ID: **RM 12.5 Pillars**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846006
Lab Project ID: 1231846

Collection Date: 05/03/23 08:32
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Diss. Metals by ICP/MS (Provisional Be,Cu 6520)

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Copper	1.45	J	3.00	1.00	1.50	ug/L	1		05/19/23 20:27

Batch Information

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:27
Container ID: 1231846006-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Results of RM 12.5 Pillars

Client Sample ID: **RM 12.5 Pillars**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846006
Lab Project ID: 1231846

Collection Date: 05/03/23 08:32
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Dissolved Metals by ICP/MS

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Arsenic	2.65	J	5.00	1.50	2.50	ug/L	1		05/19/23 20:27
Cadmium	0.250	U	0.500	0.150	0.250	ug/L	1		05/19/23 20:27
Chromium	2.50	U	5.00	2.50	2.50	ug/L	1		05/19/23 20:27
Lead	1.00	U	2.00	0.500	1.00	ug/L	1		05/19/23 20:27
Zinc	7.00	J	10.0	3.10	5.00	ug/L	1		05/19/23 20:27

Batch Information

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:27
Container ID: 1231846006-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Results of RM 12.5 Pillars

Client Sample ID: **RM 12.5 Pillars**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846006
Lab Project ID: 1231846

Collection Date: 05/03/23 08:32
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Nitrate/Nitrite-N	0.133	J	0.200	0.0500	0.100	mg/L	2		05/05/23 14:46

Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 14:46
Container ID: 1231846006-A

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0509		0.0400	0.0120	0.0200	mg/L	1		05/17/23 16:48

Batch Information

Analytical Batch: WDA5503
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/17/23 16:48
Container ID: 1231846006-A

Prep Batch: WXX14745
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/17/23 12:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of RM 18 - Poacher's Cove

Client Sample ID: **RM 18 - Poacher's Cove**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846007
Lab Project ID: 1231846

Collection Date: 05/03/23 09:24
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Diss. Metals by ICP/MS (Provisional Be,Cu 6520)

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Copper	1.42	J	3.00	1.00	1.50	ug/L	1		05/19/23 20:30

Batch Information

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:30
Container ID: 1231846007-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Results of RM 18 - Poacher's Cove

Client Sample ID: **RM 18 - Poacher's Cove**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846007
Lab Project ID: 1231846

Collection Date: 05/03/23 09:24
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Dissolved Metals by ICP/MS

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Arsenic	2.34	J	5.00	1.50	2.50	ug/L	1		05/19/23 20:30
Cadmium	0.250	U	0.500	0.150	0.250	ug/L	1		05/19/23 20:30
Chromium	2.50	U	5.00	2.50	2.50	ug/L	1		05/19/23 20:30
Lead	1.00	U	2.00	0.500	1.00	ug/L	1		05/19/23 20:30
Zinc	7.47	J	10.0	3.10	5.00	ug/L	1		05/19/23 20:30

Batch Information

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:30
Container ID: 1231846007-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Results of RM 18 - Poacher's Cove

Client Sample ID: **RM 18 - Poacher's Cove**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846007
Lab Project ID: 1231846

Collection Date: 05/03/23 09:24
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>LOD</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Nitrate/Nitrite-N	0.161	J	0.200	0.0500	0.100	mg/L	2		05/05/23 14:48

Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 14:48
Container ID: 1231846007-A

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>LOD</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0420		0.0400	0.0120	0.0200	mg/L	1		05/17/23 16:49

Batch Information

Analytical Batch: WDA5503
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/17/23 16:49
Container ID: 1231846007-A

Prep Batch: WXX14745
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/17/23 12:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of RM 19 - Slikok Creek

Client Sample ID: **RM 19 - Slikok Creek**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846008
Lab Project ID: 1231846

Collection Date: 05/03/23 08:47
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Diss. Metals by ICP/MS (Provisional Be,Cu 6520)

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Copper	1.57	J	3.00	1.00	1.50	ug/L	1		05/19/23 20:38

Batch Information

Analytical Batch: MMS11946
Analytical Method: EP200.8
Analyst: ACF
Analytical Date/Time: 06/06/23 13:56
Container ID: 1231846008-C

Prep Batch: MXX35898
Prep Method: E200.2
Prep Date/Time: 06/01/23 16:04
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:38
Container ID: 1231846008-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Results of RM 19 - Slikok Creek

Client Sample ID: **RM 19 - Slikok Creek**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846008
Lab Project ID: 1231846

Collection Date: 05/03/23 08:47
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Dissolved Metals by ICP/MS

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Arsenic	1.72	J	5.00	1.50	2.50	ug/L	1		05/19/23 20:38
Cadmium	0.250	U	0.500	0.150	0.250	ug/L	1		05/19/23 20:38
Chromium	2.50	U	5.00	2.50	2.50	ug/L	1		05/19/23 20:38
Lead	1.00	U	2.00	0.500	1.00	ug/L	1		05/19/23 20:38
Zinc	21.2		10.0	3.10	5.00	ug/L	1		06/06/23 13:56

Batch Information

Analytical Batch: MMS11946
Analytical Method: EP200.8
Analyst: ACF
Analytical Date/Time: 06/06/23 13:56
Container ID: 1231846008-C

Prep Batch: MXX35898
Prep Method: E200.2
Prep Date/Time: 06/01/23 16:04
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:38
Container ID: 1231846008-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Results of RM 19 - Slikok Creek

Client Sample ID: **RM 19 - Slikok Creek**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846008
Lab Project ID: 1231846

Collection Date: 05/03/23 08:47
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Nitrate/Nitrite-N	0.113	J	0.200	0.0500	0.100	mg/L	2		05/05/23 14:49

Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 14:49
Container ID: 1231846008-A

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0227	J	0.0400	0.0120	0.0200	mg/L	1		05/17/23 16:50

Batch Information

Analytical Batch: WDA5503
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/17/23 16:50
Container ID: 1231846008-A

Prep Batch: WXX14745
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/17/23 12:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of RM 21 - Soldotna Bridge

Client Sample ID: **RM 21 - Soldotna Bridge**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846009
Lab Project ID: 1231846

Collection Date: 05/03/23 09:27
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Diss. Metals by ICP/MS (Provisional Be,Cu 6520)

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Copper	1.13	J	3.00	1.00	1.50	ug/L	1		05/19/23 20:40

Batch Information

Analytical Batch: MMS11946
Analytical Method: EP200.8
Analyst: ACF
Analytical Date/Time: 06/06/23 13:59
Container ID: 1231846009-C

Prep Batch: MXX35898
Prep Method: E200.2
Prep Date/Time: 06/01/23 16:04
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:40
Container ID: 1231846009-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Results of RM 21 - Soldotna Bridge

Client Sample ID: **RM 21 - Soldotna Bridge**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846009
Lab Project ID: 1231846

Collection Date: 05/03/23 09:27
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Dissolved Metals by ICP/MS

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Arsenic	1.88	J	5.00	1.50	2.50	ug/L	1		05/19/23 20:40
Cadmium	0.250	U	0.500	0.150	0.250	ug/L	1		05/19/23 20:40
Chromium	2.50	U	5.00	2.50	2.50	ug/L	1		05/19/23 20:40
Lead	1.00	U	2.00	0.500	1.00	ug/L	1		05/19/23 20:40
Zinc	12.5		10.0	3.10	5.00	ug/L	1		06/06/23 13:59

Batch Information

Analytical Batch: MMS11946
Analytical Method: EP200.8
Analyst: ACF
Analytical Date/Time: 06/06/23 13:59
Container ID: 1231846009-C

Prep Batch: MXX35898
Prep Method: E200.2
Prep Date/Time: 06/01/23 16:04
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:40
Container ID: 1231846009-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Results of RM 21 - Soldotna Bridge

Client Sample ID: **RM 21 - Soldotna Bridge**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846009
Lab Project ID: 1231846

Collection Date: 05/03/23 09:27
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Nitrate/Nitrite-N	0.146	J	0.200	0.0500	0.100	mg/L	2		05/05/23 14:51

Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 14:51
Container ID: 1231846009-A

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0316	J	0.0400	0.0120	0.0200	mg/L	1		05/17/23 16:51

Batch Information

Analytical Batch: WDA5503
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/17/23 16:51
Container ID: 1231846009-A

Prep Batch: WXX14745
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/17/23 12:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of RM 22 - Soldotna Creek

Client Sample ID: **RM 22 - Soldotna Creek**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846010
Lab Project ID: 1231846

Collection Date: 05/02/23 09:49
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Diss. Metals by ICP/MS (Provisional Be,Cu 6520)

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Copper	1.50	U	3.00	1.00	1.50	ug/L	1		05/19/23 20:43

Batch Information

Analytical Batch: MMS11940
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/30/23 18:36
Container ID: 1231846010-C

Prep Batch: MXX35877
Prep Method: E200.2
Prep Date/Time: 05/23/23 13:45
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:43
Container ID: 1231846010-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Results of RM 22 - Soldotna Creek

Client Sample ID: **RM 22 - Soldotna Creek**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846010
Lab Project ID: 1231846

Collection Date: 05/02/23 09:49
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Dissolved Metals by ICP/MS

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Arsenic	5.29	5.00	1.50	2.50	ug/L	1			05/19/23 20:43
Cadmium	0.250	U	0.500	0.150	0.250	ug/L	1		05/19/23 20:43
Chromium	2.50	U	5.00	2.50	2.50	ug/L	1		05/19/23 20:43
Lead	1.00	U	2.00	0.500	1.00	ug/L	1		05/19/23 20:43
Zinc	7.94	J	10.0	3.10	5.00	ug/L	1		05/30/23 18:36

Batch Information

Analytical Batch: MMS11940
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/30/23 18:36
Container ID: 1231846010-C

Prep Batch: MXX35877
Prep Method: E200.2
Prep Date/Time: 05/23/23 13:45
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:43
Container ID: 1231846010-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Results of RM 22 - Soldotna Creek

Client Sample ID: **RM 22 - Soldotna Creek**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846010
Lab Project ID: 1231846

Collection Date: 05/02/23 09:49
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Nitrate/Nitrite-N	0.130	J	0.200	0.0500	0.100	mg/L	2		05/05/23 14:53

Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 14:53
Container ID: 1231846010-A

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.104		0.0400	0.0120	0.0200	mg/L	1		05/09/23 14:17

Batch Information

Analytical Batch: WDA5496
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/09/23 14:17
Container ID: 1231846010-A

Prep Batch: WXX14730
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/09/23 12:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of RM 23 - Swiftwater Park

Client Sample ID: **RM 23 - Swiftwater Park**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846011
Lab Project ID: 1231846

Collection Date: 05/02/23 10:22
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Diss. Metals by ICP/MS (Provisional Be,Cu 6520

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Copper	1.31	J	3.00	1.00	1.50	ug/L	1		05/19/23 20:46

Batch Information

Analytical Batch: MMS11946
Analytical Method: EP200.8
Analyst: ACF
Analytical Date/Time: 06/06/23 13:45
Container ID: 1231846011-C

Prep Batch: MXX35898
Prep Method: E200.2
Prep Date/Time: 06/01/23 16:04
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:46
Container ID: 1231846011-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Results of RM 23 - Swiftwater Park

Client Sample ID: **RM 23 - Swiftwater Park**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846011
Lab Project ID: 1231846

Collection Date: 05/02/23 10:22
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Dissolved Metals by ICP/MS

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Arsenic	2.50	U	5.00	1.50	2.50	ug/L	1		05/19/23 20:46
Cadmium	0.250	U	0.500	0.150	0.250	ug/L	1		05/19/23 20:46
Chromium	2.50	U	5.00	2.50	2.50	ug/L	1		05/19/23 20:46
Lead	1.00	U	2.00	0.500	1.00	ug/L	1		05/19/23 20:46
Zinc	13.7		10.0	3.10	5.00	ug/L	1		06/06/23 13:45

Batch Information

Analytical Batch: MMS11946

Analytical Method: EP200.8

Analyst: ACF

Analytical Date/Time: 06/06/23 13:45

Container ID: 1231846011-C

Prep Batch: MXX35898

Prep Method: E200.2

Prep Date/Time: 06/01/23 16:04

Prep Initial Wt./Vol.: 20 mL

Prep Extract Vol: 50 mL

Analytical Batch: MMS11929

Analytical Method: EP200.8

Analyst: HGS

Analytical Date/Time: 05/19/23 20:46

Container ID: 1231846011-C

Prep Batch: MXX35860

Prep Method: E200.2

Prep Date/Time: 05/16/23 15:20

Prep Initial Wt./Vol.: 20 mL

Prep Extract Vol: 50 mL

Results of RM 23 - Swiftwater Park

Client Sample ID: **RM 23 - Swiftwater Park**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846011
Lab Project ID: 1231846

Collection Date: 05/02/23 10:22
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Nitrate/Nitrite-N	0.555		0.200	0.0500	0.100	mg/L	2		05/05/23 14:55

Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 14:55
Container ID: 1231846011-A

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0386	J	0.0400	0.0120	0.0200	mg/L	1		05/09/23 14:18

Batch Information

Analytical Batch: WDA5496
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/09/23 14:18
Container ID: 1231846011-A

Prep Batch: WXX14730
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/09/23 12:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of RM 30 - Funny River

Client Sample ID: **RM 30 - Funny River**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846012
Lab Project ID: 1231846

Collection Date: 05/02/23 08:57
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Diss. Metals by ICP/MS (Provisional Be,Cu 6520)

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Copper	1.05	J	3.00	1.00	1.50	ug/L	1		05/19/23 20:48

Batch Information

Analytical Batch: MMS11946
Analytical Method: EP200.8
Analyst: ACF
Analytical Date/Time: 06/06/23 14:07
Container ID: 1231846012-C

Prep Batch: MXX35898
Prep Method: E200.2
Prep Date/Time: 06/01/23 16:04
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:48
Container ID: 1231846012-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Results of RM 30 - Funny River

Client Sample ID: **RM 30 - Funny River**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846012
Lab Project ID: 1231846

Collection Date: 05/02/23 08:57
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Dissolved Metals by ICP/MS

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Arsenic	1.89	J	5.00	1.50	2.50	ug/L	1		05/19/23 20:48
Cadmium	0.250	U	0.500	0.150	0.250	ug/L	1		05/19/23 20:48
Chromium	2.50	U	5.00	2.50	2.50	ug/L	1		05/19/23 20:48
Lead	1.00	U	2.00	0.500	1.00	ug/L	1		05/19/23 20:48
Zinc	15.8		10.0	3.10	5.00	ug/L	1		06/06/23 14:07

Batch Information

Analytical Batch: MMS11946
Analytical Method: EP200.8
Analyst: ACF
Analytical Date/Time: 06/06/23 14:07
Container ID: 1231846012-C

Prep Batch: MXX35898
Prep Method: E200.2
Prep Date/Time: 06/01/23 16:04
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:48
Container ID: 1231846012-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Results of RM 30 - Funny River

Client Sample ID: **RM 30 - Funny River**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846012
Lab Project ID: 1231846

Collection Date: 05/02/23 08:57
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Nitrate/Nitrite-N	0.100	U	0.200	0.0500	0.100	mg/L	2		05/05/23 15:02

Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 15:02
Container ID: 1231846012-A

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.100		0.0400	0.0120	0.0200	mg/L	1		05/09/23 14:19

Batch Information

Analytical Batch: WDA5496
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/09/23 14:19
Container ID: 1231846012-A

Prep Batch: WXX14730
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/09/23 12:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of RM 31 - Morgan's Landing

Client Sample ID: **RM 31 - Morgan's Landing**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846013
Lab Project ID: 1231846

Collection Date: 05/02/23 10:00
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Diss. Metals by ICP/MS (Provisional Be,Cu 6520)

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Copper	1.50	U	3.00	1.00	1.50	ug/L	1		05/19/23 20:51

Batch Information

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:51
Container ID: 1231846013-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Results of RM 31 - Morgan's Landing

Client Sample ID: RM 31 - Morgan's Landing
Client Project ID: Kenai River Baseline Water Qua
Lab Sample ID: 1231846013
Lab Project ID: 1231846

Collection Date: 05/02/23 10:00
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Dissolved Metals by ICP/MS

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Arsenic	3.26	J	5.00	1.50	2.50	ug/L	1		05/19/23 20:51
Cadmium	0.250	U	0.500	0.150	0.250	ug/L	1		05/19/23 20:51
Chromium	2.50	U	5.00	2.50	2.50	ug/L	1		05/19/23 20:51
Lead	1.00	U	2.00	0.500	1.00	ug/L	1		05/19/23 20:51
Zinc	7.93	J	10.0	3.10	5.00	ug/L	1		05/19/23 20:51

Batch Information

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:51
Container ID: 1231846013-C

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Results of RM 31 - Morgan's Landing

Client Sample ID: **RM 31 - Morgan's Landing**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846013
Lab Project ID: 1231846

Collection Date: 05/02/23 10:00
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>LOD</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Nitrate/Nitrite-N	0.100	U	0.200	0.0500	0.100	mg/L	2		05/05/23 15:03

Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 15:03
Container ID: 1231846013-A

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>LOD</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0450		0.0400	0.0120	0.0200	mg/L	1		05/09/23 14:20

Batch Information

Analytical Batch: WDA5496
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/09/23 14:20
Container ID: 1231846013-A

Prep Batch: WXX14730
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/09/23 12:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of RM 36 - Moose River

Client Sample ID: **RM 36 - Moose River**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846014
Lab Project ID: 1231846

Collection Date: 05/02/23 10:38
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>LOD</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Nitrate/Nitrite-N	0.100	U	0.200	0.0500	0.100	mg/L	2		05/05/23 15:05

Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 15:05
Container ID: 1231846014-A

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>LOD</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0882		0.0400	0.0120	0.0200	mg/L	1		05/09/23 14:21

Batch Information

Analytical Batch: WDA5496
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/09/23 14:21
Container ID: 1231846014-A

Prep Batch: WXX14730
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/09/23 12:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of RM 36 - Moose River-DUP

Client Sample ID: **RM 36 - Moose River-DUP**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846015
Lab Project ID: 1231846

Collection Date: 05/02/23 10:45
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Nitrate/Nitrite-N	0.100	U	0.200	0.0500	0.100	mg/L	2		05/05/23 15:07

Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 15:07
Container ID: 1231846015-A

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0781		0.0400	0.0120	0.0200	mg/L	1		05/09/23 14:22

Batch Information

Analytical Batch: WDA5496
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/09/23 14:22
Container ID: 1231846015-A

Prep Batch: WXX14730
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/09/23 12:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of RM 40 - Bing's Landing

Client Sample ID: **RM 40 - Bing's Landing**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846016
Lab Project ID: 1231846

Collection Date: 05/02/23 07:13
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Nitrate/Nitrite-N	0.177 J	0.200		0.0500	0.100	mg/L	2		05/05/23 15:09

Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 15:09
Container ID: 1231846016-A

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0195 J	0.0400		0.0120	0.0200	mg/L	1		05/09/23 14:24

Batch Information

Analytical Batch: WDA5496
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/09/23 14:24
Container ID: 1231846016-A

Prep Batch: WXX14730
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/09/23 12:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of RM 43 - Upstream of Dow Island

Client Sample ID: **RM 43 - Upstream of Dow Island**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846017
Lab Project ID: 1231846

Collection Date: 05/02/23 09:25
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Nitrate/Nitrite-N	0.213		0.200	0.0500	0.100	mg/L	2		05/05/23 15:10

Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 15:10
Container ID: 1231846017-A

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0262	J	0.0400	0.0120	0.0200	mg/L	1		05/09/23 14:25

Batch Information

Analytical Batch: WDA5496
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/09/23 14:25
Container ID: 1231846017-A

Prep Batch: WXX14730
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/09/23 12:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of RM 44 - Mouth of Killee River

Client Sample ID: **RM 44 - Mouth of Killee River**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846018
Lab Project ID: 1231846

Collection Date: 05/02/23 10:12
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Nitrate/Nitrite-N	0.0898	J	0.200	0.0500	0.100	mg/L	2		05/05/23 15:12

Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 15:12
Container ID: 1231846018-A

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0358	J	0.0400	0.0120	0.0200	mg/L	1		05/09/23 14:26

Batch Information

Analytical Batch: WDA5496
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/09/23 14:26
Container ID: 1231846018-A

Prep Batch: WXX14730
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/09/23 12:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of RM 50 - Skilak Lake Outflow

Client Sample ID: **RM 50 - Skilak Lake Outflow**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846019
Lab Project ID: 1231846

Collection Date: 05/02/23 08:34
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Nitrate/Nitrite-N	0.100	U	0.200	0.0500	0.100	mg/L	2		05/05/23 15:14

Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 15:14
Container ID: 1231846019-A

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0168	J	0.0400	0.0120	0.0200	mg/L	1		05/09/23 14:27

Batch Information

Analytical Batch: WDA5496
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/09/23 14:27
Container ID: 1231846019-A

Prep Batch: WXX14730
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/09/23 12:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of RM 70 - Jim's Landing

Client Sample ID: **RM 70 - Jim's Landing**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846020
Lab Project ID: 1231846

Collection Date: 05/02/23 11:11
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Nitrate/Nitrite-N	0.100	U	0.200	0.0500	0.100	mg/L	2		05/05/23 15:16

Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 15:16
Container ID: 1231846020-A

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0200	U	0.0400	0.0120	0.0200	mg/L	1		05/09/23 14:28

Batch Information

Analytical Batch: WDA5496
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/09/23 14:28
Container ID: 1231846020-A

Prep Batch: WXX14730
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/09/23 12:00
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of RM 74 - Russian River

Client Sample ID: **RM 74 - Russian River**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846021
Lab Project ID: 1231846

Collection Date: 05/02/23 10:30
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>LOD</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Nitrate/Nitrite-N	0.100	U	0.200	0.0500	0.100	mg/L	2		05/05/23 15:17

Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 15:17
Container ID: 1231846021-A

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>LOD</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Phosphorus	0.0200	U	0.0400	0.0120	0.0200	mg/L	1		05/17/23 16:52

Batch Information

Analytical Batch: WDA5503
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/17/23 16:52
Container ID: 1231846021-A

Prep Batch: WXX14745
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/17/23 12:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of RM 82 - Kenai Lake Bridge

Client Sample ID: **RM 82 - Kenai Lake Bridge**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846022
Lab Project ID: 1231846

Collection Date: 05/02/23 08:35
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Nitrate/Nitrite-N	0.327	0.200		0.0500	0.100	mg/L	2		05/05/23 15:24

Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 15:24
Container ID: 1231846022-A

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0200	U	0.0400	0.0120	0.0200	mg/L	1		05/17/23 17:32

Batch Information

Analytical Batch: WDA5503
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/17/23 17:32
Container ID: 1231846022-A

Prep Batch: WXX14745
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/17/23 12:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of RM 79.5 - Juneau Creek

Client Sample ID: **RM 79.5 - Juneau Creek**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846023
Lab Project ID: 1231846

Collection Date: 05/02/23 09:35
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Waters Department

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Nitrate/Nitrite-N	0.560	0.200		0.0500	0.100	mg/L	2		05/05/23 15:26

Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Analyst: EBH
Analytical Date/Time: 05/05/23 15:26
Container ID: 1231846023-A

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Total Phosphorus	0.0200	U	0.0400	0.0120	0.0200	mg/L	1		05/17/23 17:33

Batch Information

Analytical Batch: WDA5503
Analytical Method: SM21 4500P-B,E
Analyst: MEB
Analytical Date/Time: 05/17/23 17:33
Container ID: 1231846023-A

Prep Batch: WXX14745
Prep Method: SM21 4500P-B,E
Prep Date/Time: 05/17/23 12:30
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Results of RM 0 - No Name Creek-FB

Client Sample ID: RM 0 - No Name Creek-FB
Client Project ID: Kenai River Baseline Water Qua
Lab Sample ID: 1231846024
Lab Project ID: 1231846

Collection Date: 05/02/23 10:30
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Diss. Metals by ICP/MS (Provisional Be,Cu 6520)

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Copper	1.50	U	3.00	1.00	1.50	ug/L	1		05/19/23 20:54

Batch Information

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:54
Container ID: 1231846024-B

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Results of RM 0 - No Name Creek-FB

Client Sample ID: RM 0 - No Name Creek-FB
Client Project ID: Kenai River Baseline Water Qua
Lab Sample ID: 1231846024
Lab Project ID: 1231846

Collection Date: 05/02/23 10:30
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Dissolved Metals by ICP/MS

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Arsenic	2.50	U	5.00	1.50	2.50	ug/L	1		05/19/23 20:54
Cadmium	0.250	U	0.500	0.150	0.250	ug/L	1		05/19/23 20:54
Chromium	2.50	U	5.00	2.50	2.50	ug/L	1		05/19/23 20:54
Lead	1.00	U	2.00	0.500	1.00	ug/L	1		05/19/23 20:54
Zinc	5.80	J	10.0	3.10	5.00	ug/L	1		05/19/23 20:54

Batch Information

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:54
Container ID: 1231846024-B

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Results of RM 12.5 - Pillars - FieldBlank

Client Sample ID: **RM 12.5 - Pillars - FieldBlank**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846025
Lab Project ID: 1231846

Collection Date: 05/02/23 08:32
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Diss. Metals by ICP/MS (Provisional Be,Cu 6520)

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Copper	1.50	U	3.00	1.00	1.50	ug/L	1		05/19/23 20:56

Batch Information

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:56
Container ID: 1231846025-B

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Results of RM 12.5 - Pillars - FieldBlank

Client Sample ID: **RM 12.5 - Pillars - FieldBlank**
Client Project ID: **Kenai River Baseline Water Qua**
Lab Sample ID: 1231846025
Lab Project ID: 1231846

Collection Date: 05/02/23 08:32
Received Date: 05/04/23 08:51
Matrix: Water (Surface, Eff., Ground)
Solids (%):
Location:

Results by Dissolved Metals by ICP/MS

Parameter	Result	Qual	LOQ/CL	DL	LOD	Units	DF	Allowable Limits	Date Analyzed
Arsenic	2.50	U	5.00	1.50	2.50	ug/L	1		05/19/23 20:56
Cadmium	0.250	U	0.500	0.150	0.250	ug/L	1		05/19/23 20:56
Chromium	2.50	U	5.00	2.50	2.50	ug/L	1		05/19/23 20:56
Lead	1.00	U	2.00	0.500	1.00	ug/L	1		05/19/23 20:56
Zinc	8.97	J	10.0	3.10	5.00	ug/L	1		05/19/23 20:56

Batch Information

Analytical Batch: MMS11929
Analytical Method: EP200.8
Analyst: HGS
Analytical Date/Time: 05/19/23 20:56
Container ID: 1231846025-B

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 05/16/23 15:20
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Method Blank

Blank ID: MB for HBN 1854932 [MXX/35860]
Blank Lab ID: 1712761

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1231846001, 1231846002, 1231846003, 1231846004, 1231846005, 1231846006, 1231846007, 1231846008, 1231846009,
1231846010, 1231846011, 1231846012, 1231846013, 1231846024, 1231846025

Results by EP200.8

Parameter	Results	LOQ/CL	DL	LOD	Units
Arsenic	2.50U	5.00	1.50	2.50	ug/L
Cadmium	0.250U	0.500	0.150	0.250	ug/L
Chromium	2.50U	5.00	2.50	2.50	ug/L
Copper	1.50U	3.00	1.00	1.50	ug/L
Lead	1.00U	2.00	0.500	1.00	ug/L
Zinc	11.3*	10.0	3.10	5.00	ug/L

Batch Information

Analytical Batch: MMS11929
Analytical Method: EP200.8
Instrument: P7 Agilent 7800
Analyst: HGS
Analytical Date/Time: 5/19/2023 7:56:00PM

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 5/16/2023 3:20:00PM
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Analytical Batch: MMS11931
Analytical Method: EP200.8
Instrument: P7 Agilent 7800
Analyst: HGS
Analytical Date/Time: 5/22/2023 11:49:34AM

Prep Batch: MXX35860
Prep Method: E200.2
Prep Date/Time: 5/16/2023 3:20:00PM
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Blank Spike Summary

Blank Spike ID: LCS for HBN 1231846 [MXX35860]

Blank Spike Lab ID: 1712762

Date Analyzed: 05/19/2023 19:58

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1231846001, 1231846002, 1231846003, 1231846004, 1231846005, 1231846006, 1231846007, 1231846008, 1231846009, 1231846010, 1231846011, 1231846012, 1231846013, 1231846024, 1231846025

Results by EP200.8

Blank Spike (ug/L)

<u>Parameter</u>	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>	<u>CL</u>
Arsenic	1000	996	100	(85-115)
Cadmium	100	93.5	94	(85-115)
Chromium	400	426	107	(85-115)
Copper	1000	1070	107	(85-115)
Lead	1000	1010	101	(85-115)
Zinc	1000	1070	107	(85-115)

Batch Information

Analytical Batch: MMS11929

Analytical Method: EP200.8

Instrument: P7 Agilent 7800

Analyst: HGS

Prep Batch: MXX35860

Prep Method: E200.2

Prep Date/Time: 05/16/2023 15:20

Spike Init Wt./Vol.: 1000 ug/L Extract Vol: 50 mL

Dupe Init Wt./Vol.: Extract Vol:

Matrix Spike Summary

Original Sample ID: 1712984

Analysis Date: 05/19/2023 20:08

MS Sample ID: 1712990 MS

Analysis Date: 05/19/2023 20:11

MSD Sample ID:

Analysis Date:

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1231846001, 1231846002, 1231846003, 1231846004, 1231846005, 1231846006, 1231846007, 1231846008, 1231846009, 1231846010, 1231846011, 1231846012, 1231846013, 1231846024, 1231846025

Results by EP200.8

Parameter	Sample	Matrix Spike (ug/L)			Spike Duplicate (ug/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Arsenic	2.50U	1000	1020	102				70-130		
Cadmium	0.595	100	94.3	94				70-130		
Chromium	24.1	400	405	95				70-130		
Copper	2.95J	1000	1030	103				70-130		
Lead	1.00U	1000	1010	101				70-130		
Zinc	11.6	1000	1040	102				70-130		

Batch Information

Analytical Batch: MMS11929

Prep Batch: MX35860

Analytical Method: EP200.8

Prep Method: DW Digest for Metals on ICP-MS

Instrument: P7 Agilent 7800

Prep Date/Time: 5/16/2023 3:20:09PM

Analyst: HGS

Prep Initial Wt./Vol.: 20.00mL

Analytical Date/Time: 5/19/2023 8:11:18PM

Prep Extract Vol: 50.00mL

Matrix Spike Summary

Original Sample ID: 1712985

Analysis Date: 05/19/2023 20:13

MS Sample ID: 1712991 MS

Analysis Date: 05/19/2023 20:15

MSD Sample ID:

Analysis Date:

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1231846001, 1231846002, 1231846003, 1231846004, 1231846005, 1231846006, 1231846007, 1231846008, 1231846009, 1231846010, 1231846011, 1231846012, 1231846013, 1231846024, 1231846025

Results by EP200.8

Parameter	Sample	Matrix Spike (ug/L)			Spike Duplicate (ug/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Arsenic	3.08J	1000	961	96				70-130		
Cadmium	4.41	100	99.5	95				70-130		
Chromium	2.50U	400	396	99				70-130		
Copper	538	1000	1510	98				70-130		
Lead	81.0	1000	1110	103				70-130		
Zinc	943	1000	2020	107				70-130		

Batch Information

Analytical Batch: MMS11929

Prep Batch: MXX35860

Analytical Method: EP200.8

Prep Method: DW Digest for Metals on ICP-MS

Instrument: P7 Agilent 7800

Prep Date/Time: 5/16/2023 3:20:09PM

Analyst: HGS

Prep Initial Wt./Vol.: 20.00mL

Analytical Date/Time: 5/19/2023 8:15:00PM

Prep Extract Vol: 50.00mL

Analytical Batch: MMS11931

Prep Batch: MXX35860

Analytical Method: EP200.8

Prep Method: DW Digest for Metals on ICP-MS

Instrument: P7 Agilent 7800

Prep Date/Time: 5/16/2023 3:20:09PM

Analyst: HGS

Prep Initial Wt./Vol.: 20.00mL

Analytical Date/Time: 5/22/2023 11:54:53AM

Prep Extract Vol: 50.00mL

Print Date: 06/08/2023 6:18:56PM

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Method Blank

Blank ID: MB for HBN 1856254 [MXX/35877]
Blank Lab ID: 1714017

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1231846001, 1231846002, 1231846004, 1231846008, 1231846009, 1231846010, 1231846011, 1231846012

Results by EP200.8

Parameter	Results	LOQ/CL	DL	LOD	Units
Zinc	15.9*	10.0	3.10	5.00	ug/L

Batch Information

Analytical Batch: MMS11940
Analytical Method: EP200.8
Instrument: P7 Agilent 7800
Analyst: HGS
Analytical Date/Time: 5/30/2023 6:02:29PM

Prep Batch: MXX35877
Prep Method: E200.2
Prep Date/Time: 5/23/2023 1:45:26PM
Prep Initial Wt./Vol.: 20 mL
Prep Extract Vol: 50 mL

Print Date: 06/08/2023 6:18:58PM

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1231846 [MXX35877]

Blank Spike Lab ID: 1714018

Date Analyzed: 05/30/2023 18:05

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1231846001, 1231846002, 1231846004, 1231846008, 1231846009, 1231846010, 1231846011,
1231846012

Results by EP200.8

Blank Spike (ug/L)

<u>Parameter</u>	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>	<u>CL</u>
Zinc	1000	1000	100	(85-115)

Batch Information

Analytical Batch: MMS11940

Analytical Method: EP200.8

Instrument: P7 Agilent 7800

Analyst: HGS

Prep Batch: MXX35877

Prep Method: E200.2

Prep Date/Time: 05/23/2023 13:45

Spike Init Wt./Vol.: 1000 ug/L Extract Vol: 50 mL

Dupe Init Wt./Vol.: Extract Vol:

Print Date: 06/08/2023 6:19:00PM

Matrix Spike Summary

Original Sample ID: 1714027

Analysis Date: 05/30/2023 18:14

MS Sample ID: 1714032 MS

Analysis Date: 05/30/2023 18:16

MSD Sample ID:

Analysis Date:

QC for Samples: 1231846001, 1231846002, 1231846004, 1231846008, 1231846009, 1231846010, 1231846011, 1231846012

Matrix: Water (Surface, Eff., Ground)

Results by EP200.8

Parameter	Sample	Matrix Spike (ug/L)			Spike Duplicate (ug/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Zinc	23.8	1000	1020	100				70-130		

Batch Information

Analytical Batch: MMS11940

Prep Batch: MXX35877

Analytical Method: EP200.8

Prep Method: DW Digest for Metals on ICP-MS

Instrument: P7 Agilent 7800

Prep Date/Time: 5/23/2023 1:45:26PM

Analyst: HGS

Prep Initial Wt./Vol.: 20.00mL

Analytical Date/Time: 5/30/2023 6:16:54PM

Prep Extract Vol: 50.00mL

Print Date: 06/08/2023 6:19:02PM

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Matrix Spike Summary

Original Sample ID: 1714066
MS Sample ID: 1714067 MS
MSD Sample ID:

Analysis Date: 05/30/2023 18:09
Analysis Date: 05/30/2023 18:12
Analysis Date:
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1231846001, 1231846002, 1231846004, 1231846008, 1231846009, 1231846010, 1231846011, 1231846012

Results by EP200.8

Parameter	Sample	Matrix Spike (ug/L)		Spike Duplicate (ug/L)		CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result		
Zinc	18.4	1000	1020	100			70-130	

Batch Information

Analytical Batch: MMS11940
Analytical Method: EP200.8
Instrument: P7 Agilent 7800
Analyst: HGS
Analytical Date/Time: 5/30/2023 6:12:25PM

Prep Batch: MXX35877
Prep Method: DW Digest for Metals on ICP-MS
Prep Date/Time: 5/23/2023 1:45:26PM
Prep Initial Wt./Vol.: 20.00mL
Prep Extract Vol: 50.00mL

Print Date: 06/08/2023 6:19:02PM

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Method Blank

Blank ID: MB for HBN 1856536 [MXX/35898]

Blank Lab ID: 1715248

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1231846001, 1231846008, 1231846009, 1231846011, 1231846012

Results by EP200.8

Parameter	Results	LOQ/CL	DL	LOD	Units
Zinc	4.08J	10.0	3.10	5.00	ug/L

Batch Information

Analytical Batch: MMS11946

Analytical Method: EP200.8

Instrument: P7 Agilent 7800

Analyst: ACF

Analytical Date/Time: 6/6/2023 1:37:55PM

Prep Batch: MXX35898

Prep Method: E200.2

Prep Date/Time: 6/1/2023 4:04:22PM

Prep Initial Wt./Vol.: 20 mL

Prep Extract Vol: 50 mL

Print Date: 06/08/2023 6:19:03PM

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1231846 [MXX35898]

Blank Spike Lab ID: 1715249

Date Analyzed: 06/06/2023 13:40

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1231846001, 1231846008, 1231846009, 1231846011, 1231846012

Results by EP200.8

Blank Spike (ug/L)

Parameter	Spike	Result	Rec (%)	CL
Zinc	1000	986	99	(85-115)

Batch Information

Analytical Batch: MMS11946

Analytical Method: EP200.8

Instrument: P7 Agilent 7800

Analyst: ACF

Prep Batch: MXX35898

Prep Method: E200.2

Prep Date/Time: 06/01/2023 16:04

Spike Init Wt./Vol.: 1000 ug/L Extract Vol: 50 mL

Dupe Init Wt./Vol.: Extract Vol:

Print Date: 06/08/2023 6:19:05PM

Matrix Spike Summary

Original Sample ID: 1715251
MS Sample ID: 1715253 MS
MSD Sample ID:

QC for Samples: 1231846011

Analysis Date: 06/06/2023 13:45
Analysis Date: 06/06/2023 13:47
Analysis Date:
Matrix: Water (Surface, Eff., Ground)

Results by EP200.8

Parameter	Sample	Matrix Spike (ug/L)			Spike Duplicate (ug/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Zinc	13.7	1000	1030	101				70-130		

Batch Information

Analytical Batch: MMS11946
Analytical Method: EP200.8
Instrument: P7 Agilent 7800
Analyst: ACF
Analytical Date/Time: 6/6/2023 1:47:00PM

Prep Batch: MXX35898
Prep Method: DW Digest for Metals on ICP-MS
Prep Date/Time: 6/1/2023 4:04:22PM
Prep Initial Wt./Vol.: 20.00mL
Prep Extract Vol: 50.00mL

Print Date: 06/08/2023 6:19:07PM

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Matrix Spike Summary

Original Sample ID: 1715252
MS Sample ID: 1715254 MS
MSD Sample ID:

Analysis Date: 06/06/2023 13:49
Analysis Date: 06/06/2023 13:52
Analysis Date:
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1231846001, 1231846008, 1231846009, 1231846012

Results by EP200.8

Parameter	Sample	Matrix Spike (ug/L)		Spike Duplicate (ug/L)		CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)	
Zinc	67.2	1000	1110	104				70-130

Batch Information

Analytical Batch: MMS11946
Analytical Method: EP200.8
Instrument: P7 Agilent 7800
Analyst: ACF
Analytical Date/Time: 6/6/2023 1:52:00PM

Prep Batch: MXX35898
Prep Method: DW Digest for Metals on ICP-MS
Prep Date/Time: 6/1/2023 4:04:22PM
Prep Initial Wt./Vol.: 20.00mL
Prep Extract Vol: 50.00mL

Print Date: 06/08/2023 6:19:07PM

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Method Blank

Blank ID: MB for HBN 1854368 (WFI/3037)
Blank Lab ID: 1711742

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1231846001, 1231846002, 1231846003, 1231846004, 1231846005, 1231846006, 1231846007, 1231846008, 1231846009, 1231846010, 1231846011, 1231846012, 1231846013, 1231846014, 1231846015, 1231846016, 1231846017, 1231846018, 1231846019, 1231846020, 1231846021, 1231846022, 1231846023

Results by SM21 4500NO3-F

Parameter	Results	LOQ/CL	DL	LOD	Units
Nitrate-N	0.100U	0.200	0.0500	0.100	mg/L
Nitrite-N	0.100U	0.200	0.0500	0.100	mg/L
Total Nitrate/Nitrite-N	0.100U	0.200	0.0500	0.100	mg/L

Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EBH
Analytical Date/Time: 5/5/2023 2:35:50PM

Print Date: 06/08/2023 6:19:08PM

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Method Blank

Blank ID: MB for HBN 1854368 (WFI/3037)
Blank Lab ID: 1711750

Matrix: Water (Surface, Eff., Ground)

QC for Samples:
1231846001, 1231846002, 1231846003

Results by SM21 4500NO3-F

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>LOD</u>	<u>Units</u>
Nitrate-N	0.100U	0.200	0.0500	0.100	mg/L
Nitrite-N	0.100U	0.200	0.0500	0.100	mg/L
Total Nitrate/Nitrite-N	0.100U	0.200	0.0500	0.100	mg/L

Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EBH
Analytical Date/Time: 5/5/2023 1:06:18PM

Print Date: 06/08/2023 6:19:08PM

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1231846 [WFI3037]

Blank Spike Lab ID: 1711744

Date Analyzed: 05/05/2023 14:34

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1231846001, 1231846002, 1231846003, 1231846004, 1231846005, 1231846006, 1231846007, 1231846008, 1231846009, 1231846010, 1231846011, 1231846012, 1231846013, 1231846014, 1231846015, 1231846016, 1231846017, 1231846018, 1231846019, 1231846020, 1231846021,

Results by SM21 4500NO3-F

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Nitrate-N	2.5	2.53	101	(70-130)
Nitrite-N	2.5	2.43	97	(90-110)
Total Nitrate/Nitrite-N	5	4.96	99	(90-110)

Batch Information

Analytical Batch: WFI3037

Analytical Method: SM21 4500NO3-F

Instrument: Astoria segmented flow

Analyst: EBH

Print Date: 06/08/2023 6:19:10PM

Blank Spike Summary

Blank Spike ID: LCS for HBN 1231846 [WFI3037]

Blank Spike Lab ID: 1711752

Date Analyzed: 05/05/2023 13:04

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1231846001, 1231846002, 1231846003

Results by SM21 4500NO3-F

Blank Spike (mg/L)

Parameter	Spike	Result	Rec (%)	CL
Nitrate-N	2.5	2.80	112	(70-130)
Nitrite-N	2.5	2.59	104	(90-110)
Total Nitrate/Nitrite-N	5	5.39	108	(90-110)

Batch Information

Analytical Batch: WFI3037

Analytical Method: SM21 4500NO3-F

Instrument: Astoria segmented flow

Analyst: EBH

Print Date: 06/08/2023 6:19:10PM

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Matrix Spike Summary

Original Sample ID: 1231692001
MS Sample ID: 1711649 MS
MSD Sample ID: 1711650 MSD

Analysis Date: 05/05/2023 12:24
Analysis Date: 05/05/2023 12:26
Analysis Date: 05/05/2023 12:27
Matrix: Drinking Water

QC for Samples:

Results by SM21 4500NO3-F

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Nitrate/Nitrite-N	0.966	5.00	5.74	96	5.00	5.74	95	90-110	0.09	(< 25)

Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EBH
Analytical Date/Time: 5/5/2023 12:26:00PM

Print Date: 06/08/2023 6:19:11PM

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Matrix Spike Summary

Original Sample ID: 1231784001
MS Sample ID: 1711651 MS
MSD Sample ID: 1711652 MSD

Analysis Date: 05/05/2023 13:09
Analysis Date: 05/05/2023 13:11
Analysis Date: 05/05/2023 13:13
Matrix: Drinking Water

QC for Samples: 1231846001, 1231846002, 1231846003, 1231846004

Results by SM21 4500NO3-F

Parameter	Sample	Matrix Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Nitrate/Nitrite-N	3.90	5.00	8.58	94	5.00	8.36	89	*	90-110	2.60 (< 25)

Batch Information

Analytical Batch: WFI3037
Analytical Method: SM21 4500NO3-F
Instrument: Astoria segmented flow
Analyst: EBH
Analytical Date/Time: 5/5/2023 1:11:00PM

Print Date: 06/08/2023 6:19:11PM

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Matrix Spike Summary

Original Sample ID: 1231846004

Analysis Date: 05/05/2023 14:39

MS Sample ID: 1711653 MS

Analysis Date: 05/05/2023 14:41

MSD Sample ID: 1711654 MSD

Analysis Date: 05/05/2023 14:42

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1231846001, 1231846002, 1231846003, 1231846004, 1231846005, 1231846006, 1231846007, 1231846008, 1231846009, 1231846010, 1231846011, 1231846012, 1231846013, 1231846014, 1231846015, 1231846016, 1231846017, 1231846018, 1231846019, 1231846020, 1231846021.

Results by SM21 4500NO3-F

Parameter	Matrix Spike (mg/L)				Spike Duplicate (mg/L)				CL	RPD (%)	RPD CL
	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL			
Total Nitrate/Nitrite-N	0.198J	5.00	5.26	101	5.00	5.46	105	90-110	3.70	(< 25)	

Batch Information

Analytical Batch: WFI3037

Analytical Method: SM21 4500NO3-F

Instrument: Astoria segmented flow

Analyst: EBH

Analytical Date/Time: 5/5/2023 2:41:00PM

Print Date: 06/08/2023 6:19:11PM

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Method Blank

Blank ID: MB for HBN 1854501 [WXX/14730]
Blank Lab ID: 1711998

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1231846010, 1231846011, 1231846012, 1231846013, 1231846014, 1231846015, 1231846016, 1231846017, 1231846018,
1231846019, 1231846020

Results by SM21 4500P-B,E

Parameter	Results	LOQ/CL	DL	LOD	Units
Total Phosphorus	0.0200U	0.0400	0.0120	0.0200	mg/L

Batch Information

Analytical Batch: WDA5496
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: MEB
Analytical Date/Time: 5/9/2023 2:01:50PM

Prep Batch: WXX14730
Prep Method: SM21 4500P-B,E
Prep Date/Time: 5/9/2023 12:00:00PM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/08/2023 6:19:13PM

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1231846 [WXX14730]

Spike Duplicate ID: LCSD for HBN 1231846

Blank Spike Lab ID: 1711999

[WXX14730]

Date Analyzed: 05/09/2023 14:02

Spike Duplicate Lab ID: 1712000

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1231846010, 1231846011, 1231846012, 1231846013, 1231846014, 1231846015, 1231846016,
1231846017, 1231846018, 1231846019, 1231846020**Results by SM21 4500P-B,E**

<u>Parameter</u>	Blank Spike (mg/L)			Spike Duplicate (mg/L)			<u>CL</u>	<u>RPD (%)</u>	<u>RPD CL</u>
	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>	<u>Spike</u>	<u>Result</u>	<u>Rec (%)</u>			
Total Phosphorus	0.2	0.195	98	0.2	0.194	97	(75-125)	0.41	(< 25)

Batch Information

Analytical Batch: WDA5496

Prep Batch: WXX14730

Analytical Method: SM21 4500P-B,E

Prep Method: SM21 4500P-B,E

Instrument: Discrete Analyzer 2

Prep Date/Time: 05/09/2023 12:00

Analyst: MEB

Spike Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL
Dupe Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL

Matrix Spike Summary

Original Sample ID: 1231580003
MS Sample ID: 1712001 MS
MSD Sample ID: 1712002 MSD

Analysis Date: 05/09/2023 14:07
Analysis Date: 05/09/2023 14:08
Analysis Date: 05/09/2023 14:09
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1231846010, 1231846011, 1231846012, 1231846013, 1231846014, 1231846015, 1231846016,
1231846017, 1231846018, 1231846019, 1231846020

Results by SM21 4500P-B,E

Parameter	Matrix Spike (mg/L)				Spike Duplicate (mg/L)				CL	RPD (%)	RPD CL
	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL			
Total Phosphorus	0.0639	0.200	.269	102	0.200	0.280	108	75-125	4.20	(< 7)	

Batch Information

Analytical Batch: WDA5496
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: MEB
Analytical Date/Time: 5/9/2023 2:08:40PM

Prep Batch: WXX14730
Prep Method: Total Phosphorus (W) Ext.
Prep Date/Time: 5/9/2023 12:00:00PM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Method Blank

Blank ID: MB for HBN 1855356 [WXX/14745]
Blank Lab ID: 1713324

Matrix: Water (Surface, Eff., Ground)

QC for Samples:

1231846001, 1231846002, 1231846003, 1231846004, 1231846005, 1231846006, 1231846007, 1231846008, 1231846009,
1231846021, 1231846022, 1231846023

Results by SM21 4500P-B,E

Parameter	Results	LOQ/CL	DL	LOD	Units
Total Phosphorus	0.0200U	0.0400	0.0120	0.0200	mg/L

Batch Information

Analytical Batch: WDA5503
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: MEB
Analytical Date/Time: 5/17/2023 4:32:08PM

Prep Batch: WXX14745
Prep Method: SM21 4500P-B,E
Prep Date/Time: 5/17/2023 12:30:00PM
Prep Initial Wt./Vol.: 25 mL
Prep Extract Vol: 25 mL

Print Date: 06/08/2023 6:19:18PM

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Blank Spike Summary

Blank Spike ID: LCS for HBN 1231846 [WXX14745]

Blank Spike Lab ID: 1713325

Date Analyzed: 05/17/2023 16:33

Spike Duplicate ID: LCSD for HBN 1231846

[WXX14745]

Spike Duplicate Lab ID: 1713326

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1231846001, 1231846002, 1231846003, 1231846004, 1231846005, 1231846006, 1231846007,
1231846008, 1231846009, 1231846021, 1231846022, 1231846023

Results by SM21 4500P-B,E

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Phosphorus	0.2	0.188	94	0.2	0.185	92	(75-125)	1.50	(< 25)

Batch Information

Analytical Batch: WDA5503

Analytical Method: SM21 4500P-B,E

Instrument: Discrete Analyzer 2

Analyst: MEB

Prep Batch: WXX14745

Prep Method: SM21 4500P-B,E

Prep Date/Time: 05/17/2023 12:30

Spike Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL

Dupe Init Wt./Vol.: 0.2 mg/L Extract Vol: 25 mL

Matrix Spike Summary

Original Sample ID: 1231796001
MS Sample ID: 1713327 MS
MSD Sample ID: 1713328 MSD

Analysis Date: 05/17/2023 16:37
Analysis Date: 05/17/2023 16:37
Analysis Date: 05/17/2023 16:38
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1231846001, 1231846002, 1231846003, 1231846004, 1231846005, 1231846006, 1231846007, 1231846008, 1231846009, 1231846021, 1231846022, 1231846023

Results by SM21 4500P-B,E

Parameter	Matrix Spike (mg/L)				Spike Duplicate (mg/L)				CL	RPD (%)	RPD CL
	Sample	Spike	Result	Rec (%)	Spike	Result	Rec (%)	CL			
Total Phosphorus	0.0255J	0.200	.216	95	0.200	0.220	97	75-125	2.10	(< 7)	

Batch Information

Analytical Batch: WDA5503
Analytical Method: SM21 4500P-B,E
Instrument: Discrete Analyzer 2
Analyst: MEB
Analytical Date/Time: 5/17/2023 4:37:58PM

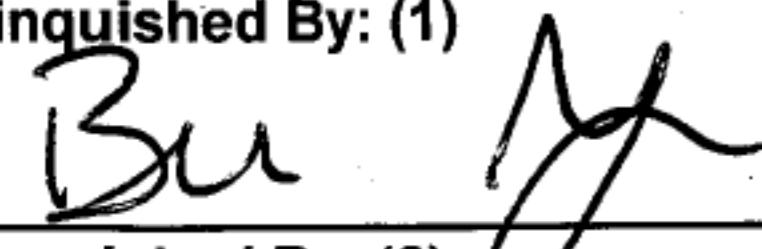
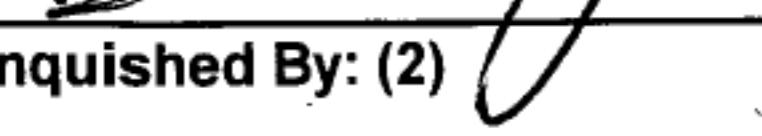
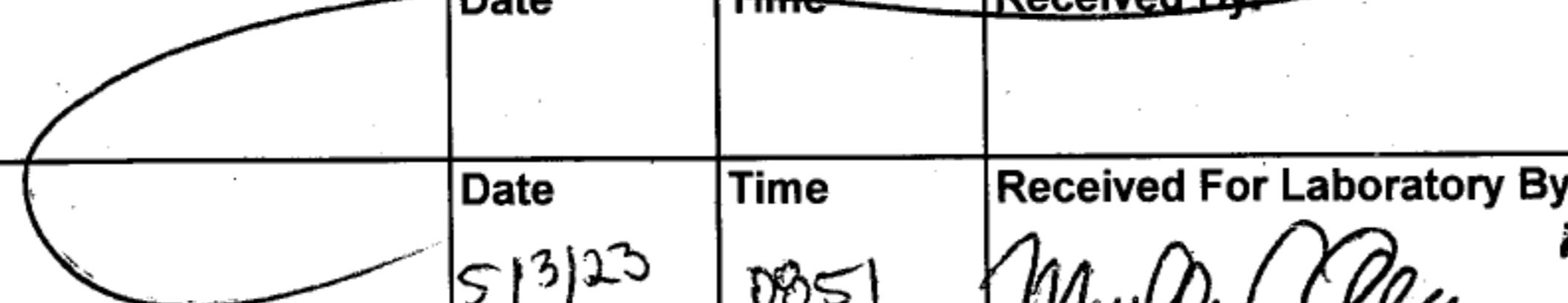
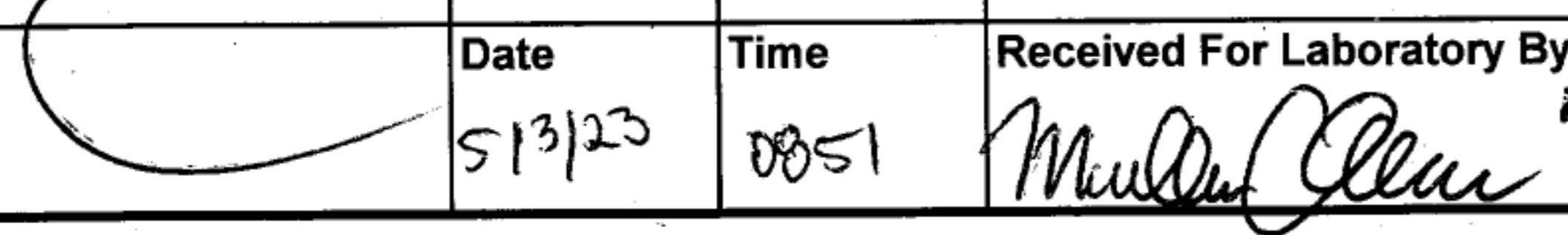
Prep Batch: WXX14745
Prep Method: Total Phosphorus (W) Ext.
Prep Date/Time: 5/17/2023 12:30:00PM
Prep Initial Wt./Vol.: 25.00mL
Prep Extract Vol: 25.00mL

Print Date: 06/08/2023 6:19:22PM

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Section 1 CLIENT: Kenai Watershed Forum CONTACT: Benjamin Meyer PHONE #: 907-232-0280 PROJECT NAME: Kenai River Baseline Water Quality Monitoring PROJECT/PWSID/PERMIT#:					Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.										1 of 3				
					Section 3		Preserv 								1231846				
					# C O N T A I N E R S	Comp Grab MI (Multi-incre- mental)	H ₂ SO ₄		HNO ₃		NONE		Analysis*						NOTE: *The following analyses require specific method and/or compound list: BTEX, Metals, PFAS
							Total NO ₃ /NO ₂ (SM21 4500NO ₃ -F), Total P(SM4500)	Total Metals (200.7)	Dissolved Metals (200.8)										
REPORTS TO: Benjamin Meyer E-MAIL: ben@kenaiwatershed.org INVOICE TO: Kenai Watershed Forum QUOTE #: P.O. #:															REMARKS/LOC ID				
RESERVED for lab use		SAMPLE IDENTIFICATION		DATE mm/dd/yy	TIME HH:MM	MATRIX MATRIX CODE	# C O N T A I N E R S	Comp Grab MI (Multi-incre- mental)	Total NO ₃ /NO ₂ (SM21 4500NO ₃ -F), Total P(SM4500)	Total Metals (200.7)	Dissolved Metals (200.8)								
(1) RM 0 - No Name Creek				5/3/2022	10:30	water	3		x	x	x								
(2) RM 1.5 - Kenai City Dock - DUP				5/3/2022	13:37	water	3		x	x	x								
(3) RM 1.5 - Kenai City Dock				5/3/2022	13:53	water	3		x	x	x								
(4) RM 6.5 - Cunningham Park				5/3/2022	9:22	water	3		x	x	x								
(5) RM 10 - Beaver Creek				5/3/2022	10:05	water	3		x	x	x								
(6) RM 10.1 - Kenai River				5/3/2022		water	3		x	x	x								
(7) RM 12.5 - Pillars				5/3/2022	8:32	water	3		x	x	x								
(8) RM 18 - Poacher's Cove				5/3/2022	9:24	water	3		x	x	x								
(9) RM 19 - Sliok Creek				5/3/2022	8:47	water	3		x	x	x								
(10) RM 21 - Soldotna Bridge				5/3/2022	9:27	water	3		x	x	x								
Section 2 Relinquished By: (1) 					Date 5/3/2022	Time 14:00	Received By:			Section 4		DOD Project? Yes <input checked="" type="checkbox"/>		Data Deliverable Requirements: Please include Electronic Data Delivery files.					
Relinquished By: (2) 					Date	Time	Received By:			Requested Turnaround Time and/or Special Instructions:									
Relinquished By: (3) 					Date	Time	Received By:			Temp Blank °C: <input checked="" type="checkbox"/> cooler 6.0 <input checked="" type="checkbox"/> 455 <input type="checkbox"/> or Ambient [] Chain of Custody Seal: (Circle) <input checked="" type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT									
Relinquished By: (4) 					Date 5/3/23	Time 0851	Received For Laboratory By: <i>Muller, Clear</i>			Delivery Method: Hand Delivery <input type="checkbox"/> Commercial Delivery <input checked="" type="checkbox"/>									



CLIENT: Kenai Watershed Forum					Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.																										
CONTACT: Benjamin Meyer PHONE #: 907-232-0280					Section 3		Preservative								Page <u>2</u> of <u>3</u>																
PROJECT NAME: Kenai River Baseline Water Quality Monitoring							PROJECT/ PWSID/ PERMIT#:	#	C	O	N	T	A	I	N	E	R	S	Comp	Grab	MI	(Multi-incre-mental)	H ₂ SO ₄	HNO ₃	NONE						
REPORTS TO: Benjamin Meyer					E-MAIL: ben@kenaiwatershed.org Profile #:					Analysis*												NOTE: *The following analyses require specific method and/or compound list: BTEX, Metals, PFAS									
INVOICE TO: Kenai Watershed Forum					QUOTE #: P.O. #:																	REMARKS/LOC ID									
RESERVED for lab use		SAMPLE IDENTIFICATION		DATE mm/dd/yy	TIME HH:MM	MATRIX MATRIX CODE	Total NO ₃ /NO ₂ (SM21 4500NO ₃ -F, Total P(SM450))	Total Metals (200.7)		Dissolved Metals (200.8)																					
① AC AD RM 22 - Soldotna Creek				5/2/2023	9:49	water	3			x	x	x																			
② AC AD RM 23 - Swiftwater Park				5/2/2023	10:22	water	3			x	x	x																			
③ AC AD RM 30 - Funny River				5/2/2023	8:57	water	3			x	x	x																			
④ AC AD RM 31 - Morgan's Landing				5/2/2023	10:00	water	3			x	x	x																			
⑤ AB RM 36 - Moose River				5/2/2023	10:38	water	2			x	x																				
⑥ AB RM 36 - Moose River-DUP				5/2/2023	10:45	water	2			x	x																				
⑦ AB RM 40 - Bing's Landing				5/2/2023	7:13	water	2			x	x																				
⑧ A RM 43 - Upstream of Dow Island				5/2/2023	9:25	water	21			x	x																				
⑨ AB RM 44 - Mouth of Killey River				5/2/2023	10:12	water	2			x	x																				
⑩ AB RM 50 - Skilak Lake Outflow				5/2/2023	8:34	water	2			x	x																				
Relinquished By: (1) <i>Ben M</i>		Date 5/2/2023	Time 14:00	Received By:				Section 4		DOD Project? Yes <input checked="" type="checkbox"/>		Data Deliverable Requirements: <i>Please include Electronic Data Delivery files.</i>																			
Relinquished By: (2)		Date	Time	Received By:				Cooler ID: Requested Turnaround Time and/or Special Instructions:																							
Relinquished By: (3)		Date	Time	Received By:				Temp Blank °C: <i>cooled 3.2 DS2</i> or Ambient []																							
Relinquished By: (4)		Date 5/3/23	Time 0051	Received For Laboratory By: <i>M. Olliver</i>				Chain of Custody Seal: (Circle) <i>IF</i> INTACT BROKEN ABSENT																							
Delivery Method: Hand Delivery [] Commerical Delivery []																															



CLIENT: Kenai Watershed Forum					Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.													
					Page <u> 3 </u> of <u> 3 </u>													
Section 1	CONTACT: Benjamin Meyer PHONE #: 907-232-0280					Section 3		Preservative										
	PROJECT NAME: Kenai River Baseline Water Quality Monitoring					PROJECT/ PWSID/ PERMIT#: SM21 4500NO3-F, Total P(SM450)	# C O N T A I N E R S Comp Grab MI (Multi-incre- mental)	H₂SO₄ HNO₃ NONE										
	REPORTS TO: Benjamin Meyer E-MAIL: ben@kenaiwatershed.org					Analysis*												
	INVOICE TO: Kenai Watershed Forum QUOTE #: P.O. #:																	
	RESERVED for lab use		SAMPLE IDENTIFICATION		DATE mm/dd/yy	TIME HH:MM	MATRIX/MATRIX CODE	Total NO₃NO₂(SM21 4500NO3-F), Total P(SM450)	Total Metals (200.7)	Dissolved Metals (200.8)								
Section 2	(20)AB	RM 70 - Jim's Landing		5/2/2023	11:11	water	2	x	x									
	(21)AB	RM 74 - Russian River		5/2/2023	10:30	water	2	x	x									
	(22)AB	RM 82 - Kenai Lake Bridge		5/2/2023	8:35	water	2	x	x									
	(23)AB	RM 79.5 - Juneau Creek		5/2/2023	9:35	water	2	x	x									
	(24)A	RM 0 - No Name Creek - Field Blank		5/2/2023	10:30	water	2		x	x								
	(25)A	RM 12.5 - Pillars - Field Blank		5/2/2023	8:32	water	2		x	x								
Section 4	Relinquished By: (1) 				Date 5/3/2022	Time 14:08	Received By: 			Section 4		DOD Project? Yes No		Data Deliverable Requirements: <i>Please include Electronic Data Delivery files.</i>				
	Relinquished By: (2) 				Date	Time	Received By: 			Cooler ID:		Requested Turnaround Time and/or Special Instructions:						
	Relinquished By: (3) 				Date	Time	Received By: 			Temp Blank °C:		Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT						
Relinquished By: (4) 				Date	Time	Received For Laboratory By: 			or Ambient []		Delivery Method: Hand Delivery [] Commerical Delivery []							



CLIENT: Kenai Watershed Forum					Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.																							
CONTACT: Benjamin Meyer PHONE #: 907-232-0280					Section 3 Preservative										Page <u> 1 </u> of <u> 3 </u>													
Section 1 PROJECT NAME: Kenai River Baseline Water Quality Monitoring PROJECT/ PWSID/ PERMIT#:	REPORTS TO: Benjamin Meyer E-MAIL: ben@kenaiwatershed.org					# CONTAINERS Comp Grab MI (Multi-incremental)	H₂SO₄ HNO₃ NONE										Analysis* Total NO ₃ (SM21 4500NO ₃ -F, Total P(SM450))											NOTE: *The following analyses require specific method and/or compound list: BTEX, Metals, PFAS
	INVOICE TO: Kenai Watershed Forum QUOTE #: P.O. #:																											
	RESERVED for lab use		SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM		MATRIX/ MATRIX CODE																					
			RM 0 - No Name Creek	5/3/2022	10:30		water	3																				
			RM 1.5 - Kenai City Dock - DUP	5/3/2022	13:37		water	3																				
			RM 1.5 - Kenai City Dock	5/3/2022	13:53		water	3																				
			RM 6.5 - Cunningham Park	5/3/2022	9:22		water	3																				
			RM 10 - Beaver Creek	5/3/2022	10:05		water	3																				
			RM 10.1 - Konai River	5/3/2022	water		3																					
		RM 12.5 - Pillars	5/3/2022	8:32	water	3																						
		RM 18 - Poacher's Cove	5/3/2022	9:24	water	3																						
		RM 19 - Slikok Creek	5/3/2022	8:47	water	3																						
		RM 21 - Soldotna Bridge	5/3/2022	9:27	water	3																						
Relinquished By: (1) 		Date 5/3/2022	Time 10:00	Received By:										Section 4 DOD Project? Yes <input checked="" type="checkbox"/>	Data Deliverable Requirements: Please include Electronic Data Delivery files.													
Relinquished By: (2) 		Date	Time	Received By:										Requested Turnaround Time and/or Special Instructions:														
Relinquished By: (3) 		Date	Time	Received By:										Temp Blank °C: or Ambient []					Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT									
Relinquished By: (4) 		Date	Time	Received For Laboratory By:										Delivery Method: Hand Delivery [] Commerical Delivery []														



Section 1					Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.														
CLIENT: Kenai Watershed Forum					Section 3 Preservative										Page <u>2</u> of <u>3</u>				
CONTACT: PHONE #: Benjamin Meyer 907-232-0280					#	C O N T A I N E R S	Comp Grab MI (Multi-incre- mental)	H ₂ SO ₄	HNO ₃	NONE	Analysis*						NOTE: *The following analyses require specific method and/or compound list: BTEX, Metals, PFAS		
PROJECT NAME: Kenai River Baseline PWSID/ Water Quality Monitoring PERMIT#:					Total NO ₂ /SM21 4500NO ₃ -F, Total P(SM4500)	Total Metals (200.7)	Dissolved Metals (200.8)												
REPORTS TO: E-MAIL: ben@kenaiwatershed.org															REMARKS/LOC ID				
INVOICE TO: QUOTE #: P.O. #:																			
Section 2		RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/MATRIX CODE	#	C O N T A I N E R S	Comp Grab MI (Multi-incre- mental)	H ₂ SO ₄	HNO ₃	NONE	Analysis*						NOTE: *The following analyses require specific method and/or compound list: BTEX, Metals, PFAS
		RM 22 - Soldotna Creek	5/2/2023	9:49	water	3			x	x	x								
		RM 23 - Swiftwater Park	5/2/2023	10:22	water	3			x	x	x								
		RM 30 - Funny River	5/2/2023	8:57	water	3			x	x	x								
		RM 31 - Morgan's Landing	5/2/2023	10:00	water	3			x	x	x								
		RM 36 - Moose River	5/2/2023	10:38	water	2			x	x									
		RM 36 - Moose River-DUP	5/2/2023	10:45	water	2			x	x									
<i>✓</i>		RM 40 - Bing's Landing	5/2/2023	7:13	water	2			x	x									
		RM 43 - Upstream of Dow Island	5/2/2023	9:25	water	21			x	<i>(X)</i>									
		RM 44 - Mouth of Killey River	5/2/2023	10:12	water	2			x	x									
		8:34 RM 50 - Skilak Lake Outflow	5/2/2023	8:34	water	2			x	x									
Section 5		Relinquished By: (1) <i>Ben Meyer</i>	Date 5/2/2023	Time 14:00	Received By:				Section 4	DOD Project? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			Data Deliverable Requirements: Please include Electronic Data Delivery files.						
		Relinquished By: (2)	Date	Time	Received By:				Requested Turnaround Time and/or Special Instructions:										
		Relinquished By: (3)	Date	Time	Received By:				Temp Blank °C: or Ambient []						Chain of Custody Seal: (Circle)				
		Relinquished By: (4)	Date	Time	Received For Laboratory By:				INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT <input type="checkbox"/>						Delivery Method: Hand Delivery [] Commercial Delivery []				



CLIENT: Kenai Watershed Forum					Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.												
CONTACT: Benjamin Meyer PHONE #: 907-232-0280					Section 3		Preservative										
PROJECT NAME: Kenai River Baseline Water Quality Monitoring					# C O N T A I N E R S	Comp Grab MI (Multi-incre- mental)	H ₂ SO ₄	HNO ₃	NONE								
REPORTS TO: Benjamin Meyer E-MAIL: ben@kenaiwatershed.org					Analysis*										NOTE: *The following analyses require specific method and/or compound list: BTEX, Metals, PFAS		
INVOICE TO: Kenai Watershed Forum QUOTE #: P.O. #:					Total NO ₃ NO ₂ (SM21 4500NO ₃ -F), Total P(SM450)	Total Metals (200.7)	Dissolved Metals (200.8)										
RESERVED for lab use		SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/MATRIX CODE										REMARKS/LOC ID		
✓		RM 70 - Jim's Landing	5/2/2023	11:11	water	2	x	x									
✓		RM 74 - Russian River	5/2/2023	10:30	water	2	x	x									
✓		RM 82 - Kenai Lake Bridge	5/2/2023	8:35	water	2	x	x									
✓		RM 79.5 - Juneau Creek	5/2/2023	9:35	water	2	x	x									
		RM 0 - No Name Creek - Field Blank	5/2/2023	10:30	water	2		x	x								
		RM 12.5 - Pillars - Field Blank	5/2/2023	8:32	water	2		x	x								
Relinquished By: (1) 		Date 5/3/2022	Time 14:00	Received By:				Section 4		DOD Project? Yes <input checked="" type="checkbox"/> No		Data Deliverable Requirements: Please include Electronic Data Delivery files.					
Relinquished By: (2) 		Date	Time	Received By:				Cooler ID: _____ Requested Turnaround Time and/or Special Instructions:									
Relinquished By: (3)		Date	Time	Received By:				Temp Blank °C: _____ Chain of Custody Seal: (Circle)									
Relinquished By: (4)		Date	Time	Received For Laboratory By:				or Ambient [] INTACT BROKEN ABSENT									
Delivery Method: Hand Delivery [] Commerical Delivery []																	



CLIENT: Kenai Watershed Forum					Instructions: Sections 1 - 5 must be filled out. Omissions may delay the onset of analysis.												
CONTACT: Benjamin Meyer PHONE #: 907-232-0280					Section 3		Preservative										
Section 1	PROJECT NAME: Kenai River Baseline Water Quality Monitoring PROJECT/ PWSID/ PERMIT#:					# C O N T A I N E R S	Comp Grab MI (Multi-incre-mental)	H ₂ S ₀₄	HNO ₃	NONE	Analysis*						NOTE: *The following analyses require specific method and/or compound list: BTEX, Metals, PFAS
	REPORTS TO: Benjamin Meyer E-MAIL: ben@kenaiwatershed.org					Total NO ₃ /NO ₂ (SM21 4500NO3-F), Total P(SM4500)	Total Metals (200.7)	Dissolved Metals (200.8)									
	INVOICE TO: Kenai Watershed Forum QUOTE #: P.O. #:																
Section 2	RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE												REMARKS/LOC ID
		RM 0 - No Name Creek	5/3/2022	13:53	water	3	x	x	x								
		RM 1.5 - Kenai City Dock - DUP	5/3/2022	13:53	water	3	x	x	x								
		RM 1.5 - Kenai City Dock	5/3/2022	13:37	water	3	x	x	x								
		RM 6.5 - Cunningham Park	5/3/2022		water	3	x	x	x								
		RM 10 - Beaver Creek	5/3/2022		water	3	x	x	x								
		RM 10.1 - Kenai River	5/3/2022		water	3	x	x	x								
		RM 12.5 - Pillars	5/3/2022		water	3	x	x	x								
		RM 18 - Poacher's Cove	5/3/2022		water	3	x	x	x								
		RM 19 - Slikok Creek	5/3/2022		water	3	x	x	x								
Section 3	Relinquished By: (1)	Date 5/3/2022	Time 15:50	Received By:				Section 4	DOD Project? Yes <input checked="" type="checkbox"/> No	Data Deliverable Requirements: Please include Electronic Data Delivery files.							
	<i>Ben Meyer</i>							Cooler ID:									
	Relinquished By: (2)	Date	Time	Received By:				Requested Turnaround Time and/or Special Instructions:									
	Relinquished By: (3)	Date	Time	Received By:													
Section 4	Temp Blank °C: 5.2 1063	Chain of Custody Seal: (Circle) <input checked="" type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT															
	or Ambient []																
Delivery Method: Hand Delivery [] Commercial Delivery []																	



SAMPLE RECEIPT FORM

1231846



<u>Project Manager Completion</u>			
Was all necessary information recorded on the COC upon receipt? (temperature, COC seals, etc.?)	Yes	No	N/A
Was temperature between 0-6° C?	Yes	No	N/A If "No", are the samples either exempt* or sampled <8 hours prior to receipt?
Were all analyses received within holding time?	Yes	No	N/A
Was a method specified for each analysis, where applicable? If no, please note correct methods.	Yes	No	N/A MMDSCNDW.1 ; 200.7 Ca, Mg, Fe.
Are compound lists specified, where applicable? For project specific or special compound lists please note correct analysis code.	Yes	No	N/A If "NO", what is the approved TAT?
If rush was requested by the client, was the requested TAT approved?	Yes	No	N/A If "NO", contact client for information.
If SEDD Deliverables are required, were Location ID's and an NPDL Number provided?	Yes	No	N/A
<u>Sample Login Completion</u>			
Do ID's on sample containers match COC?	Yes	No	N/A
If provided on containers, do dates/times collected match COC?	Yes	No	N/A Note: If times differ < 1 hr., record details below and login per COC.
Were all sample containers received in good condition?	Yes	No	N/A
Were proper containers (type/mass/volume/preservative) received for all samples? *See form F-083 "Sample Guide"	Yes	No	N/A Note: If 200.8/6020 Total Metals are received unpreserved, preserve and note HNO ₃ lot here: W09-0402-19-12 If 200.8/6020 Dissolved Metals are received unpreserved, log in for LABFIL TER and do not preserve. For all non-metals methods, inform Project Manager. Lab, 76, 75A pres. 1mL HNO₃
Were Trip Blanks (VOC, GRO, Low-Level Hg, etc.) received with samples, where applicable*?	Yes	No	N/A
Were all VOA vials free of headspace >6mm?	Yes	No	N/A
Were all soil VOA samples received field extracted with Methanol?	Yes	No	N/A
Did all soil VOA samples have an accompanying unpreserved container for % solids?	Yes	No	N/A Lab filter, pH adjustment
If special handling is required, were containers labelled appropriately? e.g. MI/ISM, foreign soils, lab filter, Ref Lab, limited volume	Yes	No	N/A Lab filter, pH adjustment
For Rush/Short Holding time, was the lab notified?	Yes	No	N/A
For any question answered "NO", was the Project Manager notified?	Yes	No	N/A PM Initials:
Was Peer Review of sample numbering/labelling completed?	Yes	No	N/A Reviewer Initials: GBH
<u>Additional Notes/Clarification where Applicable, including resolution of "No" answers when a change order is not attached:</u>			
*001 & 003 container labels swapped times.			

Alert Expeditors Inc.

Citywide Delivery • 440-3351
8421 Flamingo Drive • Anchorage, Alaska 99502

#425854

Date

5-3-23

From

Vista Water Skel

To

SGS Labs Inc

 Collect Prepay Advance Charges

Job #

ENH

PO#

Grant 115 89397

Samples X 2

1231846



Shipped Signature

Total Charge

Received By:

Alert Expeditors Inc.

Citywide Delivery • 440-3351
8421 Flamingo Drive • Anchorage, Alaska 99502

#425853

Date

5-3-23

From

SGS Labs Inc

 Collect Prepay Advance Charges

Job #

ENH

PO#

Grant 115 89910

Samples X 1

1231846



Shipped Signature

Total Charge

Received By:

Sample Containers and Preservatives

<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>	<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>
1231846001-A	H ₂ SO ₄ to pH < 2	OK	1231846013-B	HNO ₃ to pH < 2	OK
1231846001-B	HNO ₃ to pH < 2	OK	1231846013-C	No Preservative Required	OK
1231846001-C	No Preservative Required	OK	1231846013-D	No Preservative Required	OK
1231846001-D	No Preservative Required	OK	1231846014-A	H ₂ SO ₄ to pH < 2	OK
1231846002-A	H ₂ SO ₄ to pH < 2	OK	1231846014-B	HNO ₃ to pH < 2	OK
1231846002-B	HNO ₃ to pH < 2	OK	1231846015-A	H ₂ SO ₄ to pH < 2	OK
1231846002-C	No Preservative Required	OK	1231846015-B	HNO ₃ to pH < 2	OK
1231846002-D	No Preservative Required	OK	1231846016-A	H ₂ SO ₄ to pH < 2	OK
1231846003-A	H ₂ SO ₄ to pH < 2	OK	1231846016-B	HNO ₃ to pH < 2	OK
1231846003-B	HNO ₃ to pH < 2	OK	1231846017-A	H ₂ SO ₄ to pH < 2	OK
1231846003-C	No Preservative Required	OK	1231846018-A	H ₂ SO ₄ to pH < 2	OK
1231846003-D	No Preservative Required	OK	1231846018-B	HNO ₃ to pH < 2	OK
1231846004-A	H ₂ SO ₄ to pH < 2	OK	1231846019-A	H ₂ SO ₄ to pH < 2	OK
1231846004-B	HNO ₃ to pH < 2	OK	1231846019-B	HNO ₃ to pH < 2	OK
1231846004-C	No Preservative Required	OK	1231846020-A	H ₂ SO ₄ to pH < 2	OK
1231846004-D	No Preservative Required	OK	1231846020-B	HNO ₃ to pH < 2	OK
1231846005-A	H ₂ SO ₄ to pH < 2	OK	1231846021-A	H ₂ SO ₄ to pH < 2	OK
1231846005-B	HNO ₃ to pH < 2	OK	1231846021-B	HNO ₃ to pH < 2	OK
1231846005-C	No Preservative Required	OK	1231846022-A	H ₂ SO ₄ to pH < 2	OK
1231846005-D	No Preservative Required	OK	1231846022-B	HNO ₃ to pH < 2	OK
1231846006-A	H ₂ SO ₄ to pH < 2	OK	1231846023-A	H ₂ SO ₄ to pH < 2	OK
1231846006-B	HNO ₃ to pH < 2	OK	1231846023-B	HNO ₃ to pH < 2	OK
1231846006-C	No Preservative Required	OK	1231846024-A	HNO ₃ to pH < 2	OK
1231846006-D	No Preservative Required	OK	1231846024-B	No Preservative Required	OK
1231846007-A	H ₂ SO ₄ to pH < 2	OK	1231846024-C	No Preservative Required	OK
1231846007-B	HNO ₃ to pH < 2	OK	1231846025-A	HNO ₃ to pH < 2	OK
1231846007-C	No Preservative Required	OK	1231846025-B	No Preservative Required	OK
1231846007-D	No Preservative Required	OK	1231846025-C	No Preservative Required	OK
1231846008-A	H ₂ SO ₄ to pH < 2	OK			
1231846008-B	HNO ₃ to pH < 2	OK			
1231846008-C	No Preservative Required	OK			
1231846008-D	No Preservative Required	OK			
1231846009-A	H ₂ SO ₄ to pH < 2	OK			
1231846009-B	HNO ₃ to pH < 2	OK			
1231846009-C	No Preservative Required	OK			
1231846009-D	No Preservative Required	OK			
1231846010-A	H ₂ SO ₄ to pH < 2	OK			
1231846010-B	HNO ₃ to pH < 2	OK			
1231846010-C	No Preservative Required	OK			
1231846010-D	No Preservative Required	OK			
1231846011-A	H ₂ SO ₄ to pH < 2	OK			
1231846011-B	HNO ₃ to pH < 2	OK			
1231846011-C	No Preservative Required	OK			
1231846011-D	No Preservative Required	OK			
1231846012-A	H ₂ SO ₄ to pH < 2	OK			
1231846012-B	HNO ₃ to pH < 2	OK			
1231846012-C	No Preservative Required	OK			
1231846012-D	No Preservative Required	OK			
1231846013-A	H ₂ SO ₄ to pH < 2	OK			

Container IdPreservativeContainer
ConditionContainer IdPreservativeContainer
Condition

Container Condition Glossary

Containers for bacteriological, low level mercury and VOA vials are not opened prior to analysis and will be assigned condition code OK unless evidence indicates than an inappropriate container was submitted.

OK - The container was received at an acceptable pH for the analysis requested.

BU - The container was received with headspace greater than 6mm.

DM - The container was received damaged.

FR - The container was received frozen and not usable for Bacteria or BOD analyses.

IC - The container provided for microbiology analysis was not a laboratory-supplied, pre-sterilized container and therefore was not suitable for analysis.

NC - The container provided was not preserved or was under-preserved. The method does not allow for additional preservative added after collection.

PA - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt and the container is now at the correct pH. See the Sample Receipt Form for details on the amount and lot # of the preservative added.

PH - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt, but was insufficient to bring the container to the correct pH for the analysis requested. See the Sample Receipt Form for details on the amount and lot # of the preservative added.

QN - Insufficient sample quantity provided.

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

SGS North America, Inc

1231846

SGS Job Number: FC5912

Sampling Dates: 05/02/23 - 05/03/23



Report to:

**SGS North America, Inc
200 W Potter Dr
Anchorage, AK 99518
justin.nelson@sgs.com; env.alaska.reflabteam@sgs.com
ATTN: Justin Nelson**

Total number of pages in report: 51



Test results contained within this data package meet the requirements
of the National Environmental Laboratory Accreditation Program
and/or state specific certification programs as applicable.

**Norm Farmer
Technical Director**

Client Service contact: Andrea Colby 407-425-6700

Certifications: FL(E83510), LA(03051), KS(E-10327), NC(573), NJ(FL002), NY(12022), SC(96038001)
DoD ELAP(ANAB L2229), AZ(AZ0806), CA(2937), TX(T104704404), PA(68-03573), VA(460177),
AL, AK, AR, CT, IA, KY, MA, MI, MS, ND, NH, NV, OK, OR, IL, UT, VT, WA, WI, WV

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Test results relate only to samples analyzed.

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Sample Summary

SGS North America, Inc

Job No: FC5912

1231846

Sample Number	Collected Date	Time By	Matrix Received	Code Type	Client Sample ID
FC5912-1	05/03/23	10:30	05/09/23	AQ Water	RM 0-NO NAME CREEK
FC5912-2	05/03/23	13:37	05/09/23	AQ Water	RM 1.5-KENAI CITY DOCK-DUP
FC5912-3	05/03/23	13:53	05/09/23	AQ Water	RM 1.5-KENAI CITY DOCK
FC5912-4	05/03/23	09:22	05/09/23	AQ Water	RM 6.5-CUNNINGHAM PARK
FC5912-5	05/03/23	10:05	05/09/23	AQ Water	RM 10-BEAVER CREEK
FC5912-6	05/03/23	08:32	05/09/23	AQ Water	RM 12.5-PILLARS
FC5912-7	05/03/23	09:24	05/09/23	AQ Water	RM 18-POACHER'S COVE
FC5912-8	05/03/23	08:47	05/09/23	AQ Water	RM 19-SLIKOK CREEK
FC5912-9	05/03/23	09:27	05/09/23	AQ Water	RM 21-SOLDOTNA BRIDGE
FC5912-10	05/02/23	09:49	05/09/23	AQ Water	RM 22-SOLDOTNA CREEK
FC5912-11	05/02/23	10:20	05/09/23	AQ Water	RM 23-SWIFTWATER PARK
FC5912-12	05/02/23	08:57	05/09/23	AQ Water	RM 30-FUNNY RIVER
FC5912-13	05/02/23	10:00	05/09/23	AQ Water	RM 31-MORGAN'S LANDING

Sample Summary

(continued)

SGS North America, Inc

Job No: FC5912

1231846

Sample Number	Collected Date	Time By	Matrix Received	Code Type	Client Sample ID
FC5912-14	05/02/23	10:38	05/09/23	AQ Water	RM 36-MOOSE RIVER
FC5912-15	05/02/23	10:45	05/09/23	AQ Water	RM 36-MOOSE RIVER-DUP
FC5912-16	05/02/23	07:13	05/09/23	AQ Water	RM 40-BING'S LANDING
FC5912-17	05/02/23	10:12	05/09/23	AQ Water	RM 44-MOUTH OF KILLEY RIVER
FC5912-18	05/02/23	08:34	05/09/23	AQ Water	RM 50-SKILAK LAKE OUTFLOW
FC5912-19	05/02/23	11:11	05/09/23	AQ Water	RM 70-JIM'S LANDING
FC5912-20	05/02/23	10:30	05/09/23	AQ Water	RM 74-RUSSIAN RIVER
FC5912-21	05/02/23	08:35	05/09/23	AQ Water	RM 82-KENAI LAKE BRIDGE
FC5912-22	05/02/23	09:35	05/09/23	AQ Water	RM 79.5-JUNEAU CREEK
FC5912-23	05/02/23	10:30	05/09/23	AQ Field Blank Water	RM 0-NO NAME CREEK-FB
FC5912-24	05/02/23	08:32	05/09/23	AQ Field Blank Water	RM 12.5-PILLARS-FIELD BLANK

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: SGS North America, Inc

Job No: FC5912

Site: 1231846

Report Date: 5/24/2023 1:19:35 PM

On 05/09/2023, 22 Sample(s), 0 Trip Blank(s) and 2 Field Blank(s) were received at SGS North America Inc - Orlando, at a maximum corrected temperature of 20.7 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. - Orlando Job Number of FC5912 was assigned to the project.

Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Metals Analysis By Method EPA 200.7

Matrix: AQ

Batch ID: MP42262

Sample(s) FC5853-1DUP, FC5853-1MS, FC5853-1MSD, FC5853-1PS, FC5853-1SDL were used as the QC samples for metals.

Matrix Spike/Matrix Spike Duplicate Recovery(s) for Copper are outside control limits. Spike recovery indicates possible matrix interference.

RPD(s) for MSD for Copper are outside control limits for sample MP42262-S2. High RPD indicates possible matrix interference.

MP42262-PS1 for Iron: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

FC5912-3 for Zinc: Sample dilution required due to difficult matrix.

MP42262-PS1 for Magnesium: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP42262-PS1 for Zinc: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

MP42262-PS1 for Calcium: Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

FC5912-2 for Calcium: Sample dilution required due to difficult matrix.

FC5912-2 for Copper: Sample dilution required due to difficult matrix.

FC5912-2 for Iron: Sample dilution required due to difficult matrix.

FC5912-2 for Magnesium: Sample dilution required due to difficult matrix.

FC5912-2 for Zinc: Sample dilution required due to difficult matrix.

FC5912-3 for Calcium: Sample dilution required due to difficult matrix.

FC5912-3 for Copper: Sample dilution required due to difficult matrix.

FC5912-3 for Iron: Sample dilution required due to difficult matrix.

FC5912-3 for Magnesium: Sample dilution required due to difficult matrix.

Metals Analysis By Method SW846 6010D

Matrix: AQ

Batch ID: MP42269

Sample(s) FC5887-23DUP, FC5887-23MS, FC5887-23MSD, FC5887-23PS, FC5887-23SDL were used as the QC samples.

RPD(s) for Serial Dilution for Calcium, Iron, Magnesium are outside control limits for sample MP42269-SD1. Probable cause is due to sample non-homogeneity.

SGS North America Inc. - Orlando certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted. Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria. SGS North America Inc.- Orlando is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety.

Narrative prepared by:

Kim Benham, Client Services (*Signature on File*)

Summary of Hits

Page 1 of 3

Job Number: FC5912
Account: SGS North America, Inc
Project: 1231846
Collected: 05/02/23 thru 05/03/23

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
FC5912-1 RM 0-NO NAME CREEK						
Calcium	9790	1000			ug/l	EPA 200.7
Iron	5410	300			ug/l	EPA 200.7
FC5912-2 RM 1.5-KENAI CITY DOCK-DUP						
Calcium a	316000	5000			ug/l	EPA 200.7
Iron a	12000	1500			ug/l	EPA 200.7
Magnesium a	991000	25000			ug/l	EPA 200.7
FC5912-3 RM 1.5-KENAI CITY DOCK						
Calcium a	291000	5000			ug/l	EPA 200.7
Iron a	12200	1500			ug/l	EPA 200.7
Magnesium a	906000	25000			ug/l	EPA 200.7
FC5912-4 RM 6.5-CUNNINGHAM PARK						
Calcium	13700	1000			ug/l	EPA 200.7
Iron	13800	300			ug/l	EPA 200.7
Magnesium	6780	5000			ug/l	EPA 200.7
Zinc	41.3	20			ug/l	EPA 200.7
FC5912-5 RM 10-BEAVER CREEK						
Calcium	8440	1000			ug/l	EPA 200.7
Iron	8630	300			ug/l	EPA 200.7
FC5912-6 RM 12.5-PILLARS						
Calcium	11000	1000			ug/l	EPA 200.7
Iron	2020	300			ug/l	EPA 200.7
FC5912-7 RM 18-POACHER'S COVE						
Calcium	11400	1000			ug/l	EPA 200.7
Iron	1890	300			ug/l	EPA 200.7
FC5912-8 RM 19-SLIKOK CREEK						
Calcium	5510	1000			ug/l	EPA 200.7
Iron	1210	300			ug/l	EPA 200.7

Summary of Hits

Page 2 of 3

Job Number: FC5912
Account: SGS North America, Inc
Project: 1231846
Collected: 05/02/23 thru 05/03/23

3

Lab Sample ID	Client Sample ID	Result/ Analyte	Qual	RL	MDL	Units	Method
FC5912-9	RM 21-SOLDOTNA BRIDGE						
Calcium		10600		1000		ug/l	EPA 200.7
Iron		1560		300		ug/l	EPA 200.7
FC5912-10	RM 22-SOLDOTNA CREEK						
Calcium		10400		1000		ug/l	EPA 200.7
Iron		1330		300		ug/l	EPA 200.7
FC5912-11	RM 23-SWIFTWATER PARK						
Calcium		15400		1000		ug/l	EPA 200.7
Iron		327		300		ug/l	EPA 200.7
Magnesium		5470		5000		ug/l	EPA 200.7
FC5912-12	RM 30-FUNNY RIVER						
Calcium		7600		1000		ug/l	EPA 200.7
Iron		2690		300		ug/l	EPA 200.7
FC5912-13	RM 31-MORGAN'S LANDING						
Calcium		11900		1000		ug/l	EPA 200.7
Iron		1110		300		ug/l	EPA 200.7
FC5912-14	RM 36-MOOSE RIVER						
Calcium		11800		1000		ug/l	EPA 200.7
Iron		2140		300		ug/l	EPA 200.7
FC5912-15	RM 36-MOOSE RIVER-DUP						
Calcium		11700		1000		ug/l	EPA 200.7
Iron		1770		300		ug/l	EPA 200.7
FC5912-16	RM 40-BING'S LANDING						
Calcium		10800		1000		ug/l	EPA 200.7
Iron		757		300		ug/l	EPA 200.7
FC5912-17	RM 44-MOUTH OF KILLEY RIVER						
Calcium		8850		1000		ug/l	EPA 200.7
Iron		2070		300		ug/l	EPA 200.7

Summary of Hits

Page 3 of 3

Job Number: FC5912
Account: SGS North America, Inc
Project: 1231846
Collected: 05/02/23 thru 05/03/23

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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FC5912-18 RM 50-SKILAK LAKE OUTFLOW

Calcium	8370	1000	ug/l	EPA 200.7
Iron	316	300	ug/l	EPA 200.7

FC5912-19 RM 70-JIM'S LANDING

Calcium	19100	1000	ug/l	EPA 200.7
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FC5912-20 RM 74-RUSSIAN RIVER

Calcium	24100	1000	ug/l	SW846 6010D
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FC5912-21 RM 82-KENAI LAKE BRIDGE

Calcium	15300	1000	ug/l	SW846 6010D
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FC5912-22 RM 79.5-JUNEAU CREEK

Calcium	20000	1000	ug/l	SW846 6010D
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FC5912-23 RM 0-NO NAME CREEK-FB

No hits reported in this sample.

FC5912-24 RM 12.5-PILLARS-FIELD BLANK

Calcium	10700	1000	ug/l	SW846 6010D
Iron	1920	300	ug/l	SW846 6010D

(a) Sample dilution required due to difficult matrix.

Sample Results

Report of Analysis

Report of Analysis

Page 1 of 1

Client Sample ID:	RM 0-NO NAME CREEK	Date Sampled:	05/03/23
Lab Sample ID:	FC5912-1	Date Received:	05/09/23
Matrix:	AQ - Water	Percent Solids:	n/a
Project:	1231846		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	9790	1000	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Copper	< 25	25	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Iron	5410	300	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Magnesium	< 5000	5000	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Zinc	< 20	20	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹

(1) Instrument QC Batch: MA19432

(2) Prep QC Batch: MP42262

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	RM 1.5-KENAI CITY DOCK-DUP	Date Sampled:	05/03/23
Lab Sample ID:	FC5912-2	Date Received:	05/09/23
Matrix:	AQ - Water	Percent Solids:	n/a
Project:	1231846		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium ^a	316000	5000	ug/l	5	05/18/23	05/23/23	LM	EPA 200.7 ¹
Copper ^a	< 130	130	ug/l	5	05/18/23	05/23/23	LM	EPA 200.7 ¹
Iron ^a	12000	1500	ug/l	5	05/18/23	05/23/23	LM	EPA 200.7 ¹
Magnesium ^a	991000	25000	ug/l	5	05/18/23	05/23/23	LM	EPA 200.7 ¹
Zinc ^a	< 100	100	ug/l	5	05/18/23	05/23/23	LM	EPA 200.7 ¹

(1) Instrument QC Batch: MA19438

(2) Prep QC Batch: MP42262

(a) Sample dilution required due to difficult matrix.

RL = Reporting Limit

4.2
4

Report of Analysis

Page 1 of 1

Client Sample ID:	RM 1.5-KENAI CITY DOCK	Date Sampled:	05/03/23
Lab Sample ID:	FC5912-3	Date Received:	05/09/23
Matrix:	AQ - Water	Percent Solids:	n/a
Project:	1231846		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium ^a	291000	5000	ug/l	5	05/18/23	05/23/23	LM	EPA 200.7 ¹
Copper ^a	< 130	130	ug/l	5	05/18/23	05/23/23	LM	EPA 200.7 ¹
Iron ^a	12200	1500	ug/l	5	05/18/23	05/23/23	LM	EPA 200.7 ¹
Magnesium ^a	906000	25000	ug/l	5	05/18/23	05/23/23	LM	EPA 200.7 ¹
Zinc ^a	< 100	100	ug/l	5	05/18/23	05/23/23	LM	EPA 200.7 ¹

(1) Instrument QC Batch: MA19438

(2) Prep QC Batch: MP42262

(a) Sample dilution required due to difficult matrix.

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	RM 6.5-CUNNINGHAM PARK	Date Sampled:	05/03/23
Lab Sample ID:	FC5912-4	Date Received:	05/09/23
Matrix:	AQ - Water	Percent Solids:	n/a
Project:	1231846		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	13700	1000	ug/l	1	05/18/23	05/22/23 LM	EPA 200.7 ¹	EPA 200.7 ²
Copper	< 25	25	ug/l	1	05/18/23	05/22/23 LM	EPA 200.7 ¹	EPA 200.7 ²
Iron	13800	300	ug/l	1	05/18/23	05/22/23 LM	EPA 200.7 ¹	EPA 200.7 ²
Magnesium	6780	5000	ug/l	1	05/18/23	05/22/23 LM	EPA 200.7 ¹	EPA 200.7 ²
Zinc	41.3	20	ug/l	1	05/18/23	05/22/23 LM	EPA 200.7 ¹	EPA 200.7 ²

(1) Instrument QC Batch: MA19432

(2) Prep QC Batch: MP42262

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	RM 10-BEAVER CREEK	Date Sampled:	05/03/23
Lab Sample ID:	FC5912-5	Date Received:	05/09/23
Matrix:	AQ - Water	Percent Solids:	n/a
Project:	1231846		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	8440	1000	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Copper	< 25	25	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Iron	8630	300	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Magnesium	< 5000	5000	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Zinc	< 20	20	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹

(1) Instrument QC Batch: MA19432

(2) Prep QC Batch: MP42262

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	RM 12.5-PILLARS	Date Sampled:	05/03/23
Lab Sample ID:	FC5912-6	Date Received:	05/09/23
Matrix:	AQ - Water	Percent Solids:	n/a
Project:	1231846		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	11000	1000	ug/l	1	05/18/23	05/22/23 LM	EPA 200.7 ¹	EPA 200.7 ²
Copper	< 25	25	ug/l	1	05/18/23	05/22/23 LM	EPA 200.7 ¹	EPA 200.7 ²
Iron	2020	300	ug/l	1	05/18/23	05/22/23 LM	EPA 200.7 ¹	EPA 200.7 ²
Magnesium	< 5000	5000	ug/l	1	05/18/23	05/22/23 LM	EPA 200.7 ¹	EPA 200.7 ²
Zinc	< 20	20	ug/l	1	05/18/23	05/22/23 LM	EPA 200.7 ¹	EPA 200.7 ²

(1) Instrument QC Batch: MA19432

(2) Prep QC Batch: MP42262

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	RM 18-POACHER'S COVE	Date Sampled:	05/03/23
Lab Sample ID:	FC5912-7	Date Received:	05/09/23
Matrix:	AQ - Water	Percent Solids:	n/a
Project:	1231846		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	11400	1000	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Copper	< 25	25	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Iron	1890	300	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Magnesium	< 5000	5000	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Zinc	< 20	20	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹

(1) Instrument QC Batch: MA19432

(2) Prep QC Batch: MP42262

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	RM 19-SLIKOK CREEK	Date Sampled:	05/03/23
Lab Sample ID:	FC5912-8	Date Received:	05/09/23
Matrix:	AQ - Water	Percent Solids:	n/a
Project:	1231846		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	5510	1000	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Copper	< 25	25	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Iron	1210	300	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Magnesium	< 5000	5000	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Zinc	< 20	20	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹

(1) Instrument QC Batch: MA19432

(2) Prep QC Batch: MP42262

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	RM 21-SOLDOTNA BRIDGE	Date Sampled:	05/03/23
Lab Sample ID:	FC5912-9	Date Received:	05/09/23
Matrix:	AQ - Water	Percent Solids:	n/a
Project:	1231846		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	10600	1000	ug/l	1	05/18/23	05/22/23 LM	EPA 200.7 ¹	EPA 200.7 ²
Copper	< 25	25	ug/l	1	05/18/23	05/22/23 LM	EPA 200.7 ¹	EPA 200.7 ²
Iron	1560	300	ug/l	1	05/18/23	05/22/23 LM	EPA 200.7 ¹	EPA 200.7 ²
Magnesium	< 5000	5000	ug/l	1	05/18/23	05/22/23 LM	EPA 200.7 ¹	EPA 200.7 ²
Zinc	< 20	20	ug/l	1	05/18/23	05/22/23 LM	EPA 200.7 ¹	EPA 200.7 ²

(1) Instrument QC Batch: MA19432

(2) Prep QC Batch: MP42262

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	RM 22-SOLDOTNA CREEK	Date Sampled:	05/02/23
Lab Sample ID:	FC5912-10	Date Received:	05/09/23
Matrix:	AQ - Water	Percent Solids:	n/a
Project:	1231846		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	10400	1000	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Copper	< 25	25	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Iron	1330	300	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Magnesium	< 5000	5000	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Zinc	< 20	20	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹

(1) Instrument QC Batch: MA19432

(2) Prep QC Batch: MP42262

RL = Reporting Limit

4.10

4

Report of Analysis

Page 1 of 1

Client Sample ID:	RM 23-SWIFTWATER PARK	Date Sampled:	05/02/23
Lab Sample ID:	FC5912-11	Date Received:	05/09/23
Matrix:	AQ - Water	Percent Solids:	n/a
Project:	1231846		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	15400	1000	ug/l	1	05/18/23	05/22/23 LM	EPA 200.7 ¹	EPA 200.7 ²
Copper	< 25	25	ug/l	1	05/18/23	05/22/23 LM	EPA 200.7 ¹	EPA 200.7 ²
Iron	327	300	ug/l	1	05/18/23	05/22/23 LM	EPA 200.7 ¹	EPA 200.7 ²
Magnesium	5470	5000	ug/l	1	05/18/23	05/22/23 LM	EPA 200.7 ¹	EPA 200.7 ²
Zinc	< 20	20	ug/l	1	05/18/23	05/22/23 LM	EPA 200.7 ¹	EPA 200.7 ²

(1) Instrument QC Batch: MA19432

(2) Prep QC Batch: MP42262

RL = Reporting Limit

4.11

4

Report of Analysis

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Client Sample ID:	RM 30-FUNNY RIVER	Date Sampled:	05/02/23
Lab Sample ID:	FC5912-12	Date Received:	05/09/23
Matrix:	AQ - Water	Percent Solids:	n/a
Project:	1231846		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	7600	1000	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Copper	< 25	25	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Iron	2690	300	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Magnesium	< 5000	5000	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Zinc	< 20	20	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹

(1) Instrument QC Batch: MA19432

(2) Prep QC Batch: MP42262

RL = Reporting Limit

4.12
4

Report of Analysis

Page 1 of 1

Client Sample ID:	RM 31-MORGAN'S LANDING	Date Sampled:	05/02/23
Lab Sample ID:	FC5912-13	Date Received:	05/09/23
Matrix:	AQ - Water	Percent Solids:	n/a
Project:	1231846		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	11900	1000	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Copper	< 25	25	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Iron	1110	300	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Magnesium	< 5000	5000	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Zinc	< 20	20	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹

(1) Instrument QC Batch: MA19432

(2) Prep QC Batch: MP42262

RL = Reporting Limit

4.13

4

Report of Analysis

Page 1 of 1

Client Sample ID:	RM 36-MOOSE RIVER	Date Sampled:	05/02/23
Lab Sample ID:	FC5912-14	Date Received:	05/09/23
Matrix:	AQ - Water	Percent Solids:	n/a
Project:	1231846		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	11800	1000	ug/l	1	05/18/23	05/22/23 LM	EPA 200.7 ¹	EPA 200.7 ²
Iron	2140	300	ug/l	1	05/18/23	05/22/23 LM	EPA 200.7 ¹	EPA 200.7 ²
Magnesium	< 5000	5000	ug/l	1	05/18/23	05/22/23 LM	EPA 200.7 ¹	EPA 200.7 ²

(1) Instrument QC Batch: MA19432

(2) Prep QC Batch: MP42262

RL = Reporting Limit

4.14

4

Report of Analysis

Page 1 of 1

Client Sample ID:	RM 36-MOOSE RIVER-DUP	Date Sampled:	05/02/23
Lab Sample ID:	FC5912-15	Date Received:	05/09/23
Matrix:	AQ - Water	Percent Solids:	n/a
Project:	1231846		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	11700	1000	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Iron	1770	300	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Magnesium	< 5000	5000	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹

(1) Instrument QC Batch: MA19432

(2) Prep QC Batch: MP42262

RL = Reporting Limit

4.15

4

Report of Analysis

Page 1 of 1

Client Sample ID:	RM 40-BING'S LANDING	Date Sampled:	05/02/23
Lab Sample ID:	FC5912-16	Date Received:	05/09/23
Matrix:	AQ - Water	Percent Solids:	n/a
Project:	1231846		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	10800	1000	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Iron	757	300	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Magnesium	< 5000	5000	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹

(1) Instrument QC Batch: MA19432

(2) Prep QC Batch: MP42262

RL = Reporting Limit

4.16

4

Report of Analysis

Page 1 of 1

Client Sample ID:	RM 44-MOUTH OF KILLEY RIVER	Date Sampled:	05/02/23
Lab Sample ID:	FC5912-17	Date Received:	05/09/23
Matrix:	AQ - Water	Percent Solids:	n/a
Project:	1231846		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	8850	1000	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Iron	2070	300	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Magnesium	< 5000	5000	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹

(1) Instrument QC Batch: MA19432

(2) Prep QC Batch: MP42262

RL = Reporting Limit

4.17

4

Report of Analysis

Page 1 of 1

Client Sample ID:	RM 50-SKILAK LAKE OUTFLOW	Date Sampled:	05/02/23
Lab Sample ID:	FC5912-18	Date Received:	05/09/23
Matrix:	AQ - Water	Percent Solids:	n/a
Project:	1231846		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	8370	1000	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Iron	316	300	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Magnesium	< 5000	5000	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹

(1) Instrument QC Batch: MA19432

(2) Prep QC Batch: MP42262

RL = Reporting Limit

4.18

4

Report of Analysis

Page 1 of 1

Client Sample ID:	RM 70-JIM'S LANDING	Date Sampled:	05/02/23
Lab Sample ID:	FC5912-19	Date Received:	05/09/23
Matrix:	AQ - Water	Percent Solids:	n/a
Project:	1231846		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	19100	1000	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Iron	< 300	300	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹
Magnesium	< 5000	5000	ug/l	1	05/18/23	05/22/23	LM	EPA 200.7 ¹

(1) Instrument QC Batch: MA19432

(2) Prep QC Batch: MP42262

RL = Reporting Limit

4.19

4

Report of Analysis

Page 1 of 1

Client Sample ID:	RM 74-RUSSIAN RIVER	Date Sampled:	05/02/23
Lab Sample ID:	FC5912-20	Date Received:	05/09/23
Matrix:	AQ - Water	Percent Solids:	n/a
Project:	1231846		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	24100	1000	ug/l	1	05/19/23	05/22/23	LM	SW846 6010D ¹
Iron	< 300	300	ug/l	1	05/19/23	05/22/23	LM	SW846 6010D ¹
Magnesium	< 5000	5000	ug/l	1	05/19/23	05/22/23	LM	SW846 6010D ¹

(1) Instrument QC Batch: MA19429

(2) Prep QC Batch: MP42269

RL = Reporting Limit

4.20
4

Report of Analysis

Page 1 of 1

Client Sample ID:	RM 82-KENAI LAKE BRIDGE	Date Sampled:	05/02/23
Lab Sample ID:	FC5912-21	Date Received:	05/09/23
Matrix:	AQ - Water	Percent Solids:	n/a
Project:	1231846		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	15300	1000	ug/l	1	05/19/23	05/22/23	LM	SW846 6010D ¹
Iron	< 300	300	ug/l	1	05/19/23	05/22/23	LM	SW846 6010D ¹
Magnesium	< 5000	5000	ug/l	1	05/19/23	05/22/23	LM	SW846 6010D ¹

(1) Instrument QC Batch: MA19429

(2) Prep QC Batch: MP42269

RL = Reporting Limit

4.21
4

Report of Analysis

Page 1 of 1

Client Sample ID:	RM 79.5-JUNEAU CREEK	Date Sampled:	05/02/23
Lab Sample ID:	FC5912-22	Date Received:	05/09/23
Matrix:	AQ - Water	Percent Solids:	n/a
Project:	1231846		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	20000	1000	ug/l	1	05/19/23	05/22/23	LM	SW846 6010D ¹
Iron	< 300	300	ug/l	1	05/19/23	05/22/23	LM	SW846 6010D ¹
Magnesium	< 5000	5000	ug/l	1	05/19/23	05/22/23	LM	SW846 6010D ¹

(1) Instrument QC Batch: MA19429

(2) Prep QC Batch: MP42269

RL = Reporting Limit

4.22
4

Report of Analysis

Page 1 of 1

Client Sample ID:	RM 0-NO NAME CREEK-FB	Date Sampled:	05/02/23
Lab Sample ID:	FC5912-23	Date Received:	05/09/23
Matrix:	AQ - Field Blank Water	Percent Solids:	n/a
Project:	1231846		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	< 1000	1000	ug/l	1	05/19/23	05/22/23	LM	SW846 6010D ¹
Iron	< 300	300	ug/l	1	05/19/23	05/22/23	LM	SW846 6010D ¹
Magnesium	< 5000	5000	ug/l	1	05/19/23	05/22/23	LM	SW846 6010D ¹

(1) Instrument QC Batch: MA19429

(2) Prep QC Batch: MP42269

RL = Reporting Limit

4.23

4

Report of Analysis

Page 1 of 1

Client Sample ID:	RM 12.5-PILLARS-FIELD BLANK	Date Sampled:	05/02/23
Lab Sample ID:	FC5912-24	Date Received:	05/09/23
Matrix:	AQ - Field Blank Water	Percent Solids:	n/a
Project:	1231846		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Calcium	10700	1000	ug/l	1	05/19/23	05/22/23	LM	SW846 6010D ¹
Iron	1920	300	ug/l	1	05/19/23	05/22/23	LM	SW846 6010D ¹
Magnesium	< 5000	5000	ug/l	1	05/19/23	05/22/23	LM	SW846 6010D ¹

(1) Instrument QC Batch: MA19429

(2) Prep QC Batch: MP42269

RL = Reporting Limit

4.24

4

Misc. Forms**5****Custody Documents and Other Forms**

Includes the following where applicable:

- Chain of Custody

SGS North America Inc.
CHAIN OF CUSTODY RECORD

FC5912



Locations Nationwide
 Alaska Florida
 New Jersey Colorado
 Texas North Carolina
 Virginia Louisiana
www.us.sgs.com

CLIENT: SGS North America Inc. - Alaska Division					SGS Reference: SGS Orlando, FL						Page 1 of 3			
CONTACT: Justin Nelson PHONE NO: (907) 562-2343					Additional Comments: All soils report out in dry weight unless									
PROJECT NAME:		PWSID#: NPDL#:				#	Preserv- ative Used:	HNO ₃	HNO ₃	HNO ₃	HNO ₃	HNO ₃		
REPORTS TO: Justin.Nelson		E-MAIL: Justin.Nelson@sgs.com Env_Alaska.ReflabTeam@sgs.com				C	C = COMP G = GRAB M = Multi Intra- mental Soils	Calcium by 200.7	Iron by 200.7	Magnesium by 200.7	Zinc by 200.7	Copper by 200.7		
INVOICE TO: SGS - Alaska		QUOTE #:		env.alaska.accounting@sgs.com		P.O. #:	1231846							
RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HHMM	MATRIX/ MATRIX CODE									SGS lab #	Location ID
1	RM 0 - No Name Creek	05/03/2023	10:30:00	Water	1		X	X	X	X	X	X	1231846001	
2	RM 1.5 - Kenai City Dock - DUP	05/03/2023	13:37:00	Water	1		X	X	X	X	X	X	1231846002	
3	RM 1.5 - Kenai City Dock	05/03/2023	13:53:00	Water	1		X	X	X	X	X	X	1231846003	
4	RM 6.5 - Cunningham Park	05/03/2023	09:22:00	Water	1		X	X	X	X	X	X	1231846004	
5	RM 10 - Beaver Creek	05/03/2023	10:05:00	Water	1		X	X	X	X	X	X	1231846005	
6	RM 12.5 Pillars	05/03/2023	08:32:00	Water	1		X	X	X	X	X	X	1231846006	
7	RM 18 - Poacher's Cove	05/03/2023	09:24:00	Water	1		X	X	X	X	X	X	1231846007	
8	RM 19 - Silikok Creek	05/03/2023	08:47:00	Water	1		X	X	X	X	X	X	1231846008	
9	RM 21 - Soldotna Bridge	05/03/2023	09:27:00	Water	1		X	X	X	X	X	X	1231846009	
10	RM 22 - Soldotna Creek	05/02/2023	09:49:00	Water	1		X	X	X	X	X	X	1231846010	
Relinquished By: (1)		Date 5/8	Time 12pm	Received By:			DOD Project? Report to DL (J Flags)? If J-Report as DL/LOD/LQ.		NO NO		Data Deliverable Requirements: Level 2 + SGS EDD			
Relinquished By: (2)		Date 5/14/23	Time 9:30	Received By:			Cooler ID: Requested Turnaround Time and-or Special Instructions:							
Relinquished By: (3)		Date	Time	Received By:			Temp Blank °C:		Chain of Custody Seal: (Circle)					
Relinquished By: (4)		Date	Time	Received For Laboratory By:			or Ambient []		INTACT BROKEN ABSENT					

[X 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
 [] 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

http://www.sgs.com/terms_and_conditions.htm

INITIAL ASSESSMENT 208

LABEL VERIFICATION _____

F088_CO_COC_REF_LAB_20190411

208° No ICE

REVIEWED 10/6/22

FC5912: Chain of Custody
 Page 1 of 4

SGS North America Inc.
CHAIN OF CUSTODY RECORD

FC5912



Locations Nationwide
 Alaska Florida
 New Jersey Colorado
 Texas North Carolina
 Virginia Louisiana
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CLIENT: SGS North America Inc. - Alaska Division					SGS Reference: SGS Orlando, FL						Page 2 of 3			
CONTACT: Justin Nelson PHONE NO: (907) 562-2343					Additional Comments: All soils report out in dry weight unless									
PROJECT NAME: 1231846		PWSID#: _____		NPDL#:		#	Preserv- ative Used:	HNO3	HNO3	HNO3	HNO3	HNO3		
REPORTS TO: Justin.Nelson		E-MAIL: Justin.Nelson@sgs.com		Env.Alaska.ReflabTeam@sgs.com		C	C = COMP G = GRAB M = Multi Incr- mental Soils	Calcium by 200.7	Iron by 200.7	Magnesium by 200.7	Zinc by 200.7	Copper by 200.7		SGS lab #
INVOICE TO: SGS - Alaska		QUOTE #:		env.alaska.accounting@sgs.com		P.O. #:	1231846							Location ID
RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HHMM	MATRIX/MATRIX CODE										
11	RM 23 - Swiftwater Park	05/02/2023	10:22:00	Water	1		X	X	X	X	X			1231846011
12	RM 30 - Funny River	05/02/2023	08:57:00	Water	1		X	X	X	X	X			1231846012
13	RM 31 - Morgan's Landing	05/02/2023	10:00:00	Water	1		X	X	X	X	X			1231846013
14	RM 36 - Moose River	05/02/2023	10:38:00	Water	1		X	X	X					1231846014
15	RM 36 - Moose River-DUP	05/02/2023	10:45:00	Water	1		X	X	X					1231846015
16	RM 40 - Bing's Landing	05/02/2023	07:13:00	Water	1		X	X	X					1231846016
17	RM 44 - Mouth of Kiley River	05/02/2023	10:12:00	Water	1		X	X	X					1231846018
18	RM 50 - Skilak Lake Outflow	05/02/2023	08:34:00	Water	1		X	X	X					1231846019
19	RM 70 - Jim's Landing	05/02/2023	11:11:00	Water	1		X	X	X					1231846020
20	RM 74 - Russian River	05/02/2023	10:30:00	Water	1		X	X	X					1231846021
Relinquished By: (1)		Date 5/8	Time 10AM	Received By:			DOD Project? NO			Data Deliverable Requirements:				
							Report to DL (J Flags)? NO			Level 2 + SGS EDD				
Relinquished By: (2)		Date 5/8/23	Time 9:30	Received By:			Cooler ID: Requested Turnaround Time and-or Special Instructions:							
Relinquished By: (3)		Date	Time	Received By:			Temp Blank °C:			Chain of Custody Seal: (Circle)				
Relinquished By: (4)		Date	Time	Received For Laboratory By:			or Ambient []			INTACT BROKEN ABSENT				

[X] 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301
 [] 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557

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F088_CO_COC_REF_LAB_20190411

FC5912: Chain of Custody
Page 2 of 4

SGS North America Inc.
CHAIN OF CUSTODY RECORD

FC5912



Locations Nationwide
 Alaska Florida
 New Jersey Colorado
 Texas North Carolina
 Virginia Louisiana
www.us.sgs.com

CLIENT: SGS North America Inc. - Alaska Division				SGS Reference: SGS Orlando, FL				Page 3 of 3																		
CONTACT: Justin Nelson PHONE NO: (907) 562-2343				Additional Comments: All soils report out in dry weight unless																						
PROJECT NAME: 1231846		PWSID#: NPDL#:		<table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <tr> <td>#</td> <td>Preserv- ative Used:</td> <td>HNO₃</td> <td>HNO₃</td> <td>HNO₃</td> <td></td> <td></td> <td></td> </tr> <tr> <td>C O N T A I N E R</td> <td>TYPE C = COMP G = GRAB M = Multi Incre- ment- al Soils</td> <td>Calcium by 200:7</td> <td>Iron by 200:7</td> <td>Magnesium by 200:7</td> <td></td> <td></td> <td></td> </tr> </table>	#	Preserv- ative Used:	HNO ₃	HNO ₃	HNO ₃				C O N T A I N E R	TYPE C = COMP G = GRAB M = Multi Incre- ment- al Soils	Calcium by 200:7	Iron by 200:7	Magnesium by 200:7									
#	Preserv- ative Used:	HNO ₃	HNO ₃		HNO ₃																					
C O N T A I N E R	TYPE C = COMP G = GRAB M = Multi Incre- ment- al Soils	Calcium by 200:7	Iron by 200:7		Magnesium by 200:7																					
REPORTS TO: Justin.Nelson		E-MAIL: Justin.Nelson@sgs.com Env.Alaska.ReflabTeam@sgs.com																								
INVOICE TO: SGS - Alaska env.alaska.accounting@sgs.com		QUOTE #: P.O. #: 1231846																								
RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HHMM		MATRIX/ MATRIX CODE					SGS lab #	Location ID															
✓	RM 82 - Kenai Lake Bridge	05/02/2023	08:35:00	Water	1	X	X	X	1231846022																	
✓	RM 79.5 - Juneau Creek	05/02/2023	09:35:00	Water	1	X	X	X	1231846023																	
✓	RM 0 - No Name Creek-FB	05/02/2023	10:30:00	Water	1	X	X	X	1231846024																	
✓	RM 12.5 - Pillars - FieldBlank	05/02/2023	08:32:00	Water	1	X	X	X	1231846025																	
Relinquished By: (1)		Date 5/8	Time 10AM	Received By:			DOD Project? NO	Data Deliverable Requirements:																		
					Report to DL (J Flags)? NO			Level 2 + SGS EDD																		
Relinquished By: (2)		Date 5/10/23	Time 9:20	Received By:			Cooler ID: Requested Turnaround Time and-or Special Instructions:																			
Relinquished By: (3)		Date	Time	Received By:			Temp Blank °C:		Chain of Custody Seal: (Circle)																	
							or Ambient []		INTACT	BROKEN	ABSENT															
<input checked="" type="checkbox"/> 200 W. Potter Drive Anchorage, AK 99518 Tel: (907) 562-2343 Fax: (907) 561-5301 <input type="checkbox"/> 5500 Business Drive Wilmington, NC 28405 Tel: (910) 350-1903 Fax: (910) 350-1557											http://www.sgs.com/terms_and_conditions.htm															

REVIEWED _____

F088_CO_COC_REF_LAB_20190411

FC5912: Chain of Custody
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SGS Sample Receipt Summary

Job Number: <u>FC5912</u>	Client: <u>SGS AK</u>	Project: <u>1231846</u>
Date / Time Received: <u>5/9/2023 9:30:00 AM</u>	Delivery Method: <u>FX</u>	Airbill #'s: <u>642042694385</u>
Therm ID: IR 1; Therm CF: -0.1;		# of Coolers: <u>1</u>
Cooler Temps (Raw Measured) °C: Cooler 1: (20.8);		
Cooler Temps (Corrected) °C: Cooler 1: (20.7);		

<u>Cooler Information</u>		<u>Y</u> or <u>N</u>	<u>Sample Information</u>	<u>Y</u> or <u>N</u>	<u>N/A</u>
1. Custody Seals Present	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. Sample labels present on bottles	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Custody Seals Intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. Samples preserved properly	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Temp criteria achieved	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. Sufficient volume/containers recvd for analysis:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Cooler temp verification	<u>IR Gun</u>		4. Condition of sample	<u>Intact</u>	
5. Cooler media	<u>Ice (Bag)</u>		5. Sample recvd within HT	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>Trip Blank Information</u>		<u>Y</u> or <u>N</u>	6. Dates/Times/IDs on COC match Sample Label	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1. Trip Blank present / cooler	<input type="checkbox"/>	<input type="checkbox"/>	7. VOCs have headspace	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Trip Blank listed on COC	<input type="checkbox"/>	<input type="checkbox"/>	8. Bottles received for unspecified tests	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<u>W</u> or <u>S</u>	9. Compositing instructions clear	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Type Of TB Received	<input type="checkbox"/>	<input type="checkbox"/>	10. VOA Soil Kits/Jars received past 48hrs?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		<input checked="" type="checkbox"/>	11. % Solids Jar received?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
			12. Residual Chlorine Present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Misc. Information

Number of Enclos: 25-Gram _____ 5-Gram _____
 Test Strip Lot #: pH 0-3 _____ 230320
 Residual Chlorine Test Strip Lot #: _____

Number of 5035 Field Kits: _____
 pH 10-12 _____ 25BDH07

Number of Lab Filtered Metals: _____
 Other: (Specify) pH 1.0 - 12.0 _____ 222221

Comments COOLER RECEIVED AT 20.8C DUE TO NO ICE

SM001
Rev. Date 05/24/17

Technician: NATHANS Date: 5/9/2023 9:30:00 AM Reviewer: _____ Date: _____

FC5912: Chain of Custody
Page 4 of 4

Metals Analysis**QC Data Summaries**

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries



BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FC5912
Account: SGSAKA - SGS North America, Inc
Project: 1231846

QC Batch ID: MP42262
Matrix Type: AQUEOUS

Methods: EPA 200.7
Units: ug/l

Prep Date:

05/18/23

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	14	14		
Antimony	6.0	1	1		
Arsenic	10	1.3	1.3		
Barium	200	.5	1		
Beryllium	4.0	.1	.2		
Boron	100	5	10		
Cadmium	5.0	.1	.2		
Calcium	1000	50	50	7.3	<1000
Chromium	10	.5	1		
Cobalt	50	.2	.2		
Copper	25	1	1	-0.10	<25
Iron	300	15	17	2.7	<300
Lead	5.0	1	1.1		
Lithium	9.0	.5	1.3		
Magnesium	5000	35	35	-0.90	<5000
Manganese	15	.25	1		
Molybdenum	50	.3	.3		
Nickel	40	.4	.4		
Potassium	10000	100	200		
Selenium	10	2	2.9		
Silver	10	.5	.7		
Sodium	10000	250	500		
Strontium	10	.25	.5		
Thallium	10	1	1.4		
Tin	50	.5	1		
Titanium	10	.5	1		
Vanadium	50	.5	.6		
Zinc	20	3	4.4	0.50	<20

Associated samples MP42262: FC5912-1, FC5912-2, FC5912-3, FC5912-4, FC5912-5, FC5912-6, FC5912-7, FC5912-8, FC5912-9, FC5912-10, FC5912-11, FC5912-12, FC5912-13, FC5912-14, FC5912-15, FC5912-16, FC5912-17, FC5912-18, FC5912-19

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC5912
 Account: SGSAKA - SGS North America, Inc
 Project: 1231846

QC Batch ID: MP42262
 Matrix Type: AQUEOUS

Methods: EPA 200.7
 Units: ug/l

Prep Date: 05/18/23 05/18/23

Metal	FC5853-1 Original	DUP	RPD	QC Limits	FC5853-1 Original	MS	Spikelot MPFLICP2	% Rec	QC Limits
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium	anr								
Boron									
Cadmium	anr								
Calcium	25000	27400	9.2	0-20	25000	55700	25000	122.8	70-130
Chromium	anr								
Cobalt									
Copper	0.0	0.0	NC	0-20	0.0	128	250	51.2N(a)	70-130
Iron	11500	12500	8.3	0-20	11500	42000	26000	117.3	70-130
Lead	anr								
Lithium									
Magnesium	9380	10300	9.3	0-20	9380	38400	25000	116.1	70-130
Manganese									
Molybdenum									
Nickel	anr								
Potassium									
Selenium									
Silver	anr								
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc	704	762	7.9	0-20	704	1310	500	121.2	70-130

Associated samples MP42262: FC5912-1, FC5912-2, FC5912-3, FC5912-4, FC5912-5, FC5912-6, FC5912-7, FC5912-8, FC5912-9, FC5912-10, FC5912-11, FC5912-12, FC5912-13, FC5912-14, FC5912-15, FC5912-16, FC5912-17, FC5912-18, FC5912-19

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike recovery indicates possible matrix interference.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC5912
 Account: SGSAKA - SGS North America, Inc
 Project: 1231846

QC Batch ID: MP42262
 Matrix Type: AQUEOUS

Methods: EPA 200.7
 Units: ug/l

Prep Date: 05/18/23

Metal	FC5853-1 Original	MSD	Spikelot MPFLICP2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic						
Barium						
Beryllium	anr					
Boron						
Cadmium	anr					
Calcium	25000	53700	25000	114.8	3.7	20
Chromium	anr					
Cobalt						
Copper	0.0	167	250	66.8N(a)	26.4 (b)	20
Iron	11500	40900	26000	113.1	2.7	20
Lead	anr					
Lithium						
Magnesium	9380	37200	25000	111.3	3.2	20
Manganese						
Molybdenum						
Nickel	anr					
Potassium						
Selenium						
Silver	anr					
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc	704	1260	500	111.2	3.9	20

Associated samples MP42262: FC5912-1, FC5912-2, FC5912-3, FC5912-4, FC5912-5, FC5912-6, FC5912-7, FC5912-8, FC5912-9, FC5912-10, FC5912-11, FC5912-12, FC5912-13, FC5912-14, FC5912-15, FC5912-16, FC5912-17, FC5912-18, FC5912-19

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike recovery indicates possible matrix interference.

(b) High RPD indicates possible matrix interference.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FC5912
 Account: SGSAKA - SGS North America, Inc
 Project: 1231846

QC Batch ID: MP42262
 Matrix Type: AQUEOUS

Methods: EPA 200.7
 Units: ug/l

Prep Date: 05/18/23

Metal	BSP Result	Spikelot MPFLICP2	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium	26500	25000	106.0	85-115
Chromium	anr			
Cobalt				
Copper	255	250	102.0	85-115
Iron	27400	26000	105.4	85-115
Lead	anr			
Lithium				
Magnesium	26500	25000	106.0	85-115
Manganese				
Molybdenum				
Nickel	anr			
Potassium				
Selenium				
Silver	anr			
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc	530	500	106.0	85-115

Associated samples MP42262: FC5912-1, FC5912-2, FC5912-3, FC5912-4, FC5912-5, FC5912-6, FC5912-7, FC5912-8, FC5912-9, FC5912-10, FC5912-11, FC5912-12, FC5912-13, FC5912-14, FC5912-15, FC5912-16, FC5912-17, FC5912-18, FC5912-19

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FC5912
 Account: SGSAKA - SGS North America, Inc
 Project: 1231846

QC Batch ID: MP42262
 Matrix Type: AQUEOUS

Methods: EPA 200.7
 Units: ug/l

Prep Date: 05/18/23

Metal	FC5853-1 Original	SDL 5:25	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium	25000	24900	0.5	0-10
Chromium	anr			
Cobalt				
Copper	0.00	0.00	NC	0-10
Iron	11500	11200	1.8	0-10
Lead	anr			
Lithium				
Magnesium	9380	9250	1.4	0-10
Manganese				
Molybdenum				
Nickel	anr			
Potassium				
Selenium				
Silver	anr			
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc	704	688	2.2	0-10

Associated samples MP42262: FC5912-1, FC5912-2, FC5912-3, FC5912-4, FC5912-5, FC5912-6, FC5912-7, FC5912-8, FC5912-9, FC5912-10, FC5912-11, FC5912-12, FC5912-13, FC5912-14, FC5912-15, FC5912-16, FC5912-17, FC5912-18, FC5912-19

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

POST DIGESTATE SPIKE SUMMARY

Login Number: FC5912
 Account: SGSAKA - SGS North America, Inc
 Project: 1231846

QC Batch ID: MP42262
 Matrix Type: AQUEOUS

Methods: EPA 200.7
 Units: ug/l

Prep Date:

05/18/23

Metal	Sample ml	Final ml	FC5853-1 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Boron										
Cadmium										
Calcium	9.8	10	24980	24480.4	32520	0.2	250	5000	160.8*(a)	85-115
Chromium										
Cobalt										
Copper	9.8	10			105.8	0.2	5	100	105.8	85-115
Iron	9.8	10	11450	11221	15560	0.2	150	3000	144.6*(a)	85-115
Lead										
Lithium										
Magnesium	9.8	10	9380	9192.4	15680	0.2	250	5000	129.8*(a)	85-115
Manganese										
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc	9.8	10	703.8	689.724	1023	0.2	12.5	250	133.3*(a)	85-115

Associated samples MP42262: FC5912-1, FC5912-2, FC5912-3, FC5912-4, FC5912-5, FC5912-6, FC5912-7, FC5912-8, FC5912-9, FC5912-10, FC5912-11, FC5912-12, FC5912-13, FC5912-14, FC5912-15, FC5912-16, FC5912-17, FC5912-18, FC5912-19

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(**) Corr. sample result = Raw * (sample volume / final volume)

(anr) Analyte not requested

(a) Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FC5912
Account: SGSAKA - SGS North America, Inc
Project: 1231846

QC Batch ID: MP42269
Matrix Type: AQUEOUS

Methods: SW846 6010D
Units: ug/l

Prep Date: 05/19/23 05/19/23

Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Aluminum	200	14	14				
Antimony	6.0	1	1				
Arsenic	10	1.3	1.3				
Barium	200	.5	1				
Beryllium	4.0	.1	.2				
Boron	100	5	10				
Cadmium	5.0	.1	.2				
Calcium	1000	50	50	10.8	<1000	22.9	<1000
Chromium	10	.5	1				
Cobalt	50	.2	.2				
Copper	25	1	1				
Iron	300	15	17	6.6	<300	4.1	<300
Lead	5.0	1	1.1				
Lithium	10	.5	1.3				
Magnesium	5000	35	35	-0.80	<5000	-19	<5000
Manganese	15	.25	1				
Molybdenum	50	.3	.3				
Nickel	40	.4	.4				
Potassium	10000	100	200				
Selenium	10	2	2.9				
Silver	10	.5	.7				
Sodium	10000	250	500				
Strontium	10	.25	.5				
Thallium	10	1	1.4				
Tin	50	.5	1				
Titanium	10	.5	1				
Vanadium	50	.5	.6				
Zinc	20	3	4.4				

Associated samples MP42269: FC5912-20, FC5912-21, FC5912-22, FC5912-23, FC5912-24

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits
(anr) Analyte not requested

6.2.1
6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC5912
 Account: SGSAKA - SGS North America, Inc
 Project: 1231846

QC Batch ID: MP42269
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date: 05/19/23 05/19/23

Metal	FC5887-23 Original DUP	RPD	QC Limits	FC5887-23 Original MS	Spikelot MPFLICP2	% Rec	QC Limits
Aluminum							
Antimony							
Arsenic	anr						
Barium	anr						
Beryllium	anr						
Boron							
Cadmium	anr						
Calcium	59900	61700	3.0	0-20	59900	88000	25000
Chromium	anr						
Cobalt							
Copper							
Iron	29000	29300	1.0	0-20	29000	56600	26000
Lead	anr						
Lithium							
Magnesium	7160	7370	2.9	0-20	7160	33800	25000
Manganese	anr						
Molybdenum							
Nickel	anr						
Potassium							
Selenium	anr						
Silver	anr						
Sodium	anr						
Strontium							
Thallium							
Tin							
Titanium							
Vanadium							
Zinc	anr						

Associated samples MP42269: FC5912-20, FC5912-21, FC5912-22, FC5912-23, FC5912-24

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

6.2.2
6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FC5912
 Account: SGSAKA - SGS North America, Inc
 Project: 1231846

QC Batch ID: MP42269
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date: 05/19/23

Metal	FC5887-23 Original MSD	Spikelot MPFLICP2	MSD % Rec	MSD RPD	QC Limit
Aluminum					
Antimony					
Arsenic	anr				
Barium	anr				
Beryllium	anr				
Boron					
Cadmium	anr				
Calcium	59900	89300	25000	117.6	1.5
Chromium	anr				
Cobalt					
Copper					
Iron	29000	57100	26000	108.1	0.9
Lead	anr				
Lithium					
Magnesium	7160	33800	25000	106.6	0.0
Manganese	anr				
Molybdenum					
Nickel	anr				
Potassium					
Selenium	anr				
Silver	anr				
Sodium	anr				
Strontium					
Thallium					
Tin					
Titanium					
Vanadium					
Zinc	anr				

Associated samples MP42269: FC5912-20, FC5912-21, FC5912-22, FC5912-23, FC5912-24

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

6.2.2
6

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FC5912
 Account: SGSAKA - SGS North America, Inc
 Project: 1231846

QC Batch ID: MP42269
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date: 05/19/23

Metal	BSP Result	Spikelot MPFLICP2	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium	27200	25000	108.8	80-120
Chromium	anr			
Cobalt				
Copper				
Iron	27500	26000	105.8	80-120
Lead	anr			
Lithium				
Magnesium	26700	25000	106.8	80-120
Manganese	anr			
Molybdenum				
Nickel	anr			
Potassium				
Selenium	anr			
Silver	anr			
Sodium	anr			
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP42269: FC5912-20, FC5912-21, FC5912-22, FC5912-23, FC5912-24

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits
 (anr) Analyte not requested

6.2.3
 6

SERIAL DILUTION RESULTS SUMMARY

Login Number: FC5912
 Account: SGSAKA - SGS North America, Inc
 Project: 1231846

QC Batch ID: MP42269
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date: 05/19/23

Metal	FC5887-23 Original	SDL 1:1	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium	59900	11600	80.6*(a)	0-10
Chromium	anr			
Cobalt				
Copper				
Iron	29000	5660	80.5*(a)	0-10
Lead	anr			
Lithium				
Magnesium	7160	1400	80.4*(a)	0-10
Manganese	anr			
Molybdenum				
Nickel	anr			
Potassium				
Selenium	anr			
Silver	anr			
Sodium	anr			
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP42269: FC5912-20, FC5912-21, FC5912-22, FC5912-23, FC5912-24

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Serial dilution indicates possible matrix interference.

POST DIGESTATE SPIKE SUMMARY

Login Number: FC5912
 Account: SGSAKA - SGS North America, Inc
 Project: 1231846

QC Batch ID: MP42269
 Matrix Type: AQUEOUS

Methods: SW846 6010D
 Units: ug/l

Prep Date:

05/19/23

Metal	Sample ml	Final ml	FC5887-23 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Boron										
Cadmium										
Calcium	9.8	10	59900	58702	64020	0.2	250	5000	106.4	80-120
Chromium										
Cobalt										
Copper										
Iron	9.8	10	29040	28459.2	31590	0.2	150	3000	104.4	80-120
Lead										
Lithium										
Magnesium	9.8	10	7163	7019.74	12380	0.2	250	5000	107.2	80-120
Manganese										
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP42269: FC5912-20, FC5912-21, FC5912-22, FC5912-23, FC5912-24

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(**) Corr. sample result = Raw * (sample volume / final volume)

(anr) Analyte not requested

6.2.5

6