

## Laboratory Report of Analysis

To: ADEC-Air & Water Quality  
555 Cordova St  
Anchorage, AK 99501  
907-741-1026

Report Number: **1224937**

Client Project: **Kenai River Metals Monitoring**

Dear Sarah Apsens,

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.

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Justin Nelson  
Project Manager  
Justin.Nelson@sgs.com

Date

### Case Narrative

SGS Client: **ADEC-Air & Water Quality**  
SGS Project: **1224937**  
Project Name/Site: **Kenai River Metals Monitoring**  
Project Contact: **Sarah Apsens**

Refer to sample receipt form for information on sample condition.

**1224920001(1680703MS) (1680708) MS**

200.8 - Metals MS recovery for Nickel does not meet QC criteria. Sample is nonhomogeneous.

**1224899001DUP (1681118) DUP**

2540C - Total Dissolved Solids - Sample duplicate RPD was outside of acceptance limits. Refer to LCS/LCSD RPD for batch precision.

**1224899002DUP (1681119) DUP**

2540C - Total Dissolved Solids - Sample duplicate RPD was outside of acceptance limits. Refer to LCS/LCSD RPD for batch precision.

\*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 (DW Chemistry & Microbiology) & 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 76	1224937001	08/17/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 19	1224937002	08/16/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 5	1224937003	08/16/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 23	1224937004	08/16/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 23 DUP	1224937005	08/16/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 31	1224937006	08/17/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 31 DUP	1224937007	08/17/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 40	1224937008	08/17/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 70	1224937009	08/17/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 20.75	1224937010	08/16/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 21.1	1224937011	08/16/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 12.75	1224937012	08/15/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 12.75 DUP	1224937013	08/15/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 21	1224937014	08/16/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 21 DUP	1224937015	08/16/2022	08/18/2022	Water (Surface, Eff., Ground)
Field Blank	1224937016	08/15/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 19.1	1224937017	08/15/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 10.1	1224937018	08/15/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 76	1224937019	08/17/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 19	1224937020	08/16/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 5	1224937021	08/16/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 23	1224937022	08/16/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 23 DUP	1224937023	08/16/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 31	1224937024	08/17/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 31 DUP	1224937025	08/17/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 40	1224937026	08/17/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 70	1224937027	08/17/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 20.75	1224937028	08/16/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 21.1	1224937029	08/16/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 12.75	1224937030	08/15/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 12.75 DUP	1224937031	08/15/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 21	1224937032	08/16/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 21 DUP	1224937033	08/16/2022	08/18/2022	Water (Surface, Eff., Ground)
Field Blank	1224937034	08/15/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 19.1	1224937035	08/15/2022	08/18/2022	Water (Surface, Eff., Ground)
RM 10.1	1224937036	08/15/2022	08/18/2022	Water (Surface, Eff., Ground)

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### Sample Summary

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Collected</u>	<u>Received</u>	<u>Matrix</u>
<u>Method</u>	<u>Method Description</u>			
SM 5310B	Dissolved Organic Carbon			
SM21 2340B	Hardness as CaCO3 by ICP-MS			
EP200.8	Metals in Drinking Water by ICP-MS DISSO			
EP200.8	Metals in Water by 200.8 ICP-MS			
SM21 2540C	Total Dissolved Solids SM18 2540C			

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### Detectable Results Summary

Client Sample ID: **RM 76**  
 Lab Sample ID: 1224937001

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	17400	ug/L
Copper	7.39	ug/L
Hardness as CaCO3	48.4	mg/L
Magnesium	1220	ug/L
Zinc	50.3	ug/L

**Waters Department**

TOC Average, Dissolved	1.07	mg/L
Total Dissolved Solids	119	mg/L

Client Sample ID: **RM 19**  
 Lab Sample ID: 1224937002

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	19800	ug/L
Copper	4.94	ug/L
Hardness as CaCO3	69.7	mg/L
Magnesium	4920	ug/L
Zinc	69.9	ug/L

**Waters Department**

TOC Average, Dissolved	6.61	mg/L
Total Dissolved Solids	157	mg/L

Client Sample ID: **RM 5**  
 Lab Sample ID: 1224937003

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	14200	ug/L
Copper	7.73	ug/L
Hardness as CaCO3	44.0	mg/L
Magnesium	2100	ug/L
Zinc	70.1	ug/L

**Waters Department**

TOC Average, Dissolved	1.33	mg/L
Total Dissolved Solids	113	mg/L

Client Sample ID: **RM 23**  
 Lab Sample ID: 1224937004

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	14000	ug/L
Copper	4.13	ug/L
Hardness as CaCO3	39.7	mg/L
Magnesium	1150	ug/L
Zinc	60.8	ug/L

**Waters Department**

TOC Average, Dissolved	1.06	mg/L
Total Dissolved Solids	107	mg/L

Client Sample ID: **RM 23 DUP**  
 Lab Sample ID: 1224937005

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	13900	ug/L
Copper	3.76	ug/L
Hardness as CaCO3	39.4	mg/L
Magnesium	1140	ug/L
Zinc	44.3	ug/L

**Waters Department**

Total Dissolved Solids	104	mg/L
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### Detectable Results Summary

Client Sample ID: **RM 31**  
 Lab Sample ID: 1224937006

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	13600	ug/L
Copper	3.62	ug/L
Hardness as CaCO <sub>3</sub>	39.0	mg/L
Magnesium	1200	ug/L
Zinc	73.0	ug/L
Total Dissolved Solids	98.0	mg/L

**Waters Department**

Client Sample ID: **RM 31 DUP**  
 Lab Sample ID: 1224937007

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	13700	ug/L
Copper	3.23	ug/L
Hardness as CaCO <sub>3</sub>	39.3	mg/L
Magnesium	1220	ug/L
Zinc	73.2	ug/L
Total Dissolved Solids	47.0	mg/L

**Waters Department**

Client Sample ID: **RM 40**  
 Lab Sample ID: 1224937008

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	13300	ug/L
Copper	3.08	ug/L
Hardness as CaCO <sub>3</sub>	38.0	mg/L
Magnesium	1140	ug/L
Zinc	59.6	ug/L
Total Dissolved Solids	48.0	mg/L

**Waters Department**

Client Sample ID: **RM 70**  
 Lab Sample ID: 1224937009

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	17500	ug/L
Hardness as CaCO <sub>3</sub>	48.5	mg/L
Magnesium	1190	ug/L
Zinc	65.3	ug/L
Total Dissolved Solids	58.0	mg/L

**Waters Department**

Client Sample ID: **RM 20.75**  
 Lab Sample ID: 1224937010

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	13800	ug/L
Hardness as CaCO <sub>3</sub>	39.0	mg/L
Magnesium	1120	ug/L
Zinc	72.4	ug/L
Total Dissolved Solids	43.0	mg/L

**Waters Department**

### Detectable Results Summary

Client Sample ID: **RM 21.1**  
 Lab Sample ID: 1224937011

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	13800	ug/L
Hardness as CaCO <sub>3</sub>	39.0	mg/L
Magnesium	1130	ug/L
Zinc	108	ug/L
Total Dissolved Solids	51.0	mg/L

**Waters Department**

Client Sample ID: **RM 12.75**  
 Lab Sample ID: 1224937012

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	13900	ug/L
Hardness as CaCO <sub>3</sub>	39.4	mg/L
Magnesium	1130	ug/L
Zinc	49.5	ug/L
Total Dissolved Solids	46.0	mg/L

**Waters Department**

Client Sample ID: **RM 12.75 DUP**  
 Lab Sample ID: 1224937013

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	13700	ug/L
Hardness as CaCO <sub>3</sub>	39.0	mg/L
Magnesium	1130	ug/L
Zinc	59.8	ug/L
Total Dissolved Solids	51.0	mg/L

**Waters Department**

Client Sample ID: **RM 21**  
 Lab Sample ID: 1224937014

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	13600	ug/L
Hardness as CaCO <sub>3</sub>	38.6	mg/L
Magnesium	1110	ug/L
Zinc	62.7	ug/L
Total Dissolved Solids	51.0	mg/L

**Waters Department**

Client Sample ID: **RM 21 DUP**  
 Lab Sample ID: 1224937015

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	13500	ug/L
Hardness as CaCO <sub>3</sub>	38.3	mg/L
Magnesium	1110	ug/L
Zinc	81.3	ug/L
Total Dissolved Solids	43.0	mg/L

**Waters Department**

Client Sample ID: **Field Blank**  
 Lab Sample ID: 1224937016

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Zinc	123	ug/L



### Detectable Results Summary

Client Sample ID: **RM 19.1**  
 Lab Sample ID: 1224937017

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	13700	ug/L
Hardness as CaCO3	38.8	mg/L
Magnesium	1110	ug/L
Zinc	45.9	ug/L
Total Dissolved Solids	37.0	mg/L

**Waters Department**

Client Sample ID: **RM 10.1**  
 Lab Sample ID: 1224937018

**Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	13600	ug/L
Copper	15.2	ug/L
Hardness as CaCO3	38.9	mg/L
Magnesium	1190	ug/L
Zinc	59.5	ug/L
TOC Average, Dissolved	1.75	mg/L
Total Dissolved Solids	56.0	mg/L

**Waters Department**

Client Sample ID: **RM 76**  
 Lab Sample ID: 1224937019

**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	17300	ug/L
Magnesium	1160	ug/L
Potassium	531	ug/L
Sodium	1410	ug/L
Zinc	47.1	ug/L

Client Sample ID: **RM 19**  
 Lab Sample ID: 1224937020

**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	19900	ug/L
Magnesium	4810	ug/L
Potassium	1560	ug/L
Sodium	5290	ug/L
Zinc	50.3	ug/L

Client Sample ID: **RM 5**  
 Lab Sample ID: 1224937021

**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Aluminum	76.0	ug/L
Calcium	13800	ug/L
Magnesium	1250	ug/L
Potassium	974	ug/L
Sodium	3690	ug/L
Zinc	39.0	ug/L

### Detectable Results Summary

Client Sample ID: **RM 23**

Lab Sample ID: 1224937022

**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Aluminum	32.1	ug/L
Calcium	13900	ug/L
Magnesium	977	ug/L
Potassium	819	ug/L
Sodium	1410	ug/L
Zinc	52.8	ug/L

Client Sample ID: **RM 23 DUP**

Lab Sample ID: 1224937023

**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Aluminum	35.3	ug/L
Calcium	13900	ug/L
Magnesium	980	ug/L
Potassium	818	ug/L
Sodium	1410	ug/L
Zinc	30.9	ug/L

Client Sample ID: **RM 31**

Lab Sample ID: 1224937024

**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Aluminum	43.9	ug/L
Calcium	13500	ug/L
Magnesium	948	ug/L
Potassium	822	ug/L
Sodium	1360	ug/L
Zinc	31.6	ug/L

Client Sample ID: **RM 31 DUP**

Lab Sample ID: 1224937025

**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Aluminum	37.6	ug/L
Calcium	13400	ug/L
Magnesium	948	ug/L
Potassium	820	ug/L
Sodium	1340	ug/L
Zinc	39.6	ug/L

Client Sample ID: **RM 40**

Lab Sample ID: 1224937026

**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Aluminum	38.2	ug/L
Calcium	13300	ug/L
Magnesium	895	ug/L
Potassium	814	ug/L
Sodium	1280	ug/L
Zinc	36.6	ug/L

### Detectable Results Summary

Client Sample ID: **RM 70**  
 Lab Sample ID: 1224937027  
**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Calcium	17300	ug/L
Magnesium	1160	ug/L
Potassium	536	ug/L
Sodium	1390	ug/L
Zinc	51.4	ug/L

Client Sample ID: **RM 20.75**  
 Lab Sample ID: 1224937028  
**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Aluminum	31.8	ug/L
Calcium	13500	ug/L
Magnesium	960	ug/L
Potassium	803	ug/L
Sodium	1360	ug/L
Zinc	49.3	ug/L

Client Sample ID: **RM 21.1**  
 Lab Sample ID: 1224937029  
**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Aluminum	34.4	ug/L
Calcium	13600	ug/L
Magnesium	973	ug/L
Potassium	816	ug/L
Sodium	1370	ug/L
Zinc	47.8	ug/L

Client Sample ID: **RM 12.75**  
 Lab Sample ID: 1224937030  
**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Aluminum	29.7	ug/L
Calcium	13700	ug/L
Magnesium	973	ug/L
Potassium	814	ug/L
Sodium	1390	ug/L
Zinc	43.3	ug/L

Client Sample ID: **RM 12.75 DUP**  
 Lab Sample ID: 1224937031  
**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Aluminum	30.2	ug/L
Calcium	13700	ug/L
Magnesium	977	ug/L
Potassium	812	ug/L
Sodium	1380	ug/L
Zinc	49.7	ug/L



### Detectable Results Summary

Client Sample ID: **RM 21**

Lab Sample ID: 1224937032

**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Aluminum	30.8	ug/L
Calcium	13600	ug/L
Magnesium	975	ug/L
Potassium	816	ug/L
Sodium	1410	ug/L
Zinc	45.6	ug/L

Client Sample ID: **RM 21 DUP**

Lab Sample ID: 1224937033

**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Aluminum	33.5	ug/L
Calcium	13700	ug/L
Magnesium	966	ug/L
Potassium	813	ug/L
Sodium	1370	ug/L
Zinc	41.2	ug/L

Client Sample ID: **Field Blank**

Lab Sample ID: 1224937034

**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Zinc	58.9	ug/L

Client Sample ID: **RM 19.1**

Lab Sample ID: 1224937035

**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Aluminum	34.0	ug/L
Calcium	13800	ug/L
Magnesium	982	ug/L
Potassium	824	ug/L
Sodium	1500	ug/L
Zinc	39.2	ug/L

Client Sample ID: **RM 10.1**

Lab Sample ID: 1224937036

**Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result</u>	<u>Units</u>
Aluminum	28.2	ug/L
Calcium	13800	ug/L
Magnesium	977	ug/L
Potassium	820	ug/L
Sodium	1420	ug/L
Zinc	23.1	ug/L

Print Date: 09/14/2022 4:12:52PM

SGS North America Inc.

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Member of SGS Group



Results of **RM 76**

Client Sample ID: **RM 76**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937001  
Lab Project ID: 1224937

Collection Date: 08/17/22 09:23  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	17400	500	150	ug/L	1		08/25/22 14:14
Copper	7.39	3.00	1.00	ug/L	1		08/25/22 14:14
Magnesium	1220	50.0	15.0	ug/L	1		08/25/22 14:14
Zinc	50.3	10.0	3.10	ug/L	1		08/25/22 14:14

**Batch Information**

Analytical Batch: MMS11649	Prep Batch: MXX35382
Analytical Method: EP200.8	Prep Method: E200.2
Analyst: HGS	Prep Date/Time: 08/22/22 10:18
Analytical Date/Time: 08/25/22 14:14	Prep Initial Wt./Vol.: 20 mL
Container ID: 1224937001-D	Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	48.4	5.00	5.00	mg/L	1		08/25/22 14:14

**Batch Information**

Analytical Batch: MMS11649	Prep Batch: MXX35382
Analytical Method: SM21 2340B	Prep Method: E200.2
Analyst: HGS	Prep Date/Time: 08/22/22 10:18
Analytical Date/Time: 08/25/22 14:14	Prep Initial Wt./Vol.: 20 mL
Container ID: 1224937001-D	Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



**Results of RM 76**

Client Sample ID: **RM 76**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937001  
Lab Project ID: 1224937

Collection Date: 08/17/22 09:23  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.07	1.00	0.400	mg/L	1		09/04/22 23:21

**Batch Information**

Analytical Batch: WTC3222  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/04/22 23:21  
Container ID: 1224937001-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	119	10.0	3.10	mg/L	1		08/23/22 19:07

**Batch Information**

Analytical Batch: STS7367  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 08/23/22 19:07  
Container ID: 1224937001-C

Print Date: 09/14/2022 4:12:53PM

## Results of RM 19

Client Sample ID: **RM 19**  
 Client Project ID: **Kenai River Metals Monitoring**  
 Lab Sample ID: 1224937002  
 Lab Project ID: 1224937

Collection Date: 08/16/22 13:50  
 Received Date: 08/18/22 08:35  
 Matrix: Water (Surface, Eff., Ground)  
 Solids (%):  
 Location:

## Results by Metals by ICP/MS

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	19800	500	150	ug/L	1		08/25/22 14:17
Copper	4.94	3.00	1.00	ug/L	1		08/25/22 14:17
Magnesium	4920	50.0	15.0	ug/L	1		08/25/22 14:17
Zinc	69.9	10.0	3.10	ug/L	1		08/25/22 14:17

## Batch Information

Analytical Batch: MMS11649  
 Analytical Method: EP200.8  
 Analyst: HGS  
 Analytical Date/Time: 08/25/22 14:17  
 Container ID: 1224937002-D

Prep Batch: MXX35382  
 Prep Method: E200.2  
 Prep Date/Time: 08/22/22 10:18  
 Prep Initial Wt./Vol.: 20 mL  
 Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	69.7	5.00	5.00	mg/L	1		08/25/22 14:17

## Batch Information

Analytical Batch: MMS11649  
 Analytical Method: SM21 2340B  
 Analyst: HGS  
 Analytical Date/Time: 08/25/22 14:17  
 Container ID: 1224937002-D

Prep Batch: MXX35382  
 Prep Method: E200.2  
 Prep Date/Time: 08/22/22 10:18  
 Prep Initial Wt./Vol.: 20 mL  
 Prep Extract Vol: 50 mL



Results of **RM 19**

Client Sample ID: **RM 19**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937002  
Lab Project ID: 1224937

Collection Date: 08/16/22 13:50  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	6.61	1.00	0.400	mg/L	1		09/05/22 00:33

**Batch Information**

Analytical Batch: WTC3222  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/05/22 00:33  
Container ID: 1224937002-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	157	10.0	3.10	mg/L	1		08/23/22 19:07

**Batch Information**

Analytical Batch: STS7367  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 08/23/22 19:07  
Container ID: 1224937002-C

Print Date: 09/14/2022 4:12:53PM





Results of **RM 5**

Client Sample ID: **RM 5**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937003  
Lab Project ID: 1224937

Collection Date: 08/16/22 13:20  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	14200	500	150	ug/L	1		08/25/22 14:19
Copper	7.73	3.00	1.00	ug/L	1		08/25/22 14:19
Magnesium	2100	50.0	15.0	ug/L	1		08/25/22 14:19
Zinc	70.1	10.0	3.10	ug/L	1		08/25/22 14:19

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 08/25/22 14:19  
Container ID: 1224937003-D

Prep Batch: MXX35382  
Prep Method: E200.2  
Prep Date/Time: 08/22/22 10:18  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	44.0	5.00	5.00	mg/L	1		08/25/22 14:19

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: SM21 2340B  
Analyst: HGS  
Analytical Date/Time: 08/25/22 14:19  
Container ID: 1224937003-D

Prep Batch: MXX35382  
Prep Method: E200.2  
Prep Date/Time: 08/22/22 10:18  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



**Results of RM 5**

Client Sample ID: **RM 5**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937003  
Lab Project ID: 1224937

Collection Date: 08/16/22 13:20  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.33	1.00	0.400	mg/L	1		09/05/22 00:50

**Batch Information**

Analytical Batch: WTC3222  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/05/22 00:50  
Container ID: 1224937003-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	113	10.0	3.10	mg/L	1		08/23/22 19:07

**Batch Information**

Analytical Batch: STS7367  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 08/23/22 19:07  
Container ID: 1224937003-C

Print Date: 09/14/2022 4:12:53PM



Results of **RM 23**

Client Sample ID: **RM 23**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937004  
Lab Project ID: 1224937

Collection Date: 08/16/22 15:09  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	14000	500	150	ug/L	1		08/25/22 14:22
Copper	4.13	3.00	1.00	ug/L	1		08/25/22 14:22
Magnesium	1150	50.0	15.0	ug/L	1		08/25/22 14:22
Zinc	60.8	10.0	3.10	ug/L	1		08/25/22 14:22

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 08/25/22 14:22  
Container ID: 1224937004-D

Prep Batch: MXX35382  
Prep Method: E200.2  
Prep Date/Time: 08/22/22 10:18  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	39.7	5.00	5.00	mg/L	1		08/25/22 14:22

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: SM21 2340B  
Analyst: HGS  
Analytical Date/Time: 08/25/22 14:22  
Container ID: 1224937004-D

Prep Batch: MXX35382  
Prep Method: E200.2  
Prep Date/Time: 08/22/22 10:18  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



**Results of RM 23**

Client Sample ID: **RM 23**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937004  
Lab Project ID: 1224937

Collection Date: 08/16/22 15:09  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.06	1.00	0.400	mg/L	1		09/05/22 01:15

**Batch Information**

Analytical Batch: WTC3222  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/05/22 01:15  
Container ID: 1224937004-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	107	10.0	3.10	mg/L	1		08/23/22 19:07

**Batch Information**

Analytical Batch: STS7367  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 08/23/22 19:07  
Container ID: 1224937004-C

Print Date: 09/14/2022 4:12:53PM



Results of **RM 23 DUP**

Client Sample ID: **RM 23 DUP**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937005  
Lab Project ID: 1224937

Collection Date: 08/16/22 15:09  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	13900	500	150	ug/L	1		08/25/22 14:25
Copper	3.76	3.00	1.00	ug/L	1		08/25/22 14:25
Magnesium	1140	50.0	15.0	ug/L	1		08/25/22 14:25
Zinc	44.3	10.0	3.10	ug/L	1		08/25/22 14:25

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 08/25/22 14:25  
Container ID: 1224937005-D

Prep Batch: MXX35382  
Prep Method: E200.2  
Prep Date/Time: 08/22/22 10:18  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	39.4	5.00	5.00	mg/L	1		08/25/22 14:25

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: SM21 2340B  
Analyst: HGS  
Analytical Date/Time: 08/25/22 14:25  
Container ID: 1224937005-D

Prep Batch: MXX35382  
Prep Method: E200.2  
Prep Date/Time: 08/22/22 10:18  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



Results of **RM 23 DUP**

Client Sample ID: **RM 23 DUP**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937005  
Lab Project ID: 1224937

Collection Date: 08/16/22 15:09  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.00 U	1.00	0.400	mg/L	1		09/05/22 01:43

**Batch Information**

Analytical Batch: WTC3222  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/05/22 01:43  
Container ID: 1224937005-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	104	10.0	3.10	mg/L	1		08/23/22 19:07

**Batch Information**

Analytical Batch: STS7367  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 08/23/22 19:07  
Container ID: 1224937005-C

Print Date: 09/14/2022 4:12:53PM



Results of **RM 31**

Client Sample ID: **RM 31**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937006  
Lab Project ID: 1224937

Collection Date: 08/17/22 11:25  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	13600	500	150	ug/L	1		08/25/22 14:27
Copper	3.62	3.00	1.00	ug/L	1		08/25/22 14:27
Magnesium	1200	50.0	15.0	ug/L	1		08/25/22 14:27
Zinc	73.0	10.0	3.10	ug/L	1		08/25/22 14:27

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 08/25/22 14:27  
Container ID: 1224937006-D

Prep Batch: MXX35382  
Prep Method: E200.2  
Prep Date/Time: 08/22/22 10:18  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	39.0	5.00	5.00	mg/L	1		08/25/22 14:27

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: SM21 2340B  
Analyst: HGS  
Analytical Date/Time: 08/25/22 14:27  
Container ID: 1224937006-D

Prep Batch: MXX35382  
Prep Method: E200.2  
Prep Date/Time: 08/22/22 10:18  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



**Results of RM 31**

Client Sample ID: **RM 31**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937006  
Lab Project ID: 1224937

Collection Date: 08/17/22 11:25  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.00 U	1.00	0.400	mg/L	1		09/13/22 20:29

**Batch Information**

Analytical Batch: WTC3225  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/13/22 20:29  
Container ID: 1224937006-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	98.0	10.0	3.10	mg/L	1		08/23/22 19:07

**Batch Information**

Analytical Batch: STS7367  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 08/23/22 19:07  
Container ID: 1224937006-C

Print Date: 09/14/2022 4:12:53PM





Results of **RM 31 DUP**

Client Sample ID: **RM 31 DUP**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937007  
Lab Project ID: 1224937

Collection Date: 08/17/22 11:25  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	13700	500	150	ug/L	1		08/25/22 14:36
Copper	3.23	3.00	1.00	ug/L	1		08/25/22 14:36
Magnesium	1220	50.0	15.0	ug/L	1		08/25/22 14:36
Zinc	73.2	10.0	3.10	ug/L	1		08/25/22 14:36

**Batch Information**

Analytical Batch: MMS11649	Prep Batch: MXX35382
Analytical Method: EP200.8	Prep Method: E200.2
Analyst: HGS	Prep Date/Time: 08/22/22 10:18
Analytical Date/Time: 08/25/22 14:36	Prep Initial Wt./Vol.: 20 mL
Container ID: 1224937007-D	Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	39.3	5.00	5.00	mg/L	1		08/25/22 14:36

**Batch Information**

Analytical Batch: MMS11649	Prep Batch: MXX35382
Analytical Method: SM21 2340B	Prep Method: E200.2
Analyst: HGS	Prep Date/Time: 08/22/22 10:18
Analytical Date/Time: 08/25/22 14:36	Prep Initial Wt./Vol.: 20 mL
Container ID: 1224937007-D	Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



Results of **RM 31 DUP**

Client Sample ID: **RM 31 DUP**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937007  
Lab Project ID: 1224937

Collection Date: 08/17/22 11:25  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.00 U	1.00	0.400	mg/L	1		09/13/22 20:42

**Batch Information**

Analytical Batch: WTC3225  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/13/22 20:42  
Container ID: 1224937007-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	47.0	10.0	3.10	mg/L	1		08/23/22 19:07

**Batch Information**

Analytical Batch: STS7367  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 08/23/22 19:07  
Container ID: 1224937007-C

Print Date: 09/14/2022 4:12:53PM



**Results of RM 40**

Client Sample ID: **RM 40**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937008  
Lab Project ID: 1224937

Collection Date: 08/17/22 10:40  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	13300	500	150	ug/L	1		08/25/22 14:38
Copper	3.08	3.00	1.00	ug/L	1		08/25/22 14:38
Magnesium	1140	50.0	15.0	ug/L	1		08/25/22 14:38
Zinc	59.6	10.0	3.10	ug/L	1		08/25/22 14:38

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 08/25/22 14:38  
Container ID: 1224937008-D

Prep Batch: MXX35382  
Prep Method: E200.2  
Prep Date/Time: 08/22/22 10:18  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	38.0	5.00	5.00	mg/L	1		08/25/22 14:38

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: SM21 2340B  
Analyst: HGS  
Analytical Date/Time: 08/25/22 14:38  
Container ID: 1224937008-D

Prep Batch: MXX35382  
Prep Method: E200.2  
Prep Date/Time: 08/22/22 10:18  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



**Results of RM 40**

Client Sample ID: **RM 40**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937008  
Lab Project ID: 1224937

Collection Date: 08/17/22 10:40  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.00 U	1.00	0.400	mg/L	1		09/13/22 21:25

**Batch Information**

Analytical Batch: WTC3225  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/13/22 21:25  
Container ID: 1224937008-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	48.0	10.0	3.10	mg/L	1		08/24/22 19:06

**Batch Information**

Analytical Batch: STS7369  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 08/24/22 19:06  
Container ID: 1224937008-C

Print Date: 09/14/2022 4:12:53PM



Results of **RM 70**

Client Sample ID: **RM 70**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937009  
Lab Project ID: 1224937

Collection Date: 08/17/22 09:50  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	17500	500	150	ug/L	1		08/25/22 14:41
Copper	3.00 U	3.00	1.00	ug/L	1		08/25/22 14:41
Magnesium	1190	50.0	15.0	ug/L	1		08/25/22 14:41
Zinc	65.3	10.0	3.10	ug/L	1		08/25/22 14:41

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 08/25/22 14:41  
Container ID: 1224937009-D

Prep Batch: MXX35382  
Prep Method: E200.2  
Prep Date/Time: 08/22/22 10:18  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	48.5	5.00	5.00	mg/L	1		08/25/22 14:41

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: SM21 2340B  
Analyst: HGS  
Analytical Date/Time: 08/25/22 14:41  
Container ID: 1224937009-D

Prep Batch: MXX35382  
Prep Method: E200.2  
Prep Date/Time: 08/22/22 10:18  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



**Results of RM 70**

Client Sample ID: **RM 70**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937009  
Lab Project ID: 1224937

Collection Date: 08/17/22 09:50  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.00 U	1.00	0.400	mg/L	1		09/13/22 21:44

**Batch Information**

Analytical Batch: WTC3225  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/13/22 21:44  
Container ID: 1224937009-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	58.0	10.0	3.10	mg/L	1		08/24/22 19:06

**Batch Information**

Analytical Batch: STS7369  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 08/24/22 19:06  
Container ID: 1224937009-C

Print Date: 09/14/2022 4:12:53PM



Results of **RM 20.75**

Client Sample ID: **RM 20.75**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937010  
Lab Project ID: 1224937

Collection Date: 08/16/22 12:30  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	13800	500	150	ug/L	1		08/25/22 14:44
Copper	3.00 U	3.00	1.00	ug/L	1		08/25/22 14:44
Magnesium	1120	50.0	15.0	ug/L	1		08/25/22 14:44
Zinc	72.4	10.0	3.10	ug/L	1		08/25/22 14:44

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 08/25/22 14:44  
Container ID: 1224937010-D

Prep Batch: MXX35382  
Prep Method: E200.2  
Prep Date/Time: 08/22/22 10:18  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	39.0	5.00	5.00	mg/L	1		08/25/22 14:44

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: SM21 2340B  
Analyst: HGS  
Analytical Date/Time: 08/25/22 14:44  
Container ID: 1224937010-D

Prep Batch: MXX35382  
Prep Method: E200.2  
Prep Date/Time: 08/22/22 10:18  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



Results of **RM 20.75**

Client Sample ID: **RM 20.75**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937010  
Lab Project ID: 1224937

Collection Date: 08/16/22 12:30  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.00 U	1.00	0.400	mg/L	1		09/05/22 02:05

**Batch Information**

Analytical Batch: WTC3222  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/05/22 02:05  
Container ID: 1224937010-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	43.0	10.0	3.10	mg/L	1		08/23/22 19:07

**Batch Information**

Analytical Batch: STS7367  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 08/23/22 19:07  
Container ID: 1224937010-C

Print Date: 09/14/2022 4:12:53PM





Results of **RM 21.1**

Client Sample ID: **RM 21.1**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937011  
Lab Project ID: 1224937

Collection Date: 08/16/22 14:15  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	13800	500	150	ug/L	1		08/25/22 14:46
Copper	3.00 U	3.00	1.00	ug/L	1		08/25/22 14:46
Magnesium	1130	50.0	15.0	ug/L	1		08/25/22 14:46
Zinc	108	10.0	3.10	ug/L	1		08/25/22 14:46

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 08/25/22 14:46  
Container ID: 1224937011-D

Prep Batch: MXX35382  
Prep Method: E200.2  
Prep Date/Time: 08/22/22 10:18  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	39.0	5.00	5.00	mg/L	1		08/25/22 14:46

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: SM21 2340B  
Analyst: HGS  
Analytical Date/Time: 08/25/22 14:46  
Container ID: 1224937011-D

Prep Batch: MXX35382  
Prep Method: E200.2  
Prep Date/Time: 08/22/22 10:18  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



Results of **RM 21.1**

Client Sample ID: **RM 21.1**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937011  
Lab Project ID: 1224937

Collection Date: 08/16/22 14:15  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.00 U	1.00	0.400	mg/L	1		09/05/22 02:28

**Batch Information**

Analytical Batch: WTC3222  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/05/22 02:28  
Container ID: 1224937011-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	51.0	10.0	3.10	mg/L	1		08/23/22 19:07

**Batch Information**

Analytical Batch: STS7367  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 08/23/22 19:07  
Container ID: 1224937011-C

Print Date: 09/14/2022 4:12:53PM



Results of **RM 12.75**

Client Sample ID: **RM 12.75**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937012  
Lab Project ID: 1224937

Collection Date: 08/15/22 11:30  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	13900	500	150	ug/L	1		08/25/22 14:49
Copper	3.00 U	3.00	1.00	ug/L	1		08/25/22 14:49
Magnesium	1130	50.0	15.0	ug/L	1		08/25/22 14:49
Zinc	49.5	10.0	3.10	ug/L	1		08/25/22 14:49

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 08/25/22 14:49  
Container ID: 1224937012-D

Prep Batch: MXX35382  
Prep Method: E200.2  
Prep Date/Time: 08/22/22 10:18  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	39.4	5.00	5.00	mg/L	1		08/25/22 14:49

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: SM21 2340B  
Analyst: HGS  
Analytical Date/Time: 08/25/22 14:49  
Container ID: 1224937012-D

Prep Batch: MXX35382  
Prep Method: E200.2  
Prep Date/Time: 08/22/22 10:18  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



**Results of RM 12.75**

Client Sample ID: **RM 12.75**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937012  
Lab Project ID: 1224937

Collection Date: 08/15/22 11:30  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.00 U	1.00	0.400	mg/L	1		09/05/22 02:48

**Batch Information**

Analytical Batch: WTC3222  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/05/22 02:48  
Container ID: 1224937012-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	46.0	10.0	3.10	mg/L	1		08/19/22 17:28

**Batch Information**

Analytical Batch: STS7364  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 08/19/22 17:28  
Container ID: 1224937012-C

Print Date: 09/14/2022 4:12:53PM



Results of **RM 12.75 DUP**

Client Sample ID: **RM 12.75 DUP**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937013  
Lab Project ID: 1224937

Collection Date: 08/15/22 11:30  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	13700	500	150	ug/L	1		08/25/22 14:52
Copper	3.00 U	3.00	1.00	ug/L	1		08/25/22 14:52
Magnesium	1130	50.0	15.0	ug/L	1		08/25/22 14:52
Zinc	59.8	10.0	3.10	ug/L	1		08/25/22 14:52

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 08/25/22 14:52  
Container ID: 1224937013-D

Prep Batch: MXX35382  
Prep Method: E200.2  
Prep Date/Time: 08/22/22 10:18  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	39.0	5.00	5.00	mg/L	1		08/25/22 14:52

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: SM21 2340B  
Analyst: HGS  
Analytical Date/Time: 08/25/22 14:52  
Container ID: 1224937013-D

Prep Batch: MXX35382  
Prep Method: E200.2  
Prep Date/Time: 08/22/22 10:18  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



**Results of RM 12.75 DUP**

Client Sample ID: **RM 12.75 DUP**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937013  
Lab Project ID: 1224937

Collection Date: 08/15/22 11:30  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.00 U	1.00	0.400	mg/L	1		09/05/22 03:12

**Batch Information**

Analytical Batch: WTC3222  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/05/22 03:12  
Container ID: 1224937013-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	51.0	10.0	3.10	mg/L	1		08/19/22 17:28

**Batch Information**

Analytical Batch: STS7364  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 08/19/22 17:28  
Container ID: 1224937013-C

Print Date: 09/14/2022 4:12:53PM



**Results of RM 21**

Client Sample ID: **RM 21**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937014  
Lab Project ID: 1224937

Collection Date: 08/16/22 14:40  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	13600	500	150	ug/L	1		08/25/22 14:54
Copper	3.00 U	3.00	1.00	ug/L	1		08/25/22 14:54
Magnesium	1110	50.0	15.0	ug/L	1		08/25/22 14:54
Zinc	62.7	10.0	3.10	ug/L	1		08/25/22 14:54

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 08/25/22 14:54  
Container ID: 1224937014-D

Prep Batch: MXX35382  
Prep Method: E200.2  
Prep Date/Time: 08/22/22 10:18  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	38.6	5.00	5.00	mg/L	1		08/25/22 14:54

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: SM21 2340B  
Analyst: HGS  
Analytical Date/Time: 08/25/22 14:54  
Container ID: 1224937014-D

Prep Batch: MXX35382  
Prep Method: E200.2  
Prep Date/Time: 08/22/22 10:18  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



Results of **RM 21**

Client Sample ID: **RM 21**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937014  
Lab Project ID: 1224937

Collection Date: 08/16/22 14:40  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.00 U	1.00	0.400	mg/L	1		09/05/22 03:31

**Batch Information**

Analytical Batch: WTC3222  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/05/22 03:31  
Container ID: 1224937014-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	51.0	10.0	3.10	mg/L	1		08/19/22 17:28

**Batch Information**

Analytical Batch: STS7364  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 08/19/22 17:28  
Container ID: 1224937014-C

Print Date: 09/14/2022 4:12:53PM





Results of **RM 21 DUP**

Client Sample ID: **RM 21 DUP**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937015  
Lab Project ID: 1224937

Collection Date: 08/16/22 14:40  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	13500	500	150	ug/L	1		08/25/22 14:57
Copper	3.00 U	3.00	1.00	ug/L	1		08/25/22 14:57
Magnesium	1110	50.0	15.0	ug/L	1		08/25/22 14:57
Zinc	81.3	10.0	3.10	ug/L	1		08/25/22 14:57

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 08/25/22 14:57  
Container ID: 1224937015-D

Prep Batch: MXX35382  
Prep Method: E200.2  
Prep Date/Time: 08/22/22 10:18  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	38.3	5.00	5.00	mg/L	1		08/25/22 14:57

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: SM21 2340B  
Analyst: HGS  
Analytical Date/Time: 08/25/22 14:57  
Container ID: 1224937015-D

Prep Batch: MXX35382  
Prep Method: E200.2  
Prep Date/Time: 08/22/22 10:18  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



Results of **RM 21 DUP**

Client Sample ID: **RM 21 DUP**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937015  
Lab Project ID: 1224937

Collection Date: 08/16/22 14:40  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.00 U	1.00	0.400	mg/L	1		09/05/22 03:50

**Batch Information**

Analytical Batch: WTC3222  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/05/22 03:50  
Container ID: 1224937015-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	43.0	10.0	3.10	mg/L	1		08/19/22 17:28

**Batch Information**

Analytical Batch: STS7364  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 08/19/22 17:28  
Container ID: 1224937015-C

Print Date: 09/14/2022 4:12:53PM



**Results of Field Blank**

Client Sample ID: **Field Blank**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937016  
Lab Project ID: 1224937

Collection Date: 08/15/22 12:10  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	500 U	500	150	ug/L	1		08/25/22 15:00
Copper	3.00 U	3.00	1.00	ug/L	1		08/25/22 15:00
Magnesium	50.0 U	50.0	15.0	ug/L	1		08/25/22 15:00
Zinc	123	10.0	3.10	ug/L	1		08/25/22 15:00

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 08/25/22 15:00  
Container ID: 1224937016-D

Prep Batch: MXX35382  
Prep Method: E200.2  
Prep Date/Time: 08/22/22 10:18  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	5.00 U	5.00	5.00	mg/L	1		08/25/22 15:00

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: SM21 2340B  
Analyst: HGS  
Analytical Date/Time: 08/25/22 15:00  
Container ID: 1224937016-D

Prep Batch: MXX35382  
Prep Method: E200.2  
Prep Date/Time: 08/22/22 10:18  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



**Results of Field Blank**

Client Sample ID: **Field Blank**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937016  
Lab Project ID: 1224937

Collection Date: 08/15/22 12:10  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.00 U	1.00	0.400	mg/L	1		09/05/22 04:58

**Batch Information**

Analytical Batch: WTC3222  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/05/22 04:58  
Container ID: 1224937016-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	10.0 U	10.0	3.10	mg/L	1		08/19/22 17:28

**Batch Information**

Analytical Batch: STS7364  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 08/19/22 17:28  
Container ID: 1224937016-C

Print Date: 09/14/2022 4:12:53PM



Results of **RM 19.1**

Client Sample ID: **RM 19.1**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937017  
Lab Project ID: 1224937

Collection Date: 08/15/22 12:07  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	13700	500	150	ug/L	1		08/25/22 15:08
Copper	3.00 U	3.00	1.00	ug/L	1		08/25/22 15:08
Magnesium	1110	50.0	15.0	ug/L	1		08/25/22 15:08
Zinc	45.9	10.0	3.10	ug/L	1		08/25/22 15:08

**Batch Information**

Analytical Batch: MMS11649	Prep Batch: MXX35382
Analytical Method: EP200.8	Prep Method: E200.2
Analyst: HGS	Prep Date/Time: 08/22/22 10:18
Analytical Date/Time: 08/25/22 15:08	Prep Initial Wt./Vol.: 20 mL
Container ID: 1224937017-D	Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	38.8	5.00	5.00	mg/L	1		08/25/22 15:08

**Batch Information**

Analytical Batch: MMS11649	Prep Batch: MXX35382
Analytical Method: SM21 2340B	Prep Method: E200.2
Analyst: HGS	Prep Date/Time: 08/22/22 10:18
Analytical Date/Time: 08/25/22 15:08	Prep Initial Wt./Vol.: 20 mL
Container ID: 1224937017-D	Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



**Results of RM 19.1**

Client Sample ID: **RM 19.1**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937017  
Lab Project ID: 1224937

Collection Date: 08/15/22 12:07  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.00 U	1.00	0.400	mg/L	1		09/05/22 05:19

**Batch Information**

Analytical Batch: WTC3222  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/05/22 05:19  
Container ID: 1224937017-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	37.0	10.0	3.10	mg/L	1		08/19/22 17:28

**Batch Information**

Analytical Batch: STS7364  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 08/19/22 17:28  
Container ID: 1224937017-C

Print Date: 09/14/2022 4:12:53PM



Results of **RM 10.1**

Client Sample ID: **RM 10.1**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937018  
Lab Project ID: 1224937

Collection Date: 08/15/22 11:09  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Calcium	13600	500	150	ug/L	1		08/25/22 14:09
Copper	15.2	3.00	1.00	ug/L	1		08/25/22 14:09
Magnesium	1190	50.0	15.0	ug/L	1		08/25/22 14:09
Zinc	59.5	10.0	3.10	ug/L	1		08/25/22 14:09

**Batch Information**

Analytical Batch: MMS11649	Prep Batch: MXX35382
Analytical Method: EP200.8	Prep Method: E200.2
Analyst: HGS	Prep Date/Time: 08/22/22 10:18
Analytical Date/Time: 08/25/22 14:09	Prep Initial Wt./Vol.: 20 mL
Container ID: 1224937018-D	Prep Extract Vol: 50 mL

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Hardness as CaCO3	38.9	5.00	5.00	mg/L	1		08/25/22 14:09

**Batch Information**

Analytical Batch: MMS11649	Prep Batch: MXX35382
Analytical Method: SM21 2340B	Prep Method: E200.2
Analyst: HGS	Prep Date/Time: 08/22/22 10:18
Analytical Date/Time: 08/25/22 14:09	Prep Initial Wt./Vol.: 20 mL
Container ID: 1224937018-D	Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



Results of **RM 10.1**

Client Sample ID: **RM 10.1**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937018  
Lab Project ID: 1224937

Collection Date: 08/15/22 11:09  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

Results by **Waters Department**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
TOC Average, Dissolved	1.75	1.00	0.400	mg/L	1		09/05/22 05:46

**Batch Information**

Analytical Batch: WTC3222  
Analytical Method: SM 5310B  
Analyst: EBH  
Analytical Date/Time: 09/05/22 05:46  
Container ID: 1224937018-B

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Total Dissolved Solids	56.0	10.0	3.10	mg/L	1		08/19/22 17:28

**Batch Information**

Analytical Batch: STS7364  
Analytical Method: SM21 2540C  
Analyst: EBH  
Analytical Date/Time: 08/19/22 17:28  
Container ID: 1224937018-C

Print Date: 09/14/2022 4:12:53PM





**Results of RM 76**

Client Sample ID: **RM 76**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937019  
Lab Project ID: 1224937

Collection Date: 08/17/22 09:23  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	20.0 U	20.0	6.20	ug/L	1		08/25/22 15:21
Cadmium	0.500 U	0.500	0.150	ug/L	1		08/25/22 15:21
Calcium	17300	500	150	ug/L	1		08/25/22 15:21
Copper	3.00 U	3.00	1.00	ug/L	1		08/25/22 15:21
Lead	2.00 U	2.00	0.500	ug/L	1		08/25/22 15:21
Magnesium	1160	50.0	15.0	ug/L	1		08/25/22 15:21
Potassium	531	500	150	ug/L	1		08/25/22 15:21
Selenium	5.00 U	5.00	1.50	ug/L	1		08/25/22 15:21
Sodium	1410	500	150	ug/L	1		08/25/22 15:21
Zinc	47.1	10.0	3.10	ug/L	1		08/25/22 15:21

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 08/25/22 15:21  
Container ID: 1224937019-B

Prep Batch: MXX35385  
Prep Method: E200.2  
Prep Date/Time: 08/23/22 11:26  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



**Results of RM 19**

Client Sample ID: **RM 19**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937020  
Lab Project ID: 1224937

Collection Date: 08/16/22 13:50  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	20.0 U	20.0	6.20	ug/L	1		08/25/22 15:32
Cadmium	0.500 U	0.500	0.150	ug/L	1		08/25/22 15:32
Calcium	19900	500	150	ug/L	1		08/25/22 15:32
Copper	3.00 U	3.00	1.00	ug/L	1		08/25/22 15:32
Lead	2.00 U	2.00	0.500	ug/L	1		08/25/22 15:32
Magnesium	4810	50.0	15.0	ug/L	1		08/25/22 15:32
Potassium	1560	500	150	ug/L	1		08/25/22 15:32
Selenium	5.00 U	5.00	1.50	ug/L	1		08/25/22 15:32
Sodium	5290	500	150	ug/L	1		08/25/22 15:32
Zinc	50.3	10.0	3.10	ug/L	1		08/25/22 15:32

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 08/25/22 15:32  
Container ID: 1224937020-B

Prep Batch: MXX35385  
Prep Method: E200.2  
Prep Date/Time: 08/23/22 11:26  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



**Results of RM 5**

Client Sample ID: **RM 5**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937021  
Lab Project ID: 1224937

Collection Date: 08/16/22 13:20  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	76.0	20.0	6.20	ug/L	1		08/25/22 15:40
Cadmium	0.500 U	0.500	0.150	ug/L	1		08/25/22 15:40
Calcium	13800	500	150	ug/L	1		08/25/22 15:40
Copper	3.00 U	3.00	1.00	ug/L	1		08/25/22 15:40
Lead	2.00 U	2.00	0.500	ug/L	1		08/25/22 15:40
Magnesium	1250	50.0	15.0	ug/L	1		08/25/22 15:40
Potassium	974	500	150	ug/L	1		08/25/22 15:40
Selenium	5.00 U	5.00	1.50	ug/L	1		08/25/22 15:40
Sodium	3690	500	150	ug/L	1		08/25/22 15:40
Zinc	39.0	10.0	3.10	ug/L	1		08/25/22 15:40

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 08/25/22 15:40  
Container ID: 1224937021-B

Prep Batch: MXX35385  
Prep Method: E200.2  
Prep Date/Time: 08/23/22 11:26  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



**Results of RM 23**

Client Sample ID: **RM 23**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937022  
Lab Project ID: 1224937

Collection Date: 08/16/22 15:09  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	32.1	20.0	6.20	ug/L	1		08/25/22 15:43
Cadmium	0.500 U	0.500	0.150	ug/L	1		08/25/22 15:43
Calcium	13900	500	150	ug/L	1		08/25/22 15:43
Copper	3.00 U	3.00	1.00	ug/L	1		08/25/22 15:43
Lead	2.00 U	2.00	0.500	ug/L	1		08/25/22 15:43
Magnesium	977	50.0	15.0	ug/L	1		08/25/22 15:43
Potassium	819	500	150	ug/L	1		08/25/22 15:43
Selenium	5.00 U	5.00	1.50	ug/L	1		08/25/22 15:43
Sodium	1410	500	150	ug/L	1		08/25/22 15:43
Zinc	52.8	10.0	3.10	ug/L	1		08/25/22 15:43

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 08/25/22 15:43  
Container ID: 1224937022-B

Prep Batch: MXX35385  
Prep Method: E200.2  
Prep Date/Time: 08/23/22 11:26  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



**Results of RM 23 DUP**

Client Sample ID: **RM 23 DUP**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937023  
Lab Project ID: 1224937

Collection Date: 08/16/22 15:09  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	35.3	20.0	6.20	ug/L	1		08/25/22 15:46
Cadmium	0.500 U	0.500	0.150	ug/L	1		08/25/22 15:46
Calcium	13900	500	150	ug/L	1		08/25/22 15:46
Copper	3.00 U	3.00	1.00	ug/L	1		08/25/22 15:46
Lead	2.00 U	2.00	0.500	ug/L	1		08/25/22 15:46
Magnesium	980	50.0	15.0	ug/L	1		08/25/22 15:46
Potassium	818	500	150	ug/L	1		08/25/22 15:46
Selenium	5.00 U	5.00	1.50	ug/L	1		08/25/22 15:46
Sodium	1410	500	150	ug/L	1		08/25/22 15:46
Zinc	30.9	10.0	3.10	ug/L	1		08/25/22 15:46

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 08/25/22 15:46  
Container ID: 1224937023-B

Prep Batch: MXX35385  
Prep Method: E200.2  
Prep Date/Time: 08/23/22 11:26  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



**Results of RM 31**

Client Sample ID: **RM 31**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937024  
Lab Project ID: 1224937

Collection Date: 08/17/22 11:25  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	43.9	20.0	6.20	ug/L	1		08/25/22 15:48
Cadmium	0.500 U	0.500	0.150	ug/L	1		08/25/22 15:48
Calcium	13500	500	150	ug/L	1		08/25/22 15:48
Copper	3.00 U	3.00	1.00	ug/L	1		08/25/22 15:48
Lead	2.00 U	2.00	0.500	ug/L	1		08/25/22 15:48
Magnesium	948	50.0	15.0	ug/L	1		08/25/22 15:48
Potassium	822	500	150	ug/L	1		08/25/22 15:48
Selenium	5.00 U	5.00	1.50	ug/L	1		08/25/22 15:48
Sodium	1360	500	150	ug/L	1		08/25/22 15:48
Zinc	31.6	10.0	3.10	ug/L	1		08/25/22 15:48

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 08/25/22 15:48  
Container ID: 1224937024-B

Prep Batch: MXX35385  
Prep Method: E200.2  
Prep Date/Time: 08/23/22 11:26  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



**Results of RM 31 DUP**

Client Sample ID: **RM 31 DUP**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937025  
Lab Project ID: 1224937

Collection Date: 08/17/22 11:25  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	37.6	20.0	6.20	ug/L	1		08/25/22 15:51
Cadmium	0.500 U	0.500	0.150	ug/L	1		08/25/22 15:51
Calcium	13400	500	150	ug/L	1		08/25/22 15:51
Copper	3.00 U	3.00	1.00	ug/L	1		08/25/22 15:51
Lead	2.00 U	2.00	0.500	ug/L	1		08/25/22 15:51
Magnesium	948	50.0	15.0	ug/L	1		08/25/22 15:51
Potassium	820	500	150	ug/L	1		08/25/22 15:51
Selenium	5.00 U	5.00	1.50	ug/L	1		08/25/22 15:51
Sodium	1340	500	150	ug/L	1		08/25/22 15:51
Zinc	39.6	10.0	3.10	ug/L	1		08/25/22 15:51

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 08/25/22 15:51  
Container ID: 1224937025-B

Prep Batch: MXX35385  
Prep Method: E200.2  
Prep Date/Time: 08/23/22 11:26  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



**Results of RM 40**

Client Sample ID: **RM 40**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937026  
Lab Project ID: 1224937

Collection Date: 08/17/22 10:40  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	38.2	20.0	6.20	ug/L	1		08/25/22 15:54
Cadmium	0.500 U	0.500	0.150	ug/L	1		08/25/22 15:54
Calcium	13300	500	150	ug/L	1		08/25/22 15:54
Copper	3.00 U	3.00	1.00	ug/L	1		08/25/22 15:54
Lead	2.00 U	2.00	0.500	ug/L	1		08/25/22 15:54
Magnesium	895	50.0	15.0	ug/L	1		08/25/22 15:54
Potassium	814	500	150	ug/L	1		08/25/22 15:54
Selenium	5.00 U	5.00	1.50	ug/L	1		08/25/22 15:54
Sodium	1280	500	150	ug/L	1		08/25/22 15:54
Zinc	36.6	10.0	3.10	ug/L	1		08/25/22 15:54

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 08/25/22 15:54  
Container ID: 1224937026-B

Prep Batch: MXX35385  
Prep Method: E200.2  
Prep Date/Time: 08/23/22 11:26  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM





**Results of RM 70**

Client Sample ID: **RM 70**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937027  
Lab Project ID: 1224937

Collection Date: 08/17/22 09:50  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	20.0 U	20.0	6.20	ug/L	1		08/25/22 15:56
Cadmium	0.500 U	0.500	0.150	ug/L	1		08/25/22 15:56
Calcium	17300	500	150	ug/L	1		08/25/22 15:56
Copper	3.00 U	3.00	1.00	ug/L	1		08/25/22 15:56
Lead	2.00 U	2.00	0.500	ug/L	1		08/25/22 15:56
Magnesium	1160	50.0	15.0	ug/L	1		08/25/22 15:56
Potassium	536	500	150	ug/L	1		08/25/22 15:56
Selenium	5.00 U	5.00	1.50	ug/L	1		08/25/22 15:56
Sodium	1390	500	150	ug/L	1		08/25/22 15:56
Zinc	51.4	10.0	3.10	ug/L	1		08/25/22 15:56

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 08/25/22 15:56  
Container ID: 1224937027-B

Prep Batch: MXX35385  
Prep Method: E200.2  
Prep Date/Time: 08/23/22 11:26  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



**Results of RM 20.75**

Client Sample ID: **RM 20.75**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937028  
Lab Project ID: 1224937

Collection Date: 08/16/22 12:30  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	31.8	20.0	6.20	ug/L	1		08/25/22 15:59
Cadmium	0.500 U	0.500	0.150	ug/L	1		08/25/22 15:59
Calcium	13500	500	150	ug/L	1		08/25/22 15:59
Copper	3.00 U	3.00	1.00	ug/L	1		08/25/22 15:59
Lead	2.00 U	2.00	0.500	ug/L	1		08/25/22 15:59
Magnesium	960	50.0	15.0	ug/L	1		08/25/22 15:59
Potassium	803	500	150	ug/L	1		08/25/22 15:59
Selenium	5.00 U	5.00	1.50	ug/L	1		08/25/22 15:59
Sodium	1360	500	150	ug/L	1		08/25/22 15:59
Zinc	49.3	10.0	3.10	ug/L	1		08/25/22 15:59

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 08/25/22 15:59  
Container ID: 1224937028-B

Prep Batch: MXX35385  
Prep Method: E200.2  
Prep Date/Time: 08/23/22 11:26  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



**Results of RM 21.1**

Client Sample ID: **RM 21.1**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937029  
Lab Project ID: 1224937

Collection Date: 08/16/22 14:15  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	34.4	20.0	6.20	ug/L	1		08/25/22 16:02
Cadmium	0.500 U	0.500	0.150	ug/L	1		08/25/22 16:02
Calcium	13600	500	150	ug/L	1		08/25/22 16:02
Copper	3.00 U	3.00	1.00	ug/L	1		08/25/22 16:02
Lead	2.00 U	2.00	0.500	ug/L	1		08/25/22 16:02
Magnesium	973	50.0	15.0	ug/L	1		08/25/22 16:02
Potassium	816	500	150	ug/L	1		08/25/22 16:02
Selenium	5.00 U	5.00	1.50	ug/L	1		08/25/22 16:02
Sodium	1370	500	150	ug/L	1		08/25/22 16:02
Zinc	47.8	10.0	3.10	ug/L	1		08/25/22 16:02

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 08/25/22 16:02  
Container ID: 1224937029-B

Prep Batch: MXX35385  
Prep Method: E200.2  
Prep Date/Time: 08/23/22 11:26  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



**Results of RM 12.75**

Client Sample ID: **RM 12.75**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937030  
Lab Project ID: 1224937

Collection Date: 08/15/22 11:30  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	29.7	20.0	6.20	ug/L	1		08/25/22 16:05
Cadmium	0.500 U	0.500	0.150	ug/L	1		08/25/22 16:05
Calcium	13700	500	150	ug/L	1		08/25/22 16:05
Copper	3.00 U	3.00	1.00	ug/L	1		08/25/22 16:05
Lead	2.00 U	2.00	0.500	ug/L	1		08/25/22 16:05
Magnesium	973	50.0	15.0	ug/L	1		08/25/22 16:05
Potassium	814	500	150	ug/L	1		08/25/22 16:05
Selenium	5.00 U	5.00	1.50	ug/L	1		08/25/22 16:05
Sodium	1390	500	150	ug/L	1		08/25/22 16:05
Zinc	43.3	10.0	3.10	ug/L	1		08/25/22 16:05

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 08/25/22 16:05  
Container ID: 1224937030-B

Prep Batch: MXX35385  
Prep Method: E200.2  
Prep Date/Time: 08/23/22 11:26  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



**Results of RM 12.75 DUP**

Client Sample ID: **RM 12.75 DUP**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937031  
Lab Project ID: 1224937

Collection Date: 08/15/22 11:30  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	30.2	20.0	6.20	ug/L	1		08/25/22 16:13
Cadmium	0.500 U	0.500	0.150	ug/L	1		08/25/22 16:13
Calcium	13700	500	150	ug/L	1		08/25/22 16:13
Copper	3.00 U	3.00	1.00	ug/L	1		08/25/22 16:13
Lead	2.00 U	2.00	0.500	ug/L	1		08/25/22 16:13
Magnesium	977	50.0	15.0	ug/L	1		08/25/22 16:13
Potassium	812	500	150	ug/L	1		08/25/22 16:13
Selenium	5.00 U	5.00	1.50	ug/L	1		08/25/22 16:13
Sodium	1380	500	150	ug/L	1		08/25/22 16:13
Zinc	49.7	10.0	3.10	ug/L	1		08/25/22 16:13

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 08/25/22 16:13  
Container ID: 1224937031-B

Prep Batch: MXX35385  
Prep Method: E200.2  
Prep Date/Time: 08/23/22 11:26  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



**Results of RM 21**

Client Sample ID: **RM 21**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937032  
Lab Project ID: 1224937

Collection Date: 08/16/22 14:40  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	30.8	20.0	6.20	ug/L	1		08/25/22 16:15
Cadmium	0.500 U	0.500	0.150	ug/L	1		08/25/22 16:15
Calcium	13600	500	150	ug/L	1		08/25/22 16:15
Copper	3.00 U	3.00	1.00	ug/L	1		08/25/22 16:15
Lead	2.00 U	2.00	0.500	ug/L	1		08/25/22 16:15
Magnesium	975	50.0	15.0	ug/L	1		08/25/22 16:15
Potassium	816	500	150	ug/L	1		08/25/22 16:15
Selenium	5.00 U	5.00	1.50	ug/L	1		08/25/22 16:15
Sodium	1410	500	150	ug/L	1		08/25/22 16:15
Zinc	45.6	10.0	3.10	ug/L	1		08/25/22 16:15

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 08/25/22 16:15  
Container ID: 1224937032-B

Prep Batch: MXX35385  
Prep Method: E200.2  
Prep Date/Time: 08/23/22 11:26  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



**Results of RM 21 DUP**

Client Sample ID: **RM 21 DUP**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937033  
Lab Project ID: 1224937

Collection Date: 08/16/22 14:40  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	33.5	20.0	6.20	ug/L	1		08/25/22 16:18
Cadmium	0.500 U	0.500	0.150	ug/L	1		08/25/22 16:18
Calcium	13700	500	150	ug/L	1		08/25/22 16:18
Copper	3.00 U	3.00	1.00	ug/L	1		08/25/22 16:18
Lead	2.00 U	2.00	0.500	ug/L	1		08/25/22 16:18
Magnesium	966	50.0	15.0	ug/L	1		08/25/22 16:18
Potassium	813	500	150	ug/L	1		08/25/22 16:18
Selenium	5.00 U	5.00	1.50	ug/L	1		08/25/22 16:18
Sodium	1370	500	150	ug/L	1		08/25/22 16:18
Zinc	41.2	10.0	3.10	ug/L	1		08/25/22 16:18

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 08/25/22 16:18  
Container ID: 1224937033-B

Prep Batch: MXX35385  
Prep Method: E200.2  
Prep Date/Time: 08/23/22 11:26  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



**Results of Field Blank**

Client Sample ID: **Field Blank**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937034  
Lab Project ID: 1224937

Collection Date: 08/15/22 12:10  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	20.0 U	20.0	6.20	ug/L	1		08/25/22 16:21
Cadmium	0.500 U	0.500	0.150	ug/L	1		08/25/22 16:21
Calcium	500 U	500	150	ug/L	1		08/25/22 16:21
Copper	3.00 U	3.00	1.00	ug/L	1		08/25/22 16:21
Lead	2.00 U	2.00	0.500	ug/L	1		08/25/22 16:21
Magnesium	50.0 U	50.0	15.0	ug/L	1		08/25/22 16:21
Potassium	500 U	500	150	ug/L	1		08/25/22 16:21
Selenium	5.00 U	5.00	1.50	ug/L	1		08/25/22 16:21
Sodium	500 U	500	150	ug/L	1		08/25/22 16:21
Zinc	58.9	10.0	3.10	ug/L	1		08/25/22 16:21

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 08/25/22 16:21  
Container ID: 1224937034-B

Prep Batch: MXX35385  
Prep Method: E200.2  
Prep Date/Time: 08/23/22 11:26  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM





**Results of RM 19.1**

Client Sample ID: **RM 19.1**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937035  
Lab Project ID: 1224937

Collection Date: 08/15/22 12:07  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	34.0	20.0	6.20	ug/L	1		08/25/22 16:23
Cadmium	0.500 U	0.500	0.150	ug/L	1		08/25/22 16:23
Calcium	13800	500	150	ug/L	1		08/25/22 16:23
Copper	3.00 U	3.00	1.00	ug/L	1		08/25/22 16:23
Lead	2.00 U	2.00	0.500	ug/L	1		08/25/22 16:23
Magnesium	982	50.0	15.0	ug/L	1		08/25/22 16:23
Potassium	824	500	150	ug/L	1		08/25/22 16:23
Selenium	5.00 U	5.00	1.50	ug/L	1		08/25/22 16:23
Sodium	1500	500	150	ug/L	1		08/25/22 16:23
Zinc	39.2	10.0	3.10	ug/L	1		08/25/22 16:23

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 08/25/22 16:23  
Container ID: 1224937035-B

Prep Batch: MXX35385  
Prep Method: E200.2  
Prep Date/Time: 08/23/22 11:26  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



**Results of RM 10.1**

Client Sample ID: **RM 10.1**  
Client Project ID: **Kenai River Metals Monitoring**  
Lab Sample ID: 1224937036  
Lab Project ID: 1224937

Collection Date: 08/15/22 11:09  
Received Date: 08/18/22 08:35  
Matrix: Water (Surface, Eff., Ground)  
Solids (%):  
Location:

**Results by Dissolved Metals by ICP/MS**

<u>Parameter</u>	<u>Result Qual</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>	<u>DF</u>	<u>Allowable Limits</u>	<u>Date Analyzed</u>
Aluminum	28.2	20.0	6.20	ug/L	1		08/25/22 15:27
Cadmium	0.500 U	0.500	0.150	ug/L	1		08/25/22 15:27
Calcium	13800	500	150	ug/L	1		08/25/22 15:27
Copper	3.00 U	3.00	1.00	ug/L	1		08/25/22 15:27
Lead	2.00 U	2.00	0.500	ug/L	1		08/25/22 15:27
Magnesium	977	50.0	15.0	ug/L	1		08/25/22 15:27
Potassium	820	500	150	ug/L	1		08/25/22 15:27
Selenium	5.00 U	5.00	1.50	ug/L	1		08/25/22 15:27
Sodium	1420	500	150	ug/L	1		08/25/22 15:27
Zinc	23.1	10.0	3.10	ug/L	1		08/25/22 15:27

**Batch Information**

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Analyst: HGS  
Analytical Date/Time: 08/25/22 15:27  
Container ID: 1224937036-B

Prep Batch: MXX35385  
Prep Method: E200.2  
Prep Date/Time: 08/23/22 11:26  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:53PM



### Method Blank

Blank ID: MB for HBN 1841851 [MXX/35382]  
Blank Lab ID: 1680705

Matrix: Water (Surface, Eff., Ground)

#### QC for Samples:

1224937001, 1224937002, 1224937003, 1224937004, 1224937005, 1224937006, 1224937007, 1224937008, 1224937009, 1224937010, 1224937011, 1224937012, 1224937013, 1224937014, 1224937015, 1224937016, 1224937017, 1224937018

### Results by EP200.8

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Calcium	250U	500	150	ug/L
Copper	2.01J	3.00	1.00	ug/L
Magnesium	25.0U	50.0	15.0	ug/L
Zinc	5.00U	10.0	3.10	ug/L

### Batch Information

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Instrument: P7 Agilent 7800  
Analyst: HGS  
Analytical Date/Time: 8/25/2022 1:50:13PM

Prep Batch: MXX35382  
Prep Method: E200.2  
Prep Date/Time: 8/22/2022 10:18:22AM  
Prep Initial Wt./Vol.: 20 mL  
Prep Extract Vol: 50 mL

Print Date: 09/14/2022 4:12:58PM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1224937 [MXX35382]  
 Blank Spike Lab ID: 1680706  
 Date Analyzed: 08/25/2022 13:52

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1224937001, 1224937002, 1224937003, 1224937004, 1224937005, 1224937006, 1224937007,  
 1224937008, 1224937009, 1224937010, 1224937011, 1224937012, 1224937013, 1224937014,  
 1224937015, 1224937016, 1224937017, 1224937018

## Results by EP200.8

Parameter	Blank Spike (ug/L)			CL
	Spike	Result	Rec (%)	
Calcium	10000	9580	96	( 85-115 )
Copper	1000	1010	101	( 85-115 )
Magnesium	10000	9760	98	( 85-115 )
Zinc	1000	993	99	( 85-115 )

## Batch Information

Analytical Batch: **MMS11649**  
 Analytical Method: **EP200.8**  
 Instrument: **P7 Agilent 7800**  
 Analyst: **HGS**

Prep Batch: **MXX35382**  
 Prep Method: **E200.2**  
 Prep Date/Time: **08/22/2022 10:18**  
 Spike Init Wt./Vol.: 10000 ug/L Extract Vol: 50 mL  
 Dupe Init Wt./Vol.: Extract Vol:



### Matrix Spike Summary

Original Sample ID: 1680703  
MS Sample ID: 1680708 MS  
MSD Sample ID:

Analysis Date: 08/25/2022 14:03  
Analysis Date: 08/25/2022 14:06  
Analysis Date:  
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1224937018

### Results by EP200.8

Parameter	Sample	Matrix Spike (ug/L)			Spike Duplicate (ug/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Calcium	106000	10000	116000	94				70-130		
Copper	107	1000	1130	102				70-130		
Magnesium	39300	10000	49300	100				70-130		
Zinc	207	1000	1180	98				70-130		

### Batch Information

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Instrument: P7 Agilent 7800  
Analyst: HGS  
Analytical Date/Time: 8/25/2022 2:06:00PM

Prep Batch: MXX35382  
Prep Method: DW Digest for Metals on ICP-MS  
Prep Date/Time: 8/22/2022 10:18:00AM  
Prep Initial Wt./Vol.: 20.00mL  
Prep Extract Vol: 50.00mL

Print Date: 09/14/2022 4:13:02PM

## Matrix Spike Summary

Original Sample ID: 1680704  
 MS Sample ID: 1680709 MS  
 MSD Sample ID:

Analysis Date: 08/25/2022 14:09  
 Analysis Date: 08/25/2022 14:11  
 Analysis Date:  
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1224937001, 1224937002, 1224937003, 1224937004, 1224937005, 1224937006, 1224937007, 1224937008, 1224937009, 1224937010, 1224937011, 1224937012, 1224937013, 1224937014, 1224937015, 1224937016, 1224937017, 1224937018

## Results by EP200.8

Parameter	Sample	Matrix Spike (ug/L)			Spike Duplicate (ug/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Calcium	13600	10000	23200	96				70-130		
Copper	15.2	1000	1030	102				70-130		
Magnesium	1190	10000	11200	100				70-130		
Zinc	59.5	1000	1050	99				70-130		

## Batch Information

Analytical Batch: MMS11649  
 Analytical Method: EP200.8  
 Instrument: P7 Agilent 7800  
 Analyst: HGS  
 Analytical Date/Time: 8/25/2022 2:11:51PM

Prep Batch: MX35382  
 Prep Method: DW Digest for Metals on ICP-MS  
 Prep Date/Time: 8/22/2022 10:18:00AM  
 Prep Initial Wt./Vol.: 20.00mL  
 Prep Extract Vol: 50.00mL

## Method Blank

Blank ID: MB for HBN 1841965 [MXX/35385]  
 Blank Lab ID: 1680993

Matrix: Water (Surface, Eff., Ground)

### QC for Samples:

1224937019, 1224937020, 1224937021, 1224937022, 1224937023, 1224937024, 1224937025, 1224937026, 1224937027, 1224937028, 1224937029, 1224937030, 1224937031, 1224937032, 1224937033, 1224937034, 1224937035, 1224937036

## Results by EP200.8

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Aluminum	10.0U	20.0	6.20	ug/L
Cadmium	0.250U	0.500	0.150	ug/L
Calcium	250U	500	150	ug/L
Copper	1.22J	3.00	1.00	ug/L
Lead	1.00U	2.00	0.500	ug/L
Magnesium	25.0U	50.0	15.0	ug/L
Potassium	250U	500	150	ug/L
Selenium	2.50U	5.00	1.50	ug/L
Sodium	250U	500	150	ug/L
Zinc	7.00J	10.0	3.10	ug/L

## Batch Information

Analytical Batch: MMS11649  
 Analytical Method: EP200.8  
 Instrument: P7 Agilent 7800  
 Analyst: HGS  
 Analytical Date/Time: 8/25/2022 3:13:52PM

Prep Batch: MXX35385  
 Prep Method: E200.2  
 Prep Date/Time: 8/23/2022 11:26:27AM  
 Prep Initial Wt./Vol.: 20 mL  
 Prep Extract Vol: 50 mL

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1224937 [MXX35385]

Blank Spike Lab ID: 1680994

Date Analyzed: 08/25/2022 15:16

Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1224937019, 1224937020, 1224937021, 1224937022, 1224937023, 1224937024, 1224937025, 1224937026, 1224937027, 1224937028, 1224937029, 1224937030, 1224937031, 1224937032, 1224937033, 1224937034, 1224937035, 1224937036

## Results by EP200.8

### Blank Spike (ug/L)

Parameter	Spike	Result	Rec (%)	CL
Aluminum	1000	970	97	(85-115)
Cadmium	100	99.2	99	(85-115)
Calcium	10000	9640	96	(85-115)
Copper	1000	1020	102	(85-115)
Lead	1000	1030	103	(85-115)
Magnesium	10000	9800	98	(85-115)
Potassium	10000	9920	99	(85-115)
Selenium	1000	999	100	(85-115)
Sodium	10000	9890	99	(85-115)
Zinc	1000	1000	100	(85-115)

## Batch Information

Analytical Batch: **MMS11649**

Analytical Method: **EP200.8**

Instrument: **P7 Agilent 7800**

Analyst: **HGS**

Prep Batch: **MXX35385**

Prep Method: **E200.2**

Prep Date/Time: **08/23/2022 11:26**

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

Dupe Init Wt./Vol.: Extract Vol:





### Matrix Spike Summary

Original Sample ID: 1680991  
MS Sample ID: 1680996 MS  
MSD Sample ID:

Analysis Date: 08/25/2022 15:21  
Analysis Date: 08/25/2022 15:24  
Analysis Date:  
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1224937019, 1224937036

### Results by EP200.8

Parameter	Sample	Matrix Spike (ug/L)			Spike Duplicate (ug/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Aluminum	11.6J	1000	978	97				70-130		
Cadmium	0.250U	100	98.7	99				70-130		
Calcium	17300	10000	27000	97				70-130		
Copper	1.53J	1000	1000	100				70-130		
Lead	1.00U	1000	1030	103				70-130		
Magnesium	1160	10000	10900	98				70-130		
Potassium	531	10000	10400	99				70-130		
Selenium	2.50U	1000	1000	100				70-130		
Sodium	1410	10000	11200	98				70-130		
Zinc	47.1	1000	1050	100				70-130		

### Batch Information

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Instrument: P7 Agilent 7800  
Analyst: HGS  
Analytical Date/Time: 8/25/2022 3:24:38PM

Prep Batch: MXX35385  
Prep Method: DW Digest for Metals on ICP-MS  
Prep Date/Time: 8/23/2022 11:26:00AM  
Prep Initial Wt./Vol.: 20.00mL  
Prep Extract Vol: 50.00mL

Print Date: 09/14/2022 4:13:11PM



### Matrix Spike Summary

Original Sample ID: 1680992  
MS Sample ID: 1680997 MS  
MSD Sample ID:

Analysis Date: 08/25/2022 15:27  
Analysis Date: 08/25/2022 15:30  
Analysis Date:  
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1224937020, 1224937021, 1224937022, 1224937023, 1224937024, 1224937025, 1224937026, 1224937027, 1224937028, 1224937029, 1224937030, 1224937031, 1224937032, 1224937033, 1224937034, 1224937035, 1224937036

### Results by EP200.8

Parameter	Sample	Matrix Spike (ug/L)			Spike Duplicate (ug/L)			CL	RPD (%)	RPD CL
		Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Aluminum	28.2	1000	997	97				70-130		
Cadmium	0.250U	100	98.9	99				70-130		
Calcium	13800	10000	23300	95				70-130		
Copper	1.98J	1000	1010	100				70-130		
Lead	0.788J	1000	1020	102				70-130		
Magnesium	977	10000	10700	97				70-130		
Potassium	820	10000	10700	99				70-130		
Selenium	2.50U	1000	996	100				70-130		
Sodium	1420	10000	11100	97				70-130		
Zinc	23.1	1000	1020	99				70-130		

### Batch Information

Analytical Batch: MMS11649  
Analytical Method: EP200.8  
Instrument: P7 Agilent 7800  
Analyst: HGS  
Analytical Date/Time: 8/25/2022 3:30:01PM

Prep Batch: MXX35385  
Prep Method: DW Digest for Metals on ICP-MS  
Prep Date/Time: 8/23/2022 11:26:00AM  
Prep Initial Wt./Vol.: 20.00mL  
Prep Extract Vol: 50.00mL

Print Date: 09/14/2022 4:13:11PM



**Method Blank**

Blank ID: MB for HBN 1841804 [STS/7364]  
Blank Lab ID: 1680387

Matrix: Water (Surface, Eff., Ground)

QC for Samples:  
1224937012, 1224937013, 1224937014, 1224937015, 1224937016, 1224937017, 1224937018

**Results by SM21 2540C**

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Total Dissolved Solids	5.00U	10.0	3.10	mg/L

**Batch Information**

Analytical Batch: STS7364  
Analytical Method: SM21 2540C  
Instrument:  
Analyst: EBH  
Analytical Date/Time: 8/19/2022 5:28:02PM

Print Date: 09/14/2022 4:13:13PM



### Duplicate Sample Summary

Original Sample ID: 1224887011  
Duplicate Sample ID: 1680390  
QC for Samples:

Analysis Date: 08/19/2022 17:28  
Matrix: Water (Surface, Eff., Ground)

### Results by SM21 2540C

<u>NAME</u>	<u>Original</u>	<u>Duplicate</u>	<u>Units</u>	<u>RPD (%)</u>	<u>RPD CL</u>
Total Dissolved Solids	182	181	mg/L	0.55	(< 5 )

### Batch Information

Analytical Batch: STS7364  
Analytical Method: SM21 2540C  
Instrument:  
Analyst: EBH

Print Date: 09/14/2022 4:13:14PM



### Duplicate Sample Summary

Original Sample ID: 1224887017

Duplicate Sample ID: 1680391

QC for Samples:

1224937012, 1224937013, 1224937014, 1224937015, 1224937016, 1224937017, 1224937018

Analysis Date: 08/19/2022 17:28

Matrix: Water (Surface, Eff., Ground)

### Results by SM21 2540C

<u>NAME</u>	<u>Original</u>	<u>Duplicate</u>	<u>Units</u>	<u>RPD (%)</u>	<u>RPD CL</u>
Total Dissolved Solids	123	123	mg/L	0.00	(< 5 )

### Batch Information

Analytical Batch: STS7364

Analytical Method: SM21 2540C

Instrument:

Analyst: EBH

Print Date: 09/14/2022 4:13:14PM



### Blank Spike Summary

Blank Spike ID: LCS for HBN 1224937 [STS7364]  
 Blank Spike Lab ID: 1680388  
 Date Analyzed: 08/19/2022 17:28

Spike Duplicate ID: LCSD for HBN 1224937 [STS7364]  
 Spike Duplicate Lab ID: 1680389  
 Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1224937012, 1224937013, 1224937014, 1224937015, 1224937016, 1224937017, 1224937018

### Results by SM21 2540C

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Dissolved Solids	333	306	92	333	303	91	( 75-125 )	0.99	(< 5 )

### Batch Information

Analytical Batch: STS7364  
 Analytical Method: SM21 2540C  
 Instrument:  
 Analyst: EBH

Print Date: 09/14/2022 4:13:15PM



**Method Blank**

Blank ID: MB for HBN 1841989 [STS/7367]

Matrix: Water (Surface, Eff., Ground)

Blank Lab ID: 1681084

QC for Samples:

1224937001, 1224937002, 1224937003, 1224937004, 1224937005, 1224937006, 1224937007, 1224937010, 1224937011

**Results by SM21 2540C**

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Total Dissolved Solids	5.00U	10.0	3.10	mg/L

**Batch Information**

Analytical Batch: STS7367

Analytical Method: SM21 2540C

Instrument:

Analyst: EBH

Analytical Date/Time: 8/23/2022 7:07:22PM

Print Date: 09/14/2022 4:13:17PM



### Duplicate Sample Summary

Original Sample ID: 1224899001  
Duplicate Sample ID: 1681118  
QC for Samples:

Analysis Date: 08/23/2022 19:07  
Matrix: Water (Surface, Eff., Ground)

### Results by SM21 2540C

<u>NAME</u>	<u>Original</u>	<u>Duplicate</u>	<u>Units</u>	<u>RPD (%)</u>	<u>RPD CL</u>
Total Dissolved Solids	5300	3200	mg/L	49.40*	(< 5 )

### Batch Information

Analytical Batch: STS7367  
Analytical Method: SM21 2540C  
Instrument:  
Analyst: EBH

Print Date: 09/14/2022 4:13:18PM





### Duplicate Sample Summary

Original Sample ID: 1224899002

Duplicate Sample ID: 1681119

QC for Samples:

1224937001, 1224937002, 1224937003, 1224937004, 1224937005, 1224937006, 1224937007, 1224937010, 1224937011

Analysis Date: 08/23/2022 19:07

Matrix: Water (Surface, Eff., Ground)

### Results by SM21 2540C

<u>NAME</u>	<u>Original</u>	<u>Duplicate</u>	<u>Units</u>	<u>RPD (%)</u>	<u>RPD CL</u>
Total Dissolved Solids	30500	34700	mg/L	12.90*	(< 5 )

### Batch Information

Analytical Batch: STS7367

Analytical Method: SM21 2540C

Instrument:

Analyst: EBH

Print Date: 09/14/2022 4:13:18PM



### Blank Spike Summary

Blank Spike ID: LCS for HBN 1224937 [STS7367]  
Blank Spike Lab ID: 1681085  
Date Analyzed: 08/23/2022 19:07

Spike Duplicate ID: LCSD for HBN 1224937 [STS7367]  
Spike Duplicate Lab ID: 1681086  
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1224937001, 1224937002, 1224937003, 1224937004, 1224937005, 1224937006, 1224937007, 1224937010, 1224937011

### Results by SM21 2540C

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Dissolved Solids	333	305	92	333	302	91	( 75-125 )	0.99	(< 5 )

### Batch Information

Analytical Batch: STS7367  
Analytical Method: SM21 2540C  
Instrument:  
Analyst: EBH

Print Date: 09/14/2022 4:13:19PM



**Method Blank**

Blank ID: MB for HBN 1842044 [STS/7369]

Blank Lab ID: 1681378

QC for Samples:

1224937008, 1224937009

Matrix: Water (Surface, Eff., Ground)

**Results by SM21 2540C**

<u>Parameter</u>	<u>Results</u>	<u>LOQ/CL</u>	<u>DL</u>	<u>Units</u>
Total Dissolved Solids	5.00U	10.0	3.10	mg/L

**Batch Information**

Analytical Batch: STS7369

Analytical Method: SM21 2540C

Instrument:

Analyst: EBH

Analytical Date/Time: 8/24/2022 7:06:41PM

Print Date: 09/14/2022 4:13:22PM



### Duplicate Sample Summary

Original Sample ID: 1224970004

Duplicate Sample ID: 1681381

QC for Samples:

1224937008, 1224937009

Analysis Date: 08/24/2022 19:06

Matrix: Water (Surface, Eff., Ground)

### Results by SM21 2540C

<u>NAME</u>	<u>Original</u>	<u>Duplicate</u>	<u>Units</u>	<u>RPD (%)</u>	<u>RPD CL</u>
Total Dissolved Solids	246	250	mg/L	1.60	(< 5 )

### Batch Information

Analytical Batch: STS7369

Analytical Method: SM21 2540C

Instrument:

Analyst: EBH

Print Date: 09/14/2022 4:13:23PM



### Blank Spike Summary

Blank Spike ID: LCS for HBN 1224937 [STS7369]  
Blank Spike Lab ID: 1681379  
Date Analyzed: 08/24/2022 19:06

Spike Duplicate ID: LCSD for HBN 1224937 [STS7369]  
Spike Duplicate Lab ID: 1681380  
Matrix: Water (Surface, Eff., Ground)

QC for Samples: 1224937008, 1224937009

### Results by SM21 2540C

Parameter	Blank Spike (mg/L)			Spike Duplicate (mg/L)			CL	RPD (%)	RPD CL
	Spike	Result	Rec (%)	Spike	Result	Rec (%)			
Total Dissolved Solids	333	292	88	333	295	89	( 75-125 )	1.00	(< 5 )

### Batch Information

Analytical Batch: STS7369  
Analytical Method: SM21 2540C  
Instrument:  
Analyst: EBH

Print Date: 09/14/2022 4:13:24PM



SGS North America Inc.  
CHAIN OF CUSTODY RECORD

Cooler # 1

1224937



www

Instructions: Sections 1 - 5 must be filled out.  
Omissions may delay the onset of analysis.

Page 1 of 1

<b>CLIENT:</b> Alaska Department of Environmental Conservation					<b>Section 1</b>																																																																																																																																																																																																					
<b>CONTACT:</b> Sarah Apsens					<b>PHONE #:</b> 907 741 1026					<b>Section 3</b>		<b>Preservative</b>																																																																																																																																																																																														
<b>PROJECT NAME:</b> Kenai River Metals Monitoring					<b>PROJECT/PWSID/PERMIT#:</b>					<b>#</b>		<div style="border: 1px solid black; padding: 5px;">         HNO3       </div>																																																																																																																																																																																														
<b>REPORTS TO:</b> Sarah Apsens					<b>E-MAIL:</b> sarah.apsens@alaska.gov					<b>Comp</b>		<b>Analysis*</b>										<b>NOTE:</b> *The following analyses require specific method and/or compound list: BTEX, Metals, PFAS																																																																																																																																																																																				
<b>INVOICE TO:</b> sarah.apsens@alaska.gov dec.water.contracts@alaska.gov					<b>QUOTE #:</b> NTP 22*384					<b>MI</b> (Multi-incremental)		<table border="1"> <thead> <tr> <th>DOC 530B</th> <th>TDS 2540C</th> <th>200.8 metals 2340B Hardness</th> <th>200.8 dissolved metals</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>										DOC 530B	TDS 2540C	200.8 metals 2340B Hardness	200.8 dissolved metals																	X	X	X	X																	X	X	X	X																	X	X	X	X																	X	X	X	X																	X	X	X	X																	X	X	X	X																	X	X	X	X																	X	X	X	X																	<b>REMARKS/LOC ID</b>
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2AD 2AAB					RM 19					8/16/22					13:50																																																																																																																																																																																											
3AD 3AAB					RM 5					8/16/22					13:20																																																																																																																																																																																											
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6AD 24AB					RM 31					8/17/22					11:25																																																																																																																																																																																											
7AD 25AB					RM 31 DUP					8/17/22					11:25																																																																																																																																																																																											
8AD 26AB					RM 40					8/17/22					10:40																																																																																																																																																																																											
9AD 27AB					RM 70					8/17/22					9:50																																																																																																																																																																																											
10AD 23AD					RM 20.75					8/15/22					12:30																																																																																																																																																																																											

Section 1

Section 2

Section 5

Relinquished By: (1)  
*[Signature]*

Date: 8/17/22  
Time: 15:00

Received By:  
*[Signature]*

Section 4 DOD Project? Yes  No

Data Deliverable Requirements:

Cooler ID: \_\_\_\_\_

Requested Turnaround Time and/or Special Instructions:

Temp Blank °C: 1) 2.8 D54  
2) 3.7 D54  
or Ambient [ ]

Chain of Custody Seal: (Circle)  
**INTACT** BROKEN ABSENT

Delivery Method: Hand Delivery [ ] Commerical Delivery [X]



SGS North America Inc.  
CHAIN OF CUSTODY RECORD

Cooler # 2 / of 2

www.us.sgs.com

<b>CLIENT:</b> Alaska Department of Environmental Conservation					<b>Instructions: Sections 1 - 5 must be filled out.</b> Omissions may delay the onset of analysis.					Page <u>1</u> of <u>1</u>																																																																																																																																								
<b>CONTACT:</b> Sarah Apsens					<b>PHONE #:</b> 907 741 1026		Section 3		Preservative																																																																																																																																									
<b>PROJECT NAME:</b> Kenai River Metals Monitoring					<b>PROJECT/ PWSID/ PERMIT#:</b>		# C O N T A I N E R S  Comp Grab MI (Multi- incremental)		HNO3			<b>NOTE:</b> *The following analyses require specific method and/or compound list: BTEX, Metals, PFAS																																																																																																																																						
<b>REPORTS TO:</b> Sarah Apsens					<b>E-MAIL:</b> sarah.apsens@alaska.gov				<b>Analysis*</b>																																																																																																																																									
<b>INVOICE TO:</b> sarah.apsens@alaska.gov dec.water.contracts@alaska.gov					<b>QUOTE #:</b> NTP 22*384				DOC 530B    TDS 2540C    200.8 metals 2340B Hardness    200.8 dissolved metals																																																																																																																																									
<b>P.O. #:</b> Term contract #18-220-20-2					<b>Profile #:</b>																																																																																																																																													
<table border="1"> <thead> <tr> <th>RESERVED for lab use</th> <th>SAMPLE IDENTIFICATION</th> <th>DATE mm/dd/yy</th> <th>TIME HH:MM</th> <th>MATRIX/ MATRIX CODE</th> <th>#</th> <th>CONTAINER S</th> <th>Comp</th> <th>Grab</th> <th>MI (Multi-incremental)</th> <th>DOC 530B</th> <th>TDS 2540C</th> <th>200.8 metals 2340B Hardness</th> <th>200.8 dissolved metals</th> <th>REMARKS/LOC ID</th> </tr> </thead> <tbody> <tr> <td></td> <td>11AD 29AB RM 21.1</td> <td>8/16/22</td> <td>14:15</td> <td>W</td> <td>4</td> <td>Grab</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>12AD 30AD RM 12.75</td> <td>8/15/22</td> <td>11:30</td> <td>W</td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>13AD 31AB RM 12.75 DUP</td> <td>8/15/22</td> <td>11:30</td> <td></td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>14AD 32AB RM 21</td> <td>8/16/22</td> <td>14:40</td> <td></td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>15AD 33AB RM 21 DUP</td> <td>8/16/22</td> <td>14:40</td> <td></td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>16AD 34AB Field Blank</td> <td>8/15/22</td> <td>12:10</td> <td></td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>17AD 35AB RM 19.1</td> <td>8/15/22</td> <td>12:07</td> <td></td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>18AD 36AB RM 10.1</td> <td>8/15/22</td> <td>11:09</td> <td></td> <td></td> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>												RESERVED for lab use	SAMPLE IDENTIFICATION	DATE mm/dd/yy	TIME HH:MM	MATRIX/ MATRIX CODE	#	CONTAINER S	Comp	Grab	MI (Multi-incremental)	DOC 530B	TDS 2540C	200.8 metals 2340B Hardness	200.8 dissolved metals	REMARKS/LOC ID		11AD 29AB RM 21.1	8/16/22	14:15	W	4	Grab	X	X	X	X						12AD 30AD RM 12.75	8/15/22	11:30	W			X	X	X	X						13AD 31AB RM 12.75 DUP	8/15/22	11:30				X	X	X	X						14AD 32AB RM 21	8/16/22	14:40				X	X	X	X						15AD 33AB RM 21 DUP	8/16/22	14:40				X	X	X	X						16AD 34AB Field Blank	8/15/22	12:10				X	X	X	X						17AD 35AB RM 19.1	8/15/22	12:07				X	X	X	X						18AD 36AB RM 10.1	8/15/22	11:09				X	X	X	X				
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<b>Delivery Method:</b> Hand Delivery <input checked="" type="checkbox"/> Commercial Delivery <input type="checkbox"/>																																																																																																																																																		

http://www.sgs.com/terms-and-conditions

# AIRBILL 10329853

I hereby declare that the goods contained herein do not contain dangerous goods.

Signed..... Date .....

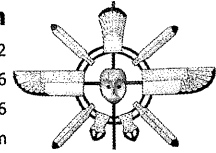
**Grant Aviation**  
6420 Kulis Dr. Anchorage, AK 99502

**Phone:** 1 (888) 359-4726

**Freephone:** 1 (888) 359-4726

**Email:** res@flygrant.com

**Web:** http://www.flygrant.com/



**GRANT AVIATION**

## FREIGHT DETAILS

**FROM/TO:** Kenai -> Anchorage International

**Flight Departs:** Aug 17 22 4:25 PM

**Receiver:** SGS - JUSTIN NELSON  
907-206-1339

**Sender:** DEPT OF CONSERVATIONS  
sarah aspens

**Accepted:** Wed, Aug 17 22 3:32:00 PM

Description & Comment	Quan.	Wgt.	Handle Fee	Hazmat Fee	Total
water sample	2	78	-	-	\$58.73
Total Tax:					\$3.67
Total Payments made:					\$62.40
<b>Total Unpaid:</b>					<b>\$0.00</b>

Received in good condition by: .....

## CUSTOMER COPY

# AIRBILL 10329853

I hereby declare that the goods contained herein do not contain dangerous goods.

Signed..... Date .....

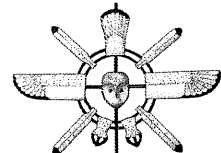
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## TERMS AND CONDITIONS

Consignemnt Note Text



**Alert Expeditors Inc.**

#420767

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



Date 8-18-22  
From SOA Dept. of Conservation

To SGS Labs Inc

Collect  Prepay  Advance Charges

Job # ENA PO# Grant 10329853

Samples x2  
2 at 78 LBS

Shipped Signature \_\_\_\_\_

Received By: \_\_\_\_\_ Total Charge \_\_\_\_\_ 89 of 92



SGS Workorder #:

1224937

1224937

Review Criteria	Condition (Yes, No, N/A)	Exceptions Noted below
-----------------	--------------------------	------------------------

**Chain of Custody / Temperature Requirements**

*Note: Temperature and COC seal information is found on the chain of custody form*

DOD only: Did all sample coolers have a corresponding COC? N/A

If <0°C, were sample containers ice free? N/A

Note containers received with ice:

Identify any containers received at non-compliant temperature:

*(Use form FS-0029 if more space is needed)*

**Holding Time / Documentation / Sample Condition Requirement**

*Note: Refer to form F-083 "Sample Guide" for specific holding times and sample containers.*

Were samples received within analytical holding time? Yes

Do sample labels match COC? Record discrepancies. Yes

**Note:** If information on containers differs from COC, default to COC information for login. If times differ <1hr, record details & login per COC.

Were analytical requests clear? Yes

*(i.e. method is specified for analyses with multiple option for method (Eg, BTEX 8021 vs 8260, Metals 6020 vs 200.8)*

Were proper containers (type/mass/volume/preservative) used? Yes

Note: Exemption for metals analysis by 200.8/6020 in water.

**Volatile Analysis Requirements (VOC, GRO, LL-Hg, etc.)**

Were all soil VOAs received with a corresponding % solids container? N/A

Were Trip Blanks (e.g., VOAs, LL-Hg) in cooler with samples? N/A

Were all water VOA vials free of headspace (e.g., bubbles ≤ 6mm)? N/A

Were all soil VOAs field extracted with Methanol+BFB? N/A

**Note to Client:** Any "No", answer above indicates non-compliance with standard procedures and may impact data quality.

**Additional notes (if applicable):**



## 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>
1224937001-A	No Preservative Required	OK	1224937013-B	HCL to pH < 2	OK
1224937001-B	HCL to pH < 2	OK	1224937013-C	No Preservative Required	OK
1224937001-C	No Preservative Required	OK	1224937013-D	HNO3 to pH < 2	OK
1224937001-D	HNO3 to pH < 2	OK	1224937014-A	No Preservative Required	OK
1224937002-A	No Preservative Required	OK	1224937014-B	HCL to pH < 2	OK
1224937002-B	HCL to pH < 2	OK	1224937014-C	No Preservative Required	OK
1224937002-C	No Preservative Required	OK	1224937014-D	HNO3 to pH < 2	OK
1224937002-D	HNO3 to pH < 2	OK	1224937015-A	No Preservative Required	OK
1224937003-A	No Preservative Required	OK	1224937015-B	HCL to pH < 2	OK
1224937003-B	HCL to pH < 2	OK	1224937015-C	No Preservative Required	OK
1224937003-C	No Preservative Required	OK	1224937015-D	HNO3 to pH < 2	OK
1224937003-D	HNO3 to pH < 2	OK	1224937016-A	No Preservative Required	OK
1224937004-A	No Preservative Required	OK	1224937016-B	HCL to pH < 2	OK
1224937004-B	HCL to pH < 2	OK	1224937016-C	No Preservative Required	OK
1224937004-C	No Preservative Required	OK	1224937016-D	HNO3 to pH < 2	OK
1224937004-D	HNO3 to pH < 2	OK	1224937017-A	No Preservative Required	OK
1224937005-A	No Preservative Required	OK	1224937017-B	HCL to pH < 2	OK
1224937005-B	HCL to pH < 2	OK	1224937017-C	No Preservative Required	OK
1224937005-C	No Preservative Required	OK	1224937017-D	HNO3 to pH < 2	OK
1224937005-D	HNO3 to pH < 2	OK	1224937018-A	No Preservative Required	OK
1224937006-A	No Preservative Required	OK	1224937018-B	HCL to pH < 2	OK
1224937006-B	HCL to pH < 2	OK	1224937018-C	No Preservative Required	OK
1224937006-C	No Preservative Required	OK	1224937018-D	HNO3 to pH < 2	OK
1224937006-D	HNO3 to pH < 2	OK	1224937019-A	No Preservative Required	OK
1224937007-A	No Preservative Required	OK	1224937019-B	HNO3 to pH < 2	OK
1224937007-B	HCL to pH < 2	OK	1224937020-A	No Preservative Required	OK
1224937007-C	No Preservative Required	OK	1224937020-B	HNO3 to pH < 2	OK
1224937007-D	HNO3 to pH < 2	OK	1224937021-A	No Preservative Required	OK
1224937008-A	No Preservative Required	OK	1224937021-B	HNO3 to pH < 2	OK
1224937008-B	HCL to pH < 2	OK	1224937022-A	No Preservative Required	OK
1224937008-C	No Preservative Required	OK	1224937022-B	HNO3 to pH < 2	OK
1224937008-D	HNO3 to pH < 2	OK	1224937023-A	No Preservative Required	OK
1224937009-A	No Preservative Required	OK	1224937023-B	HNO3 to pH < 2	OK
1224937009-B	HCL to pH < 2	OK	1224937024-A	No Preservative Required	OK
1224937009-C	No Preservative Required	OK	1224937024-B	HNO3 to pH < 2	OK
1224937009-D	HNO3 to pH < 2	OK	1224937025-A	No Preservative Required	OK
1224937010-A	No Preservative Required	OK	1224937025-B	HNO3 to pH < 2	OK
1224937010-B	HCL to pH < 2	OK	1224937026-A	No Preservative Required	OK
1224937010-C	No Preservative Required	OK	1224937026-B	HNO3 to pH < 2	OK
1224937010-D	HNO3 to pH < 2	OK	1224937027-A	No Preservative Required	OK
1224937011-A	No Preservative Required	OK	1224937027-B	HNO3 to pH < 2	OK
1224937011-B	HCL to pH < 2	OK	1224937028-A	No Preservative Required	OK
1224937011-C	No Preservative Required	OK	1224937028-B	HNO3 to pH < 2	OK
1224937011-D	HNO3 to pH < 2	OK	1224937029-A	No Preservative Required	OK
1224937012-A	No Preservative Required	OK	1224937029-B	HNO3 to pH < 2	OK
1224937012-B	HCL to pH < 2	OK	1224937030-A	No Preservative Required	OK
1224937012-C	No Preservative Required	OK	1224937030-B	HNO3 to pH < 2	OK
1224937012-D	HNO3 to pH < 2	OK	1224937031-A	No Preservative Required	OK
1224937013-A	No Preservative Required	OK	1224937031-B	HNO3 to pH < 2	OK

<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>	<u>Container Id</u>	<u>Preservative</u>	<u>Container Condition</u>
1224937032-A	No Preservative Required	OK			
1224937032-B	HNO3 to pH < 2	OK			
1224937033-A	No Preservative Required	OK			
1224937033-B	HNO3 to pH < 2	OK			
1224937034-A	No Preservative Required	OK			
1224937034-B	HNO3 to pH < 2	OK			
1224937035-A	No Preservative Required	OK			
1224937035-B	HNO3 to pH < 2	OK			
1224937036-A	No Preservative Required	OK			
1224937036-B	HNO3 to pH < 2	OK			

#### 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.