



May 29, 2024

Mark Bransom, Chief Executive Officer Klamath River Renewal Corporation 2001 Addison Street, Suite 317 Berkeley, CA 94704

RE: Klamath River Metal Samples Collected May 1-2, 2024

Dear Mr. Bransom,

On May 1-2, 2024, Camas, LLC (Camas) staff collected water samples at 10 locations along the mainstem Klamath River from just upstream of the former J.C. Boyle Reservoir footprint in Oregon to Happy Camp, California. Camas delivered the ice-chilled samples to the Neilson Research Corporation (Neilson) laboratory in Medford, Oregon on the same day the samples were collected (May 1, 2024 for 8 locations in California, and May 2, 2024 for 2 locations in Oregon). The Neilson laboratory then processed and analyzed the samples for the parameters listed in the table below.

Analyte(s)	Method
Hg (total)	E245.1
Al, Fe (total and dissolved)	E200.7
As, Cd, Cr, Cu, Pb, Ni, Ag, Zn (total and dissolved)	E200.8
Cr (VI) (total)	E218.6
TOC (total)	A5310C
Hardness (total)	A2340B

I received the laboratory results from Neilson on May 13 and 14, 2024 and reviewed the data/quality control reports. On May 15, 2024 I provided all laboratory reports to an independent water quality analyst, Dr. Jacob Kann of Aquatic Ecosystem Sciences LLC. Dr. Kann has extensive Klamath River water quality experience and is highly respected in the field.

Dr. Kann analyzed the laboratory results and has provided a technical memorandum summarizing the findings by comparing results with regulatory standards, previous sampling efforts, and spatial trends. The primary conclusions were that metals concentrations in the mainstem Klamath River 1) are safe for recreation, agricultural use, and as a raw water source for public drinking water systems (after filtration and treatment); 2) are substantially lower than concentrations found by Siskiyou County in their January 31, 2024 sampling effort; and 3) tended to increase in concentration from upstream to downstream even in reaches without a reservoir footprint.

Dr. Kann's technical memorandum is attached here along with the full laboratory reports from Neilson. If you have any questions, please contact me by email at <a href="mailto:matt@camasllc.com">matt@camasllc.com</a> or by phone at (541) 231-9392.

Signed:

Matt Robart, Scientist IV, Camas, LLC





# Attachment Technical Memorandum

Review of KRRC Klamath River Metal Samples Collected May 1-2, 2024



# JACOB KANN, Ph.D. AQUATIC ECOLOGIST

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Email: jacob@aquatic-ecosciences.com

#### Technical Memorandum

#### Review of KRRC Klamath River Metal Samples Collected May 1-2, 2024

**Prepared for: Klamath River Renewal Corporation** 

Prepared by: Jacob Kann Ph.D., Aquatic Ecosystem Sciences LLC

Date: 28 May 2024

On May 1<sup>st</sup> and 2<sup>nd</sup> 2024, Camas Environmental Professionals (Camas) collected water samples for analysis of total and dissolved metals in the mainstem Klamath River. Results of this monitoring effort indicate that metals in Klamath River water at the time of the May sampling event at the sampled locations were at safe concentrations for recreational and agricultural uses, and for use as a raw water source for public drinking water systems that include filtration and treatment.

The purpose of this memo is to review and evaluate a set of metals data collected longitudinally along the Klamath River on May 1<sup>st</sup> and 2<sup>nd</sup> of 2024, and to provide context relative to beneficial uses for drinking water, crop irrigation, and livestock drinking water. These data were collected by Camas on behalf of the Klamath River Renewal Corporation (KRRC). As predicted, subsequent to the drawdown and the release of sediment laden water behind the Iron Gate, Copco No. 1, and J.C. Boyle dams as part of the Klamath River dam removal project, Klamath River turbidity levels sharply increased in January of 2024. Metals data (total recoverable concentrations) collected by Siskiyou County on January 31<sup>st</sup>, 2024 (CKM Environmental 2024) showed elevated levels of aluminum, arsenic, iron, and lead that exceeded thresholds for human drinking water<sup>1</sup>. In addition, concentrations of aluminum exceeded thresholds for crop irrigation and livestock drinking water, and iron exceeded the crop irrigation threshold<sup>2</sup>.

These elements were previously determined to be associated with the settled sediment behind the dams, and concentrations were expected to spike with initial flushing, and then decline over time as sediment was transported downstream to the Pacific Ocean. The purpose of the sampling effort on May 1-2, 2024 was to determine the longitudinal pattern of both total and

https://www.waterboards.ca.gov/drinking water/certlic/drinkingwater/documents/ccr/mcls epa vs dwp.pdf
https://www.waterboards.ca.gov/water issues/programs/water quality goals/docs/wq assessment thresholds.xlsx
Secondary Drinking Water Standards - Non-mandatory water quality standards established as guidelines to assist public water systems in managing their drinking water for aesthetic considerations, such as taste, color, and odor: https://www.waterboards.ca.gov/drinking water/certlic/drinkingwater/documents/ddw secondary standards.pdf

<sup>&</sup>lt;sup>1</sup> California Public Health Goal for Drinking Water

<sup>&</sup>lt;sup>2</sup> United Nations Food and Agriculture Organization (UN FAO) Recommended Maximum Concentrations Of Trace Elements In Irrigation Water <a href="https://www.fao.org/4/T0234E/T0234E06.htm#tab21">https://www.fao.org/4/T0234E/T0234E06.htm#tab21</a>
UN FAO Guidelines For Levels Of Toxic Substances In Livestock Drinking Water <a href="https://www.fao.org/4/T0234E/T0234E07.htm#tab30">https://www.fao.org/4/T0234E/T0234E07.htm#tab30</a>

dissolved metals concentrations beginning just above the J.C. Boyle reservoir reach and extending downstream to Happy Camp.

With the exception of the dissolved fraction, where samples were not field filtered<sup>3</sup>, my review of the sampling protocol (KRRC Enhanced Metals Sampling SOP; CAMAS 2024)<sup>4</sup> and laboratory methods (Appendix 1: Nielsen Research Corporation Laboratory Reports) showed that all standard QA/QC protocols were followed for the established stations (Table 1).

Table 1. Klamath River May1-2, 2024 metals sampling stations ordered longitudinally from upstream to downstream.

Site ID	Site Name	River Mile	Latitude	Longitude	Description
01 JCB up	J.C. Boyle Upstream	234.1	42.15053	-122.01642	Just upstream of the former J.C. Boyle Reservoir
02 JCB down	J.C. Boyle Downstream	225.7	42.08927	-122.07236	Boat ramp at Spring Island River Access, downstream of the J.C. Boyle Powerhouse
03 PA1	Public Access No. 1	209	41.96514	-122.25227	River access near upstream extent of former Copco No. 1 Reservoir
04 IG	Iron Gate	192.8	41.93107	-122.44198	100 feet upstream of the Iron Gate boat ramp
05 KWA	Klamathon Wildlife Area	185.4	41.89122	-122.53789	0.83 miles downstream of Klamathon Bridge
06 SH	Snag Hole	178.5	41.82876	-122.60496	0.75 miles downstream of the Shasta River confluence
07 BC	Beaver Creek	162.5	41.86438	-122.81914	0.75 miles downstream of the Beaver Creek confluence
08 HCR	Horse Creek	149.4	41.82879	-123.00543	670 feet downstream of Horse Creek Bridge
09 SV	Seiad Valley	131.4	41.84303	-123.21198	0.72 miles downstream of Wildwood Tavern/RV
10 HCA	Нарру Сатр	110	41.80787	-123.36428	River access at Happy Camp Septic/Chemical Toilet

<sup>&</sup>lt;sup>3</sup> Laboratory filtration occurred within 24 hours; 9:20 am for the 5/1 samples; 2:38 pm for the 5/2 samples. Given ambient pH, the 24 hr. filtered samples are likely representative of dissolved conditions at the time of sampling.

<sup>&</sup>lt;sup>4</sup> SWAMP SOP: Collections of Water and Bed Sediment Samples with Associated Field Measurements and Physical Habitat in California

https://www.waterboards.ca.gov/water\_issues/programs/swamp/docs/final\_collect\_wat`er\_sed\_phys\_habitat.pdf

For total forms during the May sampling, only aluminum, iron, and arsenic were consistently detected above laboratory reporting limits at all stations, with chromium detected at low levels at KWA and SV, and copper at KWA and HCR (Figure 1). All other metals were either not detected or were below laboratory reporting limits (for graphing purposes shown as zeros on Figure 1). As expected with continued sediment transport from the disturbed river channels in the former reservoir footprints, concentrations of aluminum and iron increased from above J.C. Boyle (JCB up) to below J.C. Boyle (JCB down), and again from above Copco (PA1) to below Iron Gate (IG). For reasons that are unclear (results are only from one point in time limiting interpretation), concentrations of total aluminum and iron also increased from below Boyle to above Copco, and from below Iron Gate to below the Klamathon Bridge (KWA), reaches that are not within the former reservoir footprints. Although arsenic was detected at all stations, concentrations did not increase longitudinally through the former reservoir reaches, indicating that on May 1-2 total arsenic values represented those entering from the basin upstream of the J.C. Boyle reach (Figure 1.).

In addition, total metal concentrations declined sharply from the Siskiyou County January 31<sup>st</sup> sampling date for all parameters<sup>5</sup>, with cadmium, chromium-VI, lead, mercury, nickel, silver, and zinc not detected or below laboratory reporting limits during the May 1-2 sampling (Figure 1). For aluminum, iron, and arsenic, total concentrations also declined substantially from late January to early May.

During the May sampling, detections of arsenic, chromium, and copper were below the EPA or California primary minimum contaminant levels (MCL)<sup>6</sup> for drinking water of 0.01, 0.05, and 1.3 mg/L, respectively. For aluminum and iron, which are primarily regulated as secondary drinking water MCLs (non-mandatory water quality standards -see footnote 1), several stations (KWA downstream to HCR) continued to exceed the 1 mg/L California Primary MCL for aluminum. Total aluminum at all stations, and total iron (at all stations except JCB up) exceeded the EPA secondary MCLs of 0.2 mg/L and 0.3 mg/L. However, these total aluminum and iron values represent raw water, and drinking water systems such as the one operated by CalTrans at the IS Rest Area<sup>7</sup> use flocculation and filtration prior to chlorination and use for potable water. As shown by the results for dissolved metals, concentrations of aluminum and iron were well below drinking water thresholds (Figure 2; highest dissolved aluminum was 0.0702 mg/L at PA1, and highest dissolved iron was 0.0809 mg/L at IG). These dissolved results would reflect concentrations similar to those expected after filtration/flocculation and prior to use as a potable water source. Thresholds for crop irrigation and livestock drinking were not exceeded for any of the total metals analyzed on May 1-2, 2024 (Figure 1).

In summary, Klamath River total metal concentrations in samples collected by CAMAS Environmental Professionals in early May declined sharply from Siskiyou County's late January results. Only total aluminum and iron concentrations exceeded drinking water thresholds

<sup>&</sup>lt;sup>5</sup> note that Siskiyou County did not sample above the KWA station.

<sup>&</sup>lt;sup>6</sup> https://www.waterboards.ca.gov/drinking\_water/certlic/drinkingwater/documents/ccr/mcls\_epa\_vs\_dwp.pdf

<sup>&</sup>lt;sup>7</sup> This is the only known public drinking water system using Klamath River water.

(which are primarily secondary MCLs), and dissolved concentrations of all analyzed metals were well below drinking water thresholds. In addition, thresholds for crop irrigation and livestock drinking were not exceeded for any of the analyzed total metals. Results of this monitoring effort indicate that metals in Klamath River water at the time of the May sampling event at the sampled locations were at safe concentrations for recreational and agricultural uses, and for use as a raw water source for public drinking water systems that include filtration and treatment<sup>8</sup>.

#### References Cited:

CKM Environmental. 2024. Klamath Dam Removal Project – Siskiyou County Environmental Health Water Quality Sampling Results for Heavy Metals Memorandum. Memorandum prepared by C. Murphy, CKM Environmental for The Siskiyou County Board of Supervisors, March 1, 2024.

Camas Environmental Professionals. 2024. KRRC Enhanced Metals Sampling with attached SWAMP California Surface Water Ambient Monitoring Program Standard Operating Procedures for Water Sampling. Prepared by CAMAS Environmental Professionals for KRRC, April 2024.

<sup>8</sup> Testing of finished water would be required for confirmation of safe levels.

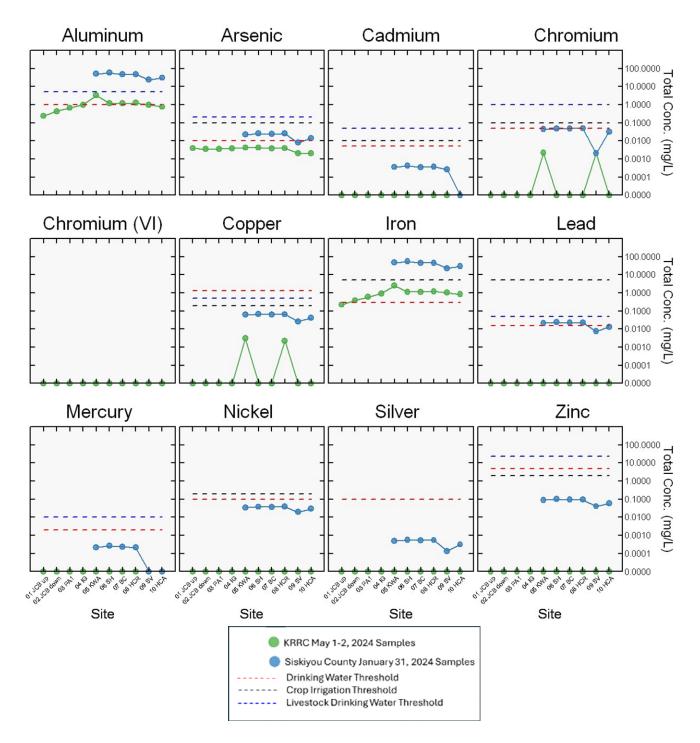


Figure 1. Klamath River total metal concentrations May 1-2, 2024. Sites ordered longitudinally from upstream (left) to downstream (right) on the x-axis. Y-axis is log-base 10.

Thresholds are as defined in footnotes 1 and 2. Siskiyou County data are as described in CKM Environmental (2024).

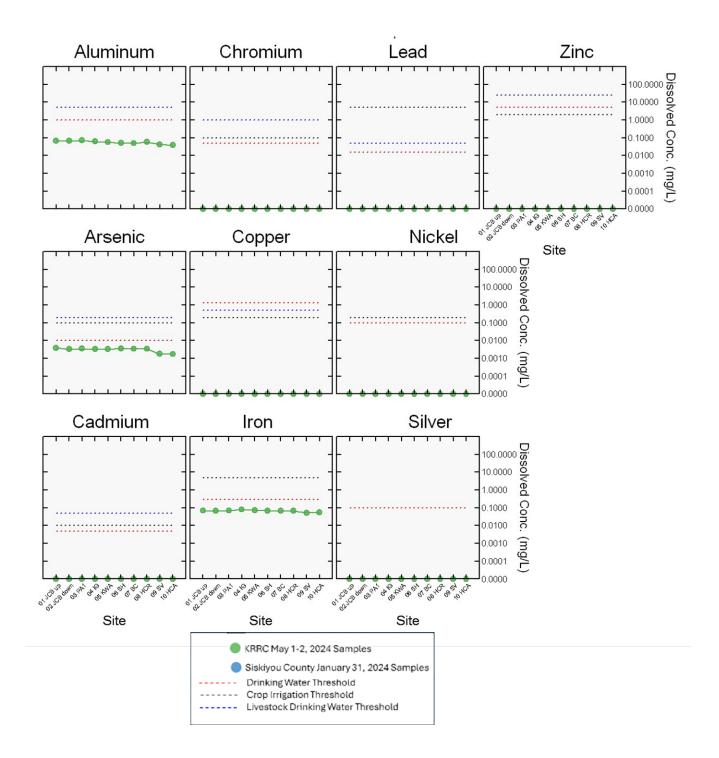


Figure 2. Klamath River dissolved metal concentrations May 1-2, 2024. Sites ordered longitudinally from upstream (left) to downstream (right) on the x-axis. Y-axis is log-base 10. Thresholds are as defined in footnotes 1 and 2. Siskiyou County did not perform dissolved metals sampling.

Appendix I: Neilsen Research Corporation May 1-2, 2024 Laboratory Results	



May 13, 2024

Matt Robart Camas LLC 680 G St

Jacksonville, OR 97530 TEL: (541) 231-9392

**FAX** 

RE: Lower Klamath Metals-AMENDED Order No.: 24050048

Dear Matt Robart:

Neilson Research Corporation received 8 sample(s) on 5/1/2024 for the analyses presented in the following report.

The results relate only to the parameters tested or to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of Neilson Research Corporation. If you have any questions regarding these test results, please feel free to call.

Sincerely, Neilson Research Corporation

•

Tampa Shmedeman

Tamra Schmedemann Senior Project Manager

245 S Grape St Medford, OR 97501











**Case Narrative** 

WO#: 24050048 Date: 5/13/2024

**CLIENT:** Camas LLC

**Project:** Lower Klamath Metals-AMENDED

The analyses were performed according to the guidelines in the Neilson Research Corporation Quality Assurance Program. This report contains analytical results for the sample(s) as received by the laboratory.

Neilson Research Corporation certifies that this report is in compliance with the requirements of NELAP. No unusual difficulties were experienced during analysis of this batch except as noted below or qualified with data flags on the reports.

The report is amended adding "L" flags to all of the Dissolved Metals results since the samples were lab filtered for the dissolved analytes.



Neilson Research Corporation 245 S Grape St Medford, OR 97501 TEL: (541) 770-5678 FAX: (541) 770-2901

Website: www.nrclabs.com

#### **Analytical Report**

WO#: 24050048 Date Reported: 5/13/2024

Revision v1

**CLIENT:** Camas LLC

Client Sample ID PA1

Lower Klamath Metals-AMENDED **Project:** 

Sample Location: Grab

**Collection Date:** 5/1/2024 7:30:00 AM Lab ID: 24050048-01 **Received Date:** 5/1/2024 3:37:00 PM Matrix: AQUEOUS

**Analyses** Method **NELAP** Result DF **MDL RL** Units MCL Date **Analyst Status** Analyzed Qual **MERCURY BY EPA 245.1** Mercury E245.1 Α ND 0.000153 0.000200 mg/L 05/08/24 10:29 CJS **TOTAL HEXAVALENT CHROMIUM BY EPA 218.6** Chromium, Hexavalent E218.6 Α ND 1 0.0840 2.00 μg/L 05/08/24 12:34 SMB **DISSOLVED TRACE METALS** Aluminum, Dissolved E200.7 Α 0.0702 1 0.00895 0.0200 mg/L 05/09/24 19:15 CBB Iron, Dissolved E200.7 Α 0.0704 L 1 0.00858 0.0150 mg/L 05/09/24 19:15 CBB TRACE METALS BY EPA 200.7 ICP Aluminum E200.7 Α 0.659 0.00895 0.0200 mg/L 05/07/24 20:38 CBB 1 Iron E200.7 Α 0.584 1 0.00858 0.0150 mg/L 05/07/24 20:38 CBB HARDNESS BY EPA 200.7 AND SM 2340B CALCULATION Hardness, Total (As A2340B Α 43.2 1 0.258 1.65 05/07/24 20:38 CBB mg/L CaCO3) **DISSOLVED TRACE METALS BY EPA 200.8 ICP-MS** 0.00351 Arsenic, Dissolved E200.8 1 0.000158 0.000500 05/09/24 18:11 CBB Α L mg/L Cadmium, Dissolved E200.8 Α ND L 1 0.0000254 0.000250 mg/L 05/09/24 18:11 CBB E200.8 0.000593 Chromium, Dissolved Α ND L 1 0.00200 mg/L 05/09/24 18:11 CBB Copper, Dissolved E200.8 ND ı 0.000687 0.00200 05/09/24 18:11 CBB Α 1 mg/L 05/09/24 18:11 CBB E200.8 0.000225 Lead, Dissolved Α ND L 1 0.00100 mg/L Nickel, Dissolved E200.8 ND L 0.000562 0.0100 mg/L 05/09/24 18:11 CBB Α Silver, Dissolved E200.8 Α ND L 1 0.0000326 0.000100 mg/L 05/09/24 18:11 CBB Sample container temperature is out of limit as specified at testcode Е Value above quantitation range QUALIFIERS Н Holding times for preparation or analysis exceeded Analyte detected below quantitation limits MI ND Recovery outside comtrol limits due to Matrix Interference Not Detected at the Reporting Limit Permit Limit PL

NELAP

NELAP A Accredited in accordance with NELAP ORELAP 100016, OR-028



#### **Analytical Report**

WO#: 24050048 Date Reported: 5/13/2024

**CLIENT:** Camas LLC Collection Date: 5/1/2024 7:30:00 AM Lab ID: 24050048-01 **Received Date:** 5/1/2024 3:37:00 PM

Client Sample ID PA1 Matrix: AQUEOUS

**Project:** Lower Klamath Metals-AMENDED

Sample Location: Grab

Analyses	Method	NELAP Status		t Qual	DF	MDL	RL	Units	MCL	Date Analyst Analyzed
DISSOLVED TRACE	METALS BY	EPA 200.	8 ICP-MS							
Zinc, Dissolved	E200.8	Α	ND	L	1	0.000685	0.00500	mg/L		05/09/24 18:11 CBB
TRACE METALS BY	EPA 200.8 IO	CP-MS								
Arsenic	E200.8	Α	0.00357		1	0.000158	0.000500	mg/L		05/03/24 23:46 CBB
Cadmium	E200.8	Α	ND		1	0.0000254	0.000250	mg/L		05/03/24 23:46 CBB
Chromium	E200.8	Α	0.000819	J	1	0.000593	0.00200	mg/L		05/03/24 23:46 CBB
Copper	E200.8	Α	0.00168	J	1	0.000687	0.00200	mg/L		05/03/24 23:46 CBB
Lead	E200.8	Α	0.000295	J	1	0.000225	0.00100	mg/L		05/03/24 23:46 CBB
Nickel	E200.8	Α	0.000694	J	1	0.000562	0.0100	mg/L		05/03/24 23:46 CBB
Silver	E200.8	Α	ND		1	0.0000326	0.000100	mg/L		05/03/24 23:46 CBB
Zinc	E200.8	Α	0.00268	J	1	0.000684	0.00500	mg/L		05/03/24 23:46 CBB
TOTAL ORGANIC CA	ARBON SM 5	310 C-201	4							
Organic Carbon, Total	A5310C	Α	3.76		1	0.0989	0.500	mg/L		05/02/24 14:30 TCB

Sample container temperature is out of limit as specified at testcode Н

Holding times for preparation or analysis exceeded

MI Recovery outside comtrol limits due to Matrix Interference

Permit Limit

Ε Value above quantitation range

Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

Revision v1

NELAP A Accredited in accordance with NELAP ORELAP 100016, OR-028



# **Analytical Report**

WO#: 24050048 5/13/2024 Date Reported:

**CLIENT:** Camas LLC Lab ID:

Client Sample ID IG

**Project:** Lower Klamath Metals-AMENDED

Sample Location: Grab

**Collection Date:** 5/1/2024 8:40:00 AM 24050048-02 **Received Date:** 5/1/2024 3:37:00 PM

Matrix: AQUEOUS

Analyses	Method	NELAP Status	Resu	lt Qual	DF	MDL	RL	Units	MCL	Date Analyst Analyzed
MERCURY BY EPA 2	45.1									
Mercury	E245.1	Α	ND		1	0.000153	0.000200	mg/L		05/08/24 10:31 CJS
TOTAL HEXAVALEN	T CHROMIUN	M BY EPA	218.6							
Chromium, Hexavalent	E218.6	Α	ND		1	0.0840	2.00	μg/L		05/08/24 12:44 SMB
DISSOLVED TRACE	METALS									
Aluminum, Dissolved	E200.7	Α	0.0605	L	1	0.00895	0.0200	mg/L		05/09/24 19:25 CBB
Iron, Dissolved	E200.7	Α	0.0809	L	1	0.00858	0.0150	mg/L		05/09/24 19:25 CBB
TRACE METALS BY	EPA 200.7 IC	:P								
Aluminum	E200.7	Α	0.970		1	0.00895	0.0200	mg/L		05/07/24 20:42 CBB
Iron	E200.7	Α	0.920		1	0.00858	0.0150	mg/L		05/07/24 20:42 CBB
HARDNESS BY EPA	200.7 AND S	M 2340B C	CALCULA	ATION						
Hardness, Total (As CaCO3)	A2340B	Α	47.4		1	0.258	1.65	mg/L		05/07/24 20:42 CBB
DISSOLVED TRACE	METALS BY	EPA 200.8	ICP-MS							
Arsenic, Dissolved	E200.8	Α	0.00322	L	1	0.000158	0.000500	mg/L		05/09/24 18:14 CBB
Cadmium, Dissolved	E200.8	Α	ND	L	1	0.0000254	0.000250	mg/L		05/09/24 18:14 CBB
Chromium, Dissolved	E200.8	Α	ND	L	1	0.000593	0.00200	mg/L		05/09/24 18:14 CBB
Copper, Dissolved	E200.8	Α	ND	L	1	0.000687	0.00200	mg/L		05/09/24 18:14 CBB
Lead, Dissolved	E200.8	Α	ND	L	1	0.000225	0.00100	mg/L		05/09/24 18:14 CBB
Nickel, Dissolved	E200.8	Α	ND	L	1	0.000562	0.0100	mg/L		05/09/24 18:14 CBB
Silver, Dissolved	E200.8	Α	ND	L	1	0.0000326	0.000100	mg/L		05/09/24 18:14 CBB
H Holding times for pre	nperature is out of limit eparation or analysis ex mtrol limits due to Mat	ceeded	stcode		E J ND	Value above quantit Analyte detected be Not Detected at the	low quantitation li	nits		
ğ										Revision v1



#### **Analytical Report**

WO#: 24050048 Date Reported: 5/13/2024

**CLIENT:** Camas LLC Lab ID: 24050048-02

Client Sample ID IG

**Project:** Lower Klamath Metals-AMENDED

Sample Location: Grab

Collection Date: 5/1/2024 8:40:00 AM **Received Date:** 5/1/2024 3:37:00 PM

Matrix: AQUEOUS

Analyses	Method	NELAI Status		lt Qual	DF	MDL	RL	Units	MCL	Date Analyst Analyzed
DISSOLVED TRACE	METALS BY	EPA 200.	8 ICP-MS							
Zinc, Dissolved	E200.8	Α	ND	L	1	0.000685	0.00500	mg/L		05/09/24 18:14 CBB
TRACE METALS BY	EPA 200.8 IC	CP-MS								
Arsenic	E200.8	Α	0.00378		1	0.000158	0.000500	mg/L		05/07/24 18:51 CJS
Cadmium	E200.8	Α	ND		1	0.0000254	0.000250	mg/L		05/07/24 18:51 CJS
Chromium	E200.8	Α	0.000821	J	1	0.000593	0.00200	mg/L		05/07/24 18:51 CJS
Copper	E200.8	Α	0.00158	J	1	0.000687	0.00200	mg/L		05/07/24 18:51 CJS
Lead	E200.8	Α	0.000365	J	1	0.000225	0.00100	mg/L		05/07/24 18:51 CJS
Nickel	E200.8	Α	0.000890	J	1	0.000562	0.0100	mg/L		05/07/24 18:51 CJS
Silver	E200.8	Α	ND		1	0.0000326	0.000100	mg/L		05/07/24 18:51 CJS
Zinc	E200.8	Α	0.00196	J	1	0.000684	0.00500	mg/L		05/07/24 18:51 CJS
TOTAL ORGANIC CA	ARBON SM 53	310 C-201	14							
Organic Carbon, Total	A5310C	Α	3.47		1	0.0989	0.500	mg/L		05/02/24 14:48 TCB

Sample container temperature is out of limit as specified at testcode Н Holding times for preparation or analysis exceeded

MI Recovery outside comtrol limits due to Matrix Interference

Permit Limit

Ε Value above quantitation range

Page 6 of 35

Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

Revision v1

NELAP A Accredited in accordance with NELAP ORELAP 100016, OR-028



Neilson Research Corporation 245 S Grape St Medford, OR 97501 TEL: (541) 770-5678 FAX: (541) 770-2901

Website: www.nrclabs.com

#### **Analytical Report**

WO#: 24050048

Date Reported: 5/13/2024

05/08/24 10:33 CJS

05/08/24 12:55 SMB

**CLIENT:** Camas LLC **Lab ID:** 24050048-03

Client Sample ID KWA

**Project:** Lower Klamath Metals-AMENDED

Method

**NELAP** 

**Status** 

Α

Α

Result

ND

ND

Sample Location: Grab

**MERCURY BY EPA 245.1** 

Chromium, Hexavalent

**Analyses** 

Mercury

 Camas LLC
 Collection Date:
 5/1/2024 9:15:00 AM

 24050048-03
 Received Date:
 5/1/2024 3:37:00 PM

 KWA
 Matrix:
 AQUEOUS

DF MDL RL Units MCL Date Analyst Qual Analyzed

mg/L

μg/L

0.000153 0.000200

0.0840

2.00

E245.1

E218.6

DISSOLVED TRACE	METALS								
Aluminum, Dissolved	E200.7	Α	0.0557	L	1	0.00895	0.0200	mg/L	05/09/24 19:28 CBB
Iron, Dissolved	E200.7	Α	0.0744	L	1	0.00858	0.0150	mg/L	05/09/24 19:28 CBB

1

#### TRACE METALS BY EPA 200.7 ICP

Aluminum	E200.7	Α	3.21	1	0.00895	0.0200	mg/L	05/07/24 20:45 CBB
Iron	E200.7	Α	2.47	1	0.00858	0.0150	mg/L	05/07/24 20:45 CBB

#### HARDNESS BY EPA 200.7 AND SM 2340B CALCULATION

Hardness, Total (As	A2340B	Α	49.8	1	0.258	1.65	mg/L	05/07/24 20:45 CBB
CaCO3)								

#### **DISSOLVED TRACE METALS BY EPA 200.8 ICP-MS**

Arsenic, Dissolved	E200.8	Α	0.00325	L	1	0.000158	0.000500	mg/L	05/09/24 18:17 CBB
Cadmium, Dissolved	E200.8	Α	ND	L	1	0.0000254	0.000250	mg/L	05/09/24 18:17 CBB
Chromium, Dissolved	E200.8	Α	ND	L	1	0.000593	0.00200	mg/L	05/09/24 18:17 CBB
Copper, Dissolved	E200.8	Α	ND	L	1	0.000687	0.00200	mg/L	05/09/24 18:17 CBB
Lead, Dissolved	E200.8	Α	ND	L	1	0.000225	0.00100	mg/L	05/09/24 18:17 CBB
Nickel, Dissolved	E200.8	Α	ND	L	1	0.000562	0.0100	mg/L	05/09/24 18:17 CBB
Silver, Dissolved	E200.8	Α	ND	L	1	0.0000326	0.000100	mg/L	05/09/24 18:17 CBB

C1 Sample container temperature is out of limit as specified at testcode
H Holding times for preparation or analysis exceeded

H Holding times for preparation or analysis exceeded
MI Recovery outside comtrol limits due to Matrix Interference

PL Permit Limit

E Value above quantitation range

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit



#### **Analytical Report**

WO#: 24050048

Date Reported: 5/13/2024

 CLIENT:
 Camas LLC
 Collection Date: 5/1/2024 9:15:00 AM

 Lab ID:
 24050048-03
 Received Date: 5/1/2024 3:37:00 PM

Client Sample ID KWA Matrix: AQUEOUS

**Project:** Lower Klamath Metals-AMENDED

Sample Location: Grab

Analyses	Method	NELAP Status		t Qual	DF	MDL	RL	Units	MCL	Date Analyst Analyzed
DISSOLVED TRACE	METALS BY	EPA 200.	8 ICP-MS							
Zinc, Dissolved	E200.8	Α	ND	L	1	0.000685	0.00500	mg/L		05/09/24 18:17 CBB
TRACE METALS BY	EPA 200.8 IO	CP-MS								
Arsenic	E200.8	Α	0.00414		1	0.000158	0.000500	mg/L		05/07/24 20:37 CJS
Cadmium	E200.8	Α	ND		1	0.0000254	0.000250	mg/L		05/07/24 20:37 CJS
Chromium	E200.8	Α	0.00215		1	0.000593	0.00200	mg/L		05/07/24 20:37 CJS
Copper	E200.8	Α	0.00307		1	0.000687	0.00200	mg/L		05/07/24 20:37 CJS
Lead	E200.8	Α	0.000717	J	1	0.000225	0.00100	mg/L		05/07/24 20:37 CJS
Nickel	E200.8	Α	0.00233	J	1	0.000562	0.0100	mg/L		05/07/24 20:37 CJS
Silver	E200.8	Α	ND		1	0.0000326	0.000100	mg/L		05/07/24 20:37 CJS
Zinc	E200.8	Α	0.00467	J	1	0.000684	0.00500	mg/L		05/07/24 20:37 CJS
TOTAL ORGANIC CA	ARBON SM 5	310 C-201	4							
Organic Carbon, Total	A5310C	Α	3.50		1	0.0989	0.500	mg/L		05/02/24 15:07 TCB

UALIFIER

C1 Sample container temperature is out of limit as specified at testcode
H Holding times for preparation or analysis exceeded

H Holding times for preparation or analysis exceeded
MI Recovery outside comtrol limits due to Matrix Interference

PL Permit Limit

E Value above quantitation range

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

Revision v1

NELAP  $\,$  A  $\,$  Accredited in accordance with NELAP  $\,$  ORELAP 100016, OR-028  $\,$ 



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Website: www.nrclabs.com

# **Analytical Report**

WO#: 24050048 5/13/2024 Date Reported:

**CLIENT:** Camas LLC Lab ID:

Client Sample ID SH

**Project:** Lower Klamath Metals-AMENDED

Sample Location: Grab

**Collection Date:** 5/1/2024 9:50:00 AM 24050048-04 **Received Date:** 5/1/2024 3:37:00 PM

Matrix: AQUEOUS

Analyses	Method	NELA Statu		lt Qual	DF I	MDL	RL	Units	MCL	Date Analyst Analyzed
MERCURY BY EPA 2	45.1									
Mercury	E245.1	Α	ND		1	0.000153	0.000200	mg/L		05/08/24 10:36 CJS
TOTAL HEXAVALEN	T CHROMIUN	M BY EPA	A 218.6							
Chromium, Hexavalent	E218.6	Α	ND		1	0.0840	2.00	μg/L		05/08/24 13:05 SME
DISSOLVED TRACE	METALS									
Aluminum, Dissolved	E200.7	Α	0.0497	L	1	0.00895	0.0200	mg/L		05/09/24 19:32 CBB
Iron, Dissolved	E200.7	Α	0.0692	L	1	0.00858	0.0150	mg/L		05/09/24 19:32 CBB
TRACE METALS BY	EPA 200.7 IC	:P								
Aluminum	E200.7	Α	1.20		1	0.00895	0.0200	mg/L		05/07/24 20:48 CBB
Iron	E200.7	Α	1.11		1	0.00858	0.0150	mg/L		05/07/24 20:48 CBB
HARDNESS BY EPA	200.7 AND S	M 2340B	CALCULA	ATION						
Hardness, Total (As CaCO3)	A2340B	Α	61.7		1	0.258	1.65	mg/L		05/07/24 20:48 CBB
DISSOLVED TRACE	METALS BY	EPA 200	.8 ICP-MS							
Arsenic, Dissolved	E200.8	Α	0.00362	L	1	0.000158	0.000500	mg/L		05/09/24 18:25 CBB
Cadmium, Dissolved	E200.8	Α	ND	L	1	0.0000254	0.000250	mg/L		05/09/24 18:25 CBB
Chromium, Dissolved	E200.8	Α	ND	L	1	0.000593	0.00200	mg/L		05/09/24 18:25 CBB
Copper, Dissolved	E200.8	Α	ND	L	1	0.000687	0.00200	mg/L		05/09/24 18:25 CBB
Lead, Dissolved	E200.8	Α	ND	L	1	0.000225	0.00100	mg/L		05/09/24 18:25 CBB
Nickel, Dissolved	E200.8	A	0.000576	JL	1	0.000562	0.0100	mg/L		05/09/24 18:25 CBB
Silver, Dissolved	E200.8	Α	ND	L	1	0.0000326	0.000100	mg/L		05/09/24 18:25 CBB
H Holding times for pre	pperature is out of limit paration or analysis ex ntrol limits due to Mat	ceeded			E J ND	Value above quantity Analyte detected be Not Detected at the	low quantitation lin	mits		
ਰ										Revision v1

NELAP A Accredited in accordance with NELAP ORELAP 100016, OR-028



#### **Analytical Report**

WO#: **24050048**Date Reported: **5/13/2024** 

**CLIENT:** Camas LLC **Lab ID:** 24050048-04

Client Sample ID SH

**Project:** Lower Klamath Metals-AMENDED

Sample Location: Grab

S LLC Collection Date: 5/1/2024 9:50:00 AM 0048-04 Received Date: 5/1/2024 3:37:00 PM

Matrix: AQUEOUS

Analyses	Method	NELAI Status		lt Qual	DF	MDL	RL	Units	MCL	Date Analyst Analyzed
DISSOLVED TRACE	METALS BY	EPA 200.	.8 ICP-MS							
Zinc, Dissolved	E200.8	Α	ND	L	1	0.000685	0.00500	mg/L		05/09/24 18:25 CBB
TRACE METALS BY	EPA 200.8 IC	CP-MS								
Arsenic	E200.8	Α	0.00416		1	0.000158	0.000500	mg/L		05/07/24 20:40 CJS
Cadmium	E200.8	Α	ND		1	0.0000254	0.000250	mg/L		05/07/24 20:40 CJS
Chromium	E200.8	Α	0.00196	J	1	0.000593	0.00200	mg/L		05/07/24 20:40 CJS
Copper	E200.8	Α	0.00180	J	1	0.000687	0.00200	mg/L		05/07/24 20:40 CJS
Lead	E200.8	Α	0.000390	J	1	0.000225	0.00100	mg/L		05/07/24 20:40 CJS
Nickel	E200.8	Α	0.00171	J	1	0.000562	0.0100	mg/L		05/07/24 20:40 CJS
Silver	E200.8	Α	ND		1	0.0000326	0.000100	mg/L		05/07/24 20:40 CJS
Zinc	E200.8	Α	0.00234	J	1	0.000684	0.00500	mg/L		05/07/24 20:40 CJS
TOTAL ORGANIC CA	ARBON SM 53	310 C-201	14							
Organic Carbon, Total	A5310C	Α	3.60		1	0.0989	0.500	mg/L		05/02/24 15:25 TCB

QUALIFIER

C1 Sample container temperature is out of limit as specified at testcode H Holding times for preparation or analysis exceeded

MI Recovery outside comtrol limits due to Matrix Interference

PL Permit Limit

E Value above quantitation range

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit



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Website: www.nrclabs.com

# **Analytical Report**

WO#: 24050048 5/13/2024 Date Reported:

**CLIENT:** Camas LLC Lab ID:

Client Sample ID BC

**Project:** Lower Klamath Metals-AMENDED

Sample Location: Grab

**Collection Date:** 5/1/2024 10:30:00 AM 24050048-05 **Received Date:** 5/1/2024 3:37:00 PM

Matrix: AQUEOUS

Analyses	Method	NELAI Status		lt Qual	DF	MDL	RL	Units	MCL	Date Analyst Analyzed
MERCURY BY EPA 2	45.1									
Mercury	E245.1	Α	ND		1	0.000153	0.000200	mg/L		05/08/24 10:38 CJS
TOTAL HEXAVALEN	T CHROMIUN	I BY EPA	218.6							
Chromium, Hexavalent	E218.6	Α	ND		1	0.0840	2.00	μg/L		05/08/24 13:15 SMB
DISSOLVED TRACE	METALS									
Aluminum, Dissolved	E200.7	Α	0.0487	L	1	0.00895	0.0200	mg/L		05/09/24 19:35 CBB
Iron, Dissolved	E200.7	Α	0.0664	L	1	0.00858	0.0150	mg/L		05/09/24 19:35 CBB
TRACE METALS BY	EPA 200.7 IC	P								
Aluminum	E200.7	Α	1.17		1	0.00895	0.0200	mg/L		05/07/24 20:52 CBB
Iron	E200.7	Α	1.12		1	0.00858	0.0150	mg/L		05/07/24 20:52 CBB
HARDNESS BY EPA	200.7 AND S	M 2340B	CALCULA	ATION						
Hardness, Total (As CaCO3)	A2340B	Α	67.3		1	0.258	1.65	mg/L		05/07/24 20:52 CBB
DISSOLVED TRACE	METALS BY	EPA 200.	8 ICP-MS							
Arsenic, Dissolved	E200.8	Α	0.00340	L	1	0.000158	0.000500	mg/L		05/09/24 18:27 CBB
Cadmium, Dissolved	E200.8	Α	ND	L	1	0.0000254	0.000250	mg/L		05/09/24 18:27 CBB
Chromium, Dissolved	E200.8	Α	ND	L	1	0.000593	0.00200	mg/L		05/09/24 18:27 CBB
Copper, Dissolved	E200.8	Α	ND	L	1	0.000687	0.00200	mg/L		05/09/24 18:27 CBB
Lead, Dissolved	E200.8	Α	ND	L	1	0.000225	0.00100	mg/L		05/09/24 18:27 CBB
Nickel, Dissolved	E200.8	Α	0.000888	JL	1	0.000562	0.0100	mg/L		05/09/24 18:27 CBB
Silver, Dissolved	E200.8	Α	ND	L	1	0.0000326	0.000100	mg/L		05/09/24 18:27 CBB
H Holding times for pre	nperature is out of limit eparation or analysis ex introl limits due to Mat	ceeded	estcode		E J ND	Value above quanting Analyte detected be Not Detected at the	low quantitation li	mits		
Ã.										Revision v1



#### **Analytical Report**

WO#: 24050048 Date Reported: 5/13/2024

**CLIENT:** Camas LLC Lab ID: 24050048-05

Client Sample ID BC

**Project:** Lower Klamath Metals-AMENDED

Sample Location: Grab

Collection Date: 5/1/2024 10:30:00 AM **Received Date:** 5/1/2024 3:37:00 PM

Matrix: AQUEOUS

Analyses	Method	NELAP Status		t Qual	DF	MDL	RL	Units	MCL	Date Analyst Analyzed
DISSOLVED TRACE	METALS BY	EPA 200.8	B ICP-MS							
Zinc, Dissolved	E200.8	Α	ND	L	1	0.000685	0.00500	mg/L		05/09/24 18:27 CBB
TRACE METALS BY	EPA 200.8 IC	CP-MS								
Arsenic	E200.8	Α	0.00381		1	0.000158	0.000500	mg/L		05/07/24 20:42 CJS
Cadmium	E200.8	Α	ND		1	0.0000254	0.000250	mg/L		05/07/24 20:42 CJS
Chromium	E200.8	Α	0.00113	J	1	0.000593	0.00200	mg/L		05/07/24 20:42 CJS
Copper	E200.8	Α	0.00182	J	1	0.000687	0.00200	mg/L		05/07/24 20:42 CJS
Lead	E200.8	Α	0.000388	J	1	0.000225	0.00100	mg/L		05/07/24 20:42 CJS
Nickel	E200.8	Α	0.00191	J	1	0.000562	0.0100	mg/L		05/07/24 20:42 CJS
Silver	E200.8	Α	ND		1	0.0000326	0.000100	mg/L		05/07/24 20:42 CJS
Zinc	E200.8	Α	0.00233	J	1	0.000684	0.00500	mg/L		05/07/24 20:42 CJS
TOTAL ORGANIC CA	ARBON SM 53	310 C-201	4							
Organic Carbon, Total	A5310C	Α	3.47		1	0.0989	0.500	mg/L		05/02/24 15:43 TCB

Sample container temperature is out of limit as specified at testcode Н

Holding times for preparation or analysis exceeded

MI Recovery outside comtrol limits due to Matrix Interference

Permit Limit

Ε Value above quantitation range

Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit



Neilson Research Corporation 245 S Grape St Medford, OR 97501 TEL: (541) 770-5678 FAX: (541) 770-2901

Website: www.nrclabs.com

# **Analytical Report**

WO#: 24050048

Date Reported: 5/13/2024

**CLIENT:** Camas LLC **Lab ID:** 24050048-06

Client Sample ID HCR

**Project:** Lower Klamath Metals-AMENDED

Sample Location: Grab

amas LLC Collection Date: 5/1/2024 11:05:00 AM 4050048-06 Received Date: 5/1/2024 3:37:00 PM

Matrix: AQUEOUS

Analyses	Method	NELAF Status		lt Qual	DF	MDL	RL	Units	MCL	Date Analysi Analyzed
MERCURY BY EPA 2	45.1									
Mercury	E245.1	Α	ND		1	0.000153	0.000200	mg/L		05/08/24 10:43 CJS
TOTAL HEXAVALEN	T CHROMIUN	I BY EPA	218.6							
Chromium, Hexavalent	E218.6	Α	ND		1	0.0840	2.00	μg/L		05/08/24 13:26 SMB
DISSOLVED TRACE	METALS									
Aluminum, Dissolved	E200.7	Α	0.0571	L	1	0.00895	0.0200	mg/L		05/09/24 19:38 CBB
Iron, Dissolved	E200.7	Α	0.0674	L	1	0.00858	0.0150	mg/L		05/09/24 19:38 CBB
TRACE METALS BY	EPA 200.7 IC	P								
Aluminum	E200.7	Α	1.23		1	0.00895	0.0200	mg/L		05/07/24 20:55 CBB
Iron	E200.7	Α	1.21		1	0.00858	0.0150	mg/L		05/07/24 20:55 CBB
HARDNESS BY EPA	200.7 AND S	M 2340B	CALCUL	ATION						
Hardness, Total (As CaCO3)	A2340B	Α	66.5		1	0.258	1.65	mg/L		05/07/24 20:55 CBB
DISSOLVED TRACE	METALS BY	EPA 200.	8 ICP-MS							
Arsenic, Dissolved	E200.8	Α	0.00343	L	1	0.000158	0.000500	mg/L		05/09/24 18:30 CBB
Cadmium, Dissolved	E200.8	Α	ND	L	1	0.0000254	0.000250	mg/L		05/09/24 18:30 CBB
Chromium, Dissolved	E200.8	Α	ND	L	1	0.000593	0.00200	mg/L		05/09/24 18:30 CBB
Copper, Dissolved	E200.8	Α	ND	L	1	0.000687	0.00200	mg/L		05/09/24 18:30 CBB
Lead, Dissolved	E200.8	Α	ND	L	1	0.000225	0.00100	mg/L		05/09/24 18:30 CBB
Nickel, Dissolved	E200.8		0.000865	JL	1	0.000562	0.0100	mg/L		05/09/24 18:30 CBB
Silver, Dissolved	E200.8	Α	ND	L	1	0.0000326	0.000100	mg/L		05/09/24 18:30 CBB
H Holding times for pre	perature is out of limit eparation or analysis ex- ntrol limits due to Mati	ceeded	estcode		E J ND	Value above quantit Analyte detected be Not Detected at the	low quantitation lin	mits		
QUAI										Revision v1

NELAP A Accredited in accordance with NELAP ORELAP 100016, OR-028



#### **Analytical Report**

WO#: 24050048 Date Reported: 5/13/2024

**CLIENT:** Camas LLC Lab ID: 24050048-06

**Client Sample ID** HCR

**Project:** Lower Klamath Metals-AMENDED

Sample Location: Grab

Collection Date: 5/1/2024 11:05:00 AM **Received Date:** 5/1/2024 3:37:00 PM

Matrix: AQUEOUS

Analyses	Method	NELA Statu		lt Qual	DF	MDL	RL	Units	MCL	Date Analyst Analyzed
DISSOLVED TRACE	METALS BY	EPA 200	.8 ICP-MS							
Zinc, Dissolved	E200.8	Α	0.000700	JL	1	0.000685	0.00500	mg/L		05/09/24 18:30 CBB
TRACE METALS BY	EPA 200.8 IC	CP-MS								
Arsenic	E200.8	Α	0.00386		1	0.000158	0.000500	mg/L		05/07/24 20:45 CJS
Cadmium	E200.8	Α	ND		1	0.0000254	0.000250	mg/L		05/07/24 20:45 CJS
Chromium	E200.8	Α	0.00148	J	1	0.000593	0.00200	mg/L		05/07/24 20:45 CJS
Copper	E200.8	Α	0.00224		1	0.000687	0.00200	mg/L		05/07/24 20:45 CJS
Lead	E200.8	Α	0.000396	J	1	0.000225	0.00100	mg/L		05/07/24 20:45 CJS
Nickel	E200.8	Α	0.00231	J	1	0.000562	0.0100	mg/L		05/07/24 20:45 CJS
Silver	E200.8	Α	ND		1	0.0000326	0.000100	mg/L		05/07/24 20:45 CJS
Zinc	E200.8	Α	0.00273	J	1	0.000684	0.00500	mg/L		05/07/24 20:45 CJS
TOTAL ORGANIC CA	ARBON SM 5	310 C-201	14							
Organic Carbon, Total	A5310C	Α	3.38		1	0.0989	0.500	mg/L		05/02/24 16:01 TCB

Sample container temperature is out of limit as specified at testcode Н

Holding times for preparation or analysis exceeded

MI Recovery outside comtrol limits due to Matrix Interference

Permit Limit

Ε Value above quantitation range

Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit



# **Analytical Report**

WO#: 24050048

Date Reported: 5/13/2024

 CLIENT:
 Camas LLC
 Collection Date: 5/1/2024 11:50:00 AM

 Lab ID:
 24050048-07
 Received Date: 5/1/2024 3:37:00 PM

Client Sample ID SV Matrix: AQUEOUS

**Project:** Lower Klamath Metals-AMENDED

Sample Location: Grab

Analyses	Method	NEL Stat		lt Qual	DF	MDL	RL	Units	MCL	Date Analys Analyzed
MERCURY BY EPA 2	245.1									
Mercury	E245.1	Α	0.000156	J	1	0.000153	0.000200	mg/L		05/08/24 10:52 CJS
TOTAL HEXAVALEN	T CHROMIUI	M BY EF	PA 218.6							
Chromium, Hexavalent	E218.6	Α	ND		1	0.0840	2.00	μg/L		05/08/24 13:36 SMB
DISSOLVED TRACE	METALS									
Aluminum, Dissolved	E200.7	Α	0.0418	L	1	0.00895	0.0200	mg/L		05/10/24 17:45 CBB
Iron, Dissolved	E200.7	Α	0.0527	L	1	0.00858	0.0150	mg/L		05/10/24 17:45 CBB
TRACE METALS BY	EPA 200.7 IC	P								
Aluminum	E200.7	Α	0.970		1	0.00895	0.0200	mg/L		05/07/24 20:58 CBB
Iron	E200.7	Α	1.03		1	0.00858	0.0150	mg/L		05/07/24 20:58 CBB
HARDNESS BY EPA	200.7 AND S	M 2340	B CALCULA	ATION						
Hardness, Total (As CaCO3)	A2340B	Α	70.6		1	0.258	1.65	mg/L		05/07/24 20:58 CBB
DISSOLVED TRACE	METALS BY	EPA 20	0.8 ICP-MS							
Arsenic, Dissolved	E200.8	Α	0.00176	L	1	0.000158	0.000500	mg/L		05/09/24 18:33 CBB
Cadmium, Dissolved	E200.8	Α	ND	L	1	0.0000254	0.000250	mg/L		05/09/24 18:33 CBB
Chromium, Dissolved	E200.8	Α	ND	L	1	0.000593	0.00200	mg/L		05/09/24 18:33 CBB
Copper, Dissolved	E200.8	Α	ND	L	1	0.000687	0.00200	mg/L		05/09/24 18:33 CBB
Lead, Dissolved	E200.8	Α	ND	L	1	0.000225	0.00100	mg/L		05/09/24 18:33 CBB
Nickel, Dissolved	E200.8	Α	0.00209	JL	1	0.000562	0.0100	mg/L		05/09/24 18:33 CBB
Silver, Dissolved	E200.8	Α	ND	L	1	0.0000326	0.000100	mg/L		05/09/24 18:33 CBB
H Holding times for pro	mperature is out of limi eparation or analysis ex mtrol limits due to Mat	ceeded			J .	Value above quanti Analyte detected be Not Detected at the	low quantitation lin	mits		



#### **Analytical Report**

WO#: 24050048 Date Reported: 5/13/2024

**CLIENT:** Camas LLC Collection Date: 5/1/2024 11:50:00 AM Lab ID: 24050048-07 **Received Date:** 5/1/2024 3:37:00 PM

Client Sample ID SV Matrix: AQUEOUS

**Project:** Lower Klamath Metals-AMENDED

Sample Location: Grab

Analyses	Method	NELAP Status		t Qual	DF	MDL	RL	Units	MCL	Date Analyst Analyzed
DISSOLVED TRACE	METALS BY	EPA 200.8	B ICP-MS							
Zinc, Dissolved	E200.8	Α	ND	L	1	0.000685	0.00500	mg/L		05/09/24 18:33 CBB
TRACE METALS BY	EPA 200.8 IO	CP-MS								
Arsenic	E200.8	Α	0.00206		1	0.000158	0.000500	mg/L		05/07/24 20:48 CJS
Cadmium	E200.8	Α	ND		1	0.0000254	0.000250	mg/L		05/07/24 20:48 CJS
Chromium	E200.8	Α	0.00207		1	0.000593	0.00200	mg/L		05/07/24 20:48 CJS
Copper	E200.8	Α	0.00186	J	1	0.000687	0.00200	mg/L		05/07/24 20:48 CJS
Lead	E200.8	Α	0.000266	J	1	0.000225	0.00100	mg/L		05/07/24 20:48 CJS
Nickel	E200.8	Α	0.00514	J	1	0.000562	0.0100	mg/L		05/07/24 20:48 CJS
Silver	E200.8	Α	ND		1	0.0000326	0.000100	mg/L		05/07/24 20:48 CJS
Zinc	E200.8	Α	0.00231	J	1	0.000684	0.00500	mg/L		05/07/24 20:48 CJS
TOTAL ORGANIC CA	ARBON SM 5	310 C-201	4							
Organic Carbon, Total	A5310C	Α	2.71		1	0.0989	0.500	mg/L		05/02/24 16:19 TCB

Permit Limit

ND Not Detected at the Reporting Limit

Sample container temperature is out of limit as specified at testcode Н

Holding times for preparation or analysis exceeded

MI Recovery outside comtrol limits due to Matrix Interference

Value above quantitation range

Analyte detected below quantitation limits



Neilson Research Corporation 245 S Grape St Medford, OR 97501 TEL: (541) 770-5678 FAX: (541) 770-2901

Website: www.nrclabs.com

# **Analytical Report**

WO#: 24050048

Date Reported: 5/13/2024

**CLIENT:** Camas LLC **Lab ID:** 24050048-08

Client Sample ID HCA

**Project:** Lower Klamath Metals-AMENDED

Sample Location: Grab

Camas LLC Collection Date: 5/1/2024 12:35:00 PM 4050048-08 Received Date: 5/1/2024 3:37:00 PM Matrix: A OUTFOLIS

Matrix: AQUEOUS

Analyses	Method	NEL/ Stat		lt Qual	DF	MDL	RL	Units	MCL	Date Analysi Analyzed
MERCURY BY EPA 2	45.1									
Mercury	E245.1	Α	0.000174	J	1	0.000153	0.000200	mg/L		05/08/24 10:54 CJS
TOTAL HEXAVALEN	T CHROMIUN	I BY EP	A 218.6							
Chromium, Hexavalent	E218.6	Α	ND		1	0.0840	2.00	μg/L		05/08/24 13:47 SMB
DISSOLVED TRACE	METALS									
Aluminum, Dissolved	E200.7	Α	0.0384	L	1	0.00895	0.0200	mg/L		05/10/24 17:48 CBB
Iron, Dissolved	E200.7	Α	0.0548	L	1	0.00858	0.0150	mg/L		05/10/24 17:48 CBB
TRACE METALS BY	EPA 200.7 IC	Р								
Aluminum	E200.7	Α	0.757		1	0.00895	0.0200	mg/L		05/07/24 21:10 CBB
Iron	E200.7	Α	0.825		1	0.00858	0.0150	mg/L		05/07/24 21:10 CBB
HARDNESS BY EPA	200.7 AND S	M 2340E	B CALCULA	ATION						
Hardness, Total (As CaCO3)	A2340B	Α	68.5		1	0.258	1.65	mg/L		05/07/24 21:10 CBB
DISSOLVED TRACE	METALS BY	EPA 20	0.8 ICP-MS							
Arsenic, Dissolved	E200.8	Α	0.00172	L	1	0.000158	0.000500	mg/L		05/09/24 18:35 CBB
Cadmium, Dissolved	E200.8	Α	ND	L	1	0.0000254	0.000250	mg/L		05/09/24 18:35 CBB
Chromium, Dissolved	E200.8	Α	ND	L	1	0.000593	0.00200	mg/L		05/09/24 18:35 CBB
Copper, Dissolved	E200.8	Α	ND	L	1	0.000687	0.00200	mg/L		05/09/24 18:35 CBB
Lead, Dissolved	E200.8	Α	ND	L	1	0.000225	0.00100	mg/L		05/09/24 18:35 CBB
Nickel, Dissolved	E200.8	Α	0.00210	JL	1	0.000562	0.0100	mg/L		05/09/24 18:35 CBB
Silver, Dissolved	E200.8	A	ND	L	1	0.0000326	0.000100	mg/L		05/09/24 18:35 CBB
H Holding times for pre	parature is out of limit paration or analysis ex- ntrol limits due to Mate	ceeded			E J ND	Value above quantit Analyte detected be Not Detected at the	low quantitation lir	nits		
QUAI										Revision v1

NELAP A Accredited in accordance with NELAP ORELAP 100016, OR-028



#### **Analytical Report**

WO#: 24050048 Date Reported: 5/13/2024

**CLIENT:** Camas LLC Lab ID: 24050048-08

Client Sample ID HCA

Lower Klamath Metals-AMENDED

Sample Location: Grab

**Project:** 

Collection Date: 5/1/2024 12:35:00 PM **Received Date:** 5/1/2024 3:37:00 PM

Matrix: AQUEOUS

Analyses	Method	NELAP Status	Result	: Qual	DF	MDL	RL	Units	MCL	Date Analyst Analyzed
DISSOLVED TRACE	METALS BY	EPA 200.8	ICP-MS							
Zinc, Dissolved	E200.8	Α	ND	L	1	0.000685	0.00500	mg/L		05/09/24 18:35 CBB
TRACE METALS BY	EPA 200.8 IC	P-MS								
Arsenic	E200.8	Α	0.00197		1	0.000158	0.000500	mg/L		05/07/24 20:51 CJS
Cadmium	E200.8	Α	ND		1	0.0000254	0.000250	mg/L		05/07/24 20:51 CJS
Chromium	E200.8	Α	0.00163	J	1	0.000593	0.00200	mg/L		05/07/24 20:51 CJS
Copper	E200.8	Α	0.00150	J	1	0.000687	0.00200	mg/L		05/07/24 20:51 CJS
Lead	E200.8	Α	ND		1	0.000225	0.00100	mg/L		05/07/24 20:51 CJS
Nickel	E200.8	Α	0.00436	J	1	0.000562	0.0100	mg/L		05/07/24 20:51 CJS
Silver	E200.8	Α	ND		1	0.0000326	0.000100	mg/L		05/07/24 20:51 CJS
Zinc	E200.8	Α	0.00178	J	1	0.000684	0.00500	mg/L		05/07/24 20:51 CJS
TOTAL ORGANIC CA	ARBON SM 53	310 C-2014	ļ							
Organic Carbon, Total	A5310C	Α	2.57		1	0.0989	0.500	mg/L		05/02/24 16:37 TCB

Sample container temperature is out of limit as specified at testcode Н

Holding times for preparation or analysis exceeded

MI Recovery outside comtrol limits due to Matrix Interference

Permit Limit

Ε Value above quantitation range

Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit



# **QC SUMMARY REPORT**

WO#: 24050048

20-May-24

Client: Camas LLC

Project: Lower Klamath Metals-AMENDED TestCode: EPA218.6\_WTOTAL

Sample ID: LCS-R49407	SampType: <b>LCS</b>	TestCode: EPA218.6_W Units: µg/L	Prep Date: 5/8/2024	RunNo: <b>49407</b>
Client ID: LCSW	Batch ID: <b>R49407</b>	TestNo: <b>E218.6</b>	Analysis Date: 5/8/2024	SeqNo: <b>811607</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Chromium, Hexavalent	3.59	2.00 3.500 0	103 90 110	
Sample ID: MBLK-R49407	SampType: MBLK	TestCode: <b>EPA218.6_W</b> Units: μg/L	Prep Date: 5/8/2024	RunNo: <b>49407</b>
Client ID: <b>PBW</b>	Batch ID: <b>R49407</b>	TestNo: <b>E218.6</b>	Analysis Date: 5/8/2024	SeqNo: <b>811609</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Chromium, Hexavalent	ND	2.00		
Sample ID: <b>24041228-01AMS</b>		TestCode: <b>EPA218.6 W</b> Units: μα/L		
	SampType: MS	resicode. EPAZIO.O_VV Onits. µg/L	Prep Date: 5/8/2024	RunNo: <b>49407</b>
,	SampType: MS  Batch ID: R49407	TestNo: <b>E218.6</b>	Prep Date: <b>5/8/2024</b> Analysis Date: <b>5/8/2024</b>	RunNo: <b>49407</b> SeqNo: <b>811611</b>
•	. ,,			SeqNo: <b>811611</b>
Client ID: BatchQC	Batch ID: <b>R49407</b>	TestNo: <b>E218.6</b>	Analysis Date: <b>5/8/2024</b>	SeqNo: <b>811611</b>
Client ID: BatchQC Analyte	Batch ID: R49407 Result	TestNo: <b>E218.6</b> PQL SPK value SPK Ref Val	Analysis Date: <b>5/8/2024</b> %REC LowLimit HighLimit RPD Ref Val	SeqNo: <b>811611</b>
Client ID: BatchQC  Analyte  Chromium, Hexavalent  Sample ID: 24041228-01AMSD	Batch ID: <b>R49407</b> Result  3.90	TestNo: <b>E218.6</b> PQL SPK value SPK Ref Val  2.00 4.000 0	Analysis Date: 5/8/2024  %REC LowLimit HighLimit RPD Ref Val  97.6 90 110	SeqNo: <b>811611</b> %RPD RPDLimit Qual
Client ID: BatchQC  Analyte  Chromium, Hexavalent  Sample ID: 24041228-01AMSD	Batch ID: R49407 Result 3.90 SampType: MSD	TestNo: <b>E218.6</b> PQL SPK value SPK Ref Val  2.00 4.000 0  TestCode: <b>EPA218.6_W</b> Units: μg/L	Analysis Date: <b>5/8/2024</b> %REC LowLimit HighLimit RPD Ref Val  97.6 90 110  Prep Date: <b>5/8/2024</b>	SeqNo: 811611  %RPD RPDLimit Qual  RunNo: 49407

Qualifiers:

Sample container temperature is out of limit as specified at testcode

J Analyte detected below quantitation limits

PL Permit Limit

Value above quantitation range

MI Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

H Holding times for preparation or analysis exceeds

ND Not Detected at the Reporting Limit



# **QC SUMMARY REPORT**

WO#: 24050048

20-May-24

Client: Camas LLC

Project: Lower Klamath Metals-AMENDED TestCode: HG W

Project:	Lower Klamath I	Metals-AMENDED						Т	'estCode: H	IG_W		
·	MB-25155	SampType: MBLK	TestCode	_	Units: mg/L		·	e: <b>5/7/202</b>		RunNo: 493		
Client ID:	PBW	Batch ID: <b>25155</b>	TestNo	E245.1	E245.1		Analysis Dat	e: <b>5/8/202</b>	4	SeqNo: 811	100	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		ND	0.000200									
Sample ID:	LCS-25155	SampType: <b>LCS</b>	TestCode	: HG_W	Units: mg/L		Prep Dat	e: <b>5/7/202</b>	4	RunNo: 493	390	
Client ID:	LCSW	Batch ID: 25155	TestNo	E245.1	E245.1		Analysis Dat	e: <b>5/8/202</b>	4	SeqNo: 811	101	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		0.00408	0.000200	0.004000	0	102	85	115				
Sample ID:	24050196-02BMS	SampType: <b>MS</b>	TestCode	: HG_W	Units: mg/L		Prep Dat	e: <b>5/7/202</b>	4	RunNo: 493	390	
Client ID:	BatchQC	Batch ID: 25155	TestNo	E245.1	E245.1		Analysis Dat	e: <b>5/8/202</b>	4	SeqNo: 811	119	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		0.00416	0.000200	0.004000	0	104	75	125				
Sample ID:	24050196-02BMSD	SampType: MSD	TestCode	: HG_W	Units: mg/L		Prep Dat	e: <b>5/7/202</b>	4	RunNo: 493	390	
Client ID:	BatchQC	Batch ID: 25155	TestNo	E245.1	E245.1		Analysis Dat	e: <b>5/8/202</b>	4	SeqNo: 811	120	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		0.00429	0.000200	0.004000	0	107	75	125	0.004160	3.08	20	

Qualifiers:

C1 Sample container temperature is out of limit as specified at testcode

J Analyte detected below quantitation limits

PL Permit Limit

Value above quantitation range

MI Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

H Holding times for preparation or analysis exceeds

ND Not Detected at the Reporting Limit



# **QC SUMMARY REPORT**

WO#: 24050048

20-May-24

Client: Camas LLC

Project: Lower Klamath Metals-AMENDED TestCode: ICP\_200.7\_W

	Lower Kramatii i	Metals-AMENDED							estCode: 1			
Sample ID: Client ID:	MB-25141 PBW	SampType: MBLK Batch ID: 25141		le: ICP_200.7 lo: E200.7	_W Units: mg/L E200.7		Prep Date Analysis Date	5/6/2024 5/7/2024		RunNo: <b>493</b> SeqNo: <b>81</b> 1		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum Iron		0.0142 ND	0.0200 0.0150									J
Sample ID:	LCS-25141	SampType: LCS	TestCod	le: ICP_200.7	_W Units: mg/L		Prep Date	5/6/2024	1	RunNo: 493	386	
Client ID:	LCSW	Batch ID: 25141	TestN	o: <b>E200.7</b>	E200.7		Analysis Date	5/7/2024	1	SeqNo: 811	1004	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum		1.01	0.0200	1.000	0	101	85	115				
Iron		1.00	0.0150	1.000	0	100	85	115				
Sample ID:	24041156-01AMS	SampType: <b>MS</b>	TestCod	le: ICP_200.7	_W Units: mg/L		Prep Date	5/6/2024	1	RunNo: 493	386	
Client ID:	BatchQC	Batch ID: 25141	TestN	o: <b>E200.7</b>	E200.7		Analysis Date	5/7/2024	4	SeqNo: 811	1008	
Analyte		<b>-</b>	DOL	SPK value	CDK D-f \/-I				DDD D-(\/-I			
,a., to		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref val	%RPD	RPDLimit	Qual
Aluminum		Result 13.6	0.0200	11.00	0.3890	%REC 120	LowLimit 70	HighLimit 130	RPD Ret Val	%RPD	RPDLimit	Qual
									RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	24041156-01AMSD	13.6	0.0200 0.0150	11.00	0.3890 0.4506	120	70 70	130		%RPD RunNo: <b>49</b> 3		Qual
Aluminum	24041156-01AMSD BatchQC	13.6 10.5	0.0200 0.0150 TestCod	11.00 11.00	0.3890 0.4506	120	70 70	130 130	1		386	Qual
Aluminum Iron Sample ID:		13.6 10.5 SampType: <b>MSD</b>	0.0200 0.0150 TestCod	11.00 11.00	0.3890 0.4506 _W Units: mg/L	120	70 70 Prep Date Analysis Date	130 130 : <b>5/6/202</b> 4 : <b>5/7/202</b> 4	1	RunNo: <b>49</b> 3	386	Qual

Qualifiers:

C1 Sample container temperature is out of limit as specified at testcode

J Analyte detected below quantitation limits

PL Permit Limit

E Value above quantitation range

MI Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

H Holding times for preparation or analysis exceeds

ND Not Detected at the Reporting Limit



# **QC SUMMARY REPORT**

WO#: 24050048

20-May-24

Client: Camas LLC

Project: Lower Klamath Metals-AMENDED TestCode: ICP\_200.7\_W

Sample ID: 24041156-01AMSD Client ID: BatchQC	SampType: MSD Batch ID: 25141		de: ICP_200.7 <sub>_</sub> lo: E200.7	_W Units: mg/L E200.7		Prep Da Analysis Da	te: <b>5/6/202</b> te: <b>5/7/202</b>		RunNo: <b>493</b> SeqNo: <b>811</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	10.5	0.0150	11.00	0.4506	91.2	70	130	10.53	0.438	20	

Qualifiers:

Sample container temperature is out of limit as specified at testcode

J Analyte detected below quantitation limits

PL Permit Limit

Value above quantitation range

MI Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

H Holding times for preparation or analysis exceeds

ND Not Detected at the Reporting Limit



# **QC SUMMARY REPORT**

WO#: 24050048

20-May-24

Client: Camas LLC

Project: Lower Klamath Metals-AMENDED TestCode: ICP\_200.7\_W\_DISS2

Project: Lower Klamath 1	Metals-AMENDED						1.	estCode: I	CP_200.7_V	V_D1SS2	
Sample ID: MB-25176 Client ID: PBW	SampType: MBLK Batch ID: 25176		e: ICP_200.7 o: E200.7	_W Units: mg/L E3005		Prep Date Analysis Date	5/8/2024 5/9/2024		RunNo: 494 SeqNo: 812	-	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum, Dissolved Iron, Dissolved	ND ND	0.0200 0.0150									
Sample ID: LCS-25176	SampType: LCS	TestCod	e: <b>ICP_200.7</b>	_W Units: mg/L		Prep Date	: 5/8/2024	1	RunNo: 494	145	
Client ID: LCSW	Batch ID: 25176	TestN	o: <b>E200.7</b>	E3005		Analysis Date	: 5/9/2024	1	SeqNo: 812	2363	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum, Dissolved	0.990	0.0200	1.000	0	99.0	85	115				
Iron, Dissolved	0.999	0.0150	1.000	0	99.9	85	115				
Sample ID: <b>24050048-01BMS</b>	SampType: <b>MS</b>	TestCod	e: <b>ICP_200.7</b>	_W Units: mg/L		Prep Date	: 5/8/2024	1	RunNo: 494	145	
Client ID: PA1	Batch ID: 25176	TestN	o: <b>E200.7</b>	E3005		Analysis Date	: 5/9/2024	4	SeqNo: 812	2365	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum, Dissolved	11.0	0.0200	11.00	0.07019	99.3	70	130				
Iron, Dissolved	11.0	0.0150	11.00	0.07037	99.6	70	130				
Sample ID: <b>24050048-01BMSD</b>	SampType: MSD	TestCod	e: <b>ICP_200.7</b>	_W Units: mg/L		Prep Date	: 5/8/2024	1	RunNo: 494	145	
Client ID: PA1	Batch ID: 25176	TestN	o: <b>E200.7</b>	E3005		Analysis Date	: 5/9/2024	1	SeqNo: 812	2366	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Aluminum, Dissolved	11.3	0.0200	11.00	0.07019	102	70	130	10.99	2.72	20	

Qualifiers:

1 Sample container temperature is out of limit as specified at testcode

J Analyte detected below quantitation limits

PL Permit Limit

E Value above quantitation range

MI Recovery outside comtrol limits due to Matrix Interference

L Reporting Detection Limit

H Holding times for preparation or analysis exceeds

ND Not Detected at the Reporting Limit



# **QC SUMMARY REPORT**

WO#: 24050048

20-May-24

Client: Camas LLC

Project: Lower Klamath Metals-AMENDED TestCode: ICP\_200.7\_W\_DISS2

Sample ID: 24050048-01BMSD Client ID: PA1	SampType: MSD Batch ID: 25176		TestCode: ICP_200.7_W U TestNo: E200.7 E:		Prep Date: <b>5/8/2024</b> Analysis Date: <b>5/9/2024</b>				RunNo: <b>49</b> 4 SeqNo: <b>812</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron, Dissolved	11.3	0.0150	11.00	0.07037	102	70	130	11.02	2.65	20	

Qualifiers:

Sample container temperature is out of limit as specified at testcode

J Analyte detected below quantitation limits

PL Permit Limit

Value above quantitation range

MI Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

H Holding times for preparation or analysis exceeds

ND Not Detected at the Reporting Limit



# **QC SUMMARY REPORT**

WO#: 24050048

20-May-24

**Client:** Camas LLC

Project: Lower Klamath Metals-AMENDED TestCode: ICP HARD V

<b>Project:</b> Lower Klamath	Metals-AMENDED		TestCode: ICP_HARD_W
Sample ID: <b>MB-25141</b>	SampType: <b>MBLK</b>	TestCode: ICP_HARD_W Units: mg/L	Prep Date: 5/6/2024 RunNo: 49387
Client ID: PBW	Batch ID: 25141	TestNo: <b>A2340B E200.7</b>	Analysis Date: 5/7/2024 SeqNo: 811296
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qu
Hardness, Total (As CaCO3)	ND	1.65	
Sample ID: LCS-25141	SampType: <b>LCS</b>	TestCode: ICP_HARD_W Units: mg/L	Prep Date: 5/6/2024 RunNo: 49387
Client ID: LCSW	Batch ID: 25141	TestNo: <b>A2340B E200.7</b>	Analysis Date: 5/7/2024 SeqNo: 811297
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qu
Hardness, Total (As CaCO3)	6.61	1.65 6.615 0	100 85 115
Sample ID: <b>24041156-01AMS</b>	SampType: <b>MS</b>	TestCode: ICP_HARD_W Units: mg/L	Prep Date: 5/6/2024 RunNo: 49494
Client ID: BatchQC	Batch ID: 25141	TestNo: <b>A2340B E200.7</b>	Analysis Date: 5/10/2024 SeqNo: 813006
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qu
Hardness, Total (As CaCO3)	2320	16.5 72.80 2243	106 70 130
Sample ID: <b>24041156-01AMSD</b>	SampType: <b>MSD</b>	TestCode: ICP_HARD_W Units: mg/L	Prep Date: 5/6/2024 RunNo: 49494
Client ID: BatchQC	Batch ID: 25141	TestNo: <b>A2340B E200.7</b>	Analysis Date: 5/10/2024 SeqNo: 813007
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qu
Hardness, Total (As CaCO3)	2370	16.5 72.80 2243	180 70 130 2321 2.28 20 M

Qualifiers:

Sample container temperature is out of limit as specified at testcode

J Analyte detected below quantitation limits

PL Permit Limit

Value above quantitation range

MI Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

H Holding times for preparation or analysis exceeds

ND Not Detected at the Reporting Limit



# **QC SUMMARY REPORT**

WO#: 24050048

20-May-24

Client: Camas LLC

Project: Lower Klamath Metals-AMENDED TestCode: ICPMS\_200.8\_DISS2

Sample ID: <b>MB-25194</b>	SampType: MBLK		de: ICPMS_20	J	Prep Date: 5/9/2024			RunNo: <b>49</b> 4			
Client ID: PBW	Batch ID: <b>25194</b>	TestN	lo: <b>E200.8</b>	E3005		Analysis Da	te: <b>5/9/202</b>	4	SeqNo: 812	2522	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic, Dissolved	ND	0.000500									
Cadmium, Dissolved	ND	0.000250									
Chromium, Dissolved	ND	0.00200									
Copper, Dissolved	ND	0.00200									
Lead, Dissolved	ND	0.00100									
Nickel, Dissolved	ND	0.0100									
Silver, Dissolved	ND	0.000100									
Zinc, Dissolved	ND	0.00500									

Sample ID: LCS-25194 Client ID: LCSW	SampType: LCS Batch ID: 25194		de: ICPMS_20	0.8 Units: mg/L E3005	,			RunNo: 494 SeqNo: 812			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic, Dissolved	0.0985	0.000500	0.1000	0	98.5	85	115				
Cadmium, Dissolved	0.0980	0.000250	0.1000	0	98.0	85	115				
Chromium, Dissolved	0.0995	0.00200	0.1000	0	99.5	85	115				
Copper, Dissolved	0.103	0.00200	0.1000	0	103	85	115				
Lead, Dissolved	0.0991	0.00100	0.1000	0	99.1	85	115				
Nickel, Dissolved	0.0992	0.0100	0.1000	0	99.2	85	115				
Silver, Dissolved	0.0994	0.000100	0.1000	0	99.4	85	115				
Zinc, Dissolved	0.0986	0.00500	0.1000	0	98.6	85	115				

Qualifiers:

1 Sample container temperature is out of limit as specified at testcode

J Analyte detected below quantitation limits

PL Permit Limit

Value above quantitation range

MI Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

H Holding times for preparation or analysis exceeds

ND Not Detected at the Reporting Limit



# **QC SUMMARY REPORT**

WO#: 24050048

20-May-24

Client: Camas LLC

Project: Lower Klamath Metals-AMENDED TestCode: ICPMS\_200.8\_DISS2

Sample ID: 24050048-03BMS Client ID: KWA	SampType: MS Batch ID: 25194		de: ICPMS_20 No: E200.8	0.8 Units: mg/L E3005	,			RunNo: 494 SeqNo: 812			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic, Dissolved	0.106	0.000500	0.1000	0.003251	103	70	130				
Cadmium, Dissolved	0.102	0.000250	0.1000	0	102	70	130				
Chromium, Dissolved	0.104	0.00200	0.1000	0	104	70	130				
Copper, Dissolved	0.107	0.00200	0.1000	0	107	70	130				
Lead, Dissolved	0.103	0.00100	0.1000	0	103	70	130				
Nickel, Dissolved	0.103	0.0100	0.1000	0	103	70	130				
Silver, Dissolved	0.101	0.000100	0.1000	0	101	70	130				
Zinc, Dissolved	0.103	0.00500	0.1000	0	103	70	130				

Sample ID: 24050048-03BMSD	SampType: MSD	TestCo	de: ICPMS_20	0.8 Units: mg/L		Prep Da	te: <b>5/9/202</b>	4	RunNo: 494	165	
Client ID: KWA	Batch ID: 25194	TestN	No: <b>E200.8</b>	E3005		Analysis Da	te: <b>5/9/202</b>	4	SeqNo: 812	2528	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic, Dissolved	0.104	0.000500	0.1000	0.003251	100	70	130	0.1063	2.66	20	
Cadmium, Dissolved	0.100	0.000250	0.1000	0	100	70	130	0.1024	2.01	20	
Chromium, Dissolved	0.101	0.00200	0.1000	0	101	70	130	0.1043	3.30	20	
Copper, Dissolved	0.104	0.00200	0.1000	0	104	70	130	0.1068	2.51	20	
Lead, Dissolved	0.101	0.00100	0.1000	0	101	70	130	0.1034	2.52	20	
Nickel, Dissolved	0.100	0.0100	0.1000	0	100	70	130	0.1030	2.62	20	
Silver, Dissolved	0.0993	0.000100	0.1000	0	99.3	70	130	0.1010	1.66	20	
Zinc, Dissolved	0.101	0.00500	0.1000	0	101	70	130	0.1033	2.40	20	

Qualifiers:

Sample container temperature is out of limit as specified at testcode

J Analyte detected below quantitation limits

PL Permit Limit

Value above quantitation range

MI Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

H Holding times for preparation or analysis exceeds

ND Not Detected at the Reporting Limit



#### **QC SUMMARY REPORT**

WO#: 24050048

20-May-24

Client: Camas LLC

TestCode: ICPMS\_200.8\_W Project: Lower Klamath Metals-AMENDED

Sample ID: MB-25128	SampType: MBLK	TestCod	de: ICPMS_20	0.8 Units: mg/L		Prep Da	te: <b>5/3/202</b>	4	RunNo: <b>493</b>	307	
Client ID: PBW	Batch ID: 25128	TestN	No: <b>E200.8</b>	E200.8		Analysis Da	te: <b>5/3/202</b>	4	SeqNo: 809	785	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.000500									
Cadmium	ND	0.000250									
Chromium	ND	0.00200									
Copper	ND	0.00200									
Lead	ND	0.00100									
Nickel	ND	0.0100									
Silver	ND	0.000100									
Zinc	ND	0.00500									

Sample ID: LCS-25128	SampType: <b>LCS</b>	TestCod	de: ICPMS_20	0.8 Units: mg/L		Prep Da	te: <b>5/3/202</b>	4	RunNo: 493	307	
Client ID: LCSW	Batch ID: 25128	TestN	lo: <b>E200.8</b>	E200.8		Analysis Da	te: <b>5/3/202</b>	4	SeqNo: 809	786	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.0982	0.000500	0.1000	0	98.2	85	115				
Cadmium	0.0998	0.000250	0.1000	0	99.8	85	115				
Chromium	0.102	0.00200	0.1000	0	102	85	115				
Copper	0.107	0.00200	0.1000	0	107	85	115				
Lead	0.103	0.00100	0.1000	0	103	85	115				
Nickel	0.103	0.0100	0.1000	0	103	85	115				
Silver	0.102	0.000100	0.1000	0	102	85	115				
Zinc	0.101	0.00500	0.1000	0	101	85	115				

Qualifiers:

Sample container temperature is out of limit as specified at testcode

Analyte detected below quantitation limits

Permit Limit

Value above quantitation range

Recovery outside comtrol limits due to Matrix Interference

Reporting Detection Limit

H Holding times for preparation or analysis exceeds

Not Detected at the Reporting Limit



#### **QC SUMMARY REPORT**

WO#: 24050048

20-May-24

Client: Camas LLC

Project: Lower Klamath Metals-AMENDED TestCode: ICPMS\_200.8\_W

Sample ID: 24041105-01BMS Client ID: BatchQC	SampType: MS Batch ID: 25128		de: ICPMS_20 No: E200.8	00.8 Units: mg/L E200.8		Prep Da Analysis Da	te: <b>5/3/202</b> te: <b>5/3/202</b>		RunNo: <b>493</b> SeqNo: <b>809</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.101	0.000500	0.1000	0.001470	99.1	70	130				
Cadmium	0.100	0.000250	0.1000	0	100	70	130				
Chromium	0.102	0.00200	0.1000	0.0007630	101	70	130				
Copper	0.107	0.00200	0.1000	0.002750	104	70	130				
Lead	0.101	0.00100	0.1000	0.0002940	101	70	130				
Nickel	0.103	0.0100	0.1000	0.002623	100	70	130				
Silver	0.0999	0.000100	0.1000	0	99.9	70	130				
Zinc	0.111	0.00500	0.1000	0.01182	99.4	70	130				

Sample ID: 24041105-01BMSI	D SampType: MSD	TestCo	de: ICPMS_20	0.8 Units: mg/L		Prep Da	te: <b>5/3/202</b>	4	RunNo: 493	307	
Client ID: BatchQC	Batch ID: 25128	TestN	No: <b>E200.8</b>	E200.8		Analysis Da	te: <b>5/3/202</b>	4	SeqNo: 809	9789	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.0996	0.000500	0.1000	0.001470	98.1	70	130	0.1006	0.990	20	
Cadmium	0.0994	0.000250	0.1000	0	99.4	70	130	0.1004	0.946	20	
Chromium	0.101	0.00200	0.1000	0.0007630	99.9	70	130	0.1020	1.32	20	
Copper	0.105	0.00200	0.1000	0.002750	102	70	130	0.1068	1.65	20	
Lead	0.100	0.00100	0.1000	0.0002940	100	70	130	0.1013	0.838	20	
Nickel	0.102	0.0100	0.1000	0.002623	99.0	70	130	0.1028	1.19	20	
Silver	0.0987	0.000100	0.1000	0	98.7	70	130	0.09987	1.18	20	
Zinc	0.110	0.00500	0.1000	0.01182	98.4	70	130	0.1112	0.906	20	

Qualifiers: C1 Sample contain

Sample container temperature is out of limit as specified at testcode

Analyte detected below quantitation limits

PL Permit Limit

Value above quantitation range

MI Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

H Holding times for preparation or analysis exceeds

ND Not Detected at the Reporting Limit



#### **QC SUMMARY REPORT**

WO#: 24050048

20-May-24

Client: Camas LLC

Project: Lower Klamath Metals-AMENDED TestCode: ICPMS\_200.8\_W

Sample ID: MB-25138 Client ID: PBW	SampType: MBLK Batch ID: 25138		le: ICPMS_20	0.8 Units: mg/L E200.8		Prep Da Analysis Da	te: <b>5/6/202</b>		RunNo: <b>493</b> SeqNo: <b>810</b>	-	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.000500									
Cadmium	ND	0.000250									
Chromium	ND	0.00200									
Copper	ND	0.00200									
Lead	ND	0.00100									
Nickel	ND	0.0100									
Silver	ND	0.000100									
Zinc	ND	0.00500									

Sample ID: LCS-25138	SampType: LCS	TestCo	de: ICPMS_20	0.8 Units: mg/L		Prep Da	te: <b>5/6/202</b>	4	RunNo: 493	370	
Client ID: LCSW	Batch ID: 25138	TestN	No: <b>E200.8</b>	E200.8		Analysis Da	te: <b>5/7/202</b>	4	SeqNo: 810	0730	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.100	0.000500	0.1000	0	100	85	115				
Cadmium	0.100	0.000250	0.1000	0	100	85	115				
Chromium	0.101	0.00200	0.1000	0	101	85	115				
Copper	0.102	0.00200	0.1000	0	102	85	115				
Lead	0.101	0.00100	0.1000	0	101	85	115				
Nickel	0.0997	0.0100	0.1000	0	99.7	85	115				
Silver	0.101	0.000100	0.1000	0	101	85	115				
Zinc	0.0985	0.00500	0.1000	0	98.5	85	115				

Qualifiers: C1 Sam

Sample container temperature is out of limit as specified at testcode

J Analyte detected below quantitation limits

PL Permit Limit

Value above quantitation range

MI Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

H Holding times for preparation or analysis exceeds

ND Not Detected at the Reporting Limit



#### **QC SUMMARY REPORT**

WO#: 24050048

20-May-24

Client: Camas LLC

Project: Lower Klamath Metals-AMENDED TestCode: ICPMS\_200.8\_W

Sample ID: 24050048-02AMS Client ID: IG	SampType: MS Batch ID: 25138		de: ICPMS_20 No: E200.8	0.8 Units: mg/L E200.8		Prep Da	te: <b>5/6/202</b> 4		RunNo: <b>493</b> SeqNo: <b>810</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.106	0.000500	0.1000	0.003776	102	70	130				
Cadmium	0.102	0.000250	0.1000	0	102	70	130				
Chromium	0.102	0.00200	0.1000	0.0008210	102	70	130				
Copper	0.105	0.00200	0.1000	0.001578	103	70	130				
Lead	0.103	0.00100	0.1000	0.0003650	102	70	130				
Nickel	0.102	0.0100	0.1000	0.0008900	101	70	130				
Silver	0.101	0.000100	0.1000	0	101	70	130				
Zinc	0.103	0.00500	0.1000	0.001964	102	70	130				

Sample ID: 24050048-02AMSD	SampType: MSD	TestCo	de: ICPMS_20	0.8 Units: mg/L		Prep Da	te: <b>5/6/202</b>	4	RunNo: 493	370	
Client ID: IG	Batch ID: 25138	TestN	No: <b>E200.8</b>	E200.8		Analysis Da	te: <b>5/7/202</b>	4	SeqNo: 810	733	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.105	0.000500	0.1000	0.003776	101	70	130	0.1058	0.705	20	
Cadmium	0.101	0.000250	0.1000	0	101	70	130	0.1024	1.16	20	
Chromium	0.100	0.00200	0.1000	0.0008210	99.4	70	130	0.1024	2.11	20	
Copper	0.102	0.00200	0.1000	0.001578	101	70	130	0.1048	2.24	20	
Lead	0.101	0.00100	0.1000	0.0003650	101	70	130	0.1027	1.74	20	
Nickel	0.0998	0.0100	0.1000	0.0008900	98.9	70	130	0.1023	2.51	20	
Silver	0.0995	0.000100	0.1000	0	99.5	70	130	0.1009	1.47	20	
Zinc	0.101	0.00500	0.1000	0.001964	98.6	70	130	0.1035	2.81	20	

Qualifiers:

<sup>1</sup> Sample container temperature is out of limit as specified at testcode

J Analyte detected below quantitation limits

PL Permit Limit

Value above quantitation range

MI Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

H Holding times for preparation or analysis exceeds

ND Not Detected at the Reporting Limit



# **QC SUMMARY REPORT**

WO#: 24050048

20-May-24

Client: Camas LLC

Project: Lower Klamath Metals-AMENDED TestCode: TOC\_5310C

<b>Project:</b> Lower Klamath	Metals-AMENDED	TestCode: TOC_5310C
Sample ID: MB Client ID: PBW	SampType: MBLK Batch ID: R49276	TestCode: TOC_5310C         Units: mg/L         Prep Date:         5/2/2024         RunNo: 49276           TestNo: A5310C         Analysis Date:         5/2/2024         SeqNo: 809226
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Organic Carbon, Total	ND	0.500
Sample ID: LCS - 14323	SampType: LCS	TestCode: TOC_5310C Units: mg/L Prep Date: 5/2/2024 RunNo: 49276
Client ID: LCSW	Batch ID: <b>R49276</b>	TestNo: <b>A5310C</b> Analysis Date: <b>5/2/2024</b> SeqNo: <b>809227</b>
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Organic Carbon, Total	3.51	0.500 3.750 0 93.6 90 110
Sample ID: <b>24041163-01DDUP</b>	SampType: <b>DUP</b>	TestCode: <b>TOC_5310C</b> Units: <b>mg/L</b> Prep Date: <b>5/2/2024</b> RunNo: <b>49276</b>
Client ID: BatchQC	Batch ID: <b>R49276</b>	TestNo: <b>A5310C</b> Analysis Date: <b>5/2/2024</b> SeqNo: <b>809231</b>
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Organic Carbon, Total	1.41	0.500 1.375 2.49 15
Sample ID: <b>24041163-02DMS</b>	SampType: <b>MS</b>	TestCode: TOC_5310C Units: mg/L Prep Date: 5/2/2024 RunNo: 49276
Client ID: BatchQC	Batch ID: <b>R49276</b>	TestNo: A5310C Analysis Date: 5/2/2024 SeqNo: 809233
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Organic Carbon, Total	3.69	0.500 2.500 1.325 94.7 85 115

Qualifiers:

Sample container temperature is out of limit as specified at testcode

J Analyte detected below quantitation limits

PL Permit Limit

Value above quantitation range

MI Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

H Holding times for preparation or analysis exceeds

ND Not Detected at the Reporting Limit



Sample Log-In Check List

Website: www.nrclabs.com

Clier	nt Name:	CAMASLLC		Work Order Number	er: <b>24050</b> 0	)48		RcptNo	o: <b>1</b>
Log	ged by:	Ashley Spieg	gelberg	5/1/2024 3:37:00 PM	И		an	~	
Com	pleted By:	Erin Hernand	dez	5/3/2024 9:54:00 AM	И		Cum Hu	umd5	
Revi	iewed By:	Ashley Spieg	gelberg	5/13/2024 2:17:15 P	PM		an	~	
<u>Cha</u>	in of Cus	stody							
1.	Is Chain of	Custody comp	lete?		Yes	✓	No 🗌	Not Present	
2.	How was th	ne sample deliv	vered?		<u>Clien</u>	<u>ıt</u>			
Log	<u>In</u>								
_	Coolers are	e present?			Yes	<b>✓</b>	No 🗌	NA 🗆	
4.	Shipping co	ontainer/cooler	in good condition	n?	Yes	<b>✓</b>	No 🗌		
	Custody se	als intact on sl	nipping container/	cooler?	Yes		No 🗌	Not Present	
	No.		Seal Date:		-	ed By:	_	_	_
5.	Was an att	empt made to	cool the samples	?	Yes	✓	No 🗌	NA L	
6.	Were all sa	imples receive	d at a temperatur	e of >0° C to 6.0°C	Yes	<b>✓</b>	No 🗌	NA 🗆	]
7.	Sample(s)	in proper conta	niner(s)?		Yes	<b>✓</b>	No 🗌		
8.	Sufficient s	ample volume	for indicated test	(s)?	Yes	✓	No $\square$		
9.	Are sample	es (except VOA	and ONG) prope	erly preserved?	Yes	✓	No $\square$		
10.	Was prese	rvative added t	o bottles?		Yes		No 🗸	NA 🗆	
11.	Is the head	space in the V	OA vials less tha	n 1/4 inch or 6 mm?	Yes		No 🗌	No VOA Vials ✓	
12.	Were any s	sample contain	ers received brok	en?	Yes		No 🗸		
_		rwork match be epancies on ch	ottle labels? nain of custody)		Yes	✓	No 🗆		
			ntified on Chain o	of Custody?	Yes	✓	No $\square$		
15.	Is it clear w	hat analyses v	vere requested?		Yes	✓	No 🗌		
16.	Were all ho	olding times ab	le to be met?		Yes	✓	No 🗌		
	•		authorization.)						
-		dling (if app	•					_	n
17.	Was client	notified of all d	liscrepancies with	this order?	Yes		No 🗆	NA 🗹	<u>'</u>
	Perso	n Notified:		Date	:				
	By Wi	nom:		Via:	еМа	il 🗌 P	Phone 🗌 Fax	☐ In Person	
	Regar	ding:							
	Client	Instructions:							
18.	Additional r	emarks:							
Coole	r Informati	on							

#### Cooler Information

Cooler No	Temp ⁰C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.6	Good				EH

Chain of Custody Record
This Chain of Custody is a LEGAL DOCUMENT and must be filled out accurately.

	1	1
Page	of _	

CORPORATION Section A		Section I	<b>.</b>					Secti	a= C					0	
Required Client Information			l Project Infor	mation					on C ce Info	rmatic	n			Section D Rush Status (Subj	ect to Schedulina)
Company: Camas, LLC		Project N	ame: LOWE	Kland	h M	letal	S	Atten	tion:				100	X Standard: 10 I	
Address: 680 6 Street	-	Project N		- VIEW P	-			Comp	any Na	ame:				Priority: 5 Bus	iness Days (List × 1.50)
Suite C. Jacksonvill	. 1	Report To	Mott	Robert				Addre	ess:					Express: 3 Bu	siness Days (List × 1.75)
Email: matte canasle.co		Сору То:		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			101								ess Days (List × 2.00)
Phone: 541-231-9392	, , ,							P.O. #	#		-			C 1 100 100 100 100 100 100 100 100 100	ess Day (List × 2.50)
Collected By (Print): Matt Robart				-		-									Day (List × 3.00)
Collected By (Sign):		1							Analye	ie Pos	uested				
Thing I'm	ad	- ,			-		1	1	Allalys	is Rec	luested		Т		orized Yes No
Email Report Fax Fax Report Fax	on							200	- 0	La M				DO0-8- 45, C	d, Cr, Cu, Pb, Ni, Agi
							7.	0.0	8	3				metals-	Both total + 109-5
Section E Sample Information		J. No.	OTA .		tainers	2415.1	7007	2002	812	WW-	0			NRC Workorder # (Lab Use Only)	24050048
Sample ID	Comp/Grab	Matrix*	Date Collected	Time Collected	No. of Containers	H 2	1	Metals	C. (VI	J	HAR			Remarks / Field Data	NRC Sample # (Lab Use Only)
PA	Grah	W	5/1/24	0730	6	X	X	X	X	Y	7			Ol	
T.6	Grad	W	5/1/24	0840	6	K	4	*	k	+	*			02 Diss	motals and n
KUA	Grab	V		09/5	6	×	×	×	7	×	×			03	11 10 11 11 11 11 11 11
2 H	Grad	W		0950	6	X	7	X	X	×	×			04	added 55
BC HCR	Grado	V		1030	b	X	×	X	×	K	*			05	
5 V	Glab	W		1105	6	8	×	×	×	×	K			00	The state of the s
HCA	Grad	IN	1	1235	6	X	4	×	×	×	X			04	
A STATE OF THE STA		Y			0									00	
*Matrix: <b>DW</b> - Drinking Water <b>WW</b> - Wastewater	W - Water S - Soil/S	olid SI - S	Sludge O - Oil	WP - Wine OT	- Oth	or.									
Section F		ond of	naage C - On	W - Wipe O	- 000	Ci								Section G	
Relinquish/Receive Sign	000		7)	Prir	,					Date		Time		Lab Use Only	
Relinquished By:	Sing		Dust:	n Cot	TC/Z	_			M	3/12	024	1537	2	Temp: 0.6	IR Therm ID:
Received By:	N P													≤6°C: Yes	_ No
Relinquished By:	and the second second			and the										Received on Ice:	(Yes No
Relinquished By:						_								Number of Bottles R	Received:
Received By Laboratory:			An.	10,10	à c		11_	0.0	Z/	121	,	15.0	7	pH Checked:	Van Na (NA
			#John	ley S	pre	ge	10	n	3/1	12		15:3		COC Seals Intact: Field Blank Included	Yes No NA
									75			Recei	ved Via	UPS FedEX	Other Hand
								TW F	Payr	nent:	Invo			VISA, M/C Check	
							ı	141		-	-		on Offi		Effective 10/5/202



-5678 FAX: (541) 770-2901 Website: www.nrclabs.com **Data Flags** 

WO#: 24050048 Date: 5/13/2024

- A Total Alkalinity and Bicarbonate Alkalinity results are to a pH endpoint of 4.5. Carbonate Alkalinity result is to a pH endpoint of 8.3.
- A-LL The total low level alkalinity results are to a pH endpoint of 4.3-4.7 pH units per SM 2320B-2011.
- B Analyte detected in the associated method blank.
- C Sample(s) does not meet NELAP/ORELAP sample acceptance criteria. See Case Narrative.
- C1 Sample(s) does not meet NELAP/ORELAP sample acceptance criteria for temperature.
- CF Results confirmed by re-analysis.
- CU Cleanup performed as specified by method.
- E Estimated value.
- ER Elevated reporting limit due to matrix. Report limits (MDLs, MRLs & PQLs) are adjusted based on variations in sample preparation amounts, analytical dilutions, and percent solids, where applicable.
- FC Fecal Coliforms: Sample(s) received past 40 CFR Part 136 specified holding time. Results reported as estimated values.
- HP Sample re-analysis performed outside of method specified holding time.
- HR Sample received outside of method specified holding time.
- HS Sample analyzed for volatile organics contained headspace.
- HT At the client's request, the sample was analyzed outside of method specified holding time.
- H Analysis performed outside of method specified holding time.
- J Analyte detected below the Minimum Reporting Limit (MRL) and above the Method Detection Limit (MDL). The J flag result is an estimated value and the user should be aware that this data is of limited reliability.
- L Dissolved metals were not filtered within 15 minutes of collection per 40 CFR Part 136.
- MI Surrogate, Duplicate Sample (DUP) or Matrix Spikes recoveries are out of control limits due to matrix interference. Sample results may be biased.
- N See Case Narrative on page 2 of report.
- Q Initial calibration verification (ICV), continuing calibration verification (CCV) or laboratory control sample (LCS), and/or matrix spikes exceeded high recovery limits, but associated samples are non-detect and the sample results are not affected. Data meets EPA/NELAP requirements.
- R Relative percent difference (RPD) is outside of the accepted recovery limits.
- R1 The numerical difference between the parent sample and the duplicate (DUP) is outside of the accepted recovery limits. Greater than 5 degrees for Flashpoint, or greater than 0.1 pH units for pH.
- R3 The relative percent difference (RPD) and/or percent recovery for the duplicate (DUP) or matrix spike (MS)/matrix spike duplicate (MSD) cannot be accurately calculated due to the concentration of analyte already present in the sample.
- R4 The Relative percent difference (RPD) is not within control limits because the concentration of the sample result is too low to represent proper statistical error.
- R5 The difference between the BOD/CBOD results for the highest and lowest dilution used for the calculation is >30% because the results are too low to represent proper statistical error. The BOD/CBOD sample result is an average of all qualified bottles for each dilution series. The sample results are not affected.
- R6 The difference between the BOD/CBOD results for the highest and lowest dilution used for the calculation is >30%. This may indicate a possible matrix interference. The BOD/CBOD sample result is an average of all qualified bottles for each dilution series.
- S Surrogate and/or matrix spike recovery is outside of the accepted recovery limits. Sample results may be biased.
- S1 Surrogate or matrix spike recovery is outside of control limits due to dilution necessary for analysis.
- SC Sub-contracted to another laboratory for analysis.
- SP Sample(s) were not collected per EPA Method 5035A protocols. The results are considered minimum values.
- \* Value exceeds Maximum Contaminant Level or is outside the acceptable range.



May 14, 2024

Matt Robart Camas LLC 680 G St

Jacksonville, OR 97530 TEL: (541) 231-9392

FAX

RE: Lower Klamath Metals-AMENDED Order No.: 24050095

Dear Matt Robart:

Neilson Research Corporation received 2 sample(s) on 5/2/2024 for the analyses presented in the following report.

The results relate only to the parameters tested or to the sample as received by the laboratory. This report shall not be reproduced except in full, without the written approval of Neilson Research Corporation. If you have any questions regarding these test results, please feel free to call.

Sincerely,

Neilson Research Corporation

Tampa Shmedeman

Tamra Schmedemann Senior Project Manager

245 S Grape St Medford, OR 97501











**Case Narrative** 

WO#: **24050095**Date: **5/14/2024** 

**CLIENT:** Camas LLC

**Project:** Lower Klamath Metals-AMENDED

The analyses were performed according to the guidelines in the Neilson Research Corporation Quality Assurance Program. This report contains analytical results for the sample(s) as received by the laboratory.

Neilson Research Corporation certifies that this report is in compliance with the requirements of NELAP. No unusual difficulties were experienced during analysis of this batch except as noted below or qualified with data flags on the reports.

The report is amended adding "L" flags to all of the Dissolved Metals results since the samples were lab filtered for the dissolved analytes.



#### **Analytical Report**

WO#: 24050095 Date Reported: 5/14/2024

**CLIENT:** Camas LLC

**Project:** Lower Klamath Metals-AMENDED

Sample Location: Grab

**Collection Date:** 5/2/2024 9:45:00 AM Lab ID: 24050095-01 Received Date: 5/2/2024 1:20:00 PM Client Sample ID JCB Up 9 Matrix: AQUEOUS

Analyses	Method	NELAP Status	Resul	lt Qual	DF	MDL	RL	Units	MCL	Date Analyst Analyzed
MERCURY BY EPA 2	45.1									
Mercury	E245.1	Α	ND		1	0.000153	0.000200	mg/L		05/08/24 10:57 CJS
TOTAL HEXAVALEN	T CHROMIUN	I BY EPA	218.6							
Chromium, Hexavalent	E218.6	Α	ND		1	0.0840	2.00	μg/L		05/08/24 14:18 SMB
DISSOLVED TRACE	METALS									
Aluminum, Dissolved	E200.7	Α	0.0681	L	1	0.00895	0.0200	mg/L		05/10/24 17:51 CBB
Iron, Dissolved	E200.7	Α	0.0706	L	1	0.00858	0.0150	mg/L		05/10/24 17:51 CBB
TRACE METALS BY	EPA 200.7 IC	P								
Aluminum	E200.7	Α	0.236		1	0.00895	0.0200	mg/L		05/07/24 21:23 CBB
Iron	E200.7	Α	0.223		1	0.00858	0.0150	mg/L		05/07/24 21:23 CBB
HARDNESS BY EPA	200.7 AND S	M 2340B C	ALCULA	ATION						
Hardness, Total (As CaCO3)	A2340B	Α	36.4		1	0.258	1.65	mg/L		05/07/24 21:23 CBB
DISSOLVED TRACE	METALS BY	EPA 200.8	ICP-MS							
Arsenic, Dissolved	E200.8	Α	0.00383	L	1	0.000158	0.000500	mg/L		05/09/24 18:38 CBB
Cadmium, Dissolved	E200.8	Α	ND	L	1	0.0000254	0.000250	mg/L		05/09/24 18:38 CBB
Chromium, Dissolved	E200.8	Α	ND	L	1	0.000593	0.00200	mg/L		05/09/24 18:38 CBB
Copper, Dissolved	E200.8	Α	ND	L	1	0.000687	0.00200	mg/L		05/09/24 18:38 CBB
Lead, Dissolved	E200.8	A	ND	L	1	0.000225	0.00100	mg/L		05/09/24 18:38 CBB
Nickel, Dissolved Silver, Dissolved	E200.8 E200.8	A A	ND ND	L L	1 1	0.000562 0.0000326	0.0100 0.000100	mg/L mg/L		05/09/24 18:38 CBB 05/09/24 18:38 CBB
								9, =		
H Holding times for pre	pperature is out of limit paration or analysis ex ntrol limits due to Mat	ceeded	tcode		E J ND	Value above quanti Analyte detected be Not Detected at the	low quantitation lin	nits		



Website: www.nrclabs.com

#### **Analytical Report**

WO#: 24050095 Date Reported: 5/14/2024

Collection Date: 5/2/2024 9:45:00 AM

**Received Date:** 5/2/2024 1:20:00 PM

Matrix: AQUEOUS

**CLIENT:** Camas LLC Lab ID: 24050095-01

Client Sample ID JCB Up 9

**Project:** Lower Klamath Metals-AMENDED

Sample Location: Grab

**NELAP Analyses** Method Result DF MDL RL Units MCL Date **Analyst Status** Analyzed Qual **DISSOLVED TRACE METALS BY EPA 200.8 ICP-MS** E200.8 Zinc, Dissolved Α 0.00145 JL 0.000685 0.00500 mg/L 05/09/24 18:38 CBB TRACE METALS BY EPA 200.8 ICP-MS Arsenic E200.8 Α 0.00386 1 0.0001580.000500 mg/L 05/07/24 20:59 CJS Cadmium E200.8 Α ND 1 0.0000254 0.000250 mg/L 05/07/24 20:59 CJS ND Chromium E200.8 Α 1 0.000593 0.00200 mg/L 05/07/24 20:59 CJS 0.000892 0.000687 E200.8 Α 1 mg/L 05/07/24 20:59 CJS Copper J 0.00200 Lead E200.8 ND 1 0.000225 0.00100 mg/L 05/07/24 20:59 CJS Nickel E200.8 ND 1 0.000562 0.0100 mg/L 05/07/24 20:59 CJS Silver E200.8 Α ND 1 0.0000326 0.000100 mg/L 05/07/24 20:59 CJS Α 0.000810 0.000684 05/07/24 20:59 CJS Zinc E200.8 1 0.00500 mg/L J **TOTAL ORGANIC CARBON SM 5310 C-2014** Organic Carbon, Total A5310C Α 4.53 0.0989 0.500 mg/L 05/06/24 13:36 TCB

Sample container temperature is out of limit as specified at testcode Н

Holding times for preparation or analysis exceeded

MI Recovery outside comtrol limits due to Matrix Interference

Permit Limit PL

Е Value above quantitation range

Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

Revision v1

NELAP A Accredited in accordance with NELAP ORELAP 100016, OR-028



#### **Analytical Report**

WO#: 24050095

Date Reported: 5/14/2024

 CLIENT:
 Camas LLC
 Collection Date:
 5/2/2024 10:45:00 AM

 Lab ID:
 24050095-02
 Received Date:
 5/2/2024 1:20:00 PM

Client Sample ID JCB Down 10 Matrix: AQUEOUS

**Project:** Lower Klamath Metals-AMENDED

Sample Location: Grab

Analyses	Method	NEL. Stat		lt Qual	DF	MDL	RL	Units	MCL	Date Analys Analyzed
MERCURY BY EPA 2	245.1									
Mercury	E245.1	Α	0.000167	J	1	0.000153	0.000200	mg/L		05/08/24 10:59 CJS
TOTAL HEXAVALEN	T CHROMIUM	/I BY EF	PA 218.6							
Chromium, Hexavalent	E218.6	Α	ND		1	0.0840	2.00	μg/L		05/08/24 14:28 SME
DISSOLVED TRACE	METALS									
Aluminum, Dissolved	E200.7	Α	0.0652	L	1	0.00895	0.0200	mg/L		05/10/24 17:55 CBB
Iron, Dissolved	E200.7	Α	0.0675	L	1	0.00858	0.0150	mg/L		05/10/24 17:55 CBB
TRACE METALS BY	EPA 200.7 IC	:P								
Aluminum	E200.7	Α	0.432		1	0.00895	0.0200	mg/L		05/07/24 21:26 CBB
Iron	E200.7	Α	0.386		1	0.00858	0.0150	mg/L		05/07/24 21:26 CBB
HARDNESS BY EPA	200.7 AND S	M 2340	B CALCULA	ATION						
Hardness, Total (As CaCO3)	A2340B	Α	41.1		1	0.258	1.65	mg/L		05/07/24 21:26 CBB
DISSOLVED TRACE	METALS BY	EPA 20	0.8 ICP-MS							
Arsenic, Dissolved	E200.8	Α	0.00323	L	1	0.000158	0.000500	mg/L		05/09/24 18:41 CBB
Cadmium, Dissolved	E200.8	Α	ND	L	1	0.0000254	0.000250	mg/L		05/09/24 18:41 CBB
Chromium, Dissolved	E200.8	Α	ND	L	1	0.000593	0.00200	mg/L		05/09/24 18:41 CBB
Copper, Dissolved	E200.8	Α	ND	L	1	0.000687	0.00200	mg/L		05/09/24 18:41 CBB
Lead, Dissolved	E200.8	Α	ND	L	1	0.000225	0.00100	mg/L		05/09/24 18:41 CBB
Nickel, Dissolved	E200.8	Α	ND	L	1	0.000562	0.0100	mg/L		05/09/24 18:41 CBB
Silver, Dissolved	E200.8	Α	ND	L	1	0.0000326	0.000100	mg/L		05/09/24 18:41 CBB
H Holding times for pre	nperature is out of limit eparation or analysis ex mtrol limits due to Mat	ceeded			J	Value above quantite Analyte detected be Not Detected at the	low quantitation lir	nits		

Revision v1

NELAP A Accredited in accordance with NELAP ORELAP 100016, OR-028



Website: www.nrclabs.com

#### **Analytical Report**

WO#: 24050095

Date Reported: 5/14/2024

Collection Date: 5/2/2024 10:45:00 AM

Received Date: 5/2/2024 1:20:00 PM

**CLIENT:** Camas LLC **Lab ID:** 24050095-02

Client Sample ID JCB Down 10 Matrix: AQUEOUS

Sample Location: Grab

**Project:** Lower Klamath Metals-AMENDED

Analyses	Method	NELAP Status		lt Qual	DF	MDL	RL	Units	MCL	Date Analys Analyzed
DISSOLVED TRACE	METALS BY	EPA 200.8	B ICP-MS							
Zinc, Dissolved	E200.8	Α	ND	L	1	0.000685	0.00500	mg/L		05/09/24 18:41 CBB
TRACE METALS BY	EPA 200.8 IC	CP-MS								
Arsenic	E200.8	Α	0.00342		1	0.000158	0.000500	mg/L		05/07/24 21:01 CJS
Cadmium	E200.8	Α	ND		1	0.0000254	0.000250	mg/L		05/07/24 21:01 CJS
Chromium	E200.8	Α	ND		1	0.000593	0.00200	mg/L		05/07/24 21:01 CJS
Copper	E200.8	Α	0.00128	J	1	0.000687	0.00200	mg/L		05/07/24 21:01 CJS
Lead	E200.8	Α	ND		1	0.000225	0.00100	mg/L		05/07/24 21:01 CJS
Nickel	E200.8	Α	ND		1	0.000562	0.0100	mg/L		05/07/24 21:01 CJS
Silver	E200.8	Α	ND		1	0.0000326	0.000100	mg/L		05/07/24 21:01 CJS
Zinc	E200.8	Α	0.00125	J	1	0.000684	0.00500	mg/L		05/07/24 21:01 CJS
TOTAL ORGANIC CA	ARBON SM 5	310 C-201	4							
Organic Carbon, Total	A5310C	Α	3.90		1	0.0989	0.500	mg/L		05/06/24 14:12 TCB

UALIFIER

C1 Sample container temperature is out of limit as specified at testcode
H Holding times for preparation or analysis exceeded

H Holding times for preparation or analysis exceeded
MI Recovery outside comtrol limits due to Matrix Interference

PL Permit Limit

E Value above quantitation range

Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

Revision v1

NELAP A Accredited in accordance with NELAP ORELAP 100016, OR-028



#### **QC SUMMARY REPORT**

WO#: 24050095

20-May-24

Client: Camas LLC

Project: Lower Klamath Metals-AMENDED TestCode: EPA218.6\_WTOTAL

Sample ID: LCS-R49407	SampType: <b>LCS</b>	TestCode: EPA218.6_W Units: µg/L	Prep Date: 5/8/2024	RunNo: <b>49407</b>
Client ID: LCSW	Batch ID: <b>R49407</b>	TestNo: <b>E218.6</b>	Analysis Date: <b>5/8/2024</b>	SeqNo: <b>811607</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Chromium, Hexavalent	3.59	2.00 3.500 0	103 90 110	
Sample ID: MBLK-R49407	SampType: <b>MBLK</b>	TestCode: EPA218.6_W Units: µg/L	Prep Date: <b>5/8/2024</b>	RunNo: <b>49407</b>
Client ID: PBW	Batch ID: <b>R49407</b>	TestNo: <b>E218.6</b>	Analysis Date: 5/8/2024	SeqNo: <b>811609</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Chromium, Hexavalent	ND	2.00		
Sample ID: <b>24041228-01AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA218.6_W</b> Units: μg/L	Prep Date: <b>5/8/2024</b>	RunNo: <b>49407</b>
Client ID: BatchQC	Batch ID: <b>R49407</b>	TestNo: <b>E218.6</b>	Analysis Date: <b>5/8/2024</b>	SeqNo: <b>811611</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Chromium, Hexavalent	3.90	2.00 4.000 0	97.6 90 110	
Sample ID: <b>24041228-01AMSD</b>	SampType: <b>MSD</b>	TestCode: EPA218.6_W Units: µg/L	Prep Date: <b>5/8/2024</b>	RunNo: <b>49407</b>
Client ID: BatchQC	Batch ID: <b>R49407</b>	TestNo: <b>E218.6</b>	Analysis Date: 5/8/2024	SeqNo: <b>811612</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Chromium, Hexavalent	3.90	2.00 4.000 0	97.4 90 110 3.904	0.202 10

Qualifiers:

Sample container temperature is out of limit as specified at testcode

J Analyte detected below quantitation limits

PL Permit Limit

Value above quantitation range

MI Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

H Holding times for preparation or analysis exceeds

ND Not Detected at the Reporting Limit



#### **QC SUMMARY REPORT**

WO#: **24050095** 

20-May-24

Client: Camas LLC

Project: Lower Klamath Metals-AMENDED TestCode: HG\_W

<b>Project:</b> Lower I	Klamath Metals-AMEN	DED						Т	estCode: H	IG_W		
Sample ID: MB-25155 Client ID: PBW	SampType: <b>M</b> Batch ID: <b>25</b>		TestCode TestNo	e: HG_W o: E245.1	Units: <b>mg/L</b> <b>E245.1</b>		Prep Date Analysis Date	e: <b>5/7/202</b> /e: <b>5/8/202</b> /		RunNo: <b>493</b> SeqNo: <b>81</b> 1		
Analyte	R	esult	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		ND 0.00	00200									
Sample ID: LCS-25155	SampType: <b>L</b> (	s	TestCode	e: HG_W	Units: mg/L		Prep Date	e: <b>5/7/202</b>	4	RunNo: 493	390	
Client ID: LCSW	Batch ID: 25	155	TestNo	E245.1	E245.1		Analysis Date	e: <b>5/8/202</b>	4	SeqNo: 811	1101	
Analyte	R	esult	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0	0408 0.00	00200	0.004000	0	102	85	115				
Sample ID: <b>24050196-</b>	D2BMS SampType: M	s	TestCode	e: HG_W	Units: mg/L		Prep Date	e: <b>5/7/202</b>	4	RunNo: 493	390	
Client ID: BatchQC	Batch ID: 25	155	TestNo	E245.1	E245.1		Analysis Date	e: <b>5/8/202</b>	4	SeqNo: 811	1119	
Analyte	R	esult	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0	0416 0.00	00200	0.004000	0	104	75	125				
Sample ID: <b>24050196-</b> 0	D2BMSD SampType: M	SD	TestCode	e: HG_W	Units: mg/L		Prep Date	e: <b>5/7/202</b>	4	RunNo: 493	390	
Client ID: BatchQC	Batch ID: 25	155	TestNo	E245.1	E245.1		Analysis Date	e: <b>5/8/202</b>	4	SeqNo: 811	1120	
Analyte	R	esult	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0	0429 0.00	00200	0.004000	0	107	75	125	0.004160	3.08	20	

Qualifiers:

Sample container temperature is out of limit as specified at testcode

J Analyte detected below quantitation limits

PL Permit Limit

Value above quantitation range

MI Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

H Holding times for preparation or analysis exceeds

ND Not Detected at the Reporting Limit



#### **QC SUMMARY REPORT**

WO#: 24050095

20-May-24

Camas LLC **Client:** 

Project:	Lower Klamath I	Metals-AMENDEI	)					T	estCode: I	CP_200.7_V	V	
Sample ID: Client ID:	MB-25159 PBW	SampType: MBLK Batch ID: 25159		de: ICP_200.7 No: E200.7	'_W Units: mg/L E200.7		Prep Date Analysis Date	e: <b>5/7/202</b> e: <b>5/7/202</b>		RunNo: 49: SeqNo: 81		
Analyte		Resul	t PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum Iron		NE NE										
Sample ID:	LCS-25159	SampType: LCS	TestCo	de: ICP_200.7	'_W Units: mg/L		Prep Date	e: <b>5/7/202</b>	4	RunNo: 49:	386	
Client ID:	LCSW	Batch ID: 25159	Test	No: <b>E200.7</b>	E200.7		Analysis Date	e: <b>5/7/202</b>	4	SeqNo: 81	1030	
Analyte		Resul	t PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum Iron		1.00 1.00		1.000 1.000	0 0	100 100	85 85	115 115				
Sample ID:	24050196-01BMS	SampType: <b>MS</b>	TestCo	de: ICP_200.7	_W Units: mg/L		Prep Date	e: <b>5/7/202</b>	4	RunNo: 49	386	
Sample ID: Client ID:	24050196-01BMS BatchQC	SampType: MS Batch ID: 25159		de: <b>ICP_200.7</b> No: <b>E200.7</b>	'_W Units: mg/L E200.7		Prep Date Analysis Date			RunNo: 49: SeqNo: 81		
			Test	_	_	%REC	Analysis Date	e: <b>5/7/202</b>		_		Qual
Client ID:		Batch ID: <b>25159</b>	Testi t PQL 0.0200	No: <b>E200.7</b>	E200.7	%REC 100 96.3	Analysis Date	e: <b>5/7/202</b>	4	SeqNo: 81	1034	Qual
Client ID: Analyte Aluminum Iron		Batch ID: <b>25159</b> Resul	Testi t PQL 0.0200 0.0150	No: <b>E200.7</b> SPK value	E200.7  SPK Ref Val  0.8502 1.328	100	Analysis Date LowLimit 70 70	e: <b>5/7/202</b> HighLimit 130	<b>4</b> RPD Ref Val	SeqNo: 81	RPDLimit	Qual
Client ID: Analyte Aluminum Iron	BatchQC	Batch ID: <b>25159</b> Resul  11.9	Testle	No: <b>E200.7</b> SPK value  11.00  11.00	E200.7  SPK Ref Val  0.8502 1.328	100	Analysis Date LowLimit 70 70	e: <b>5/7/202</b> HighLimit 130 130 e: <b>5/7/202</b>	4 RPD Ref Val	SeqNo: <b>81</b>	RPDLimit	Qual
Client ID: Analyte Aluminum Iron Sample ID:	BatchQC 24050196-01BMSD	Batch ID: 25159  Resul  11.9  SampType: MSD	Testi t PQL 0.0200 0.0150  TestCo	No: <b>E200.7</b> SPK value  11.00  11.00  de: <b>ICP_200.7</b>	E200.7  SPK Ref Val  0.8502 1.328  7_W Units: mg/L	100	Analysis Date  LowLimit  70  70  Prep Date Analysis Date	e: 5/7/202 HighLimit 130 130 e: 5/7/202 e: 5/7/202	4 RPD Ref Val	SeqNo: 81:  %RPD  RunNo: 49:	RPDLimit	Qual

Qualifiers:

Sample container temperature is out of limit as specified at testcode

Analyte detected below quantitation limits

PL Permit Limit

Value above quantitation range

Recovery outside comtrol limits due to Matrix Interference

Reporting Detection Limit

H Holding times for preparation or analysis exceeds

Not Detected at the Reporting Limit



#### **QC SUMMARY REPORT**

WO#: **24050095** 

20-May-24

Client: Camas LLC

Project: Lower Klamath Metals-AMENDED TestCode: ICP\_200.7\_W

Sample ID: 24050196-01BMSD Client ID: BatchQC	SampType: MSD Batch ID: 25159		de: ICP_200.7 No: E200.7	_W Units: mg/L E200.7		Prep Da Analysis Da	te: <b>5/7/202</b> te: <b>5/7/202</b>		RunNo: <b>493</b> SeqNo: <b>81</b> 1		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	12.0	0.0150	11.00	1.328	96.8	70	130	11.92	0.494	20	

Qualifiers:

Sample container temperature is out of limit as specified at testcode

J Analyte detected below quantitation limits

PL Permit Limit

Value above quantitation range

MI Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

H Holding times for preparation or analysis exceeds

ND Not Detected at the Reporting Limit



#### **QC SUMMARY REPORT**

WO#: **24050095** 

20-May-24

Client: Camas LLC

Project: Lower Klamath Metals-AMENDED TestCode: ICP\_200.7\_W\_DISS2

Sample ID: MB-25176	SampType: MBLK	TestCode: ICP_200.7_W Units: mg/L	Prep Date: 5/8/2024	RunNo: <b>49445</b>
Client ID: PBW	Batch ID: 25176	TestNo: <b>E200.7 E3005</b>	Analysis Date: 5/9/2024	SeqNo: <b>812362</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Aluminum, Dissolved	ND	0.0200		
Iron, Dissolved	ND	0.0150		
Sample ID: LCS-25176	SampType: <b>LCS</b>	TestCode: ICP_200.7_W Units: mg/L	Prep Date: 5/8/2024	RunNo: <b>49445</b>
Client ID: LCSW	Batch ID: 25176	TestNo: <b>E200.7 E3005</b>	Analysis Date: 5/9/2024	SeqNo: <b>812363</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Aluminum, Dissolved	0.990	0.0200 1.000 0	99.0 85 115	
Iron, Dissolved	0.999	0.0150 1.000 0	99.9 85 115	
Sample ID: <b>24050048-01BMS</b>	SampType: MS	TestCode: ICP_200.7_W Units: mg/L	Prep Date: 5/8/2024	RunNo: <b>49445</b>
Client ID: BatchQC	Batch ID: 25176	TestNo: <b>E200.7 E3005</b>	Analysis Date: 5/9/2024	SeqNo: <b>812365</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Aluminum, Dissolved	11.0	0.0200 11.00 0.07019	99.3 70 130	
Iron, Dissolved	11.0	0.0150 11.00 0.07037	99.6 70 130	
Sample ID: <b>24050048-01BMSD</b>	SampType: MSD	TestCode: ICP_200.7_W Units: mg/L	Prep Date: 5/8/2024	RunNo: <b>49445</b>
Client ID: BatchQC	Batch ID: 25176	TestNo: <b>E200.7 E3005</b>	Analysis Date: 5/9/2024	SeqNo: <b>812366</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Aluminum, Dissolved	11.3	0.0200 11.00 0.07019	102 70 130 10.99	2.72 20

Qualifiers:

Sample container temperature is out of limit as specified at testcode

J Analyte detected below quantitation limits

PL Permit Limit

E Value above quantitation range

II Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

H Holding times for preparation or analysis exceeds
ND Not Detected at the Reporting Limit

ery outside common mains due to Matrix Interference ND Not Detected at the Repo



#### **QC SUMMARY REPORT**

WO#: **24050095** 

20-May-24

Client: Camas LLC

Project: Lower Klamath Metals-AMENDED TestCode: ICP\_200.7\_W\_DISS2

Sample ID: 24050048-01BMSD Client ID: BatchQC	SampType: MSD Batch ID: 25176		de: ICP_200.7 No: E200.7	_W Units: mg/L E3005		Prep Da Analysis Da	te: <b>5/8/202</b> te: <b>5/9/202</b>		RunNo: <b>49</b> 4 SeqNo: <b>812</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron. Dissolved	11.3	0.0150	11.00	0.07037	102	70	130	11.02	2.65	20	

Qualifiers:

Sample container temperature is out of limit as specified at testcode

J Analyte detected below quantitation limits

PL Permit Limit

E Value above quantitation range

MI Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

H Holding times for preparation or analysis exceeds

ND Not Detected at the Reporting Limit



# **QC SUMMARY REPORT**

WO#: 24050095

20-May-24

Client: Camas LLC

Project: Lower Klamath Metals-AMENDED TestCode: ICP HARD W

Project: Lower Klamath	Metals-AMENDED		TestCode: ICP_HARD_W
Sample ID: <b>MB-25159</b>	SampType: MBLK	TestCode: ICP_HARD_W Units: mg/L	Prep Date: 5/7/2024 RunNo: 49387
Client ID: PBW	Batch ID: 25159	TestNo: <b>A2340B E200.7</b>	Analysis Date: 5/7/2024 SeqNo: 811316
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Hardness, Total (As CaCO3)	0.280	1.65	J
Sample ID: LCS-25159	SampType: <b>LCS</b>	TestCode: ICP_HARD_W Units: mg/L	Prep Date: 5/7/2024 RunNo: 49387
Client ID: LCSW	Batch ID: 25159	TestNo: <b>A2340B E200.7</b>	Analysis Date: 5/7/2024 SeqNo: 811317
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Hardness, Total (As CaCO3)	6.55	1.65 6.615 0	99.0 85 115
Sample ID: <b>24050196-01BMS</b>	SampType: <b>MS</b>	TestCode: ICP_HARD_W Units: mg/L	Prep Date: 5/7/2024 RunNo: 49387
Client ID: BatchQC	Batch ID: 25159	TestNo: <b>A2340B E200.7</b>	Analysis Date: 5/7/2024 SeqNo: 811321
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Hardness, Total (As CaCO3)	201	1.65 72.80 135.5	90.5 70 130
Sample ID: <b>24050196-01BMSD</b>	SampType: <b>MSD</b>	TestCode: ICP_HARD_W Units: mg/L	Prep Date: 5/7/2024 RunNo: 49387
Client ID: BatchQC	Batch ID: 25159	TestNo: <b>A2340B E200.7</b>	Analysis Date: 5/7/2024 SeqNo: 811322
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Hardness, Total (As CaCO3)	204	1.65 72.80 135.5	94.1 70 130 201.3 1.31 20

Qualifiers:

<sup>1</sup> Sample container temperature is out of limit as specified at testcode

J Analyte detected below quantitation limits

PL Permit Limit

Value above quantitation range

MI Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

H Holding times for preparation or analysis exceeds

ND Not Detected at the Reporting Limit



#### **QC SUMMARY REPORT**

WO#: **24050095** 

20-May-24

Client: Camas LLC

Project: Lower Klamath Metals-AMENDED TestCode: ICPMS\_200.8\_DISS2

Sample ID: MB-25194	SampType: MBLK		de: ICPMS_20	J		•	te: <b>5/9/202</b> 4		RunNo: <b>49</b> 4		
Client ID: PBW	Batch ID: 25194	I estiv	lo: <b>E200.8</b>	E3005		Analysis Da	te: <b>5/9/202</b> 4	4	SeqNo: 812	2522	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic, Dissolved	ND	0.000500									
Cadmium, Dissolved	ND	0.000250									
Chromium, Dissolved	ND	0.00200									
Copper, Dissolved	ND	0.00200									
Lead, Dissolved	ND	0.00100									
Nickel, Dissolved	ND	0.0100									
Silver, Dissolved	ND	0.000100									
Zinc, Dissolved	ND	0.00500									

Sample ID: LCS-25194	SampType: LCS	TestCod	de: ICPMS_20	0.8 Units: mg/L		Prep Da	te: <b>5/9/202</b>	4	RunNo: <b>49465</b>			
Client ID: LCSW	Batch ID: 25194	TestN	No: <b>E200.8</b>	E3005		Analysis Da	te: <b>5/9/202</b>	4	SeqNo: 812	2523		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Arsenic, Dissolved	0.0985	0.000500	0.1000	0	98.5	85	115					
Cadmium, Dissolved	0.0980	0.000250	0.1000	0	98.0	85	115					
Chromium, Dissolved	0.0995	0.00200	0.1000	0	99.5	85	115					
Copper, Dissolved	0.103	0.00200	0.1000	0	103	85	115					
Lead, Dissolved	0.0991	0.00100	0.1000	0	99.1	85	115					
Nickel, Dissolved	0.0992	0.0100	0.1000	0	99.2	85	115					
Silver, Dissolved	0.0994	0.000100	0.1000	0	99.4	85	115					
Zinc, Dissolved	0.0986	0.00500	0.1000	0	98.6	85	115					

Qualifiers:

Sample container temperature is out of limit as specified at testcode

J Analyte detected below quantitation limits

PL Permit Limit

Value above quantitation range

MI Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

H Holding times for preparation or analysis exceeds

ND Not Detected at the Reporting Limit



#### **QC SUMMARY REPORT**

WO#: **24050095** 

20-May-24

Client: Camas LLC

Project: Lower Klamath Metals-AMENDED TestCode: ICPMS\_200.8\_DISS2

Sample ID: 24050048-03BMS Client ID: BatchQC	SampType: MS Batch ID: 25194		de: ICPMS_20 No: E200.8	00.8 Units: mg/L E3005		Prep Da Analysis Da	te: <b>5/9/202</b> te: <b>5/9/202</b>		RunNo: 494 SeqNo: 812		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic, Dissolved	0.106	0.000500	0.1000	0.003251	103	70	130				
Cadmium, Dissolved	0.102	0.000250	0.1000	0	102	70	130				
Chromium, Dissolved	0.104	0.00200	0.1000	0	104	70	130				
Copper, Dissolved	0.107	0.00200	0.1000	0	107	70	130				
Lead, Dissolved	0.103	0.00100	0.1000	0	103	70	130				
Nickel, Dissolved	0.103	0.0100	0.1000	0	103	70	130				
Silver, Dissolved	0.101	0.000100	0.1000	0	101	70	130				
Zinc, Dissolved	0.103	0.00500	0.1000	0	103	70	130				

Sample ID: <b>24050048-03BMSD</b>	SampType: MSD	TestCode: ICPMS_200.8 Units: mg/L				Prep Da	te: <b>5/9/202</b>	4	RunNo: <b>49465</b>		
Client ID: BatchQC	Batch ID: 25194	TestN	No: <b>E200.8</b>	E3005		Analysis Da	te: <b>5/9/202</b>	4	SeqNo: 812	2528	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic, Dissolved	0.104	0.000500	0.1000	0.003251	100	70	130	0.1063	2.66	20	
Cadmium, Dissolved	0.100	0.000250	0.1000	0	100	70	130	0.1024	2.01	20	
Chromium, Dissolved	0.101	0.00200	0.1000	0	101	70	130	0.1043	3.30	20	
Copper, Dissolved	0.104	0.00200	0.1000	0	104	70	130	0.1068	2.51	20	
Lead, Dissolved	0.101	0.00100	0.1000	0	101	70	130	0.1034	2.52	20	
Nickel, Dissolved	0.100	0.0100	0.1000	0	100	70	130	0.1030	2.62	20	
Silver, Dissolved	0.0993	0.000100	0.1000	0	99.3	70	130	0.1010	1.66	20	
Zinc, Dissolved	0.101	0.00500	0.1000	0	101	70	130	0.1033	2.40	20	

Qualifiers:

Sample container temperature is out of limit as specified at testcode

J Analyte detected below quantitation limits

PL Permit Limit

Value above quantitation range

MI Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

H Holding times for preparation or analysis exceeds

ND Not Detected at the Reporting Limit



#### **QC SUMMARY REPORT**

WO#: **24050095** 

20-May-24

Client: Camas LLC

Project: Lower Klamath Metals-AMENDED TestCode: ICPMS\_200.8\_W

Sample ID: MB-25138	SampType: MBLK	TestCoo	de: ICPMS_20		Prep Da	te: <b>5/6/202</b>	4	RunNo: 493	370			
Client ID: PBW	Batch ID: 25138	TestN	lo: <b>E200.8</b>	E200.8		Analysis Da	te: <b>5/7/202</b>	4	SeqNo: <b>810729</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Arsenic	ND	0.000500										
Cadmium	ND	0.000250										
Chromium	ND	0.00200										
Copper	ND	0.00200										
Lead	ND	0.00100										
Nickel	ND	0.0100										
Silver	ND	0.000100										
Zinc	ND	0.00500										

Sample ID: LCS-25138	SampType: LCS	TestCode: ICPMS_200.8 Units: mg/L				Prep Da	te: <b>5/6/202</b>	4	RunNo: <b>49370</b>		
Client ID: LCSW	Batch ID: 25138	TestN	No: <b>E200.8</b>	E200.8		Analysis Da	te: <b>5/7/202</b>	4	SeqNo: 810	0730	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.100	0.000500	0.1000	0	100	85	115				
Cadmium	0.100	0.000250	0.1000	0	100	85	115				
Chromium	0.101	0.00200	0.1000	0	101	85	115				
Copper	0.102	0.00200	0.1000	0	102	85	115				
Lead	0.101	0.00100	0.1000	0	101	85	115				
Nickel	0.0997	0.0100	0.1000	0	99.7	85	115				
Silver	0.101	0.000100	0.1000	0	101	85	115				
Zinc	0.0985	0.00500	0.1000	0	98.5	85	115				

Qualifiers:

<sup>1</sup> Sample container temperature is out of limit as specified at testcode

J Analyte detected below quantitation limits

PL Permit Limit

Value above quantitation range

MI Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

H Holding times for preparation or analysis exceeds

ND Not Detected at the Reporting Limit



#### **QC SUMMARY REPORT**

WO#: **24050095** 

20-May-24

Client: Camas LLC

Project: Lower Klamath Metals-AMENDED TestCode: ICPMS\_200.8\_W

Sample ID: 24050048-02AMS Client ID: BatchQC	SampType: MS Batch ID: 25138		de: ICPMS_20 lo: E200.8	0.8 Units: mg/L E200.8		Prep Da Analysis Da	te: <b>5/6/202</b> 4		RunNo: <b>493</b> SeqNo: <b>810</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.106	0.000500	0.1000	0.003776	102	70	130				
Cadmium	0.102	0.000250	0.1000	0	102	70	130				
Chromium	0.102	0.00200	0.1000	0.0008210	102	70	130				
Copper	0.105	0.00200	0.1000	0.001578	103	70	130				
Lead	0.103	0.00100	0.1000	0.0003650	102	70	130				
Nickel	0.102	0.0100	0.1000	0.0008900	101	70	130				
Silver	0.101	0.000100	0.1000	0	101	70	130				
Zinc	0.103	0.00500	0.1000	0.001964	102	70	130				

Sample ID: 24050048-02AMSE	SampType: MSD	TestCode: ICPMS_200.8 Units: mg/L				Prep Da	te: <b>5/6/202</b>	4	RunNo: 49370		
Client ID: BatchQC	Batch ID: 25138	TestN	No: <b>E200.8</b>	E200.8		Analysis Da	te: <b>5/7/202</b>	4	SeqNo: 810	733	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.105	0.000500	0.1000	0.003776	101	70	130	0.1058	0.705	20	
Cadmium	0.101	0.000250	0.1000	0	101	70	130	0.1024	1.16	20	
Chromium	0.100	0.00200	0.1000	0.0008210	99.4	70	130	0.1024	2.11	20	
Copper	0.102	0.00200	0.1000	0.001578	101	70	130	0.1048	2.24	20	
Lead	0.101	0.00100	0.1000	0.0003650	101	70	130	0.1027	1.74	20	
Nickel	0.0998	0.0100	0.1000	0.0008900	98.9	70	130	0.1023	2.51	20	
Silver	0.0995	0.000100	0.1000	0	99.5	70	130	0.1009	1.47	20	
Zinc	0.101	0.00500	0.1000	0.001964	98.6	70	130	0.1035	2.81	20	

Qualifiers:

<sup>1</sup> Sample container temperature is out of limit as specified at testcode

J Analyte detected below quantitation limits

PL Permit Limit

Value above quantitation range

MI Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

H Holding times for preparation or analysis exceeds

ND Not Detected at the Reporting Limit



# **QC SUMMARY REPORT**

WO#: 24050095

20-May-24

Client: Camas LLC

Project: Lower Klamath Metals-AMENDED TestCode: TOC\_5310C

Project: Lower Klamath	Metals-AMENDED		TestCode: TOC_5310C	
Sample ID: MB Client ID: PBW	SampType: MBLK Batch ID: R49375	TestCode: TOC_5310C Units: mg/L TestNo: A5310C	Prep Date:         5/6/2024         RunNo:         4937!           Analysis Date:         5/6/2024         SeqNo:         81088	
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD	RPDLimit Qual
Organic Carbon, Total	ND	0.500		
Sample ID: LCS - 14323 Client ID: LCSW	SampType: LCS Batch ID: R49375	TestCode: TOC_5310C Units: mg/L TestNo: A5310C	Prep Date: 5/6/2024 RunNo: 49379  Analysis Date: 5/6/2024 SeqNo: 81089	
Analyte	Result	PQL SPK value SPK Ref Val		RPDLimit Qual
Organic Carbon, Total	3.50	0.500 3.750 0	93.4 90 110	
Sample ID: <b>24050095-01DDUP</b> Client ID: <b>JCB Up 9</b>	SampType: DUP Batch ID: R49375	TestCode: TOC_5310C Units: mg/L TestNo: A5310C	Prep Date: 5/6/2024 RunNo: 49378 Analysis Date: 5/6/2024 SeqNo: 81088	
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD	RPDLimit Qual
Organic Carbon, Total	4.61	0.500	4.526 1.85	15
Sample ID: <b>24050095-02DMS</b> Client ID: <b>JCB Down 10</b>	SampType: MS Batch ID: R49375	TestCode: TOC_5310C Units: mg/L TestNo: A5310C	Prep Date: 5/6/2024 RunNo: 49379 Analysis Date: 5/6/2024 SeqNo: 81089	
Analyte	Result	PQL SPK value SPK Ref Val		RPDLimit Qual
Organic Carbon, Total	6.65	0.500 2.500 3.904	110 85 115	

Qualifiers:

Sample container temperature is out of limit as specified at testcode

J Analyte detected below quantitation limits

PL Permit Limit

Value above quantitation range

MI Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

H Holding times for preparation or analysis exceeds

ND Not Detected at the Reporting Limit



Website: www.nrclabs.com

# Sample Log-In Check List

Client Na	me: CAMA	SLLC	Work Order Number:	24050095		RcptNo: 1			
Logged b	oy: <b>Tamra</b>	Schmedemann	5/2/2024 1:20:00 PM		Tampa &	hmedenaen			
Complete	ed By: <b>Erin H</b>	ernandez	5/3/2024 10:18:00 AM	ľ	Cum Hum	wd5			
Reviewed	d By: <b>Tamra</b>	Schmedemann	5/14/2024 11:03:47 Al	М	Tampa &	Amederaan Moto Amederaan			
Chain o	of Custody								
1. Is Ch	hain of Custod	y complete?		Yes 🔽	No 🗌	Not Present			
2. How	was the samp	le delivered?		Client					
Log In									
-	lers are presen	it?		Yes 🗸	No 🗌	NA $\square$			
4. Ship	ping container	cooler in good conditic	n?	Yes 🗸	No 🗌				
Cust	tody seals intac	ct on shipping containe	r/cooler?	Yes	No $\square$	Not Present ✓			
No.		Seal Date:		Signed By:	:				
5. Was	an attempt ma	ade to cool the sample	s?	Yes 🗸	No 🗌	NA $\square$			
6. Were	e all samples r	eceived at a temperatu	re of >0° C to 6.0°C	Yes 🗸	No 🗌	NA 🗆			
7. Sam	ıple(s) in prope	er container(s)?		Yes 🗹	No 🗆				
8. Suffi	icient sample v	olume for indicated tes	t(s)?	Yes 🗸	No 🗌				
9. Ares	samples (exce	pt VOA and ONG) prop	erly preserved?	Yes 🗸	No 🗌				
10. Was	preservative a	added to bottles?		Yes	No 🗹	NA $\square$			
11. Is the	e headspace ir	n the VOA vials less tha	an 1/4 inch or 6 mm?	Yes	No 🗌	No VOA Vials 🗹			
12. Were	e any sample o	containers received bro	ken?	Yes	No 🗸				
		atch bottle labels? s on chain of custody)		Yes 🗸	No 🗆				
•	·	ctly identified on Chain	of Custody?	Yes 🗸	No 🗌				
		lyses were requested?	•	Yes 🗸	No 🗌				
	_	nes able to be met? ner for authorization.)		Yes 🗸	No 🗌				
•	•	if applicable)							
-		of all discrepancies wit	h this order?	Yes	No $\square$	NA 🗹			
	Person Notifie	ed:	Date:						
	By Whom:	· -	Via:	eMail	Phone  Fax	☐ In Person			
	Regarding:	,	via.	Civiali	· none 🗀 rax				
	Client Instruct	tions:							
18. Addi	tional remarks	P							

#### **Cooler Information**

Cooler No	Temp ⁰C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.5	Good				DG



Chain of Custody Record

This Chain of Custody is a LEGAL DOCUMENT and must be filled out accurately.

Section A Required Client Information		Section E	B I Project Inform	mation				Section		rmatio	n.				Section D Rush Status (Subject	to Scheduling)	
Company: ( mmas / CC			ame: (oVB;		16	Meta	ds	Attent		Mich	11	B	100/4	<u> </u>	X Standard: 10 Bus		
Address: 600 6 St. Swite C		Project N	-	- 70.				Comp	any Na	ame:	Car	_	LL		Priority: 5 Busine	ess Days (List × 1.50)	
Sacresonville OR 975	70	Report To	o Matt	Robart				Addre	ss: 6				Ste.		Express: 3 Busin	ess Days (List × 1.75)	
Email: Matte camasile.com		Copy To:	JF										2 9		Rush: 2 Business	s Days (List × 2.00)	
Phone: 541-231-9392								P.O. #				, -	V		Rush: 1 Business	s Day (List × 2.50)	
Collected By (Print): Matt Robert	1 1			100											Rush: Same Day (List × 3.00)		
Collected By (Sign):		1				3	1.7		Analys	is Req	ueste	d			Authoriz	zed Yes No	$\neg \neg$
Email Report Fax Report						7	Fe	13	15,				13.6			obels-As, Col,	(v
	_					Ita	A. F.	10	6 Stutes	(II)		`	Fe (3)		Cu, Ab, Mi,		Cr,
Section E Sample Information		_	1		tainers		+	8	. 2 W.	Cr	WW	0	A.		NRC Workorder # (Lab Use Only)	24050095	
Sample ID	Comp/Grab	Matrix*	Date Collected	Time Collected	No. of Containers	5112	200.	200.	8.002	218,6	- 201	HARD	1.007		Remarks / Field Data	NRC Sample # Use Only)	(Lab
50B WP 9	Groot	V	5/2/24	945	6	X	X	X	7	×	×	×	×		100	01	
JCB DOUN 10	6rat	12	5/2/24	1045	6	X	X	4	X	X	X	X	X	TA BA		02	
										-37							
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								1					$\vdash$		+		
														-	lar.	STORY HOSE US AND	
4									- 1						1111		
		Marie a															
*Matrix: DW - Drinking Water WW - Wastewater W  Section F  Relinquish/Receive Sign	- Water S - Soil/S	Solid SL - S	Sludge <b>O</b> - Oil	WP - Wipe O		er				Date			Time		Section G Lab Use Only	IRL	
Relinquished By: Sull Sull	S		Dus	tin C	oke	14			5/	2/200	24	1	3:20	9	Temp: 3,5	IR Therm ID:	
Received By:						V									≤6°C: Yes	No	
Relinquished By:	63-91	-													Received on Ice: X	Yes No	
Received By:		100	A TREE						- 11						Number of Bottles Rec	eived: 12	
Relinquished By:	Via Jenis		Ry - House	Λ.			17				1150			455	pH Checked:	LA	Wilson
Received By Eaboratory any Surge	ederna		Tam	ra Sch	me	NOV	Me	4	n/	2/2	cl	13	:21		COC Seals Intact:	Yes No/NA	
	- 1	40.00									(				Field Blank Included: _		Hara
												ı.b	Receive	d Via	_UPS FedEX C	OtherHand	
	*,								Payr	nent:	In	voice	Ca	shV	ISA, M/C Check # _	Amount	

Statemy

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Effective 10/5/2020



**Data Flags** 

WO#: **24050095**Date: **5/14/2024** 

A Total Alkalinity and Bicarbonate Alkalinity results are to a pH endpoint of 4.5. Carbonate Alkalinity result is to a pH endpoint of 8.3.

Website: www.nrclabs.com

- A-LL The total low level alkalinity results are to a pH endpoint of 4.3-4.7 pH units per SM 2320B-2011.
- B Analyte detected in the associated method blank.
- C Sample(s) does not meet NELAP/ORELAP sample acceptance criteria. See Case Narrative.
- C1 Sample(s) does not meet NELAP/ORELAP sample acceptance criteria for temperature.
- CF Results confirmed by re-analysis.
- CU Cleanup performed as specified by method.
- E Estimated value.
- ER Elevated reporting limit due to matrix. Report limits (MDLs, MRLs & PQLs) are adjusted based on variations in sample preparation amounts, analytical dilutions, and percent solids, where applicable.
- FC Fecal Coliforms: Sample(s) received past 40 CFR Part 136 specified holding time. Results reported as estimated values.
- HP Sample re-analysis performed outside of method specified holding time.
- HR Sample received outside of method specified holding time.
- HS Sample analyzed for volatile organics contained headspace.
- HT At the client's request, the sample was analyzed outside of method specified holding time.
- H Analysis performed outside of method specified holding time.
- J Analyte detected below the Minimum Reporting Limit (MRL) and above the Method Detection Limit (MDL). The J flag result is an estimated value and the user should be aware that this data is of limited reliability.
- L Dissolved metals were not filtered within 15 minutes of collection per 40 CFR Part 136.
- MI Surrogate, Duplicate Sample (DUP) or Matrix Spikes recoveries are out of control limits due to matrix interference. Sample results may be biased.
- N See Case Narrative on page 2 of report.
- Q Initial calibration verification (ICV), continuing calibration verification (CCV) or laboratory control sample (LCS), and/or matrix spikes exceeded high recovery limits, but associated samples are non-detect and the sample results are not affected. Data meets EPA/NELAP requirements.
- R Relative percent difference (RPD) is outside of the accepted recovery limits.
- R1 The numerical difference between the parent sample and the duplicate (DUP) is outside of the accepted recovery limits. Greater than 5 degrees for Flashpoint, or greater than 0.1 pH units for pH.
- R3 The relative percent difference (RPD) and/or percent recovery for the duplicate (DUP) or matrix spike (MS)/matrix spike duplicate (MSD) cannot be accurately calculated due to the concentration of analyte already present in the sample.
- R4 The Relative percent difference (RPD) is not within control limits because the concentration of the sample result is too low to represent proper statistical error.
- R5 The difference between the BOD/CBOD results for the highest and lowest dilution used for the calculation is >30% because the results are too low to represent proper statistical error. The BOD/CBOD sample result is an average of all qualified bottles for each dilution series. The sample results are not affected.
- R6 The difference between the BOD/CBOD results for the highest and lowest dilution used for the calculation is >30%. This may indicate a possible matrix interference. The BOD/CBOD sample result is an average of all qualified bottles for each dilution series.
- S Surrogate and/or matrix spike recovery is outside of the accepted recovery limits. Sample results may be biased.
- S1 Surrogate or matrix spike recovery is outside of control limits due to dilution necessary for analysis.
- SC Sub-contracted to another laboratory for analysis.
- SP Sample(s) were not collected per EPA Method 5035A protocols. The results are considered minimum values.
- \* Value exceeds Maximum Contaminant Level or is outside the acceptable range.