

## DRINKING WATER LEAD SAMPLING

OF

GRANTS PASS REGIONAL ESD FACILITY 409 NW 3<sup>RD</sup> STREET, GRANTS PASS, OREGON FOR

## SOUTHERN OREGON EDUCATION SERVICE DISTRICT

## **INTRODUCTION**

Coleman Creek Consulting, Inc. (CCC) was retained by the Southern Oregon Education Service District (SOESD) to perform representative lead and copper drinking water sampling of the Grants Pass Regional ESD Facility at the above address. The purpose of the lead and copper drinking water sampling was to determine the concentration of lead and copper in representative drinking water sources and compare with regulatory standards. In 2017, Education Service Districts were required to adopt a Healthy and Safe Schools Plan, including provisions for testing and reducing exposure to elevated levels of lead in water used for drinking and food preparation.

## LEAD DRINKING WATER SAMPLING REQUIREMENTS

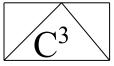
Guidelines for sampling lead in water were established by the Oregon Health Authority. Water sampling is to occur after water sits overnight in the pipes without being used, and must be sampled after a day occupied by students or building occupants. All water sources are to be sampled, with the exception of water used for heating, sanitation, irrigation, and science sinks for grades 6 and up with non-potable water signs. Initial testing is required to be performed by 2020, and every 6 years thereafter, according to a testing schedule determined by the Oregon Department of Education.

## DRINKING WATER SAMPLING

David W. Fawcett of CCC visited the Grants Pass Regional ESD Facility on October 5, 2019. Mr. Fawcett collected a lead and copper drinking water sample from the drinking water sources identified in the facility. See Site Sample Record Sheets (page 3-6) for a description of the drinking water sources sampled. See Drinking Water Sample Location Diagram in Appendix A for a visual review of all drinking water sample locations. The drinking water samples were collected in the early morning, ensuring that the sample source had not been in use since the previous day. The sample was placed in a cooler and transported to Neilson Research Corporation for lead analysis.

## DRINKING WATER LEAD RESULTS AND TESTING SUMMARY SHEET

The four drinking water samples collected were analyzed for lead using EPA Method 200.8. See Neilson Research Corporation Analytical Report in Appendix B. A Drinking Water Testing Summary Sheet (page 7) indicates the lead in drinking water concentrations for samples collected from the kitchen sink and blue bath sink were reported with 0.716 and 0.243 parts per billion (ppb). The White



Bath sink faucet was reported with 19.4 ppb lead, and the Storage Room sink faucet was reported with 19.1 ppb lead, with both samples above than the 15 ppb lead action level.

## STORAGE ROOM SINK FAUCET REPLACEMENT AND RE-SAMPLE RESULTS

The Storage Room sink faucet was replaced, and the new faucet re-sampled November 16, 2019. The re-sampled faucet was reported with 36.6 ppb lead. The Storage Room faucet was removed, the line permanently capped, and the fixture removed from service.

## WHITE BATH SINK FAUCET REPLACEMENT AND RE-SAMPLE RESULTS

The White Bath sink faucet was replaced, and the new faucet re-sampled November 16, 2019. The resampled faucet was reported with 34.3 ppb lead. The White Bath sink faucet was re-sampled December 7, 2019, with both an initial sample and flush sample collected. The re-sampled faucet was reported with 23.6 ppb lead. The flush sample was reported with 0.328 ppb lead. The White Bath sink faucet was flushed repeatedly, and re-sampled January 31, 2020. The re-sampled faucet was reported with 27.1 ppb lead. The White Bath sink faucet was removed, the line permanently capped, and the fixture removed from service.

## **CONCLUSIONS**

Four drinking water locations were sampled from drinking water sources at the Grants Pass Regional ESD Facility prior to use that day by building occupants, and after a day the facility was occupied. Two of the sample locations were reported with concentrations below the 15 ppb lead action level in water. Two locations sampled (Storage Room sink faucet and White Bath sink faucet) were reported above the 15 ppb lead action level, and were capped and removed from service.

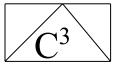
## RECOMMENDATIONS

Coleman Creek Consulting, Inc. recommends future drinking water sampling at the Grants Pass Regional ESD Facility according to the schedule set out by the Oregon Department of Education. Coleman Creek Consulting, Inc. appreciates the opportunity to continue to perform environmental sampling and consulting services to Southern Oregon Education Service District.

David W. Fawcett

**Director of Consulting Services** 

All Fancett

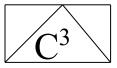


## DRINKING WATER LEAD/COPPER SAMPLE RECORD SHEET

Grants Pass Regional Office 409 NW 3<sup>rd</sup> Street FACILITY: DATE: 10-05-19

ADDRESS: SAMPLER: David W. Fawcett

SAMPLE #	SOURCE DESCRIPTION	LOCATION	COLLECTION TIME
19-104G.GPR1	Sink Faucet	Kitchen	0732
19-104G.GPR2	Sink Faucet	Blue Bath	0734
19-104G.GPR3	Sink Faucet	White Bath	0735
19-104G.GPR4	Sink Faucet	Storage Room	0738

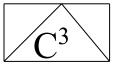


## DRINKING WATER LEAD/COPPER SAMPLE RECORD SHEET

Grants Pass Regional Office 409 NW 3<sup>rd</sup> Street FACILITY: DATE: 11-16-19

ADDRESS: SAMPLER: David W. Fawcett

	SOURCE		COLLECTION
SAMPLE#	DESCRIPTION	LOCATION	TIME
19-104G.GPR5	Sink Faucet	White Bath	0903
19-104G.GPR6	Sink Faucet	Storage Room	0905

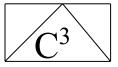


## DRINKING WATER LEAD/COPPER SAMPLE RECORD SHEET

Grants Pass Regional Office 409 NW 3<sup>rd</sup> Street FACILITY: DATE: 12-07-19

ADDRESS: SAMPLER: David W. Fawcett

	SOURCE		COLLECTION
SAMPLE #	DESCRIPTION	LOCATION	TIME
19-104G.GPR7	Sink Faucet	White Bath, 1st Sample	0821
19-104G.GPR8	Sink Faucet	White Bath, Flush Sample	0823

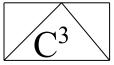


## DRINKING WATER LEAD/COPPER SAMPLE RECORD SHEET

Grants Pass Regional Office 409 NW 3<sup>rd</sup> Street FACILITY: DATE: 01-31-20

ADDRESS: SAMPLER: David W. Fawcett

SAMPLE#	SOURCE DESCRIPTION	LOCATION	COLLECTION TIME
19-104G.GPR9	Sink Faucet	White Bath	0645



## DRINKING WATER TESTING SUMMARY SHEET

DISTRICT NAME: Southern Oregon Education Service District

DISTRICT ID#: 2025

SCHOOL NAME: Grants Pass Regional

BUILDING NAME: Grants Pass Regional Office

BUILDING ID#: 20250007

Sample Number	Fixture Location Description	Fixture ID#	Test Date	Test Result	# Retest	Final Result
	_			(ppb)		(ppb)
19-104G.GPR1	Kitchen Sink	KF	10-05-19	0.716		
19-104G.GPR2	Blue Bath Sink	BF	10-05-19	0.243		
19-104G.GPR3	White Bath Sink	BF	10-05-19	19.4	4	27.1**
19-104G.GPR4	Storage Room Sink	SF	10-05-19	19.1	1	36.6**

## Fixture ID Coding:

DW = Drinking Water Fountain WC = Water Cooler WB = Water Bottle Filler

CF = Classroom Faucet BF = Bathroom Faucet SF = Staff/Office Faucet

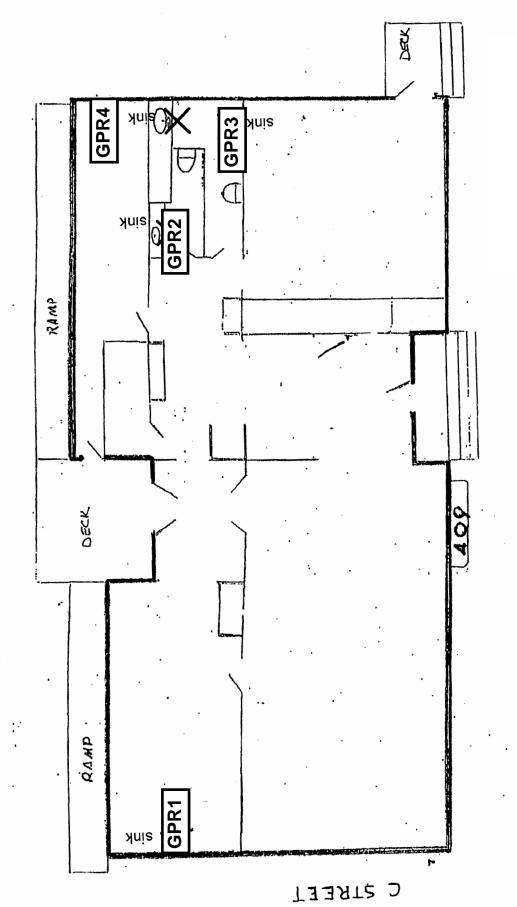
KF = Kitchen/Food Prep OS = Outside Spigot OT = Other (Specify)

<sup>\*\*</sup>Indicates fixture permanently removed from use

# APPENDIX A DRINKING WATER SAMPLE LOCATION DIAGRAM

# **DRINKING WATER SAMPLE LOCATION DIAGRAM**

Grants Pass Regional - 409 NW 3rd Street, Grants Pass



3 R.D ST.

LEGEND:

GPR2 = Drinking Water Sample Location

# APPENDIX B NEILSON RESEARCH CORPORATION ANALYTICAL REPORT



October 15, 2019

Dave Fawcett Coleman Creek Consulting 810 Leonard St Ashland, OR 97520

TEL: (541) 535-7108 FAX: (541) 535-8795

RE: 19-104G GP-Regional Order No.: 19100322

Dear Dave Fawcett:

Neilson Research Corporation received 4 sample(s) on 10/7/2019 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

Tamos Stimedeman

Tamra Schmedemann Senior Project Manager

245 S Grape St

Medford, OR 97501



**Case Narrative** 

WO#: **19100322**Date: **10/15/2019** 

**CLIENT:** Coleman Creek Consulting **Project:** 19-104G GP-Regional

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.



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#: **19100322**Date Reported: **10/15/2019** 

Coleman Creek Consulting

810 Leonard St Ashland, OR 97520

Sample Information:

**Lab Order:** 19100322

**Received Date:** 10/7/2019 11:13:00 AM **Reported Date:** 10/15/2019 9:09:44 AM

Lab ID:19100322-01Client Sample ID:19-104G.GPR1Collection Date:10/5/2019 7:32:00 AMCollected By:David Faucett

Matrix: Drinking Water Sample Location: Grab

Trace Metals by EPA 200.8 ICP-MS	Analyst; SJS							
Analyses	Result	Qual	MRL	Units	DF	Date Analyzed	MCL	NELAP Status
Copper	29.3		0.515	μg/L	1	10/9/2019	1300	А
Lead	0.716		0.103	μg/L	1	10/9/2019	15.0	А

Lab ID:19100322-02Client Sample ID:19-104G.GPR2Collection Date:10/5/2019 7:34:00 AMCollected By:David Faucett

Matrix: Drinking Water Sample Location: Grab

Trace Metals by EPA 200.8 ICP-MS		Analyst; SJS						
Analyses	Result	Qual	MRL	Units	DF	Date Analyzed	MCL	NELAP Status
Copper	676		0.515	μg/L	1	10/9/2019	1300	А
Lead	0.243		0.103	μg/L	1	10/9/2019	15.0	A

Lab ID:19100322-03Client Sample ID:19-104G.GPR3Collection Date:10/5/2019 7:35:00 AMCollected By:David FaucettMatrix:Drinking WaterSample Location:Grab

Trace Metals by EPA 200.8 ICP-MS	Analyst; SJS								
Analyses	Result	Qual	MRL	Units	DF	Date Analyzed	MCL	NELAP Status	
Copper	28.9		0.515	μg/L	1	10/9/2019	1300	Α	
Lead	19.4	*	0.103	μg/L	1	10/9/2019	15.0	А	

*	Value exceeds Maximum Contaminant Level.
---	--

E Value above quantitation range

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

- 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

Results are out of the EPA 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#: **19100322**Date Reported: **10/15/2019** 

Coleman Creek Consulting

810 Leonard St Ashland, OR 97520

Sample Information:

**Lab Order:** 19100322

**Received Date:** 10/7/2019 11:13:00 AM **Reported Date:** 10/15/2019 9:09:44 AM

Lab ID:19100322-04Client Sample ID:19-104G.GPR4Collection Date:10/5/2019 7:38:00 AMCollected By:David FaucettMatrix:Drinking WaterSample Location:Grab

Trace Metals by EPA 200.8 ICP-MS				Analyst; SJS				
Analyses	Result	Qual	MRL	Units	DF	Date Analyzed	MCL	NELAP Status
Copper	1040		5.15	μg/L	10	10/10/2019	1300	Α
Lead	19.1	*	0.103	μg/L	1	10/9/2019	15.0	А

\* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

ND Not Detected at the Reporting LimitR RPD outside accepted recovery limits

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

Results are out of the EPA limits

Original



## **QC SUMMARY REPORT**

WO#: **19100322** 

15-Oct-19

Original

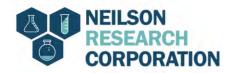
Client: Coleman Creek Consulting

PL Permit Limit

Project: 19-104G GP-Regional TestCode: ICPMS\_200.8\_DW

Sample ID:	MB-2037	SampType: MBLK	TestCode: ICPMS_200	.8 Units: μg/L	Prep Date	e: 10/9/2019	RunNo: <b>4738</b>	
Client ID:	PBW	Batch ID: 2037	TestNo: <b>E200.8</b>	E200.8	Analysis Date	e: 10/9/2019	SeqNo: <b>91888</b>	
Analyte		Result	PQL SPK value	SPK Ref Val	%REC LowLimit	HighLimit RPD Ref Val	%RPD RPDLimit Q	
Copper Lead		ND ND	0.515 0.103					
Sample ID:	LCS-2037	SampType: <b>LCS</b>	TestCode: ICPMS_200	.8 Units: μg/L	Prep Date	e: 10/9/2019	RunNo: <b>4738</b>	
Client ID:	LCSW	Batch ID: 2037	TestNo: <b>E200.8</b>	E200.8	Analysis Date	e: 10/9/2019	SeqNo: 91889	
Analyte		Result	PQL SPK value	SPK Ref Val	%REC LowLimit	HighLimit RPD Ref Val	%RPD RPDLimit Q	
Copper Lead		97.4 102	0.515 100 0.103 100	0 0	97.4 85 102 85	115 115		
Sample ID:	19100322-03AMS	SampType: <b>MS</b>	TestCode: ICPMS_200.8 Units: µg/L		Prep Date	RunNo: <b>4738</b>		
Client ID:	19-104G.GPR3	Batch ID: 2037	TestNo: <b>E200.8</b>	E200.8	Analysis Date	e: 10/9/2019	SeqNo: <b>91908</b>	
Analyte		Result	PQL SPK value	SPK Ref Val	%REC LowLimit	HighLimit RPD Ref Val	%RPD RPDLimit Q	
Copper Lead		125 121	0.520 100 0.104 100	28.9 19.4	96.4 70 101 70	130 130		
Sample ID:	19100322-03AMSD	SampType: MSD	TestCode: ICPMS_200	.8 Units: µg/L	Prep Date	e: 10/9/2019	RunNo: <b>4738</b>	
Client ID:	19-104G.GPR3	Batch ID: 2037	TestNo: <b>E200.8</b>	E200.8	Analysis Date	e: 10/9/2019	SeqNo: <b>91909</b>	
Analyte		Result	PQL SPK value	SPK Ref Val	%REC LowLimit	HighLimit RPD Ref Val	%RPD RPDLimit Q	
Copper		128	0.520 100	28.9	98.6 70	130 125	1.80 20	
Qualifiers:		aximum Contaminant Level. preparation or analysis exceeded	*	ontainer temperature is out	of limit as specified at testcode to Matrix Interference	E Value above quantitati ND Not Detected at the Re		

RL Reporting Detection Limit



## **QC SUMMARY REPORT**

WO#:

19100322

15-Oct-19

Client: Coleman Creek Consulting

Project: 19-104G GP-Regional TestCode: ICPMS\_200.8\_DW

	9100322-03AMSD 9-104G.GPR3	SampType: MSD Batch ID: 2037	TestCode: ICPMS_200.8 TestNo: E200.8		0.8 Units: µg/L E200.8	Prep Date: 10/9/2019 Analysis Date: 10/9/2019			RunNo: 4738 SeqNo: 91909			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead		120	0.104	100	19.4	101	70	130	121	0.0354	20	

Value exceeds Maximum Contaminant Level.

H Holding times for preparation or analysis exceeded

PL Permit Limit

Sample container temperature is out of limit as specified at testcode

I Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

Value above quantitation range

ND Not Detected at the Reporting Limit

Page of

# Chain of Custody Record

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

Environmental Testing Laboratory 245 South Grape Street * Medfard, OR 97501 (541) 770-5678 fix (541) 770-2901			
Section A Required Client information	Section B Required Project information	Seation C Involve Information	Section D Buch Status (Subject to Colonistical)
Company: Coleman Creek Consulting	Project Name: 6 P - Regional	Attention:	X Standard 10-14 Dave
Address: 810 Leonard St	Project Number: 19 - 1046	Сопраму Name:	6 Business Days (50% sundrame)
Ashland, OR 97520	Report To: DALP CHAIL OF	Address;	3 Business Days (75% surchame)
Email: fawbro@ccountry.net	Copy To:	The state of the s	24 - 48 hours (100% sumbame)
Phone: (541) 535-7108 Fax: (541) 535-8785		P.O.#	
Collected By Print: Jane 12 Fallelli.	The control of the co		Authorized Yes No
ふくか		Analysis Requested	
X Yes No Mail Report X Yes	Q		
Fax Report Yes No	enen		
Section E Sample Information	ile3no:		WRC-Workerder # 101000
Sample mountained	۰۰۰ را ا		Cardina Only
Sample D Complerate	Matrix* Collected Collected 2	110	Z
18-1046-61RI Gab	105-19 ODE	,	Windson (St.)
of SpRZ			400
69R3	x 1112860 / 1		470
GPRY J	V V 0380 1 1	7	40
Matric DW - Drinking Weler WW - Waslewater W - Water	Vastewater W - Water S - Stall Solid SI - Studge 0 - Oll WP - Wine OT - Other	JII WP - Wise OT - Other	
Section F Relinquish/Receive Sign	Print	Date	Saction G Lab Use Only
Refinquished By: CACA DULUI M	rand in Faluet	612	Temp.
Received By:			4°C+1+2°C. Yes To
Relinquished By.			8
Received By:			Number of Bottos Received:
Relinquished By:	1011 (A) 101 (A)	4.	pd Cheoked!
Trecaves of Later Burns, Company		Z	죄
		*	Field Blank Included: Yes No
		Received Via	UPS FEHEX CHACK Hand

NEILSON RESEARCH CORPORATION VISA, MIC



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

Website: www.nrclabs.com

**Data Flags** 

WO#: **19100322**Date: **10/15/2019** 

- B Analyte detected in the associated method blank.
- BA BOD Alternative Calculation: The initial results performed by Standard Methods did not fall within parameters of the Standard Methods calculation. An alternate approved calculation was performed using the HACH method and the value reported is an estimated concentration.
- 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.
- D1 The diesel elution pattern for the sample is not typical.
- D2 The sample appears to be a heavier hydrocarbon range than diesel.
- D3 The sample appears to be a lighter hydrocarbon range than diesel.
- D4 Detected hydrocarbons do not have pattern and range consistent with typical petroleum products and may be due to biogenic interference.
- D5 Detected hydrocarbons in the diesel range appear to be weathered diesel.
- 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.
- G1 The gasoline elution pattern for the sample is not typical.
- G2 The sample appears to be a heavier hydrocarbon range than gasoline.
- G3 The sample appears to be a lighter hydrocarbon range than gasoline.
- G4 Detected hydrocarbons in the gasoline range appear to be weathered gasoline.
- 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.
- NLR No Legionella Recovered.
- PLR Presence of Legionella Recovered.
- Q Initial calibration verification (ICV), continuing calibration verification (CCV) or laboratory control sample (LCS) 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 Relative percent difference (RPD) is outside of the accepted recovery limits. However, analyses are not controlled on RPD values for sample concentrations that are less than the reporting limit.
- 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 Duplicate analysis failed due to result being at or near the method reporting limit.
- 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 regulatory level for TCLP contaminant.
- X1 The motor oil elution pattern for the sample is not typical.
- X2 The sample appears to be a heavier hydrocarbon range than motor oil.
- X3 The sample appears to be a lighter hydrocarbon range than motor oil.
- \* Value exceeds Maximum Contaminant Level or is outside the acceptable range.



November 25, 2019

Dave Fawcett Coleman Creek Consulting 810 Leonard St Ashland, OR 97520

TEL: (541) 535-7108 FAX: (541) 535-8795

RE: GP-Regional 19-104G Order No.: 19110673

Dear Dave Fawcett:

Neilson Research Corporation received 2 sample(s) on 11/18/2019 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

Tamos Stomederman

Tamra Schmedemann Senior Project Manager

245 S Grape St

Medford, OR 97501



**Case Narrative** 

WO#: **19110673**Date: **11/25/2019** 

**CLIENT:** Coleman Creek Consulting **Project:** GP-Regional 19-104G

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.



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#: **19110673**Date Reported: **11/25/2019** 

Coleman Creek Consulting

810 Leonard St Ashland, OR 97520

Sample Information:

**Lab Order:** 19110673

**Received Date:** 11/18/2019 9:23:00 AM **Reported Date:** 11/25/2019 4:13:46 PM

Lab ID:19110673-01Client Sample ID:19-104G.GPR5Collection Date:11/16/2019 9:03:00 AMCollected By:David Fawcett

Matrix: Drinking Water Sample Location: Grab

Trace Metals by EPA 200.8 ICP-MS				А	nalyst;	SJS		
Analyses	Result	Qual	MRL	Units	DF	Date Analyzed	MCL	NELAP Status
Copper	31.4		0.515	μg/L	1	11/20/2019	1300	Α
Lead	34.3	*	0.103	μg/L	1	11/20/2019	15.0	Α

Lab ID:19110673-02Client Sample ID:19-104G.GPR6Collection Date:11/16/2019 9:05:00 AMCollected By:David Fawcett

Matrix: Drinking Water Sample Location: Grab

Trace Metals by EPA 200.8 ICP-MS				Α	nalyst;	SJS		
Analyses	Result	Qual	MRL	Units	DF	Date Analyzed	MCL	NELAP Status
Copper	820		0.515	μg/L	1	11/20/2019	1300	А
Lead	36.6	*	0.103	μg/L	1	11/20/2019	15.0	А

UALIFIERS

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

- 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

Results are out of the EPA limits



## **QC SUMMARY REPORT**

WO#:

19110673

25-Nov-19

**Client:** Coleman Creek Consulting

Project: GP-Regional 19-104G TestCode: ICPMS\_200.8\_DW

Sample ID:	MB-2429	SampType: MBLK	TestCod	de: ICPMS_20	00.8 Units: μg/L		Prep Dat	te: <b>11/20/2</b>	019	RunNo: 57	92	
Client ID:	PBW	Batch ID: 2429	TestN	lo: <b>E200.8</b>	E200.8		Analysis Dat	te: <b>11/20/2</b>	019	SeqNo: 10	9499	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper		ND	0.515									
Lead		ND	0.103									
Sample ID:	LCS-2429	SampType: LCS	TestCoo	de: ICPMS_20	00.8 Units: μg/L		Prep Dat	te: <b>11/20/2</b>	019	RunNo: 57	92	
Client ID:	LCSW	Batch ID: 2429	TestN	lo: <b>E200.8</b>	E200.8		Analysis Dat	te: <b>11/20/2</b>	019	SeqNo: 10	9500	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper		113	0.520	100	0	113	85	115				
Lead		110	0.104	100	0	110	85	115				
Sample ID:	19110578-05AMS	SampType: MS	TestCod	de: ICPMS_20	00.8 Units: μg/L		Prep Dat	te: <b>11/20/2</b>	019	RunNo: 57	92	
Client ID:	BatchQC	Batch ID: 2429	TestN	lo: <b>E200.8</b>	E200.8		Analysis Dat	te: <b>11/20/2</b>	019	SeqNo: 10	9511	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper		165	0.520	100	72.0	93.2	70	130				
Lead		99.2	0.104	100	1.06	98.1	70	130				
Sample ID:	19110578-05AMSD	SampType: MSD	TestCoo	de: ICPMS_20	00.8 Units: μg/L		Prep Dat	te: <b>11/20/2</b>	019	RunNo: <b>57</b>	92	
Client ID:	BatchQC	Batch ID: 2429	TestN	lo: <b>E200.8</b>	E200.8		Analysis Dat	te: <b>11/20/2</b>	019	SeqNo: 10	9514	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
,u., to												

Original

Holding times for preparation or analysis exceeded

PL Permit Limit

Recovery outside comtrol limits due to Matrix Interference

Reporting Detection Limit

ND Not Detected at the Reporting Limit



## **QC SUMMARY REPORT**

WO#: **19110673** 

25-Nov-19

Client: Coleman Creek Consulting

Project: GP-Regional 19-104G TestCode: ICPMS\_200.8\_DW

Sample ID: 191 Client ID: Bat	npType: MSD atch ID: 2429		e: ICPMS_20 o: E200.8	0.8 Units: μg/L E200.8		Prep Da	te: 11/20/2		RunNo: <b>579</b> SeqNo: <b>109</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	97.0	0.104	100	1.06	95.9	70	130	99.2	2.25	20	-

Value exceeds Maximum Contaminant Level.

H Holding times for preparation or analysis exceeded

PL Permit Limit

Sample container temperature is out of limit as specified at testcode

I Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

Value above quantitation range

ND Not Detected at the Reporting Limit



Environmental Testing Laboratory 245 South Grape Street \* Medford, OR 97501 (541) 770-5678 fax (541) 770-2901

Chain of Custody Record

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

Page	of
, ago	

	ient Information		Section Require	B d Project Info	rmation			Section	on C e Infori	nation			Section D Rush Status (Subject to S	schoduling)
Company:	Coleman Creek Consul	ting	Project N	lame: GP.	- Regio	Mal		Attenti					Standard 10-14 Days	chedding)
Address:	810 Leonard St		Project N		- 104 6			Comp	any Nar	ne:			5 Business Days (50%	( surchargo)
	Ashland, OR 97520		Report T					Addre					3 Business Days (759	
Email:	fawbro@ccountry.net		Сору То					2.00.0	-					
Phone:	(541) 535-7108 Fax: (541)	535-8795						P.O. #	ŧ				24 - 48 hours (100% :	surcnarge)
Collected By	(Print): David Fau	sell.								_			Other	
Collected By	10: 1 () -/ ) /	11.10/1	1			Γ		-	Analys	is Reque	ctod		Authorized _	Yes No
Email Repor									Allalys	15 Reque	Steu		-	
Fax Report			1			13							1	
						ine								
Section E Sample Inf	ormation					of Containers	1						NRC Workorder#(Lab Use Only)	10073
	Sample ID	Comp/Grab	Matrix*	Date Collected	Time Collected	No. o	2						Remarks/Field Data	NRC Sample #
19-10	16.6PR5	Grah	DW	11-16-19	0903	1	X							
	GPR 6	Gab	DW	11-16-19			- X	-	-					
	7111	Giovi	1700	1101011	0905			-	-	-				1.0
								-			-			
								-		_				1 1
								-				-		
				-	-	-		-		_	-			
						-		-						
		1			-			-				-		
	*Matrix: DW - Drinking	Water WW - Was	tewater \	N - Water S -	Soil/Solid SI	- Sluc	ge O - Oil	N/D	Mino	T Other				1
Section F Relinquish	//Receive Sign			Print		- 0,00	.gc 0 - 01		Date	71 - Othe	Time		Section G Lab Use Only	
Relinquish		Nett		David	LUIF	ale	rett		11-1	9-19	09	77	Temp: () I//	1
Received E	By:	0001		1000	1	0000	(M)		11.1		0-(	0	4°C +/- 2°C:Yes	
Relinquish	ed By:													
Received E	By:					-					-		Received on Ice. Ye Number of Bottles Receive	
Relinquish	ed By:									_	-		16724 . 1 . 1800 . 1 . 1900	cu.
Received E	By Laboratory:	W7		innou	nath	0	3110	n	1111	10/19	Gr	72		
		U		11100	AIGI		100		1111	1011		-	COC Seals Intact: Ye	
											F	Received, Via		Yes No
							e 6 of 7	Pavi	ment:	Invoice		shVISA		ther Hand



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

Website: www.nrclabs.com

**Data Flags** 

WO#: **19110673**Date: **11/25/2019** 

- B Analyte detected in the associated method blank.
- BA BOD Alternative Calculation: The initial results performed by Standard Methods did not fall within parameters of the Standard Methods calculation. An alternate approved calculation was performed using the HACH method and the value reported is an estimated concentration.
- 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.
- D1 The diesel elution pattern for the sample is not typical.
- D2 The sample appears to be a heavier hydrocarbon range than diesel.
- D3 The sample appears to be a lighter hydrocarbon range than diesel.
- D4 Detected hydrocarbons do not have pattern and range consistent with typical petroleum products and may be due to biogenic interference.
- D5 Detected hydrocarbons in the diesel range appear to be weathered diesel.
- 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.
- G1 The gasoline elution pattern for the sample is not typical.
- G2 The sample appears to be a heavier hydrocarbon range than gasoline.
- G3 The sample appears to be a lighter hydrocarbon range than gasoline.
- G4 Detected hydrocarbons in the gasoline range appear to be weathered gasoline.
- 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.
- NLR No Legionella Recovered.
- PLR Presence of Legionella Recovered.
- Q Initial calibration verification (ICV), continuing calibration verification (CCV) or laboratory control sample (LCS) 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 Relative percent difference (RPD) is outside of the accepted recovery limits. However, analyses are not controlled on RPD values for sample concentrations that are less than the reporting limit.
- 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 Duplicate analysis failed due to result being at or near the method reporting limit.
- 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.
- Walue exceeds regulatory level for TCLP contaminant.
- X1 The motor oil elution pattern for the sample is not typical.
- X2 The sample appears to be a heavier hydrocarbon range than motor oil.
- X3 The sample appears to be a lighter hydrocarbon range than motor oil.
- \* Value exceeds Maximum Contaminant Level or is outside the acceptable range.



December 16, 2019

Dave Fawcett Coleman Creek Consulting 810 Leonard St Ashland, OR 97520 TEL: (541) 535-7108

RE: 19-104G GP Regional Order No.: 19120415

Dear Dave Fawcett:

FAX (541) 535-8795

Neilson Research Corporation received 2 sample(s) on 12/9/2019 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 Stimedeman

Tamra Schmedemann Senior Project Manager

245 S Grape St Medford, OR 97501



**Case Narrative** 

WO#: **19120415**Date: **12/16/2019** 

**CLIENT:** Coleman Creek Consulting **Project:** 19-104G GP Regional

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.



## **Analytical Report**

WO#: **19120415**Date Reported: **12/16/2019** 

Coleman Creek Consulting

810 Leonard St Ashland, OR 97520

Sample Information:

**Lab Order:** 19120415

**Received Date:** 12/9/2019 5:05:00 PM **Reported Date:** 12/16/2019 10:17:54 AM

**Lab ID:** 19120415-01 Client Sample ID: 19-104G GP R7

Collection Date: 12/9/2019 8:21:00 AM Collected By:

Matrix: Drinking Water Sample Location: Grab

SJS Analyst; Trace Metals by EPA 200.8 ICP-MS Date **NELAP** MCL **Analyses** Result Qual **MRL** Units DF **Analyzed Status** 0.500 12/11/2019 Copper 13.4 μg/L 1300 Α 1 Lead 23.6 0.100 12/11/2019 15.0 Α μg/L 1

**Lab ID:** 19120415-02 Client Sample ID: 19-104G GP R8

Collection Date: 12/9/2019 8:23:00 AM Collected By:

Matrix: Drinking Water Sample Location: Grab

Trace Metals by EPA 200.8 ICP-MS				Α	nalyst;	SJS		
Analyses	Result	Qual	MRL	Units	DF	Date Analyzed	MCL	NELAP Status
Copper	23.2		0.500	μg/L	1	12/11/2019	1300	А
Lead	0.328		0.100	μg/L	1	12/11/2019	15.0	Α

JALIFIERS

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

- 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



## QC SUMMARY REPORT

WO#: **19120415** 

16-Dec-19

Original

Client: Coleman Creek Consulting

PL Permit Limit

Project: 19-104G GP Regional TestCode: ICPMS\_200.8\_DW

	C			
Sample ID: MB-2576	SampType: MBLK	TestCode: ICPMS_200.8 Units: µg/L	Prep Date: 12/10/2019	RunNo: <b>6248</b>
Client ID: PBW	Batch ID: 2576	TestNo: <b>E200.8 E200.8</b>	Analysis Date: 12/11/2019	SeqNo: <b>116860</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Copper Lead	ND ND	0.500 0.100		
Sample ID: LCS-2576	SampType: <b>LCS</b>	TestCode: ICPMS_200.8 Units: µg/L	Prep Date: <b>12/10/2019</b>	RunNo: <b>6248</b>
Client ID: LCSW	Batch ID: 2576	TestNo: <b>E200.8 E200.8</b>	Analysis Date: 12/11/2019	SeqNo: <b>116861</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Copper Lead	102 106	0.500 100 0 0.100 100 0	102 85 115 106 85 115	
Sample ID: <b>19120415-02</b>	AMS SampType: MS	TestCode: ICPMS_200.8 Units: µg/L	Prep Date: <b>12/10/2019</b>	RunNo: <b>6248</b>
Client ID: 19-104G GP I	R8 Batch ID: 2576	TestNo: <b>E200.8 E200.8</b>	Analysis Date: 12/11/2019	SeqNo: <b>116871</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Copper Lead	120 102	0.500         100         23.2           0.100         100         0.328	96.7 70 130 101 70 130	
Sample ID: <b>19120415-02</b>	AMSD SampType: MSD	TestCode: ICPMS_200.8 Units: µg/L	Prep Date: <b>12/10/2019</b>	RunNo: <b>6248</b>
Client ID: 19-104G GP F	R8 Batch ID: 2576	TestNo: <b>E200.8 E200.8</b>	Analysis Date: 12/11/2019	SeqNo: <b>116872</b>
Analyte	Result	PQL SPK value SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val	%RPD RPDLimit Qual
Copper	121	0.500 100 23.2	97.5 70 130 120	0.673 20
Quanticis.	exceeds Maximum Contaminant Level. g times for preparation or analysis exceeded	C1 Sample container temperature is out of MI Recovery outside comtrol limits due t	•	•

Reporting Detection Limit



**QC SUMMARY REPORT** 

WO#: **19120415** 

16-Dec-19

**Client:** Coleman Creek Consulting

Project: 19-104G GP Regional TestCode: ICPMS\_200.8\_DW

Sample ID: 19120415-02AMS	D SampType: MSD	TestCod	de: ICPMS_20	00.8 Units: μg/L		Prep Da	te: <b>12/10/2</b>	019	RunNo: 624	18	
Client ID: 19-104G GP R8	Batch ID: <b>2576</b>	TestN	lo: <b>E200.8</b>	E200.8		Analysis Da	te: <b>12/11/2</b>	019	SeqNo: 116	6872	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	102	0.100	100	0.328	101	70	130	102	0.0934	20	

Value exceeds Maximum Contaminant Level.

H Holding times for preparation or analysis exceeded

PL Permit Limit

Sample container temperature is out of limit as specified at testcode

I Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

E Value above quantitation range

ND Not Detected at the Reporting Limit



Chain of Custody Record

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

	NEILSON
R	RESEARCH
	CORPORATION
Environ	mental Testing Laboratory
245 South	Grape Street * Medford, OR 97501 770-5678 fax (541) 770-2901

Section A Required Client Information		Section	B d Project Info	rmation			Section	C Informa	4:			Section D	
Company: Coleman Creek Consul		Project N		7	iona	7 1	Attention		tion	-	_	Rush Status (Subject to Scheduling	)
Address: 810 Leonard St		Project N		3-104	~	11		ny Name				Standard 10-14 Days	
Ashland, OR 97520		Report T		1 10-	10		Address					5 Business Days (50% surcharg	
Email: fawbro@ccountry.net		Copy To:			-		Address					3 Business Days (75% surcharg	
Phone: (541) 535-7108 Fax: (541)	535-8795						P.O.#		-			24 - 48 hours (100% surcharge)	
Collected By (Print):							P.U. #					Other	
Collected By (Sign):												Authorized Yes	No
Email Report Yes No Mail Report	⊀ Yes No				-+	_		nalysis	Reque	sted			
Fax ReportYesNo	<del></del>				ainers	17	1 /						
Section E Sample Information			D. ( )		of Containers	0	-					NRC Workorder# 01200	5
Sample ID 19 - 1046 - GPR7	Comp/Grab	Matrix*	Date Collected	Time Collected	Š.							Remarks/Field Data NRC Sa	
19-104G-GPRX	(san	DOU	12/9/19	8:33	-	X		-					1, 1
			- 151	.0.5									
						_		-					. 4
*Matrix DW Drinking	W-1 - Wood W												•
*Matrix: DW - Drinking Section F Relinquish/Receive Sign		tewater \	W - Water S - Print	Soil/Solid Si	L - Sludg	je O-Oi		Vipe OT	- Other	Time		Section G Lab Use Only	
Relinquished By:	FIMILA		David	lliff	211	OLA		12-9	-19	121	7	Temp: (AM)	***
Received By:	1-0.000		. 5001			1			-		-	4°C.+/-2°C:YesNo	
Relinquished By:												Received on Ice: Yes V No	1 1 1 1
Received By:												Number of Bottles Received:	
Relinquished By:	. 0					1						pH.Checked:	
Received By Laboratory:	all		1)61	1150 V	Ph			12/0	119	17:	00	COC Seals Intact: Yes No.	NA
U.			0.0,	.00					/			Field Blank Included:YesN	0
							Davis		Latin C		Received, Vi		land
					Page	6 of 7	Payme	:III/	Invoice	Ca	sh:VIS	A, M/C Check#Amount_	a de



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

Website: www.nrclabs.com

**Data Flags** 

WO#: **19120415**Date: **12/16/2019** 

- B Analyte detected in the associated method blank.
- BA BOD Alternative Calculation: The initial results performed by Standard Methods did not fall within parameters of the Standard Methods calculation. An alternate approved calculation was performed using the HACH method and the value reported is an estimated concentration.
- 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.
- D1 The diesel elution pattern for the sample is not typical.
- D2 The sample appears to be a heavier hydrocarbon range than diesel.
- D3 The sample appears to be a lighter hydrocarbon range than diesel.
- D4 Detected hydrocarbons do not have pattern and range consistent with typical petroleum products and may be due to biogenic interference.
- D5 Detected hydrocarbons in the diesel range appear to be weathered diesel.
- 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.
- G1 The gasoline elution pattern for the sample is not typical.
- G2 The sample appears to be a heavier hydrocarbon range than gasoline.
- G3 The sample appears to be a lighter hydrocarbon range than gasoline.
- G4 Detected hydrocarbons in the gasoline range appear to be weathered gasoline.
- 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.
- NLR No Legionella Recovered.
- PLR Presence of Legionella Recovered.
- Q Initial calibration verification (ICV), continuing calibration verification (CCV) or laboratory control sample (LCS) 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 Relative percent difference (RPD) is outside of the accepted recovery limits. However, analyses are not controlled on RPD values for sample concentrations that are less than the reporting limit.
- 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 Duplicate analysis failed due to result being at or near the method reporting limit.
- 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 regulatory level for TCLP contaminant.
- X1 The motor oil elution pattern for the sample is not typical.
- X2 The sample appears to be a heavier hydrocarbon range than motor oil.
- X3 The sample appears to be a lighter hydrocarbon range than motor oil.
- Value exceeds Maximum Contaminant Level or is outside the acceptable range.



February 10, 2020

Dave Fawcett Coleman Creek Consulting 810 Leonard St Ashland, OR 97520

TEL: (541) 535-7108 FAX: (541) 535-8795

RE: 19-104G Grants Pass Regional Order No.: 20011182

Dear Dave Fawcett:

Neilson Research Corporation received 1 sample(s) on 1/31/2020 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 Stimedeman

Tamra Schmedemann Senior Project Manager

245 S Grape St

Medford, OR 97501



**Case Narrative** 

WO#: **20011182**Date: **2/10/2020** 

**CLIENT:** Coleman Creek Consulting **Project:** 19-104G Grants Pass Regional

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.



## **Analytical Report**

WO#: 20011182
Date Reported: 2/10/2020

Coleman Creek Consulting

810 Leonard St Ashland, OR 97520

Sample Information:

**Lab Order:** 20011182

**Received Date:** 1/31/2020 8:18:00 AM **Reported Date:** 2/10/2020 9:47:58 AM

**Lab ID:** 20011182-01 Client Sample ID: 19-104G GRP 21

Collection Date: 1/31/2020 6:45:00 AM Collected By: David Matrix: Drinking Water Sample Location: Grab

Trace Metals by EPA 200.8 ICP-MS		Analyst; SJS										
Analyses	Result	Qual	MRL	Units	DF	Date Analyzed	MCL	NELAP Status				
Copper	14.9		0.500	μg/L	1	2/4/2020	1300	Α				
Lead	27.1	*	0.100	μg/L	1	2/4/2020	15.0	Α				

ALIFIERS

Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

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

H Holding times for preparation or analysis exceeded

MI Recovery outside comtrol limits due to Matrix Interference

PL Permit Limit

Results are out of the EPA limits



## **QC SUMMARY REPORT**

TestCode: ICPMS\_200.8\_DW

WO#: **20** 

20011182

10-Feb-20

Client: Coleman Creek Consulting

**Project:** 19-104G Grants Pass Regional

	ample ID: I	MB-3024 PBW	SampType: Batch ID:			TestCode: ICPMS_200.8 TestNo: E200.8			Prep Da Analysis Da	te: <b>2/3/202</b>		RunNo: <b>740</b> SeqNo: <b>13</b> 4		
Aı	nalyte			Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

 Copper
 ND
 0.500

 Lead
 ND
 0.100

Sample ID: LCS-3024	SampType: <b>LCS</b>		le: ICPMS_20		•	te: <b>2/3/202</b>		RunNo: <b>7402</b>			
Client ID: LCSW	Batch ID: <b>3024</b>	TestN	TestNo: <b>E200.8 E200.8</b>			Analysis Da	te: <b>2/4/202</b>	0	SeqNo: <b>134862</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	103	0.500	100	0	103	85	115				
Lead	98.8	0.100	100	0	98.8	85	115				

Sample ID: 20011182-01AMS Client ID: 19-104G GRP 21	SampType: MS Batch ID: 3024		de: ICPMS_20 lo: E200.8	0.8 Units: µg/L E200.8		Prep Dat Analysis Dat	te: <b>2/3/202</b> te: <b>2/4/202</b>		RunNo: <b>7402</b> SeqNo: <b>134875</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	114	0.500	100	14.9	99.4	70	130				
Lead	125	0.100	100	27.1	97.4	70	130				

Sample ID: 20011182-01AMSD	SampType: MSD	TestCoo	le: ICPMS_20	0.8 Units: μg/L		Prep Dat	te: <b>2/3/202</b>	0	RunNo: <b>7402</b>			
Client ID: 19-104G GRP 21	Batch ID: 3024	TestN	lo: <b>E200.8</b>	E200.8	Analysis Date: 2/4/2020			SeqNo: 134876				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Copper	115	0.500	100	14.9	99.8	70	130	114	0.342	20		

Qualifiers:

Value exceeds Maximum Contaminant Level.

H Holding times for preparation or analysis exceeded

L Permit Limit

Sample container temperature is out of limit as specified at testcode

I Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

Value above quantitation range

ND Not Detected at the Reporting Limit

Original



## **QC SUMMARY REPORT**

WO#: 2

20011182

10-Feb-20

Client: Coleman Creek Consulting

Project: 19-104G Grants Pass Regional TestCode: ICPMS\_200.8\_DW

Sample ID: 20011182-01AMSE Client ID: 19-104G GRP 21	SampType: MSD Batch ID: 3024		de: ICPMS_20 do: E200.8	0.8 Units: μg/L E200.8		•	te: <b>2/3/202</b> te: <b>2/4/202</b>		RunNo: <b>740</b> SeqNo: <b>134</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	124	0.100	100	27.1	96.9	70	130	125	0.373	20	

Value exceeds Maximum Contaminant Level.

H Holding times for preparation or analysis exceeded

PL Permit Limit

Sample container temperature is out of limit as specified at testcode

II Recovery outside comtrol limits due to Matrix Interference

RL Reporting Detection Limit

Value above quantitation range

ND Not Detected at the Reporting Limit



Chain of Custody Record

Page \_\_\_\_ of \_\_/\_

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

245 South Grape Street * Medford, OR 97 (541) 770-5678 fax (541) 770-2901	7501															
Section A Required Client Information		Section Required	в d Project Info	rmation				Section C		ion			Section D	- 1. P		
Company: Coleman Creek Consul	lting		lame: Gran		Reg	iono		Attention:	TOTTINGE	1011			Rush Status (Subject to S	cheduling)		
Address: 810 Leonard St		Project N		9-104	6			Company	Name:	_				( surebasse)		
Ashland, OR 97520		Report T	o:					Address:					5 Business Days (50% surcharge)			
Email: fawbro@ccountry.net		Copy To:											3 Business Days (75% surcharge) 24 - 48 hours (100% surcharge)			
Phone: (541) 535-7108 Fax: (541)						P.O.#								surcnarge)		
Collected By (Print): Dand Fo	erist				_		1	.0, 11		_			Other			
Colleged Du (Cinal)	with				1	-		Δn	alysis I	Poguo	ctod		Authorized _	Yes No		
Email Report X Yes No Mail Report							1	7	alysis i	Neque	sted					
Fax Report YesNo		1			ners		Y									
Section E Sample Information					of Containers		5/9						NRC-Workorder#/	011182		
Sample ID	Comp/Grab	Matrix*	Date Collected	Time Collected	No. c		P						Remarks/Field Data	NRC Sample #		
10 1011 0 DO 21				- 11-				(c.1)								
19-104G, 6PRZI	Gan	m	1-31-20	0645	(		X									
											be and					
														1 - 1 - 1 - 1		
							9							1 1 1 1 1 1 1 1 1		
*Matrix: DW - Drinking	Notes Man Ma												1+0	1		
*Matrix: DW - Drinking Section F Relinquish/Receive Sign		tewater v	v - vvater S -	Soil/Solid Si	L - Slu	dge O	o - Oil			- Other			Section G	1		
Relinquished By:	101			-11	Cal		10	Da		~	Time		Lab Use Only			
Received By:	ALL AL		Dall	71	tal	rei	6	1		20	08		Temp:	NO.		
Relinquished By:	AM COLUMN	~	tuno	-0M	real	ex	SAR	1-	31-	20	08	11	4°C +/- 2°C:Yes			
Received By:					-								Received on Ice: Ye			
Relinquished By:													Number of Bottles Received	ed:		
Received By Laboratory:						-				_			pH.Checked:	4		
			<u> </u>			-							COC Seals Intact: Ye			
											-		Field Blank Included:	Yes V No		

X Invoice

Cash VISA, M/C

Check#



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

Website: www.nrclabs.com

**Data Flags** 

WO#: **20011182**Date: **2/10/2020** 

- B Analyte detected in the associated method blank.
- BA BOD Alternative Calculation: The initial results performed by Standard Methods did not fall within parameters of the Standard Methods calculation. An alternate approved calculation was performed using the HACH method and the value reported is an estimated concentration.
- 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.
- D1 The diesel elution pattern for the sample is not typical.
- D2 The sample appears to be a heavier hydrocarbon range than diesel.
- D3 The sample appears to be a lighter hydrocarbon range than diesel.
- D4 Detected hydrocarbons do not have pattern and range consistent with typical petroleum products and may be due to biogenic interference.
- D5 Detected hydrocarbons in the diesel range appear to be weathered diesel.
- 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.
- G1 The gasoline elution pattern for the sample is not typical.
- G2 The sample appears to be a heavier hydrocarbon range than gasoline.
- G3 The sample appears to be a lighter hydrocarbon range than gasoline.
- G4 Detected hydrocarbons in the gasoline range appear to be weathered gasoline.
- 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.
- NLR No Legionella Recovered.
- PLR Presence of Legionella Recovered.
- Q Initial calibration verification (ICV), continuing calibration verification (CCV) or laboratory control sample (LCS) 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 Relative percent difference (RPD) is outside of the accepted recovery limits. However, analyses are not controlled on RPD values for sample concentrations that are less than the reporting limit.
- 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 Duplicate analysis failed due to result being at or near the method reporting limit.
- 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 regulatory level for TCLP contaminant.
- X1 The motor oil elution pattern for the sample is not typical.
- X2 The sample appears to be a heavier hydrocarbon range than motor oil.
- X3 The sample appears to be a lighter hydrocarbon range than motor oil.
- \* Value exceeds Maximum Contaminant Level or is outside the acceptable range.