November 2, 2017

Kennewick School District No. 17
Attn: Keith Colee, Maintenance and Operations Manager
1000 West Fourth Avenue
Kennewick, Washington, 99336

RE: Winter 2016 Drinking Water Sampling Results
Kamiakin High School, 600 North Arthur Street, Kennewick, Washington

Dear Keith:

On Wednesday, December 21, 2016, Fulcrum Environmental Consulting, Inc. (Fulcrum) collected 37 drinking water samples for lead and copper analysis from Kamiakin High School (School) located at 600 North Arthur Street in Kennewick, Washington. Initial sampling identified ten fixture locations with copper concentrations above guidance levels. Fulcrum returned to the School on January 21, and March 4, 2017 to collect samples after remediation of the fixtures and laboratory results found concentrations to be below guidance levels. Sampling was completed as part of a District-wide project and all analysis was completed by Washington State Department of Ecology (Ecology) accredited laboratories.

Summary

The purpose of initial sampling was to evaluate current drinking water quality conditions with respect to lead and copper as a result of the increased national and local interest related to lead in drinking water. The intent of sampling was to meet the requirements of the pending regulations set forth in Washington Administrative Code (WAC) 246-366A-130 and 246-366A-135[1]. Consistent with the regulations, Fulcrum completed sampling at the rates of at least 50% of plumbing fixtures used regularly for drinking or cooking in elementary and preschools and at least 25% of drinking or cooking fixtures in middle schools, junior high schools, and high schools. In addition, Fulcrum sampled administrative facilities in the District at the same rate as elementary schools, of at least 50% of drinking and cooking fixtures.

Fulcrum completed initial sampling on December 21, 2016. Initial results identified ten samples with copper concentrations above the Environmental Protection Agency (EPA) action level of 1,300 micrograms per liter (µg/L). Upon receipt of results, the District removed the identified fixtures from service pending remediation and further testing.

Copper is not a significant component in fixtures, but is the primary material in the plumbing system. To remediate elevated copper, the District aggressively flushed the fixtures with cold water to clear the plumbing of copper construction debris and installed a filtered bottle filler fountain to replace two fixtures that did not respond to aggressive flushing. Fulcrum returned on January 21, and March 4, 2017 and

[1] Washington State Department of Health, WAC 246-366A, *The Environmental Health and Safety Standards of Primary and Secondary Schools*, http://apps.leg.wa.gov/WAC/default.aspx?cite=246-366A, July 26, 2016

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collected samples to evaluate the success of the remediation. Follow-up samples yielded results confirming the remediation was successful at reducing copper below the EPA action level. Following sampling and review of laboratory results, Fulcrum recommended, and the District elected, to return the fixtures to service.

As all samples now report concentrations below lead and copper action levels, at this time Fulcrum does not recommend any additional sampling. However, consistent with industry practice and the intent of WAC 246-366A, Fulcrum recommends that the District complete re-sampling of the building within the next five years (before December 2021). See Figure 1 in Attachment A for fixture locations and laboratory results.

Sampling Methodology

As a portion of this project, Fulcrum prepared a Sampling and Analysis Plan (SAP) intended to satisfy future initial sampling requirements under pending regulations.

For initial evaluation purposes, Fulcrum collected "first draw" samples. This "first draw" water volume consists of 250 milliliters (mL) and is intended to represent the water quality in the fixture, tubing connecting the fixture to the building piping, and potentially a portion of the building piping. If lead and copper are present, this first-draw sample typically contains the highest lead levels and indicates high copper from the associated building piping.

For most post-remediation evaluation sampling, Fulcrum collected three-part samples consisting of the first draw, "second draw", and "third draw" water volumes. Second and third draw samples are intended to represent the water quality of building piping and plumbing components behind the fixture and the water entering the building from the water main.

As a quality control measure, Fulcrum also included a laboratory blank of distilled water and a laboratory "spike" sample with known concentrations of lead and copper at the selected action levels for the project during all sampling events. Blank and spike sample results are included in the results tables for reference.

Blank and spike samples were used to evaluate laboratory performance. The reported lead and copper concentrations of quality assurance samples provided a metric to determine accuracy of the analyses. If the reported concentration of the spike sample differed from the action level, then the spike sample concentration was used as the action level.

Field evaluation of pH and temperature of drinking water was completed during the cold water flush and immediately following sample collection on select fixtures during the initial sampling event as a general evaluation of water quality.

Sampling Activities

Fulcrum's two-part sampling process consisted of an initial site visit the prior afternoon/evening to locate and flush each water sampling location (fixture). Sample collection occurred the following morning, after the fixture sat motionless for more than eight but no less than 18 hours, typically approximately 14 hours.

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Initial Sampling

On the initial visit, Fulcrum flushed cold water through each fixture selected for sampling for approximately one minute. Following the flush, each fixture was covered and secured within a plastic bag. The plastic bags were marked with signage indicating testing was in progress and the fixture should not be used. Fulcrum returned to the school eight to 18 hours later to collect the samples. Each sample consisted of the first draw collected into 250-mL unpreserved polyethylene bottles and was immediately placed on ice in a chilled cooler.

Samples collected from the initial sampling event were delivered under chain-of-custody to RJ Lee Group's Columbia Basin Analytical Laboratory (Ecology Lab ID: C859-16) in Pasco, Washington for analysis.

Fixture Replacement and Flushing

Fixtures identified with elevated lead concentrations were replaced and preconditioned by running cold water continuously through the fixture for 24 hours, as outlined in WAC 246-366A-130. Following replacement and preconditioning, Fulcrum collected follow-up samples to confirm the success of fixture replacement.

Fixtures producing elevated copper concentrations were generally identified in newer District buildings and were not associated with specific fixture styles. The relationship between building construction age and fixture styles indicates elevated copper concentrations are principally associated with construction debris in the plumbing system.

All fixtures with elevated copper were flushed aggressively by running water through the fixture at high flow with the aerator removed for approximately 30 minutes to clear the plumbing of any debris potentially causing elevated copper concentrations. Following an aggressive flush, fixtures were resampled to evaluate the effectiveness at reducing copper concentrations. The District elected to install filters, install signage indicating the fixtures should be used only for handwashing, or permanently removed from service fixtures that did not respond to an aggressive flush. Filtered fixtures were resampled following filter installation to verify effectiveness of the filter.

Remedial Sampling

Remedial sampling typically consisted of first, second, and third draw samples from the fixture location and plumbing system in question. First draw samples were collected into 250 mL polyethylene bottles preserved with nitric acid. The second draw water volume consists of water collected into a 250 mL unpreserved polyethylene container immediately following the first draw. No water was lost between collection of the first and second draw samples. The third draw water volume is a 1,000 mL sample collected into a one liter unpreserved polyethylene container after the fixture has been flushed for about three to five minutes.

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Samples collected following remedial activities were shipped by common carrier under chain of custody to Fremont Analytical Laboratory (Ecology Lab ID: C910-16) in Seattle, Washington for analysis. Fremont was selected based on their availability to complete analysis on an expedited schedule.

Analytical Results

Samples from both initial and remedial sampling events were analyzed for lead and copper in drinking water by EPA Method 200.8.

Initial Sampling

Sample locations from the initial sampling event are presented in Figure 1-A and 1-B in Attachment A of this letter. A site-specific sampling and analysis plan (SSSAP) that provides a building specific summary of the location, number, and sampling frequency of water fixture locations is located in Attachment B. Initial analytical results are summarized in Table 1 located in Attachment C of this letter. Laboratory analytical results from the initial sampling event are located in Attachment D of this letter.

In addition, pH and temperature data from the initial sampling event is presented in Table 2 in Attachment C of this letter.

Remedial Sampling

Sample locations from the remedial sampling event are presented in Figure 1 in Attachment A of this letter. The remedial analytical results from this project are summarized in Table 3 located in Attachment C of this letter. Laboratory analytical results from the remedial sampling event are located in Attachment E of this letter.

Discussion

Initial Sampling

Analytical results identified ten samples with a copper concentration above the EPA action level of 1,300 micrograms per liter (µg/L). No samples were identified with lead concentrations above the EPA action level of 15 µg/L.

Remedial Sampling

Immediately following receipt of initial sampling results, the District removed the identified fixtures from service pending remediation and further testing. To remediate elevated copper concentrations, the District completed aggressive flushes of the fixtures and installed a filtered bottle filler fountain to replace two fixtures that did not respond to aggressive flushing. Fulcrum returned on the morning following the aggressive flush, January 21, and March 4, 2017, to collect follow-up samples.

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Analytical results from remedial sampling indicated the remediation was successful at reducing copper concentrations below the action level for the fixtures in question.

Recommendations

No samples were found to contain lead concentrations above method reporting limits. A total of ten initial samples contained copper above the EPA action level of 1,300 µg/L. The District completed aggressive flushes and replaced two remaining drinking fountains with a filtered bottle filler to reduce the copper concentration of the fixtures. Follow-up sampling yielded results below the EPA action level confirming the replacement and remediation were successful. Following sampling and review of laboratory results, Fulcrum recommended, and the District elected, to return the fixtures to service.

As all samples now report concentrations below lead and copper action levels, Fulcrum does not recommend any additional sampling at this time. However, consistent with industry practice and the intent of WAC 246-366A, Fulcrum recommends that the District complete re-sampling of the building within the next five years (before December 2021).

If you have any questions, please feel free to contact me at (509) 574-0839.

Sincerely,

Amanda Enbysk, GIT
Environmental Geologist

Ryan K. Mathews, CIH, CHMM
Principal

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ATTACHMENT A

Figure 1: Sample Location Map

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LEGEND

KF-## - Kitchen faucet

CF-## - Classroom faucet

CDF-## - Classroom drinking fountain

OF-## - Office faucet

WC-## - Water cooler fountain

BF-## - Bottle filler fountain

NF-## - Nurse's faucet

- - Sample location: faucet
- - Sample location: drinking fountain at sink
- - Sample location: faucet and drinking fountain at same sink
- - Sample location: water cooler fountain

-Lead (Pb) and copper (Cu) results for each sample location are below each identifier. All results reported in µg/L.

-Samples in **BOLD RED** indicate fixture locations where the initial concentrations of lead or copper were above the respective action level.

N

DF-32

Sampling Event	Pb	Cu
Initial (12/21/16)	4	1,300
1/21/17: Aggressive Flush	-	1,180

DF-31

Sampling Event	Pb	Cu
Initial (12/21/16)	<1.0	1,500
1/21/17: Aggressive Flush	-	1,080

DF-30

Sampling Event	Pb	Cu
Initial (12/21/16)	<1.0	1,300
1/21/17: Aggressive Flush	-	1,190

DF-14

Sampling Event	Pb	Cu
Initial (12/21/16)	<1.0	1,200
1/21/17: Aggressive Flush, 1st Draw	-	1,200
1/21/17: 2nd Draw	-	1,270
1/21/17: 3rd Draw	-	774
3/18/17: Fixture Replaced	-	425

DF-15

Sampling Event	Pb	Cu
Initial (12/21/16)	3	1,200
1/21/17: Aggressive Flush	-	1,200

KF-13

Sampling Event	Pb	Cu
Initial (12/21/16)	4	1,200
1/21/17: Aggressive Flush	-	1,150

WC-06

Sampling Event	Pb	Cu
Initial (12/21/16)	<1.0	1,300
1/21/17: Aggressive Flush	-	1,100

CDF-21

Sampling Event	Pb	Cu
Initial (12/21/16)	<1.0	1,400
1/21/17: Aggressive Flush	-	1,140

KF-35

Sampling Event	Pb	Cu
Initial (12/21/16)	2	1,300
1/21/17: Aggressive Flush	-	1,130

NF-01

Sampling Event	Pb	Cu
Initial (12/21/16)	<1.0	1,300
1/21/17: Aggressive Flush	-	932

DF-33 Pb: <1.0 Cu: 760

DF-34 Pb: <1.0 Cu: 910

KF-24 Pb: 1 Cu: 740

KF-22 Pb: 4 Cu: 650

KF-23 Pb: 2 Cu: 610

KF-26 Pb: 6 Cu: 900

DF-28 Pb: <1.0 Cu: 940

WC-27 Pb: <1.0 Cu: 850

WC-25 Pb: <1.0 Cu: 360

DF-18 Pb: <1.0 Cu: 1,100

OF-17 Pb: 1 Cu: 880

OF-20 Pb: <1.0 Cu: 830

OF-16 Pb: <1.0 Cu: 850

WC-19 Pb: <1.0 Cu: 740

KF-12 Pb: 3 Cu: 790

KF-11 Pb: 3 Cu: 760

KF-10 Pb: 3 Cu: 740

KF-09 Pb: 3 Cu: 940

KF-08 Pb: 2 Cu: 780

KF-07 Pb: 2 Cu: 1,100

WC-05 Pb: <1.0 Cu: 490

WC-04 Pb: <1.0 Cu: 580

OF-03 Pb: 1 Cu: 1,100

OF-02 Pb: 1 Cu: 970

WC-37 Pb: <1.0 Cu: 370

WC-36 Pb: <1.0 Cu: 780

Upper Level

Fulcrum Environmental Consulting, Inc. 406 North Second Street, Yakima, Washington 98901 p: 509.574.0839 f: 509.575.8453 efulcrum.net Kennewick SD Drinking Water Sampling. 162017.00. AME. 10242017	Kamiakin High School 600 North Arthur Street Kennewick, Washington	Sample Location Map FIGURE 1

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ATTACHMENT B

Site-Specific Sampling and Analysis Plan

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Site-Specific Sampling and Analysis Plan

Kennewick School District – Winter 2016 Drinking Water Sampling

Note: This SSSAP has been prepared as a supplement to the project SAP/QAPP and provide a building specific summary of the location, number, and sampling frequency of water fixture locations.

Campus/Building: Kamiakin High School Address: 600 North Arthur Street, Kennewick, WA

☐ Elementary ☐ Middle School ☑ High School ☐ Administration

Date of Construction: 1970 Modernizations: 1981, 2004

Fixture Type	Locations	Fixture Styles[1]	Samples	Ratio
Drinking fountain/water cooler (DF/WC)	22	7	17	77%
Kitchen Fixture (KF)	5	3	5	100%
Classroom faucet, including faucets in Food Labs and Life Sciences Classrooms (CF)	21	1	6	29%
Classroom drinking fountain at sink (CDF)	1	1	1	100%
Nurse's Office/Health Room (NF)	1	1	1	100%
Teacher's Lounges/Work Rooms (OF)	6	3	5	83%
TOTALS	**56**		**37**	**66%**

1 Fixture styles are approximate based on sampler's observations

Lead Sampler: Amanda Enbysk Date: 12/21/2016

Sample Prefix: KMH – 122116 – P (first-draw) – _____ – 01 to 39

School Code *Date* *Sample Type* *Fixture Type* *Sample Number*

Laboratory: R. J. Lee Group, Columbia Basin Analytical Delivery Date: December 21, 2016

Comments:

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ATTACHMENT C

Table 1: Initial Sampling Analytical Results Summary Table
Table 2: pH and Temperature Data Summary Table
Table 3: Remedial Sampling Analytical Results Summary Table

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Table 1: Initial Sampling Analytical Results

Sample Identification and Location	Fixture Type	Lead Results (µg/L)	Copper Results (µg/L)
KMH122116-P-NF-01: Nurse's Office	**Nurse's Faucet**	<1.0	**1,300**
KMH122116-P-OF-02: Main Office	Office Faucet	1	970
KMH122116-P-OF-03: Second floor, room 542	Office Faucet	1	1,100
KMH122116-P-WC-04: Second floor, outside room 561	Water Cooler Fountain	<1.0	580
KMH122116-P-WC-05: First floor, outside room 510	Water Cooler Fountain	<1.0	490
KMH122116-P-WC-06: First floor, outside room 436	**Water Cooler Fountain**	<1.0	**1,300**
KMH122116-P-KF-07: Room 436, S. wall, E. fixture	Kitchen Faucet	2	1,100
KMH122116-P-KF-08: Room 436, S. wall, middle fixture	Kitchen Faucet	2	780
KMH122116-P-KF-09: Room 436, S. wall, W. fixture	Kitchen Faucet	3	940
KMH122116-P-KF-10: Room 436, W. wall, S. fixture	Kitchen Faucet	3	740
KMH122116-P-KF-11: Room 436, W. wall, middle fixture	Kitchen Faucet	3	760
KMH122116-P-KF-12: Room 436, W. wall, N. fixture	Kitchen Faucet	3	790
KMH122116-P-KF-13: Room 436, middle island fixture	**Kitchen Faucet**	4	**1,300**
KMH122116-P-DF-14: Library, outside room 348, S. fixture	**Drinking Fountain**	<1.0	**1,200**
KMH122116-P-DF-15: Library, outside room 348, N. fixture	**Drinking Fountain**	3	**1,200**
KMH122116-P-OF-16: Library room 339	Office Faucet	<1.0	850
KMH122116-P-OF-17: Library, W. office	Office Faucet	1	880
KMH122116-P-DF-18: Library, outside room 316	Drinking Fountain	<1.0	1,100
KMH122116-P-WC-19: Library, near entrance	Drinking Fountain	<1.0	740
KMH122116-P-OF-20: Library, N. office	Office Faucet	<1.0	830
KMH122116-P-CDF-21: Room 173	**Classroom Drinking Fountain**	<1.0	**1,400**
KMH122116-P-KF-22: Room 163, S. fixture	Kitchen Faucet	4	650
KMH122116-P-KF-23: Room 163, middle fixture	Kitchen Faucet	2	610
KMH122116-P-KF-24: Room 163, N. fixture	Kitchen Faucet	1	740
KMH122116-P-WC-25: Cafeteria, W. wall	Water Cooler Fountain	<1.0	360
KMH122116-P-KF-26: West of cafeteria	Kitchen Faucet	6	900
KMH122116-P-WC-27: Corridor near main gym	Water Cooler Fountain	<1.0	850
KMH122116-P-DF-28: Room 108	Drinking Fountain	<1.0	940
KMH122116-P-DF-30: Room 124	**Drinking Fountain**	<1.0	**1,300**
KMH122116-P-DF-31: Room 128	**Drinking Fountain**	<1.0	**1,500**
KMH122116-P-DF-32: Room 132	**Drinking Fountain**	4	**1,300**
KMH122116-P-DF-33: Downstairs room 143	Drinking Fountain	<1.0	760
KMH122116-P-DF-34: Upper gym, room 153	Drinking Fountain	<1.0	910
KMH122116-P-KF-35: Concessions in auditorium	**Kitchen Faucet**	2	**1,300**
KMH122116-P-WC-36: Auditorium	Water Cooler Fountain	<1.0	780
KMH122116-P-WC-37: Outside computer lab	Water Cooler Fountain	<1.0	270
KMH122116-P-DF-38: Laboratory Spike	*Lead and Copper Spike*	*13*	*1,200*

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Sample Identification and Location	Fixture Type	Lead Results (µg/L)	Copper Results (µg/L)
KMH122116-P-CF-39: Laboratory Blank	*Distilled Water Blank*	*<1.0*	*<1.0*
EPA Action Level		**15**	**1,300**

1 µg/L means microgram per liter or parts per billion (ppb).

2 Action levels based on the U.S. EPA's Lead and Copper Rule.
Results indicated in **bold** indicate concentrations above the action levels of 15 µg/L for lead and 1,300 µg/L for copper
Results indicated in *italics* are quality assurance spike and blank samples

Table 2: pH and Temperature Data Summary

Sample Number	Fixture Type	pH Flush	pH Sample	Temp(°C) flush	Temp(°C) sample
KMH122116-P-WC-04: Second floor, outside room 561	Water Cooler Fountain	7.72	7.91	14.6	14.2
KMH122116-P-KF-08: Room 436, S. wall, middle fixture	Kitchen Faucet	7.71	8.02	17.0	15.1
KMH122116-P-KF-12: Room 436, W. wall, N. fixture	Kitchen Faucet	7.74	7.83	17.2	18.8
KMH122116-P-OF-16: Library room 339	Office Faucet	7.62	7.78	17.2	20.5
KMH122116-P-OF-20: Library, N. office	Office Faucet	7.70	7.71	19.9	20.8
KMH122116-P-KF-24: Room 163, N. fixture	Kitchen Faucet	7.77	7.81	14.7	18.6
KMH122116-P-DF-28: Room 108	Drinking Fountain	7.62	7.80	17.2	19.8
KMH122116-P-DF-32: Room 132	Drinking Fountain	7.72	7.80	17.6	19.0
KMH122116-P-WC-36: Auditorium	Water Cooler Fountain	7.74	8.09	16.1	11.5

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Table 3: Remedial Sampling Analytical Results

Sampling Event	Sample Identification											
	NF-01	WC-06	KF-13	DF-14	DF-15	CDF-21	DF-30	DF-31	DF-32	KF-35	*Laboratory Spike (-38)*	*Laboratory Blank (-39)*
Initial 12/21/16	**1,300**	**1,300**	**1,300**	**1,200**	**1,200**	**1,400**	**1,300**	**1,500**	**1,300**	**1,300**	*1,200*	*<10*
Aggressive Flush; First Draw (1/21/17)	932	1,100	1,150	**1,200**	**1,200**	1,140	1,190	1,080	1,180	1,130	-	*<0.5*
Second Draw (1/21/17)	-	-	-	**1,270**	-	-	-	-	-	-	-	-
Third Draw (1/21/17)	-	-	-	774	-	-	-	-	-	-	-	-
Fixture Replaced (3/18/17)	-	-	-	425	-	-	-	-	-	-	-	-
EPA Action Level	**1,300**	**1,300**	**1,300**	**1,300**	**1,300**	**1,300**	**1,300**	**1,300**	**1,300**	**1,300**	**1,300**	**1,300**

1 µg/L means microgram per liter or parts per billion (ppb).

2 Action levels based on the U.S. EPA's Lead and Copper Rule.

Results indicated in **bold** indicate concentrations above the action levels of 15 µg/L for lead and 1,300 µg/L for copper

Results indicated in *italics* are quality assurance spike and blank samples

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ATTACHMENT D

Initial Analytical Results

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RJ Lee*Group*, Inc. | Columbia Basin Analytical Laboratories
2710 North 20th Avenue, Pasco WA 99301
Tel: (509) 545-4989 | Fax: (509) 544-6010

Fulcrum Environmental
406 N. 2nd St.
Yakima, WA 98901

Subject: Chemical Analysis Report

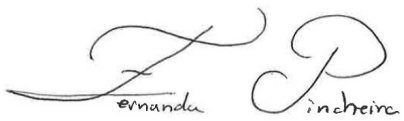
Columbia Basin Analytical Laboratories received 38 sample(s) on 12/21/16 for analysis. These sample(s) have been assigned a login order number of W612103. Enclosed is the final report that consists of a summary report of the sample(s), and a copy of the chain of custody.

General Lab Comments

The results provided in this report relate only to the items tested. Sample(s) were received in acceptable conditions unless otherwise noted in the comments above. Sample(s) have not been field blank corrected unless otherwise noted in the general set comments above. The sample(s) were prepared in accordance with EPA 200.8 and analyzed in compliance with EPA 200.8. This test report shall not be reproduced, except in full, without written approval of Columbia Basin Analytical Laboratories. Any questions, please contact our office.

All samples were diluted 1:10.
X - Samples that exceeded the instrument calibration range were rerun at a 1:100 dilution, necessitating a 10-fold increase in the PQL.

Release of the data contained in the hard copy report has been authorized by the Laboratory Director or a designee as verified by the following signature. This report has been administratively reviewed by the following individual:



01/12/17

Project Coordinator II, M. Fernanda Pincheira — Date

If you have any questions please feel free to contact Fernanda Pincheira at MPincheira@rjleegroup.com.

RJ LEE GROUP

Laboratory Report

Amanda Enbysk

Fulcrum Environmental
406 N. 2nd St.
Yakima, WA 98901

Client Project:

Fulcrum Kennewick

RJ Lee Group No.: W612103
COC No.: Kennewick
Samples Received: 12/21/16
Analysis/Prep Date: 01/11/17
Report Date: 01/12/17

Sample Name: KMH122116-P-NF-01 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-01 **Date Analyzed:** 01/11/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	1.3	0.1	X
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: KMH122116-P-OF-02 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-02 **Date Analyzed:** 01/10/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.97	0.01	
Lead	EPA 200.8	0.001	0.001	

Sample Name: KMH122116-P-OF-03 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-03 **Date Analyzed:** 01/11/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	1.1	0.1	X
Lead	EPA 200.8	0.001	0.001	

Sample Name: KMH122116-P-WC-04 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-04 **Date Analyzed:** 01/10/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.58	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: KMH122116-P-WC-05 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-05 **Date Analyzed:** 01/10/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.49	0.01	
Lead	EPA 200.8	< 0.001	0.001	

RJ LEE GROUP

Sample Name: KMH122116-P-WC-06 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-06 **Date Analyzed:** 01/11/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	1.3	0.1	X
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: KMH122116-P-KF-07 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-07 **Date Analyzed:** 01/11/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	1.1	0.1	X
Lead	EPA 200.8	0.002	0.001	

Sample Name: KMH122116-P-KF-08 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-08 **Date Analyzed:** 01/10/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.78	0.01	
Lead	EPA 200.8	0.002	0.001	

Sample Name: KMH122116-P-KF-09 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-09 **Date Analyzed:** 01/10/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.94	0.01	
Lead	EPA 200.8	0.003	0.001	

Sample Name: KMH122116-P-KF-10 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-10 **Date Analyzed:** 01/10/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.74	0.01	
Lead	EPA 200.8	0.003	0.001	

Sample Name: KMH122116-P-KF-11 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-11 **Date Analyzed:** 01/10/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.76	0.01	
Lead	EPA 200.8	0.003	0.001	

RJ LEE GROUP

Sample Name: KMH122116-P-KF-12 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-12 **Date Analyzed:** 01/10/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.79	0.01	
Lead	EPA 200.8	0.003	0.001	

Sample Name: KMH122116-P-KF-13 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-13 **Date Analyzed:** 01/11/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	1.3	0.1	X
Lead	EPA 200.8	0.004	0.001	

Sample Name: KMH122116-P-DF-14 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-14 **Date Analyzed:** 01/11/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	1.2	0.1	X
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: KMH122116-P-DF-15 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-15 **Date Analyzed:** 01/11/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	1.2	0.1	X
Lead	EPA 200.8	0.003	0.001	

Sample Name: KMH122116-P-OF-16 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-16 **Date Analyzed:** 01/10/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.85	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: KMH122116-P-OF-17 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-17 **Date Analyzed:** 01/10/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.88	0.01	
Lead	EPA 200.8	0.001	0.001	

RJ LEE GROUP

Sample Name: KMH122116-P-DF-18 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-18 **Date Analyzed:** 01/11/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	1.1	0.1	X
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: KMH122116-P-WC-19 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-19 **Date Analyzed:** 01/10/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.74	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: KMH122116-P-OF-20 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-20 **Date Analyzed:** 01/10/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.83	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: KMH122116-P-CDF-21 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-21 **Date Analyzed:** 01/11/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	1.4	0.1	X
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: KMH122116-P-KF-22 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-22 **Date Analyzed:** 01/10/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.65	0.01	
Lead	EPA 200.8	0.004	0.001	

Sample Name: KMH122116-P-KF-23 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-23 **Date Analyzed:** 01/10/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.61	0.01	
Lead	EPA 200.8	0.002	0.001	

RJ LEE GROUP

Sample Name: KMH122116-P-KF-24 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-24 **Date Analyzed:** 01/10/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.74	0.01	
Lead	EPA 200.8	0.001	0.001	

Sample Name: KMH122116-P-WC-25 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-25 **Date Analyzed:** 01/10/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.36	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: KMH122116-P-KF-26 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-26 **Date Analyzed:** 01/10/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.90	0.01	
Lead	EPA 200.8	0.006	0.001	

Sample Name: KMH122116-P-WC-27 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-27 **Date Analyzed:** 01/10/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.85	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: KMH122116-P-DF-28 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-28 **Date Analyzed:** 01/10/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.94	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: KMH122116-P-DF-30 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-29 **Date Analyzed:** 01/11/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	1.3	0.1	X
Lead	EPA 200.8	< 0.001	0.001	

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Sample Name: KMH122116-P-DF-31 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-30 **Date Analyzed:** 01/11/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	1.5	0.1	X
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: KMH122116-P-DF-32 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-31 **Date Analyzed:** 01/11/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	1.3	0.1	X
Lead	EPA 200.8	0.004	0.001	

Sample Name: KMH122116-P-DF-33 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-32 **Date Analyzed:** 01/10/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.76	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: KMH122116-P-DF-34 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-33 **Date Analyzed:** 01/10/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.91	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: KHM122116-P-KF-35 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-34 **Date Analyzed:** 01/11/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	1.3	0.1	X
Lead	EPA 200.8	0.002	0.001	

Sample Name: KHM122116-P-WC-36 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-35 **Date Analyzed:** 01/10/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.78	0.01	
Lead	EPA 200.8	< 0.001	0.001	

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Sample Name: KMH122116-P-WC-37 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-36 **Date Analyzed:** 01/10/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	0.27	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Sample Name: KMH122116-P-DF-38 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-37 **Date Analyzed:** 01/11/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	1.2	0.1	X
Lead	EPA 200.8	0.013	0.001	

Sample Name: KMH122116-P-CF-39 **Matrix:** Potable Water **Date Received:** 12/21/16
RJ Lee Grp. ID: W612103-38 **Date Analyzed:** 01/10/17

Analyte	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper	EPA 200.8	< 0.010	0.01	
Lead	EPA 200.8	< 0.001	0.001	

Report Qualifiers:
A = Target Analyte media breakthrough suspect, see analytical report
B = Analyte detected in the associated blank
D = Analyte analyzed in a dilution
d = Data that exceeds the RSD criteria set by the SOP
E = Report concentration was above the instrument calibration range
H = Holding times for preparation or analysis exceeded
J = Analyte detected below quantitation limits, concentration is estimated
L = Sample condition at receipt out of compliance with method defined conditions
P = Library spectrum match, rsd >90% w RT match
R = RPD (relative percent difference) outside accepted recovery limits
Q = Result out of method specific acceptance QC criteria
U = Analyte analyzed for but not detected
S = Spike Recovery outside accepted recovery limits
N/A = Not Applicable
Z = Not ELAP accredited analyte
ND = Not Detected

QA Officer/Organic Analytical SME John Coddington

These results are submitted pursuant to RJ Lee Group's current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions. No responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, RJ Lee Group will store the samples for a period of ninety (90) days before discarding. A shipping and handling fee will be assessed for the return of any samples. Unless otherwise noted, samples were received in an acceptable condition. This laboratory operates in accordance with ISO 17025 guidelines, and holds limited scopes of accreditation under ORELAP Lab Code 4061 AIHA-LAP, LLC Lab ID 178656 EPA ID WA01195 and WA DOE Lab ID C859. This report may not be used to claim product endorsement by any laboratory accrediting agency. The results contained in this report relate only to the items tested or to the sample(s) as received by the laboratory. Any reproduction of this document must be in full for the report to be valid. Quality control data is available upon request.

Request for Environmental and IH Laboratory Analytical Services

W612103

ATTENTION TO:	**RYAN MATHEWS**	Purchase Order No.:	Client Job No.: **162017**

Lab Use Only	Project No.:	Client No:	
	Date Logged In:	Logged In By:	
Report Results To	Name: Amanda Enbysk, Ryan Mathews		
	Company: Fulcrum Environmental Consulting		
	Address: 406 North 2nd Street		
	City, State, Zip: Yakima, WA, 98901		
	Phone: (509) 574-0839	Fax: (509) 575-8453	
	Call with Verbal Results:		
	Email Results To: aenbysk@efulcrum.net, **CC:** rmathews@efulcrum.net		
	Fax Results To:		
Send Invoice To	Name: Lorrie Boutillier		
	Company: Fulcrum Environmental	Email: lboutillier@efulcrum.net	
	Address: 406 North 2nd Street		
	City, State, Zip: Yakima, WA, 98901		
	Phone: (509) 574-0839	Fax: (509) 575-8453	
Special Instructions			

Turnaround Request: Standard: Yes No If 'No,' No. of Business Days:

Drinking Water Sample Only: Sample Purpose: Information X Regulatory □ Accreditation (please list below):
System ID #:
DOH Source #:
Multiple Sources #s:
Sample Purpose: A □ B □ Other □

Chemistry Analysis Key

Preservation:		Matrix:		Container:
Unpres	H_2SO_4	WW=Wastewater	SW=Surface Water	P=Plastic
4°C	HCl	GW=Groudwater	DW=Drinking Water	G=Glass
HNO_3	NaOH	S=Soil/Sludge	O=Oil	W=Wipe
Other	Na_2SO_4	E=Extract	X=Other	A=Air (filter or tube)

Client Sample ID	Sample Description	Sample Date	Sample Time Start	Sample Time Stop	Wipe Area / Air Volume	Analysis Requested: EPA 200.8: Pb, Cu	Pres. Upon Receipt (Y/N)	Preservation	Matrix	Container Type	pH	No. Containers
KMH122116-RNF-01	Nurse's office	12/21/16				X		UNPR.	DW	P		17.1
KMH122116-P-OF-02	545, Conference Rm in office											17.1
KMH122116-P-OF-03	542, Staff workroom											17.1
KMH122116-P-WC-04	Hallway opposite 561											15.6
KMH122116-P-WC-05	Hallway opposite 510											14.1
KMH122116-P-WC-06	Between 440 & 436											14.1
KMH122116-P-KF-07	Room 436, west wall south											16.2
KMH122116-P-KF-08	Room 436, west wall center											15.8
KMH122116-P-KF-09	Room 436, west wall north											14.8
KMH122116-P-KF-10	Room 436, north wall west											16.6
KMH122116-P-KF-11	Room 436, north wall center											16.6

Chain of Custody	Relinquished By (Signature):	Date: 12/21/2016	Time: 1430	**Chain of Custody**	Received By (Signature): Date: DEC 21 2016 Time: 1430
	Relinquished By (Print Name):	Relinquished To:			Received By (Print Name): Relinquished To:
	Company Name:	Method of Shipment:			Company Name: Method of Shipment:
Chain of Custody	Relinquished By (Signature):	Date:	Time:	**Chain of Custody**	Received By (Signature): Date: Time:
	Relinquished By (Print Name):	Relinquished To:			Received By (Print Name): Relinquished To:
	Company Name:	Method of Shipment:			Company Name: Method of Shipment:

Pennsylvania - HQ
350 Hochberg Road
Monroeville, PA 15146

724.325.1776 **Phone**
724.733.1799 **Fax**

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Columbia Basin Analytical Laboratories
2710 North 20th Avenue
Pasco, WA 99301

509.545.4989 **Phone**
509.544.6010 **Fax**

RJ LEE GROUP
DELIVERING SCIENTIFIC RESOLUTION

Request for Environmental and IH Laboratory Analytical Services

W612103

ATTENTION TO:	**RYAN MATHEWS**	Purchase Order No.:	Client Job No.: **162017**

Lab Use Only	Project No.:	Client No:	
	Date Logged In:	Logged In By:	
Report Results To	Name: Amanda Enbysk, Ryan Mathews		
	Company: Fulcrum Environmental Consulting		
	Address: 406 North 2nd Street		
	City, State, Zip: Yakima, WA, 98901		
	Phone: (509) 574-0839	Fax: (509) 575-8453	
	Call with Verbal Results:		
	Email Results To: aenbysk@efulcrum.net, **CC:** rmathews@efulcrum.net		
	Fax Results To:		
Send Invoice To	Name: Lorrie Boutillier		
	Company: Fulcrum Environmental	Email: lboutillier@efulcrum.net	
	Address: 406 North 2nd Street		
	City, State, Zip: Yakima, WA, 98901		
	Phone: (509) 574-0839	Fax: (509) 575-8453	
Special Instructions			

Turnaround Request: Standard: Yes / No — If 'No,' No. of Business Days:

Drinking Water Sample Only: Sample Purpose: Information X Regulatory □ Accreditation (please list below): System ID #: DOH Source #: Multiple Sources #s: Sample Purpose: A □ B □ Other □

Chemistry Analysis Key

Preservation:		Matrix:		Container:
Unpres	H_2SO_4	WW=Wastewater	SW=Surface Water	P=Plastic
4°C	HCl	GW=Groudwater	DW=Drinking Water	G=Glass
HNO_3	NaOH	S=Soil/Sludge	O=Oil	W=Wipe
Other	Na_2SO_4	E=Extract	X=Other	A=Air (filter or tube)

Client Sample ID	Sample Description	Sample Date	Sample Time Start	Sample Time Stop	Wipe Area / Air Volume	Analysis Requested: EPA 200.8: Pb, Cu	Pres. Upon Receipt (Y/N)	Preservation	Matrix	Container Type	pH	No. Containers
KMH122116-P-KF-12	Room 436, west northwall roth	12/21/16				X		UNPR	DW	P		16.6
KMH122116-P-KF-13	Room 436, center island											17.6
KMH122116-P-OF-14	SW entry of 300 bldg, 5th flr											17.1
KMH122116-P-OF-15	SW entry of 300 bldg, Nflr											16.9
KMH122116-P-OF-16	Staff workroom 2, 339											17.5
KMH122116-P-OF-17	Staff workroom 1, 325											17.1
KMH122116-P-OF-18	Bldg 300, NW entrance											16.9
KMH122116-P-OF-19	Library Entrance											15.7
KMH122116-P-OF-20	Library workroom, 309											16.6
KMH122116-P-COF-21	Classroom 173, music											15.9
KMH122116-P-KF-22	Kitchen wat fill South											16.6

Chain of Custody	Relinquished By (Signature):	Date: 12/21/16	Time: 1230	Received By (Signature):	Date: DEC 21 2016 Time: 1430
	Relinquished By (Print Name):	Relinquished To:		Received By (Print Name):	Relinquished To:
	Company Name:	Method of Shipment:		Company Name:	Method of Shipment:
Chain of Custody	Relinquished By (Signature):	Date:	Time:	Received By (Signature):	Date: Time:
	Relinquished By (Print Name):	Relinquished To:		Received By (Print Name):	Relinquished To:
	Company Name:	Method of Shipment:		Company Name:	Method of Shipment:

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RJ LEE GROUP
DELIVERING SCIENTIFIC RESOLUTION

Request for Environmental and IH Laboratory Analytical Services

W612103

ATTENTION TO:	**RYAN MATHEWS**	Purchase Order No.:	Client Job No.: **162017**

Lab Use Only	Project No.:	Client No:	
	Date Logged In:	Logged In By:	
Report Results To	Name: Amanda Enbysk, Ryan Mathews		
	Company: Fulcrum Environmental Consulting		
	Address: 406 North 2nd Street		
	City, State, Zip: Yakima, WA, 98901		
	Phone: (509) 574-0839	Fax: (509) 575-8453	
	Call with Verbal Results:		
	Email Results To: aenbysk@efulcrum.net, **CC:** rmathews@efulcrum.net		
	Fax Results To:		
Send Invoice To	Name: Lorrie Boutillier		
	Company: Fulcrum Environmental	Email: lboutillier@efulcrum.net	
	Address: 406 North 2nd Street		
	City, State, Zip: Yakima, WA, 98901		
	Phone: (509) 574-0839	Fax: (509) 575-8453	
Special Instructions			

Turnaround Request: Standard: **Yes** No — If 'No,' No. of Business Days:

Drinking Water Sample Only: Sample Purpose: Information **X** Regulatory ☐ Accreditation (please list below):
System ID #:
DOH Source #:
Multiple Sources #s:
Sample Purpose: A ☐ B ☐ Other ☐

Chemistry Analysis Key

Preservation:		Matrix:		Container:
Unpres	H_2SO_4	WW=Wastewater	SW=Surface Water	P=Plastic
4°C	HCl	GW=Groudwater	DW=Drinking Water	G=Glass
HNO_3	NaOH	S=Soil/Sludge	O=Oil	W=Wipe
Other	Na_2SO_4	E=Extract	X=Other	A=Air (filter or tube)

Client Sample ID	Sample Description	Sample Date	Sample Time Start	Sample Time Stop	Wipe Area / Air Volume	Analysis Requested: EPA 200.8: Pb, Cu	Pres. Upon Receipt (Y/N)	Preservation	Matrix	Container Type	pH	No. Containers
KMH122116-P-KF-23	Kitchen wok fill north	12/21/16				X		UNPR.	DW	P		16.1
KMH122116-P-KF-24	Kitchen N wall Foodprep											16.1
KMH122116-P-WC-25	Cafetria west wall											14.9
KMH122116-P-KF-26	Alacarte foodprep											16.9
KMH122116-P-WC-27	Hallway west of main gym											15.5
KMH122116-P-DF-28	Weight room, 108											17.0
~~DF-29~~	~~Boy's Athletic Locker~~											
KMH122116-P-DF-30	Boy's PE Locker											17.5
KMH122116-P-DF-31	Girls Athletic locker											16.3
KMH122116-P-DF-32	Girls PE Locker											16.3
KMH122116-P-DF-33	Wrestling/Gymnastics											17.5

Chain of Custody	Relinquished By (Signature): Amanda M Enbysk	Date: 12/21/16	Time: 1430	Received By (Signature): Lopez	Date: DEC 21 2016 Time: 1430
	Relinquished By (Print Name):	Relinquished To:		Received By (Print Name): RJ Lee	Relinquished To:
	Company Name:	Method of Shipment:		Company Name:	Method of Shipment:
Chain of Custody	Relinquished By (Signature):	Date:	Time:	Received By (Signature):	Date: Time:
	Relinquished By (Print Name):	Relinquished To:		Received By (Print Name):	Relinquished To:
	Company Name:	Method of Shipment:		Company Name:	Method of Shipment:

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	Company: Fulcrum Environmental Consulting		
	Address: 406 North 2nd Street		
	City, State, Zip: Yakima, WA, 98901		
	Phone: (509) 574-0839	Fax: (509) 575-8453	
	Call with Verbal Results:		
	Email Results To: aenbysk@efulcrum.net, **CC:** rmathews@efulcrum.net		
	Fax Results To:		
Send Invoice To	Name: Lorrie Boutillier		
	Company: Fulcrum Environmental	Email: lboutillier@efulcrum.net	
	Address: 406 North 2nd Street		
	City, State, Zip: Yakima, WA, 98901		
	Phone: (509) 574-0839	Fax: (509) 575-8453	
Special Instructions			

Turnaround Request: Standard: Yes No If 'No,' No. of Business Days:

Drinking Water Sample Only: Sample Purpose: Information X Regulatory □ Accreditation (please list below):
System ID #:
DOH Source #:
Multiple Sources #s:
Sample Purpose: A □ B □ Other □

Chemistry Analysis Key

Preservation:		Matrix:		Container:
Unpres	H_2SO_4	WW=Wastewater	SW=Surface Water	P=Plastic
4°C	HCl	GW=Groudwater	DW=Drinking Water	G=Glass
HNO_3	NaOH	S=Soil/Sludge	O=Oil	W=Wipe
Other	Na_2SO_4	E=Extract	X=Other	A=Air (filter or tube)

Client Sample ID	Sample Description	Sample Date	Sample Time Start	Sample Time Stop	Wipe Area / Air Volume	Analysis Requested: EPA 200.8: Pb, Cu	Pres. Upon Receipt (Y/N)	Preservation	Matrix	Container Type	pH	No. Containers
KMH122116-P-DF-34	Upper Gym	12/21/16				X		UNPR.	DW	P		17.1
~~KMH122116-P-DF-35~~	~~Adult Film Concessions~~	~~12/21/16~~										15.6
~~KMH122116-P-DF-36~~	~~200 bldg, opposite 213~~											14.4
~~KMH122116-ROF-35~~	~~workroom outside auditorium~~											15.1
KMH122116-P-DF-35	Auditorium Concessions	12/21/16										
KMH122116-P-WC-36	Audetorium entrance											
KMH122116-P-WC-37	Computer lab hall, opp. 213											
KMH122116-P-DF-38	Room 400											14.1
KMH122116-P-CF-39	Room 525											12.9

Chain of Custody	Relinquished By (Signature):	Date: 12/21/16	Time: 1430	Received By (Signature):	Date: DEC 21 2016 Time: 1430
	Relinquished By (Print Name):	Relinquished To:		Received By (Print Name):	Relinquished To:
	Company Name:	Method of Shipment:		Company Name:	Method of Shipment:
Chain of Custody	Relinquished By (Signature):	Date:	Time:	Received By (Signature):	Date: Time:
	Relinquished By (Print Name):	Relinquished To:		Received By (Print Name):	Relinquished To:
	Company Name:	Method of Shipment:		Company Name:	Method of Shipment:

Pennsylvania - HQ
350 Hochberg Road
Monroeville, PA 15146

724.325.1776 **Phone**
724.733.1799 **Fax**

Washington
Columbia Basin Analytical Laboratories
2710 North 20th Avenue
Pasco, WA 99301

509.545.4989 **Phone**
509.544.6010 **Fax**

RJ LEE GROUP
DELIVERING SCIENTIFIC RESOLUTION

FULCRUM environmental consulting

ATTACHMENT E

Remedial Analytical Results

P. 509.574.0839 F. 509.575.8453
406 North 2nd Street
Yakima, Washington 98901
efulcrum.net

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Fulcrum Environmental
Ryan Mathews
406 N. 2nd Street
Yakima, WA 98901

RE: Kennewick SD Drinking Water - Kamiakin Elementary
Work Order Number: 1701237

February 03, 2017

Attention Ryan Mathews:

Fremont Analytical, Inc. received 17 sample(s) on 1/23/2017 for the analyses presented in the following report.

Drinking Water Metals by EPA Method 200.8

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Chelsea Ward
Project Manager

Date: *02/03/2017*

CLIENT: Fulcrum Environmental
Project: Kennewick SD Drinking Water - Kamiakin El
Work Order: 1701237

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1701237-001	KMH12117-P-NF-01	01/21/2017 10:00 AM	01/23/2017 12:25 PM
1701237-002	KMH12117-S-NF-01	01/21/2017 10:00 AM	01/23/2017 12:25 PM
1701237-003	KMH12117-T-NF-01	01/21/2017 10:00 AM	01/23/2017 12:25 PM
1701237-004	KMH12117-P-WC-06	01/21/2017 10:00 AM	01/23/2017 12:25 PM
1701237-005	KMH12117-P-KF-13	01/21/2017 10:00 AM	01/23/2017 12:25 PM
1701237-006	KMH12117-P-DF-14	01/21/2017 10:00 AM	01/23/2017 12:25 PM
1701237-007	KMH12117-S-DF-14	01/21/2017 10:00 AM	01/23/2017 12:25 PM
1701237-008	KMH12117-T-DF-14	01/21/2017 10:00 AM	01/23/2017 12:25 PM
1701237-009	KMH12117-P-DF-15	01/21/2017 10:00 AM	01/23/2017 12:25 PM
1701237-010	KMH12117-P-CDF-21	01/21/2017 10:00 AM	01/23/2017 12:25 PM
1701237-011	KMH12117-P-DF-30	01/21/2017 10:00 AM	01/23/2017 12:25 PM
1701237-012	KMH12117-P-DF-31	01/21/2017 10:00 AM	01/23/2017 12:25 PM
1701237-013	KMH12117-P-DF-32	01/21/2017 10:00 AM	01/23/2017 12:25 PM
1701237-014	KMH12117-P-KF-35	01/21/2017 10:00 AM	01/23/2017 12:25 PM
1701237-015	KMH12117-S-KF-35	01/21/2017 10:00 AM	01/23/2017 12:25 PM
1701237-016	KMH12117-T-KF-35	01/21/2017 10:00 AM	01/23/2017 12:25 PM
1701237-017	KMH12117-P-CF-39	01/21/2017 10:00 AM	01/23/2017 12:25 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

Case Narrative

WO#: **1701237**
Date: **2/3/2017**

CLIENT: Fulcrum Environmental
Project: Kennewick SD Drinking Water - Kamiakin Elementary

WorkOrder Narrative:
I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Prep Sample Comments:
1701237-001A 202837: Prep Comments for EPA200.8, Sample 1701237-001A: Turbidity: 0.01 NTU
1701237-004A 202838: Prep Comments for EPA200.8, Sample 1701237-004A: Turbidity: 0.01 NTU
1701237-005A 202839: Prep Comments for EPA200.8, Sample 1701237-005A: Turbidity: 0.08 NTU
1701237-006A 202840: Prep Comments for EPA200.8, Sample 1701237-006A: Turbidity: 0.03 NTU
1701237-009A 202841: Prep Comments for EPA200.8, Sample 1701237-009A: Turbidity: 0.01 NTU
1701237-010A 202842: Prep Comments for EPA200.8, Sample 1701237-010A: Turbidity: 0.01 NTU
1701237-011A 202843: Prep Comments for EPA200.8, Sample 1701237-011A: Turbidity: 0.08 NTU
1701237-012A 202844: Prep Comments for EPA200.8, Sample 1701237-012A: Turbidity: 0.19 NTU
1701237-013A 202845: Prep Comments for EPA200.8, Sample 1701237-013A: Turbidity: 0.05 NTU
1701237-014A 202846: Prep Comments for EPA200.8, Sample 1701237-014A: Turbidity: 0.10 NTU
1701237-017A 202847: Prep Comments for EPA200.8, Sample 1701237-017A: Turbidity: 0.02 NTU

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

CLIENT: Fulcrum Environmental
Project: Kennewick SD Drinking Water - Kamiakin Elementary

Lab ID: 1701237-001 **Collection Date:** 1/21/2017 10:00:00 AM
Client Sample ID: **KMH12117-P-NF-01** **Matrix:** Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Drinking Water Metals by EPA Method 200.8				Batch ID: 15999		Analyst: TN
Copper	932	0.500		µg/L	1	1/23/2017 10:40:48 PM

Lab ID: 1701237-004 **Collection Date:** 1/21/2017 10:00:00 AM
Client Sample ID: **KMH12117-P-WC-06** **Matrix:** Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Drinking Water Metals by EPA Method 200.8				Batch ID: 15999		Analyst: TN
Copper	1,100	0.500		µg/L	1	1/23/2017 10:44:24 PM

Lab ID: 1701237-005 **Collection Date:** 1/21/2017 10:00:00 AM
Client Sample ID: **KMH12117-P-KF-13** **Matrix:** Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Drinking Water Metals by EPA Method 200.8				Batch ID: 15999		Analyst: TN
Copper	1,150	0.500		µg/L	1	1/23/2017 10:48:00 PM

CLIENT: Fulcrum Environmental
Project: Kennewick SD Drinking Water - Kamiakin Elementary

Lab ID: 1701237-006 **Collection Date:** 1/21/2017 10:00:00 AM
Client Sample ID: **KMH12117-P-DF-14** **Matrix:** Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Drinking Water Metals by EPA Method 200.8				Batch ID: 15999		Analyst: TN
Copper	1,200	0.500		µg/L	1	1/23/2017 10:51:37 PM

Lab ID: 1701237-007 **Collection Date:** 1/21/2017 10:00:00 AM
Client Sample ID: **KMH12117-S-DF-14** **Matrix:** Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Drinking Water Metals by EPA Method 200.8				Batch ID: 16116		Analyst: TN
Copper	1,270	0.500		µg/L	1	2/2/2017 8:58:50 PM

Lab ID: 1701237-008 **Collection Date:** 1/21/2017 10:00:00 AM
Client Sample ID: **KMH12117-T-DF-14** **Matrix:** Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Drinking Water Metals by EPA Method 200.8				Batch ID: 16116		Analyst: TN
Copper	774	0.500		µg/L	1	2/2/2017 9:09:41 PM

CLIENT: Fulcrum Environmental
Project: Kennewick SD Drinking Water - Kamiakin Elementary

Lab ID: 1701237-009 **Collection Date:** 1/21/2017 10:00:00 AM
Client Sample ID: **KMH12117-P-DF-15** **Matrix:** Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Drinking Water Metals by EPA Method 200.8				Batch ID: 15999		Analyst: TN
Copper	1,200	0.500		µg/L	1	1/23/2017 10:55:13 PM

Lab ID: 1701237-010 **Collection Date:** 1/21/2017 10:00:00 AM
Client Sample ID: **KMH12117-P-CDF-21** **Matrix:** Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Drinking Water Metals by EPA Method 200.8				Batch ID: 15999		Analyst: TN
Copper	1,140	0.500		µg/L	1	1/23/2017 10:58:50 PM

Lab ID: 1701237-011 **Collection Date:** 1/21/2017 10:00:00 AM
Client Sample ID: **KMH12117-P-DF-30** **Matrix:** Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Drinking Water Metals by EPA Method 200.8				Batch ID: 15999		Analyst: TN
Copper	1,190	0.500		µg/L	1	1/23/2017 11:02:26 PM

CLIENT: Fulcrum Environmental
Project: Kennewick SD Drinking Water - Kamiakin Elementary

Lab ID: 1701237-012 **Collection Date:** 1/21/2017 10:00:00 AM
Client Sample ID: **KMH12117-P-DF-31** **Matrix:** Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Drinking Water Metals by EPA Method 200.8				Batch ID: 15999		Analyst: TN
Copper	1,080	0.500		µg/L	1	1/23/2017 11:06:03 PM

Lab ID: 1701237-013 **Collection Date:** 1/21/2017 10:00:00 AM
Client Sample ID: **KMH12117-P-DF-32** **Matrix:** Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Drinking Water Metals by EPA Method 200.8				Batch ID: 15999		Analyst: TN
Copper	1,180	0.500		µg/L	1	1/23/2017 11:09:39 PM

Lab ID: 1701237-014 **Collection Date:** 1/21/2017 10:00:00 AM
Client Sample ID: **KMH12117-P-KF-35** **Matrix:** Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Drinking Water Metals by EPA Method 200.8				Batch ID: 15999		Analyst: TN
Copper	1,130	0.500		µg/L	1	1/23/2017 11:13:15 PM

Analytical Report

Work Order: **1701237**
Date Reported: **2/3/2017**

CLIENT: Fulcrum Environmental
Project: Kennewick SD Drinking Water - Kamiakin Elementary

Lab ID: 1701237-017 **Collection Date:** 1/21/2017 10:00:00 AM
Client Sample ID: **KMH12117-P-CF-39** **Matrix:** Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Drinking Water Metals by EPA Method 200.8				Batch ID: 15999		Analyst: TN
Copper	ND	0.500		µg/L	1	1/23/2017 11:24:05 PM

Work Order: 1701237
CLIENT: Fulcrum Environmental
Project: Kennewick SD Drinking Water - Kamiakin El

QC SUMMARY REPORT

Drinking Water Metals by EPA Method 200.8

Sample ID: **MB-16116**	SampType: **MBLK**			Units: **µg/L**		Prep Date: **2/2/2017**			RunNo: **34242**	
Client ID: **MBLKW**	Batch ID: **16116**					Analysis Date: **2/2/2017**			SeqNo: **652929**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	ND	0.500									

Sample ID: **LCS-16116**	SampType: **LCS**			Units: **µg/L**		Prep Date: **2/2/2017**			RunNo: **34242**	
Client ID: **LCSW**	Batch ID: **16116**					Analysis Date: **2/2/2017**			SeqNo: **652930**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	95.1	0.500	100.0	0	95.1	85	115				

Sample ID: **1701233-016ADUP**	SampType: **DUP**			Units: **µg/L**		Prep Date: **2/2/2017**			RunNo: **34242**	
Client ID: **BATCH**	Batch ID: **16116**					Analysis Date: **2/2/2017**			SeqNo: **652932**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	1,040	0.500						1,087	4.72	30	

Sample ID: **1701233-016AMS**	SampType: **MS**			Units: **µg/L**		Prep Date: **2/2/2017**			RunNo: **34242**	
Client ID: **BATCH**	Batch ID: **16116**					Analysis Date: **2/2/2017**			SeqNo: **652933**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	1,250	0.500	200.0	1,087	83.8	70	130				

Sample ID: **1701233-016AMSD**	SampType: **MSD**			Units: **µg/L**		Prep Date: **2/2/2017**			RunNo: **34242**	
Client ID: **BATCH**	Batch ID: **16116**					Analysis Date: **2/2/2017**			SeqNo: **652934**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	1,300	0.500	200.0	1,087	108	70	130	1,255	3.76	30	

Work Order: 1701237
CLIENT: Fulcrum Environmental
Project: Kennewick SD Drinking Water - Kamiakin El

QC SUMMARY REPORT

Drinking Water Metals by EPA Method 200.8

Sample ID: **MB-15999**	SampType: **MBLK**			Units: **µg/L**		Prep Date: **1/23/2017**			RunNo: **34026**	
Client ID: **MBLKW**	Batch ID: **15999**					Analysis Date: **1/23/2017**			SeqNo: **647576**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	ND	0.500									

Sample ID: **LCS-15999**	SampType: **LCS**			Units: **µg/L**		Prep Date: **1/23/2017**			RunNo: **34026**	
Client ID: **LCSW**	Batch ID: **15999**					Analysis Date: **1/23/2017**			SeqNo: **647577**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	93.6	0.500	100.0	0	93.6	85	115				

Sample ID: **1701236-014ADUP**	SampType: **DUP**			Units: **µg/L**		Prep Date: **1/23/2017**			RunNo: **34026**	
Client ID: **BATCH**	Batch ID: **15999**					Analysis Date: **1/23/2017**			SeqNo: **647579**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	1,730	0.500						1,728	0.181	30	

Sample ID: **1701236-014AMS**	SampType: **MS**			Units: **µg/L**		Prep Date: **1/23/2017**			RunNo: **34026**	
Client ID: **BATCH**	Batch ID: **15999**					Analysis Date: **1/23/2017**			SeqNo: **647580**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	1,910	0.500	200.0	1,728	91.9	70	130				

Sample ID: **1701236-014AMSD**	SampType: **MSD**			Units: **µg/L**		Prep Date: **1/23/2017**			RunNo: **34026**	
Client ID: **BATCH**	Batch ID: **15999**					Analysis Date: **1/23/2017**			SeqNo: **647581**	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	1,960	0.500	200.0	1,728	115	70	130	1,912	2.39	30	

Sample Log-In Check List

Client Name:	**FE**	Work Order Number:	**1701237**
Logged by:	**Clare Griggs**	Date Received:	**1/23/2017 12:25:00 PM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
5.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☐	Not Required ☑
6.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
7.	Were all items received at a temperature of >0°C to 10.0°C *	Yes ☐	No ☑	NA ☐
	Samples received at appropriate temperature			
8.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
10.	Are samples properly preserved?	Yes ☑	No ☐	
11.	Was preservative added to bottles?	Yes ☑	No ☐	NA ☐ HNO3
12.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
13.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
14.	Does paperwork match bottle labels?	Yes ☑	No ☐	
15.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
16.	Is it clear what analyses were requested?	Yes ☑	No ☐	
17.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

19. Additional remarks:

Item Information

Item #	Temp ºC
Cooler	10.3
Sample	1.2

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Chain of Custody Record and Laboratory Services Agreement

Fremont Analytical
3600 Fremont Ave N. Tel: 206-352-3790
Seattle, WA 98103 Fax: 206-352-7178

Date: 1/21/2017 Laboratory Project No (internal): 1701237
Page: 1 of: 2

Client: Fulcrum Environmental Consulting
Address: 406 North Second Street
City, State, Zip: Yakima, WA 98901
Telephone: 509.574.0839 Fax: 509.545.8453

Project Name: Kennewick SD Drinking Water - Kamiakin High School
Project No: 162017 Collected by: Amanda Enbysk + Nathan Bostrom
Location: Kamiakin High School, Kennewick, WA
Report To (PM): Ryan Mathews
PM Email: rmathews@efulcrum.net; cc: aenbysk@efulcrum.net

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T)	Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
KMH12117-P-NF-01	1/21/17	1000	DW									⊗						HNO_3 pres.
KMH12117-S-NF-01	↓	↓	↓															HOLD; unpr.
KMH12117-T-NF-01																		HOLD; unpr.
KMH12117-P-WC-06												⊗						HNO_3 pres.
KMH12117-P-KF-13												⊗						↓
KMH12117-P-DF-14												⊗						
KMH12117-S-DF-14																		HOLD; unpreserved
KMH12117-T-DF-14																		HOLD; unpreserved
KMH12117-P-DF-15												⊗						HNO_3 preserved
KMH12117-P-COF-21	↓	↓	↓									⊗						↓

**Metals Analysis (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr (Cu) Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab (Samples will be held for 30 days unless otherwise noted. A fee may be assessed if samples are retained after 30 days.)

Turn-around times for samples received after 4:00pm will begin on the following business day.

Special Remarks: Please preserve all unpreserved samples

TAT: ASAP

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished	Date/Time	Received	Date/Time
x Amanda M Enbysk	1/21/2017; 1600	x	
x Amanda M Enbysk	1/23/2017; 1225	x	1/23/17 1225

TAT → SameDay^ NextDay^ 2 Day 3 Day STD

^Please coordinate with the lab in advance

Distribution: White - Lab, Yellow - File, Pink - Originator

Chain of Custody Record and Laboratory Services Agreement

Fremont Analytical
3600 Fremont Ave N. Seattle, WA 98103
Tel: 206-352-3790 Fax: 206-352-7178

Date: 1/21/2017 Laboratory Project No (internal): _____ Page: 2 of: 2

Client: Fulcrum Environmental Consulting
Address: 406 North Second Street
City, State, Zip: Yakima, WA 98901
Telephone: 509.574.0839 Fax: 509.545.8453

Project Name: Kennewick SD Drinking Water – Kamiakin High School
Project No: 162017 Collected by: Amanda Enbysk & Nathan Bostrom
Location: Kamiakin High School, Kennewick, WA
Report To (PM): Ryan Mathews
PM Email: rmathews@efulcrum.net; cc: aenbysk@efulcrum.net

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
KMH12117-P-DF-30	1/21/17	1000	DW										X				HNO_3 preserved
KMH12117-P-DF-31													X				
KMH12117-P-DF-32													X				
KMH12117-P-KF-35													X				
KMH12117-FS-KF-35																	HOLD; unpreserved
KMH12117-T-KF-35																	HOLD; unpreserved
KMH12117-P-CF-39													X				HNO_3 preserved

**Metals Analysis (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr (Cu) Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

***Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab (Samples will be held for 30 days unless otherwise noted. A fee may be assessed if samples are retained after 30 days.)

Turn-around times for samples received after 4:00pm will begin on the following business day.

Special Remarks: please preserve all unpreserved samples

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Relinquished	Date/Time	Received	Date/Time
x Amanda McEy	1/23/2017; 1225	x	1/23/17 1225

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Chain of Custody Record and Laboratory Services Agreement

Fremont Analytical
3600 Fremont Ave N.
Seattle, WA 98103
Tel: 206-352-3790
Fax: 206-352-7178

Date: 1/21/2017 Laboratory Project No (internal): 1701237

Page: 1 of: 2

Client: Fulcrum Environmental Consulting
Address: 406 North Second Street
City, State, Zip: Yakima, WA 98901
Telephone: 509.574.0839 Fax: 509.545.8453

Project Name: Kennewick SD Drinking Water - Kamiakin High School
Project No: 162017 Collected by: Amanda Enbysk • Nathan Bostrom
Location: Kamiaken High School, Kennewick, WA
Report To (PM): Ryan Mathews
PM Email: rmathews@efulcrum.net; cc: aenbysk@efulcrum.net

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Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) | Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
KMH12117-P-NF-01	1/21/17	1000	DW									⊗					HNO_3 pres.
KMH12117-S-NF-01																	HOLD; unpr.
KMH12117-T-NF-01																	HOLD; unpr.
KMH12117-P-WC-06												⊗					HNO_3 pres.
KMH12117-P-KF-13												⊗					
KMH12117-P-DF-14												⊗					
KMH12117-S-DF-14												⊗					~~HOLD; unpreserved~~ Analyte for Cu CAE 2/2/17
KMH12117-T-DF-14												⊗					~~HOLD; unpreserved~~ Analyte for Cu 2/2/17
KMH12117-P-DF-15												⊗					HNO_3 preserved
KMH12117-P-COF-21	↓	↓	↓									⊗					↓

**Metals Analysis (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr (Cu) Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

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x ~~Amanda M Eybysk~~	~~1/21/2017; 1600~~	x	
x Amanda M Eybysk	1/23/2017; 1225	x [illegible]	1/23/17 1225

Distribution: White - Lab, Yellow - File, Pink - Originator

Chain of Custody Record and Laboratory Services Agreement

Fremont Analytical
3600 Fremont Ave N. Tel: 206-352-3790
Seattle, WA 98103 Fax: 206-352-7178

Date: 1/21/2017 Laboratory Project No (internal):

Page: 2 of: 2

Client: Fulcrum Environmental Consulting
Address: 406 North Second Street
City, State, Zip: Yakima, WA 98901
Telephone: 509.574.0839 Fax: 509.545.8453

Project Name: Kennewick SD Drinking Water – Kamiakin High School
Project No: 162017 Collected by: Amanda Enbysk & Nathan Bostrom
Location: Kamiakin High School, Kennewick, WA
Report To (PM): Ryan Mathews
PM Email: rmathews@efulcrum.net; cc: aenbysk@fulcrum.net

*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	VOCs (EPA 8260 / 624)	GX/BTEX	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - SIM)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T)	Dissolved (D)	Anions (IC)***	EDB (8011)	Comments
KMH12117-P-DF-30	1/21/17	1000	DW										X					HNO_3 preserved
KMH12117-P-DF-31	↓	↓	↓										X					↓
KMH12117-P-DF-32													X					
KMH12117-P-KF-35													X					
KMH12117-DS-KF-35																		HOLD; unpreserved
KMH12117-T-KF-35																		HOLD; unpreserved
KMH12117-P-CF-39													X					HNO_3 preserved

**Metals Analysis (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL *Individual:* Ag Al As B Ba Be Ca Cd Co Cr (Cu) Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl U V Zn

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x [signature]	~~1/21/2017, 1600~~	x	
Relinquished	Date/Time	Received	Date/Time
x [signature]	1/23/2017, 1225	x [signature]	1/23/17 1225

TAT → SameDay^ NextDay^ 2 Day 3 Day STD

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Distribution: White - Lab, Yellow - File, Pink - Originator

3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Fulcrum Environmental
Ryan Mathews
406 N. 2nd Street
Yakima, WA 98901

RE: Kennewick SD Drinking Water - Kamiakin High School
Work Order Number: 1703210

March 21, 2017

Attention Ryan Mathews:

Fremont Analytical, Inc. received 2 sample(s) on 3/20/2017 for the analyses presented in the following report.

Drinking Water Metals by EPA Method 200.8

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Chelsea Ward
Project Manager

CLIENT: Fulcrum Environmental
Project: Kennewick SD Drinking Water - Kamiakin Hi
Work Order: 1703210

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1703210-001	KMH31817-P-DF-14	03/18/2017 9:30 AM	03/20/2017 9:00 AM
1703210-002	KMH31817-P-CF-39	03/18/2017 9:30 AM	03/20/2017 9:00 AM

Case Narrative

WO#: **1703210**
Date: **3/21/2017**

CLIENT: Fulcrum Environmental
Project: Kennewick SD Drinking Water - Kamiakin High School

WorkOrder Narrative:
I. SAMPLE RECEIPT:
Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:
Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:
Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

Prep Sample Comments:
1703210-001A 211547: Prep Comments for EPA200.8, Sample 1703210-001A: 0.00 NTU
1703210-002A 211548: Prep Comments for EPA200.8, Sample 1703210-002A: 0.00 NTU

Qualifiers:

* - Flagged value is not within established control limits
B - Analyte detected in the associated Method Blank
D - Dilution was required
E - Value above quantitation range
H - Holding times for preparation or analysis exceeded
I - Analyte with an internal standard that does not meet established acceptance criteria
J - Analyte detected below Reporting Limit
N - Tentatively Identified Compound (TIC)
Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20% Drift or minimum RRF)
S - Spike recovery outside accepted recovery limits
ND - Not detected at the Reporting Limit
R - High relative percent difference observed

Acronyms:

%Rec - Percent Recovery
CCB - Continued Calibration Blank
CCV - Continued Calibration Verification
DF - Dilution Factor
HEM - Hexane Extractable Material
ICV - Initial Calibration Verification
LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
MB or MBLANK - Method Blank
MDL - Method Detection Limit
MS/MSD - Matrix Spike / Matrix Spike Duplicate
PDS - Post Digestion Spike
Ref Val - Reference Value
RL - Reporting Limit
RPD - Relative Percent Difference
SD - Serial Dilution
SGT - Silica Gel Treatment
SPK - Spike
Surr - Surrogate

Analytical Report

Work Order: **1703210**
Date Reported: **3/21/2017**

CLIENT: Fulcrum Environmental
Project: Kennewick SD Drinking Water - Kamiakin High School

Lab ID: 1703210-001 **Collection Date:** 3/18/2017 9:30:00 AM
Client Sample ID: **KMH31817-P-DF-14** **Matrix:** Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Drinking Water Metals by EPA Method 200.8				Batch ID: 16538		Analyst: MW
Copper	425	0.500		µg/L	1	3/20/2017 4:41:26 PM

Lab ID: 1703210-002 **Collection Date:** 3/18/2017 9:30:00 AM
Client Sample ID: **KMH31817-P-CF-39** **Matrix:** Drinking Water

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
Drinking Water Metals by EPA Method 200.8				Batch ID: 16538		Analyst: MW
Copper	ND	0.500		µg/L	1	3/20/2017 4:45:27 PM

Work Order: 1703210
CLIENT: Fulcrum Environmental
Project: Kennewick SD Drinking Water - Kamiakin H

QC SUMMARY REPORT

Drinking Water Metals by EPA Method 200.8

Sample ID	MB-16538	SampType:	MBLK			Units:	µg/L		Prep Date:	3/20/2017		RunNo:	35047	
Client ID:	MBLKW	Batch ID:	16538						Analysis Date:	3/20/2017		SeqNo:	669901	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Copper		ND	0.500											

Sample ID	LCS-16538	SampType:	LCS			Units:	µg/L		Prep Date:	3/20/2017		RunNo:	35047	
Client ID:	LCSW	Batch ID:	16538						Analysis Date:	3/20/2017		SeqNo:	669902	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Copper		201	0.500	200.0	0	100	85	115						

Sample ID	1703147-001ADUP	SampType:	DUP			Units:	µg/L		Prep Date:	3/20/2017		RunNo:	35047	
Client ID:	BATCH	Batch ID:	16538						Analysis Date:	3/20/2017		SeqNo:	669904	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Copper		8.90	0.500						9.003	1.17	30			

Sample ID	1703147-001AMS	SampType:	MS			Units:	µg/L		Prep Date:	3/20/2017		RunNo:	35047	
Client ID:	BATCH	Batch ID:	16538						Analysis Date:	3/20/2017		SeqNo:	669905	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Copper		215	0.500	200.0	9.003	103	70	130						

Sample ID	1703147-001AMSD	SampType:	MSD			Units:	µg/L		Prep Date:	3/20/2017		RunNo:	35047	
Client ID:	BATCH	Batch ID:	16538						Analysis Date:	3/20/2017		SeqNo:	669906	
Analyte		Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual		
Copper		199	0.500	200.0	9.003	95.2	70	130	214.7	7.38	30			

Sample Log-In Check List

Client Name:	**FE**	Work Order Number:	**1703210**
Logged by:	**Erica Silva**	Date Received:	**3/20/2017 9:00:00 AM**

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	FedEx		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
5.	Custody Seals present on shipping container/cooler? (Refer to comments for Custody Seals not intact)	Yes ☐	No ☑	Not Required ☐
6.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
7.	Were all items received at a temperature of >0°C to 10.0°C*	Yes ☑	No ☐	NA ☐
8.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
10.	Are samples properly preserved?	Yes ☑	No ☐	
11.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
12.	Is there headspace in the VOA vials?	Yes ☐	No ☐	NA ☑
13.	Did all samples containers arrive in good condition(unbroken)?	Yes ☑	No ☐	
14.	Does paperwork match bottle labels?	Yes ☑	No ☐	
15.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
16.	Is it clear what analyses were requested?	Yes ☑	No ☐	
17.	Were all holding times able to be met?	Yes ☑	No ☐	

Special Handling (if applicable)

18.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

19. Additional remarks:

Item Information

Item #	Temp ºC
Cooler	2.9
Sample	1.9

* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C

Chain of Custody Record and Laboratory Services Agreement

Fremont Analytical
3600 Fremont Ave N. Tel: 206-352-3790
Seattle, WA 98103 Fax: 206-352-7178

Date: 3/18/2017 Laboratory Project No (internal): 1703210
Page: 1 of: 1

Client: Fulcrum Environmental Consulting
Address: 406 North Second Street
City, State, Zip: Yakima, WA, 98901
Telephone: 509.574.0839 Fax: 509.575.8453

Project Name: Kennewick SD Drinking Water - Kamiakin High School
Project No: 162017.04 Collected by: Amanda Enbysk
Location: Kamiakin High School, Kennewick, WA
Report To (PM): Ryan Mathews
PM Email: rmathews@efulcrum.net; cc: aenbysk@efulcrum.net

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1	KMH31817-P-DF-14	3/18/2017	0930	DW									⊗				HNO_3 preserved
2	KMH31817-P-CF-39	↓	↓	↓									⊗				↓
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

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x Amanda M Eyb	3/18/2017; 1300	x	3/20/2017 0900
Relinquished	Date/Time	Received	Date/Time
x		x	

TAT → SameDay^ NextDay^ 2 Day 3 Day STD
^Please coordinate with the lab in advance