

November 3, 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 Cottonwood Elementary School, 16734 Cottonwood Creek Boulevard, Kennewick, Washington

Dear Keith:

On Wednesday, December 21, 2016, Fulcrum Environmental Consulting, Inc. (Fulcrum) collected 21 drinking water samples for lead and copper analysis from Cottonwood Elementary School (School) located at 16734 Cottonwood Creek Boulevard in Kennewick, Washington. Initial sampling identified one fixture location with a lead concentration above guidance levels. Fulcrum returned to the School to collect samples after replacement of the fixture and 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-135¹. 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 one sample with a lead concentration of 25 micrograms per liter (μ g/L), above the Environmental Protection Agency (EPA) action level of 15 μ g/L. Upon receipt of results, the District removed the identified fixture from service pending remediation and further testing.

The fixture identified with an elevated lead concentration was replaced and preconditioned by running cold water continuously through the fixture for 24 hours, as specified in WAC 246-366A-130. Following replacement and preconditioning, Fulcrum returned to the School on January 28, 2017 and collected a

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



follow-up sample to confirm the success of fixture replacement. No other fixtures of like style were replaced. Follow-up sampling yielded results below the EPA action level, confirming fixture replacement was successful. Following sampling and review of laboratory results, Fulcrum recommended, and the District elected, to return the fixtures to service. Fulcrum recommended that the District replace all fixtures of like style to those initially identified with elevated lead.

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). Additionally, if WAC 246-366A-130 is enacted, the regulations would require testing of all remaining fixtures within two years of the effective date (July 1, 2017). See Figure 1-A and Figure 1-B 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 occured the following morning, after the fixture sat motionless for more than eight but no less than 18 hours, typically approximately 14 hours.

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 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 locations 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.

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 Figure 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 remedial sampling events are presented in Figure 1-A and Figure 1-B 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 one sample, located in the Teacher's Lounge, with a lead concentration of 25 μ g/L, above the EPA action level of 15 μ g/L. No samples were identified with copper concentrations above the EPA action level of 1,300 μ g/L.

Remedial Sampling

Immediately following receipt of initial sampling results, the District removed the identified fixture from service pending remediation and further testing. To remediate elevated lead concentrations, the District



replaced the identified fixture. Fulcrum returned on January 28, 2017 following fixture replacement and preconditioning to collect follow-up samples from the initially identified fixture. No other fixtures of like style were replaced. See Attachment F for a photograph layout with the identified fixture style.

Analytical results from remedial sampling indicated the fixture replacement was successful at reducing the lead concentration below the action level for the fixture in question.

Recommendations

No samples were found to contain copper concentrations above guidance levels. One initial sample contained lead above the EPA action level of 15 μ g/L. The District replaced the identified fixture with elevated lead and preconditioned the fixture for 24 hours as specified in WAC 246-366A-130. Follow-up sampling demonstrated that the lead concentration was below the action level. Following fixture replacement sampling and review of laboratory results, Fulcrum recommended, and the District elected, to return the fixtures to service. Fulcrum recommends the District replace all fixtures of like style to those initially identified with elevated lead. See Attachment F for a photograph layout of the identified fixture style.

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). Additionally, if WAC 246-366A-130 is enacted, the regulations would require testing of all remaining fixtures within two years of the effective date (July 1, 2017).

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

Sincerely,

Carpyt

Amanda Enbysk, GIT Environmental Geologist

Kyan KMathe

Ryan K. Mathews, CIH, CHMM Principal







ATTACHMENT A

Figure 1-A: Sample Location Map – First Floor Figure 1-B: Sample Location Map – Second Floor

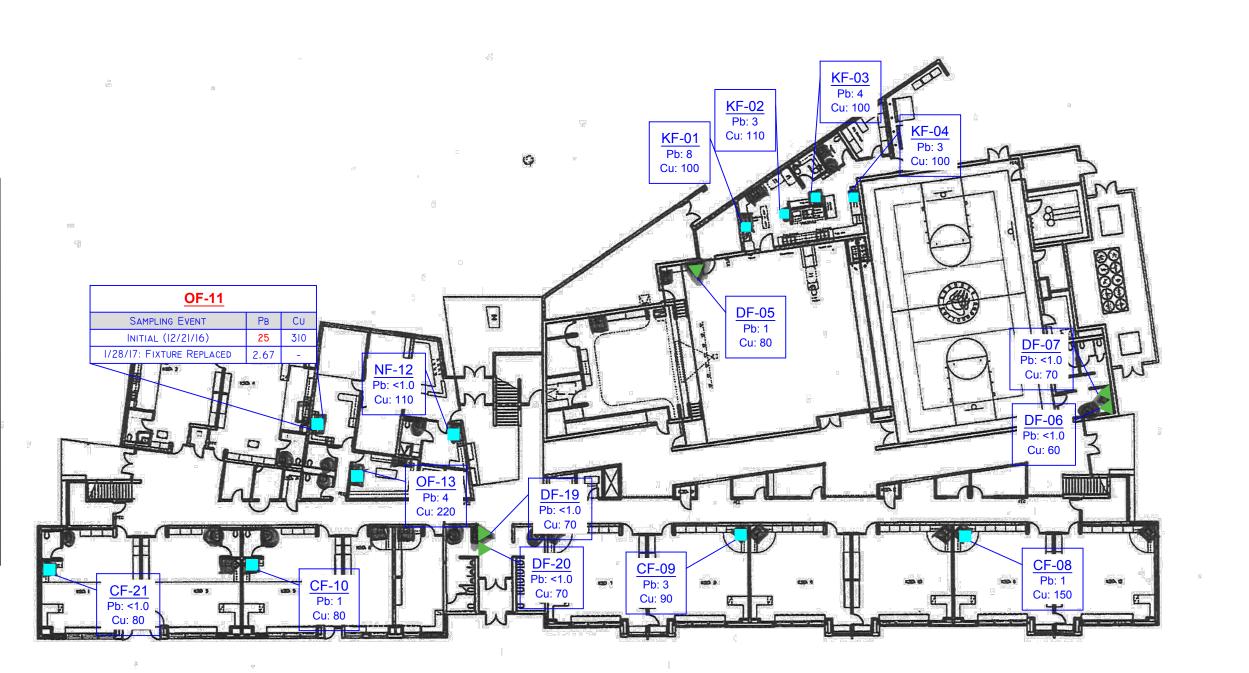


LEGEND KF-## - Kitchen faucet CF-## - Classroom faucet CDF-## - Classroom drinking fountain OF-## - Office faucet WC-## - Water cooler fountain BF-## - Bottle filler fountain NF-## - Nurse's faucet - Sample location: faucet

- 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 μ g/L.

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



Fulcrum Environmental Consulting, Inc.406 North Second Street, Yakima, Washington 98901p: 509.574.0839 f: 509.575.8453 efulcrum.netKennewick SD Drinking Water Sampling. 162017.00. AME. 10252017

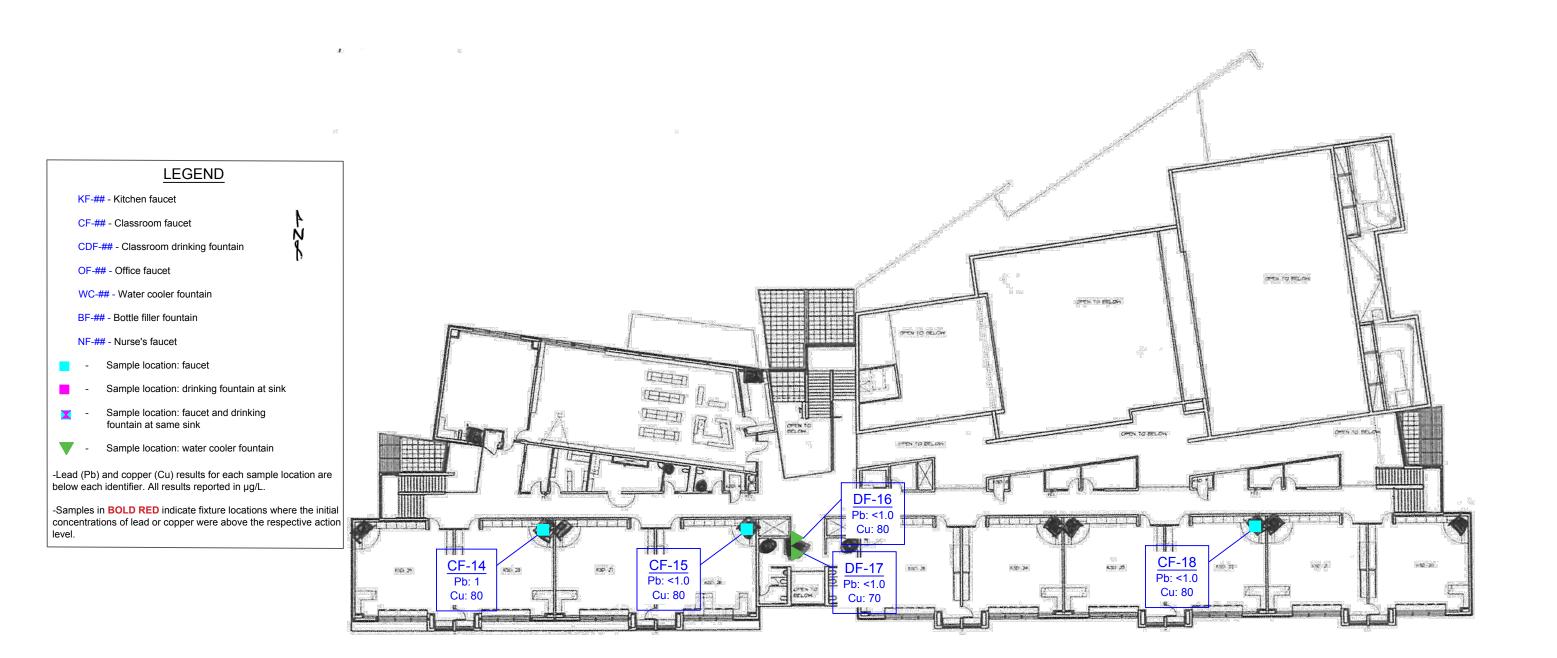
Cottonwood Elementary School 16734 Cottonwood Creek Boulevard Kennewick, Washington

Sample Location Map - First Floor



DRAWING PROVIDED BY KENNEWICK SCHOOL DISTRICT





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. 10252017

Cottonwood Elementary School 16734 Cottonwood Creek Boulevard Kennewick, Washington



DRAWING PROVIDED BY KENNEWICK SCHOOL DISTRICT

Sample Location Map - Second Floor

FIGURE 1**-**B



ATTACHMENT B

Site-Specific Sampling and Analysis Plan





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: Cottonwood Elementary Address: 16734 Cottonwood Creek Boulevard, Kennewick, WA

Elementary	□ Middle School	□ High School	□ Administration	
Date of Construction: _	2010	Modernizations	::N/A	

Fixture Type	Locations	Fixture Styles ¹	Samples	Ratio
Drinking fountain/water cooler (DF/WC)	7	1	7	100%
Kitchen Fixture (KF)	4	3	4	100%
Classroom faucet, including faucets in Food Labs and Life Sciences Classrooms (CF)	21	2	7	33%
Classroom drinking fountain at sink (CDF)	N/A	-	N/A	-
Nurse's Office/Health Room (NF)	1	1	1	100%
Teacher's Lounges/Work Rooms (OF)	4	2	2	50%
TOTALS	38		21	55%

1

Fixture styles are approximate based on sampler's observations

Lead Sampler:	Levi Wyatt	Date: <u>12/21/2016</u>
Sample Prefix:	<u>CWE</u> – <u>122116</u> – <u>P (first-draw)</u> – School Code Date Sample Type Fixture Typ	
Laboratory:	R. J. Lee Group, Columbia Basin Analytical Delive	ery Date: <u>December 21, 2016</u>
Comments:		a



ATTACHMENT C

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





Table 1:	Initial	Sampling	Analytical	Results
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Sample Identification and Location	Fixture Type	Lead Results (µg/L)	Copper Results (µg/L)
CWE122116-P-KF-01: Kitchen, W. wall	Kitchen Faucet	8	100
CWE122116-P-KF-02: Kitchen, Middle island, W. fixture	Kitchen Faucet	3	110
CWE122116-P-KF-03: Kitchen, Middle island, N. fixture	Kitchen Faucet	4	100
CWE122116-P-KF-04: Kitchen, E. wall	Kitchen Faucet	3	100
CWE122116-P-DF-05: Cafeteria	Drinking Fountain	1	80
CWE122116-P-DF-06: East entry, S. fixture	Drinking Fountain	<1.0	60
CWE122116-P-DF-07: East entry, N. fixture	Drinking Fountain	<1.0	70
CWE122116-P-CF-08: Room 11	Classroom Faucet	1	150
CWE122116-P-CF-09: Room 8	Classroom Faucet	3	90
CWE122116-P-CF-10: Room 5	Classroom Faucet	1	80
CWE122116-P-OF-11: Teacher's Lounge	Office Faucet	25	310
CWE122116-P-NF-12: Nurse's Office	Nurse's Faucet	<1.0	110
CWE122116-P-OF-13: Work Room	Office Faucet	4	220
CWE122116-P-CF-14: Room 28	Classroom Faucet	1	80
CWE122116-P-CF-15: Room 26	Classroom Faucet	<1.0	80
CWE122116-P-DF-16: Second Floor, N. fixture	Drinking Fountain	<1.0	80
CWE122116-P-DF-17: Second Floor, S. fixture	Drinking Fountain	<1.0	70
CWE122116-P-CF-18: Room 22	Classroom Faucet	<1.0	80
CWE122116-P-DF-19: S. entry, N. fixture	Drinking Fountain	<1.0	70
CWE122116-P-DF-20: S. entry, S. fixture	Drinking Fountain	<1.0	70
CWE122116-P-DF-21: Room 1	Drinking Fountain	<1.0	80
CWE122116-P-CF-22: Laboratory Spike	Lead and Copper Spike	15	1,200
CWE122116-P-CF-23: Laboratory Blank	Distilled Water Blank	<1.0	10
EPA Action Level		15	1,300

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

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

Table 2: pH and Temperature Data Summary	Table 2:	pH and	Temperature	Data	Summary
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Sample Number	Fixture Type	pH Flush	pH Sample	Temperature (°C) Flush	Temperature (°C) Sample
CWE122116-P-KF-01: Kitchen, W. wall, S. fixture	Kitchen Faucet	8.25	8.20	19.5	21.5
CWE122116-P-KF-04: Kitchen, E. wall	Kitchen Faucet	8.30	8.18	19.1	22.2
CWE122116-P-CF-08: Classroom 11	Classroom Faucet	8.28	8.14	21.6	21.8
CWE122116-P-NF-12: Nurse's office	Nurse's Faucet	8.32	8.24	18.3	20.2
CWE122116-P-DF-16: Second floor, right fixture	Drinking Fountain	8.29	8.31	19.8	21.4
CWE122116-P-DF-20: Near S. entrance, left fixture	Drinking Fountain	8.30	8.20	19.1	20.2



Table 3: Remedial Sampling Analytical Results Summary			
	Sa	mple Identificat	ion
Sampling Event	OF-11	Laboratory Spike (-22)	Laboratory Blank (-23)
Initial (12-21-16)	25	15	<1
Fixture Replacement (1-28-17)	2.67	15.0	<1.00
EPA Action Level	15	15	15

Table 3: Remedial Sampling Analytical Results Summary

1 μ g/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 μ g/L for lead and 1,300 μ g/L for copper Results indicated in *italics* are quality assurance spike and blank samples





ATTACHMENT D

Initial Analytical Results



Winter 2016 – Drinking Water Sampling Results Cottonwood Elementary School, Kennewick, Washington



RJ LeeGroup, 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 23 sample(s) on 12/21/16 for analysis. These sample(s) have been assigned a login order number of W612098. 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.

-Revision is due to a missing qualifier in the summary page. No actual data were impacted.

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:

Project Coordinator II, M. Fernanda Pincheira

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

WWW.RJLEEGROUP.COM

01/11/17

Date

RJ Lee Group No.:W612098

Samples Received: 12/21/16

Analysis/Prep Date: 01/09/17

Report Date: 01/11/17

COC No.: Kennewick



Laboratory Report

Amanda Enbysk

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

Client Project:

Fulcrum Kennewick

Sample Name: RJ Lee Grp. ID:	CWE1221 W612098-	16-P-KF-01 Matrix: Potable W	/ater	Date Receive Date Analyze	
Analyt	e	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8	0.10	0.01	•
Lead		EPA 200.8	0.008	0.001	
Sample Name: RJ Lee Grp. ID:	CWE1221 W612098-	16-P-KF-02 Matrix: Potable W 02	/ater	Date Receive Date Analyze	
Analyt	æ	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8	0.11	0.01	
Lead		EPA 200.8	0.003	0.001	
ample Name: RJ Lee Grp. ID:	CWE1221 W612098-	16-P-KF-03 Matrix: Potable W	/ater	Date Receive Date Analyze	
Analyt	æ	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8	0.10	0.01	
Lead		EPA 200.8	0.004	0.001	
ample Name: IJ Lee Grp. ID:	CWE1221 W612098-	16-P-KF-04 Matrix: Potable W 04	later	Date Receive Date Analyze	
Analyt	e	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8	0.10	0.01	
Lead		EPA 200.8	0.003	0.001	
ample Name: RJ Lee Grp. ID:	CWE1221 W612098-	16-P-DF-05 Matrix: Potable W 05	/ater	Date Receive Date Analyze	
Analyt	e	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
			((8)	
Copper		EPA 200.8	0.08	0.01	

Sample Name: RJ Lee Grp. ID:	CWE1221 W612098-	16-P-DF-06 Matrix: Potable Wat	er	Date Received: Date Analyzed:	12/21/16 01/09/17
Analy	te	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8	0.06	0.01	
Lead		EPA 200.8	< 0.001	0.001	
ample Name: RJ Lee Grp. ID:	CWE1221 W612098-	16-P-DF-07 Matrix: Potable Wat 07	er	Date Received: Date Analyzed:	12/21/16 01/09/17
Analy	te	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8	0.07	0.01	
Lead		EPA 200.8	< 0.001	0.001	
Sample Name: RJ Lee Grp. ID:	CWE1221 W612098-	16-P-CF-08 Matrix: Potable Wat	er	Date Received: Date Analyzed:	12/21/16 01/09/17
Analy	te	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8	0.15	0.01	
Lead		EPA 200.8	0.001	0.001	
ample Name: RJ Lee Grp. ID:	CWE1221 W612098-	16-P-CF-09 Matrix: Potable Wat	er	Date Received: Date Analyzed:	12/21/16 01/09/17
Analy	te	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8	0.09	0.01	
Lead		EPA 200.8	0.003	0.001	
ample Name: RJ Lee Grp. ID:	CWE1221 W612098-	16-P-CF-10 Matrix: Potable Wat	er	Date Received: Date Analyzed:	12/21/16 01/09/17
Analy	te	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
		EPA 200.8	0.08	0.01	
Copper					
Copper Lead		EPA 200.8	0.001	0.001	
	CWE1221 W612098-	16-P-OF-11 Matrix: Potable Wat		0.001 Date Received: Date Analyzed:	12/21/16 01/09/17
Lead ample Name:	W612098-	16-P-OF-11 Matrix: Potable Wat		Date Received:	
Lead ample Name: AJ Lee Grp. ID:	W612098-	16-P-OF-11 Matrix: Potable Wat	er Result	Date Received: Date Analyzed: PQL	01/09/17

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Sample Name: RJ Lee Grp. ID:	CWE1221 W612098-	16-P-NF-12 Matrix: Potable Wat	er	Date Received: Date Analyzed:	
Analy	te	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8	0.11	0.01	
Lead		EPA 200.8	< 0.001	0.001	
Sample Name: RJ Lee Grp. ID:	CWE1221 W612098-	16-P-OF-13 Matrix: Potable Wat	er	Date Received: Date Analyzed:	
Analy	te	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper Lead		EPA 200.8 EPA 200.8	0.22 0.004	0.01 0.001	
ample Name: RJ Lee Grp. ID:	CWE1221 W612098-	16-P-CF-14 Matrix: Potable Wat	er	Date Received: Date Analyzed:	
Analy	te	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8	0.08	0.01	
Lead		EPA 200.8	0.001	0.001	
ample Name: RJ Lee Grp. ID:	CWE1221 W612098-	16-P-CF-15 Matrix: Potable Wat	er	Date Received: Date Analyzed:	
Analy	te	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8	0.08	0.01	
Lead		EPA 200.8	< 0.001	0.001	
ample Name: RJ Lee Grp. ID:	CWE1221 W612098-	16-P-DF-16 Matrix: Potable Wat	er	Date Received: Date Analyzed:	
Analy	te	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8	0.08	0.01	
Lead		EPA 200.8	< 0.001	0.001	
Sample Name: RJ Lee Grp. ID:	CWE1221 W612098-	16-P-DF-17 Matrix: Potable Wat	er	Date Received: Date Analyzed:	
	te	Method	Result	PQL	Qualifiers
Analy			(mg/L)	(mg/L)	
Analy		EPA 200.8	(mg/L) 0.07	(mg/L) 0.01	

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Sample Name: RJ Lee Grp. ID:	CWE1221 W612098-	16-P-CF-18 Matrix: Potable War 18	ter	Date Received: Date Analyzed:	
Analy	te	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8	0.08	0.01	
Lead		EPA 200.8	< 0.001	0.001	
ample Name: RJ Lee Grp. ID:	CWE1221 W612098-	16-P-DF-19 Matrix: Potable Wat 19	ter	Date Received: Date Analyzed:	
Analy	te	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8	0.07	0.01	
Lead		EPA 200.8	< 0.001	0.001	
ample Name: RJ Lee Grp. ID:	CWE1221 W612098-2	16-P-DF-20 Matrix: Potable Wat 20	ter	Date Received: Date Analyzed:	
Analy	te	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper Lead		EPA 200.8 EPA 200.8	0.07 < 0.001	0.01 0.001	
ample Name: AJ Lee Grp. ID:	CWE1221 W612098-2	16-P-CF-21 Matrix: Potable War 21	ter	Date Received: Date Analyzed:	
Analy	te	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8	0.08	0.01	
Lead		EPA 200.8	< 0.001	0.001	
ample Name: RJ Lee Grp. ID:	CWE1221 W612098-2	16-P-CF-22 Matrix: Potable Wat 22	ter	Date Received: Date Analyzed:	
Analy	te	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8	1.2	0.1	Х
Lead		EPA 200.8	0.015	0.001	
ample Name: AJ Lee Grp. ID:	CWE1221 W612098-2	16-P-CF-23 Matrix: Potable War 23	ter	Date Received: Date Analyzed:	
		Method	Result	PQL	Qualifiers
Analy	te		(mg/L)	(mg/L)	
Analy Copper	te	EPA 200.8	(mg/L) 0.01	(mg/L) 0.01	

Columbia Basin Analytical Laboratories | 2710 North 20th Avenue, Pasco WA 93301 | 509.545.4989

Report Qualifiers:

- A = Target Analyte media breakthrough suspect, see analytical report
- D = Analyte analyzed in a dilution
- $E = Report \ concentration \ was \ above \ the \ instrument \ calibration \ range$
- J = Analyte detected below quantitation limits, concentration is estimated
- P = Library spectrum match, rsd >90% w RT match
- $Q = Result \ out \ of \ method \ specific \ acceptance \ QC \ criteria$
- S = Spike Recovery outside accepted recovery limits
- Z = Not ELAP accredited analyte
- ND = Not Detected
 - J. Canon

- B = Analyte detected in the associated blank
- d = Data that exceeds the RSD criteria set by the SOP
- H = Holding times for preparation or analysis exceeded
- $L = Sample \ condition \ at \ receipt \ out \ of \ compliance \ with \ method \ defined \ conditions$
- R = RPD (relative percent difference) outside accepted recovery limits
- $U = Analyte \ analyzed \ for \ but \ not \ detected$
- *N/A* = *Not Applicable*

Scientist III J Grissmerson

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.

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DELIVERING SCIENTIFIC RESOLUTION R LEE GROUP

509.544.6010 Fax 509.545.4989 Phone

724.325.1776 Phone

724.733.1799 Fax

Pasco, WA 99301

Columbia Basin Analytical Laboratories 2710 North 20th Avenue Washington

350 Hochberg Road Monroeville, PA 15146 Pennsylvania - HQ Г

Lab Use Only Report Results	Project No.: Date Logged In: Name: Amanda Enbysk, Ryan Mathews Company: Fulcrum Environmental Cc Address: 406 North 2nd Street City, State, Zip: Yakima, WA, 989	Client No: In: Logged In By: Ida Enbysk, Ryan Mathews Fulcrum Environmental Consulting 406 North 2nd Street p: Yakima, WA, 98901	By:				Turnaround Request Drinking Water Water Sample Only	Stand Sampl Syster DOH S	Standard: Yes Sample Purpose: Inforn System ID #: DOH Source #: Multiple Sources #s:	No ormation X Regul	No If 'No,' No ormation X Regulatory	No ormation X Regul
Results To	City, State, Zip: Yakim Phone: (509) 574-0839	Yakima, WA, 98901 4-0839 Fax:	(509) 575-8453	453			Sample Only	es #s: e: A 🗆	B Other D			, ,
ā	h Vert lesults sults To	enbysk@efulcrum.net, (ews@efulcrum.	net			Chemistry	rvation: s H ₂ SO ₄ HCI		" "	er SW=Surface Water r DW=Drinking Water	
Cond Invoiro	Name: Lorrie Company:	invironmental	Email: lboutillier@efulcrum.net	ım.net			Analysis Ney	HNO ₃ NaOH Other Na ₂ SO ₄	E=Extract		X=Other	Ē
To	Address:	406 North 2nd Street						Analysis Requested	uested	L 1	/N)	/N)
ā	ite, Zij	a, WA, 98901	ו בטט בזב ס	762								on
Special	Phone: (509) 574-0839	4-0839 Fax:	(509) 575-8453	453			EPA					vatio trix
Special Instructions			-				ЕРА 200.8: РЬ, Си				pon Re reserva	
Clie	Client Sample ID	Sample Description	Sample Date	Sample Time	itop	Wipe Area / Air Volume	- - -				Pres. Up Pr	Pr
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CWE/12	JWE122116-P-KPC3	Kitchen										
CUUSIZZ	W512416-P-K7-04	Kitchen										
CLUEDEN	JUERZIN-P-DF-05	Califerna										
CUUE12211	WE1221116 -P-DF-06	Fust enhy										
C(L) & D) 2411	chenzille-p-dr-on	Eust entry										
CUJE122	WE122116-PEF-08	Room II										
CUNENC	WENDAIK-P-CF-09	RoomB										
CWEIZZ	WEIZZING-P-CF 10	from 5										
CUNETR	CWETRY16-1-011	Headinaplicanap	Ś					2			4	4444
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W612098 Rev. 1, Page 7 of 8

ATTENTION TO:

RYAN MATHEWS

Request for Environmental and IH Laboratory Analytical Services

80021

Purchase Order No.:

Client Job No.:

162017

Page

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Pennsylvania - HQ 350 Hochberg Road Monroeville, PA 15146		_	Chain of		Custody	Chain of		WE1221116~	JEIZ	16122	URID	WEIZ	,M215	WEN	WETZ	1212V	WE12:	Clier	Special Instructions		5	Send Invoice				10	TS	Report			Only	0	ATTENTION TO:	
10 oad 15146	Company Name:	Relinquished By (Print Name):	Relinquished By (Signature):	Company Name:	Relinquished By (Print Name):	Relinquished By (Signature) (21th COM	116-F-CF-22	10	WE122116-120F- 26	1.00	CUEIDUL-P-6F-18	WEIZIK-POP IT	WEDZIK-P-DP 16	E1221/6-94915	CLUETIZINOF OF- 14	W3/22/16-4-0F- 13	WE122110-P-NF-12	Client Sample ID		Phone: (509) 574-0839		1	15	Fax Results To:	Email Results To:	Ver	09) 574	e, Zip:		Company: Fulcrum Environmental Co	Date Logged In:	Project No.:		
Washington Columbia Basin Analytical Laboratories 2710 North 20th Avenue Pasco WA 99301		Name):	ture):	tucrum (1	Name): (EW VUN	Interior to an du	Htt room ,	Illium V	South entry	South entry	1200m12_	*	214 FICOT RELO	Room26	1200m 26	Work room	Norse office	Sample Description		-0839 Fax:			-		aenbysk@efulcrum.net, CC: rmathews@efulcrum.net		-0839 Fax:	Yakima, WA, 98901	406 North 2nd Street	Fulcrum Environmental Consulting		Clier	RYAN MATHEWS	
ories	Metho	Reling	Date:	Metho	H Reling		V	-					(control				12/21	Sample Date		(509)		Email: Iboutillier@etulcrum.net			mathews@eful	10001	(509)				Logged In By:	Client No:		
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0		it Name):	nature):	let	IT NUMBER PECL	1 shappen	1														Marcanhau cickipiiu	Dogiochod	E=Extract	GW=Groudwater S=Soil/Sludge	WW=Wastewater	Matrix:	B D Other D					No		
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RJ LEE GROUP						Sill	_		-	2						-		_	рH			-	or tube)											q.

R4_12032015



ATTACHMENT E

Remedial Analytical Results





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 - Cottonwood Elementary Follow-Up Sampling Work Order Number: 1701343

February 08, 2017

Attention Ryan Mathews:

Fremont Analytical, Inc. received 5 sample(s) on 1/30/2017 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

DoD/ELAP Certification #L2371, ISO/IEC 17025:2005 ORELAP Certification: WA 100009-007 (NELAP Recognized)



CLIENT: Project: Work Order:	Fulcrum Environmental Kennewick SD - Cottonwood Elementary F 1701343		Sample Summary
Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1701343-001	CWE12817-P-OF-11	01/28/2017 9:30 AM	01/30/2017 9:40 AM

1701343-002	CWE12817-S-OF-11
1701343-003	CWE12817-T-OF-11
1701343-004	CWE12817-P-CF-22
1701343-005	CWE12817-P-CF-23

Date/Time Collected	Date/Time Received
01/28/2017 9:30 AM	01/30/2017 9:40 AM
01/28/2017 9:30 AM	01/30/2017 9:40 AM
01/28/2017 9:30 AM	01/30/2017 9:40 AM
01/28/2017 9:30 AM	01/30/2017 9:40 AM
01/28/2017 9:30 AM	01/30/2017 9:40 AM



Case Narrative

WO#: **1701343** Date: **2/8/2017**

CLIENT: Fulcrum Environmental

Project: Kennewick SD - Cottonwood Elementary Follow-Up Sampling

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:

1701343-001A 205374: Prep Comments for EPA200.8, Sample 1701343-001A: Turbidity: 0.04 NTU 1701343-004A 205375: Prep Comments for EPA200.8, Sample 1701343-004A: Turbidity: 0.07 NTU 1701343-005A 205376: Prep Comments for EPA200.8, Sample 1701343-005A: Turbidity: 0.10 NTU

Qualifiers & Acronyms



WO#: **1701343** Date Reported: **2/8/2017**

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:
 1701343

 Date Reported:
 2/8/2017

CLIENT: Fulcrum Environmental

Project: Kennewick SD - Cottonwood Elementary Follow-Up Sampling

Lab ID: 1701343-001 Client Sample ID: CWE12817-P-0	DF-11		Collectior Matrix: D		1/28/2017 9:30:00 AM Water
Analyses	Result	RL Qual	Units	DF	Date Analyzed
Drinking Water Metals by EPA Met	<u>hod 200.8</u>		Batch	n ID: 16	138 Analyst: TN
Lead	2.67	1.00	μg/L	1	2/6/2017 6:54:58 PM

Lab ID: 1701343-004 Client Sample ID: CWE1281	7-P-CF-22		Collection Matrix:		1/28/2017 9:30:00 AM Water
Analyses	Result	RL Qual	Units	DF	Date Analyzed
Drinking Water Metals by EPA	Method 200.8		Batc	h ID: 16 [.]	138 Analyst: TN
Lead	15.0	1.00	μg/L	1	2/6/2017 6:58:35 PM
Lab ID: 1701343-005 Client Sample ID: CWE1281	7-P-CF-23		Collection Matrix: [1/28/2017 9:30:00 AM Water
Analyses	Bacult		Unite	DE	Data Analyzad

Analyses	Result	RL Qual	Units	DF	Date Analyzed	
Drinking Water Metals by EPA	Method 200.8		Batch	n ID: 16	138 Analyst: TN	
Lead	ND	1.00	µg/L	1	2/6/2017 7:02:11 PM	



Work Order:	1701343									2.00	SUMMA	RY RFF	ORT
CLIENT:	Fulcrum Environr	nental							Duindain	•			-
Project:	Kennewick SD - (Cotton	wood Eleme	entary F	o				Drinkin	g Water Me	tais by EP	A wetho	a 200.8
Sample ID MB-1613	38 Sa	mpType	MBLK			Units: µg/L		Prep Dat	te: 2/6/201	17	RunNo: 342	292	
Client ID: MBLKW	l Ba	tch ID:	16138					Analysis Dat	te: 2/6/20	17	SeqNo: 653	3845	
Analyte		F	lesult	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead			ND	1.00									
Sample ID LCS-161	138 Sa	трТуре	LCS			Units: µg/L		Prep Dat	te: 2/6/201	17	RunNo: 342	292	
Client ID: LCSW	Ba	tch ID:	16138					Analysis Dat	te: 2/6/20	17	SeqNo: 653	3846	
Analyte		F	lesult	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead			50.3	1.00	50.00	0	101	85	115				
Sample ID 1701297	-003ADUP Sa	трТуре	DUP			Units: µg/L		Prep Dat	te: 2/6/201	17	RunNo: 342	292	
Client ID: BATCH	Ba	tch ID:	16138					Analysis Dat	te: 2/6/20	17	SeqNo: 653	3848	
Analyte		F	lesult	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead			5.02	1.00						5.257	4.58	30	
Sample ID 1701297	7-003AMS Sa	трТуре	MS			Units: µg/L		Prep Dar	te: 2/6/201	17	RunNo: 342	292	
Client ID: BATCH	Ba	tch ID:	16138					Analysis Dat	te: 2/6/20 [,]	17	SeqNo: 653	3849	
Analyte		F	lesult	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead			108	1.00	100.0	5.257	103	70	130				
Sample ID 1701297	7-003AMSD Sa	mpType	MSD			Units: µg/L		Prep Dat	te: 2/6/201	17	RunNo: 342	292	
Client ID: BATCH	Ва	tch ID:	16138					Analysis Dat	te: 2/6/20	17	SeqNo: 653	3850	
Analyte		F	lesult	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead			99.4	1.00	100.0	5.257	94.1	70	130	108.0	8.26	30	



Sample Log-In Check List

С	lient Name:	FE	Work Order Num	ber: 1701343		
Lo	ogged by:	Erica Silva	Date Received:	1/30/2017	' 9:40:00 AM	
<u>Cha</u>	ain of Cust	ody				
1.	Is Chain of C	ustody complete?	Yes 🖌	No 🗌	Not Present	
2.	How was the	sample delivered?	<u>FedEx</u>			
Log	<u>In</u>					
-	Coolers are p	present?	Yes 🖌	No 🗌		
						
		tainer/cooler in good condition?	Yes 🗸	No 🗌		
5.		Is present on shipping container/cooler? nments for Custody Seals not intact)	Yes	No 🗹	Not Required	
6.	Was an atter	npt made to cool the samples?	Yes 🖌	No 🗌		
7.	Were all item	as received at a temperature of >0°C to 10.0°C*	Yes 🖌	No 🗌		
8.	Sample(s) in	proper container(s)?	Yes 🖌	No 🗌		
9.	Sufficient sar	nple volume for indicated test(s)?	Yes 🖌	No 🗌		
10.	Are samples	properly preserved?	Yes 🖌	No 🗌		
-		ative added to bottles?	Yes 🖌	No 🗌	NA 🗌	
					HNO3	
12.	Is there head	lspace in the VOA vials?	Yes	No 🗌	NA 🔽	
13.	Did all sampl	es containers arrive in good condition(unbroken)?	Yes 🗹	No 🗌		
14.	Does paperw	vork match bottle labels?	Yes 🗹	No 🗌		
15.	Are matrices	correctly identified on Chain of Custody?	Yes 🖌	No 🗌		
16.	Is it clear what	at analyses were requested?	Yes 🖌	No 🗌		
17.	Were all hold	ling times able to be met?	Yes 🖌	No 🗌		
<u>Spe</u>	ecial Handl	ing (if applicable)				
-		otified of all discrepancies with this order?	Yes	No 🗌	NA 🔽	
	Person	Notified: Date				
	By Who	vm: Via:	eMail Ph	ione 🗌 Fax	In Person	
	Regardi	ing:				
	Client Ir	nstructions:				
19.	Additional rer	marks:				

Samples were in a cooler that was not delivered on-time. Samples were received on 2/3/17.

Item Information

Item #	Temp ⁰C
Cooler	8.9
Sample	9.1

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

	MGX 1/20/;	I represent that I am authorized to enter into this Agreement with Fremont Analyticat on behalf of the Client named above, that I have agreement to each of the terms on the front and backside of this Agreement.	Sample Disposal: Return to Client Disposal by Lab (Samples will be held for 30 da assessed if samples are retained after 30 days.	****Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide	**Metals Analysis (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL	Maria and Arristical Arristic and Arristic and Arristic and Arristic and Arristic			CwE12817-P-4222 1 1	CWE 12917-R-CK-221	CWE 12817-T-OF1	Curi 12817-5-08-11 1 1 1	(4-E12817-P-0E-11 1/28/2017 0930 DW	Sample Name Sample Date Time (Matrix)*		a series and the series of the se	*Matrix Codes: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = So	Telephone: 509.574.0839 Fax: 509.545.8453	City, State, Zip: Yakima, WA 98901	Address: 406 North Second Street	Client: Fulcrum Environmental Consulting	Seattle, WA 98103 Fax: 206-352-7178	3600 Fremont Ave N. Tel: 206-352-3790	Analytical	Fremont
x Vate/Ime	VACVI	ont Analyticat on behalf of the Client named above, that I have verified Client's nt.	Disposal by Lab (Samples will be held for 30 days unless otherwise noted. A fee may be on the following business day. assessed if samples are retained after 30 days.)	O-Phosphate Fluoride Nitrate+Nitrite	L Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na							×		PC ED	C 23 60 10 10 10 10 10 10 10 10 10 10 10 10 10	12 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ing Water, GW	453 PM Email: rmathews@efulcrum.net; cc: aenbysk@efulcrum.net	Report To (PM):	Location: Cottonwood Elementary School, Kennewick, WA	162017	Project Name: Kennewick SD - Cottonwood Ele		Date: 1/28/2017	Chain of Custody Record and
TAT → SameDay ^A NextDay ^A 2 Day 3 Day STD ^{AP} lease coordinate with the lab in advance			day. Alose preserve all unpreserved soupus		a Ni Pb Sb Se Sr Sn Ti TI U V Zn				K-	Analyze Pre HNOS	F	HOW, NO HNO,	knalyze; pre-preserved	Comments			= Ground Water, SW = Storm Water, WW = Waste Water	ysk@efulcrum.net		0	Collected by: Corn Love t	- Cottonwood Elementary Follow-Up Sampling	Page: of:	Laboratory Project No (internal): 1701343 of	Chain of Custody Record and Laboratory Services Agreement



ATTACHMENT F

Fixture Style Photographs



Winter 2016 – Drinking Water Sampling Results Cottonwood Elementary School, Kennewick, Washington





Sample CWE122116-P-OF-11: **25 µg/L** initial lead concentration. Fixture style above is identified producing elevated lead concentrations.



Sample CWE122116-P-OF-11: 4 μ g/L initial lead concentration. Same fixture style as initial sample with elevated lead concentration.

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