

November 6, 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 Edison Elementary School, 201 South Dawes Street, Kennewick, Washington

Dear Keith:

On Thursday, December 22, 2016, Fulcrum Environmental Consulting, Inc. (Fulcrum) collected 44 drinking water samples for lead and copper analysis from Edison Elementary School (School) located at 201 South Dawes Street in Kennewick, Washington. Initial sampling identified 26 fixture locations with copper concentrations above the guidance levels. Fulcrum returned to the School on 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-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 22, 2016. Initial results identified 26 samples with copper concentrations above the Environmental Protection Agency (EPA) action level of 1,300 micrograms per liter (μ g/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. Fulcrum returned on March 4, 2017 and collected samples to evaluate the success of the remediation. Follow-up samples yielded results confirming the remediation was

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



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). 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 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.



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.



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 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 26 samples with copper concentrations above the EPA action level of 1,300 μ g/L. No samples were identified with lead concentrations above the EPA action level of 15 μ g/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 an aggressive flush of the fixtures. Fulcrum returned on the morning following the aggressive flush, March 4, 2017, to collect follow-up samples.

Analytical results from remedial sampling indicated the aggressive flush 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 the EPA action level of 15 μ g/L. A total of 26 initial samples contained copper above the EPA action level of 1,300 μ g/L. The District completed an aggressive flush to reduce the copper concentration of the fixtures and follow-up samples yielded results below the action level, confirming the remediation was 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). 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,

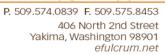
Emando Cubyt

Amanda Enbysk, GIT Environmental Geologist

kyan KMathen

Ryan K. Mathews, CIH, CHMM Principal



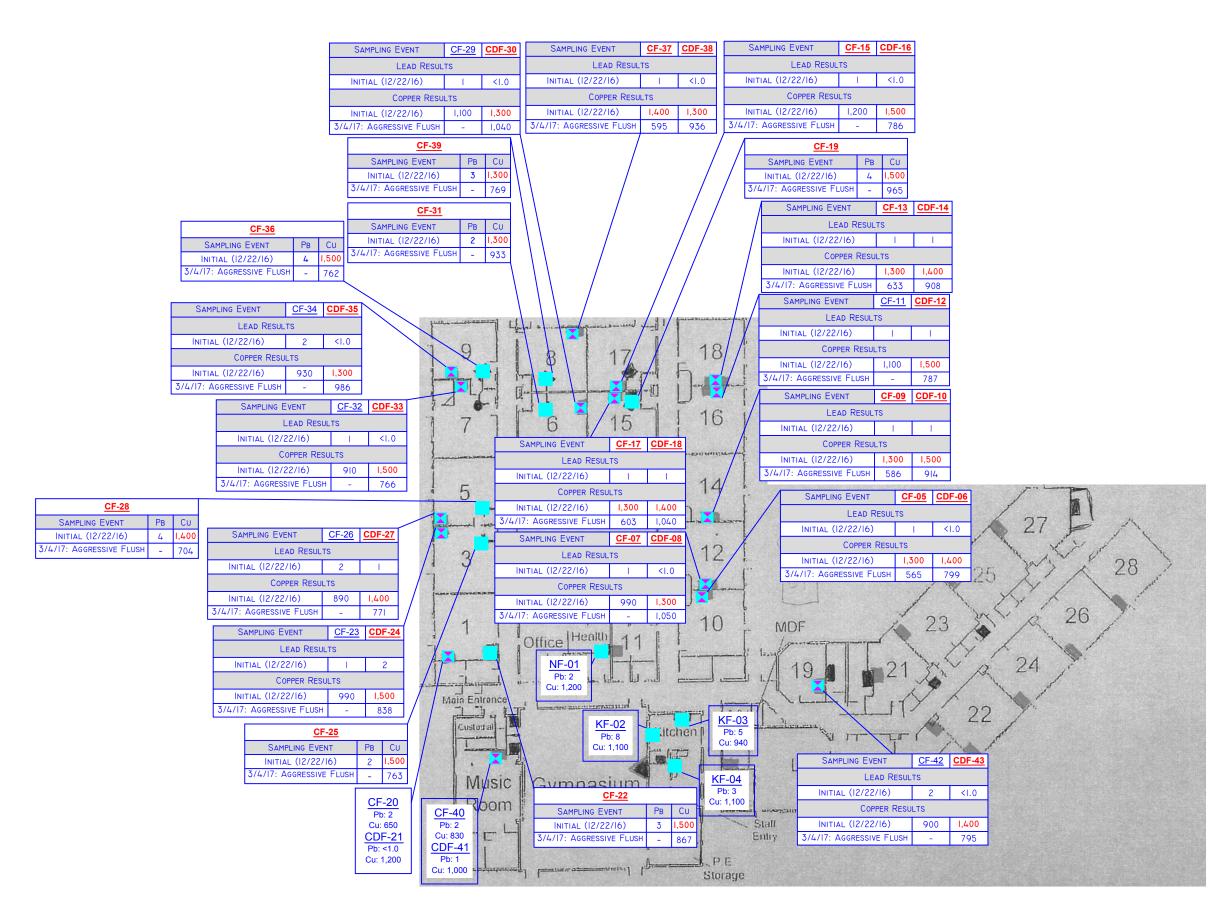




ATTACHMENT A

Figure 1: Sample Location Map





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. 11022017

Edison Elementary School 201 South Dawes Street Kennewick, Washington



ach identifier. All results reported in μg/L. Samples in BOLD RED indicate fixture locations where the initial			LEGEND
 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 		KF-#	# - Kitchen faucet
 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 		CF-#	# - Classroom 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 		CDF	-## - Classroom drinking 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 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 		OF-#	## - Office faucet
 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 		WC-	## - Water cooler fountain
 Sample location: faucet Sample location: drinking fountain at sink Sample location: faucet and drinking fountain at same sink Sample location: water cooler fountain 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 		BF-#	# - Bottle filler fountain
 Sample location: drinking fountain at sink Sample location: faucet and drinking fountain at same sink Sample location: water cooler fountain 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 		NF-#	# - Nurse's faucet
 Sample location: faucet and drinking fountain at same sink Sample location: water cooler fountain 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 		-	Sample location: faucet
 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 		-	Sample location: drinking fountain at sink
-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	X	-	Sample location: faucet and drinking fountain at same sink
each identifier. All results reported in μg/L. -Samples in BOLD RED indicate fixture locations where the initial	▼	-	Sample location: water cooler fountain
-Samples in BOLD RED indicate fixture locations where the initial concentrations of lead or copper were above the respective action level			
		•	

DRAWING PROVIDED BY KENNEWICK SCHOOL DISTRICT

FIGURE

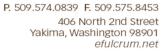
1

Sample Location Map



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/Building:	Edison Elementary So	chool Address: 20	1 S. Dawes Street, Kennewick WA
Elementary	□ Middle School	□ High School	□ Administration
Date of Construction:	1960	Modernizati	ons: <u>1977; 2001</u>

Fixture Type	Locations	Fixture Styles ¹	Samples	Ratio
Drinking fountain/water cooler (DF/WC)	2	-	0	0%
Kitchen Fixture (KF)	3	3	3	100%
Classroom faucet, including faucets in Food Labs and Life Sciences Classrooms (CF)	25	2 (3)	17 (24)*	68%
Classroom drinking fountain at sink (CDF)	27	1	16	59%
Nurse's Office/Health Room (NF)	1	1	1	100%
Teacher's Lounges/Work Rooms (OF)	2	-	0	0%
TOTALS	60		37 (44)	62%

1

Fixture styles are approximate based on sampler's observations

Lead Sampler:	Logan Lo	pez			Date	e: <u>10/11/2017</u>
Sample Prefix:	EDE – School Code		- <u>P (first-draw)</u> – Sample Type			mber
Laboratory:	R. J. Lee Group,	<u>Columbia</u>	Basin Analytica	Delivery	Date: <u>Dece</u>	ember 22, 2016
Comments:						a
*Samples colle	cted from hand wa	ish fixture	s. Total samples	marked "CF" is	s 24	



ATTACHMENT C

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

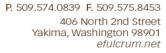




Table 1: Initial Sampling Analytical Results

Sample Identification and Location	Fixture Type	Lead Results (µg/L)	Copper Results (µg/L)
122216-EDE-P-NF-01: Nurse's Office	Nurse's Faucet	2	1,200
122216-EDE-P-KF-02: Kitchen, West Wall	Kitchen Faucet	8	1,100
122216-EDE-P-KF-03: Kitchen, North Wall	Kitchen Faucet	5	940
122216-EDE-P-KF-04: Kitchen, South Section	Kitchen Faucet	3	1,100
122216-EDE-P-CF-05: Room 10	Classroom Faucet	1	1,300
122216-EDE-P-CDF-06 : Room 10	Classroom Drinking Fountain	<1.0	1,400
122216-EDE-P-CF-07: Room 12	Classroom Faucet	1	990
122216-EDE-P-CDF-08: Room 12	Classroom Drinking Fountain	<1.0	1,300
122216-EDE-P-CF-09: Room 14	Classroom Faucet	1	1,300
122216-EDE-P-CDF-10: Room 14	Classroom Drinking Fountain	1	1,500
122216-EDE-P-CF-11: Room 16	Classroom Faucet	1	1,100
122216-EDE-P-CDF-12: Room 16	Classroom Drinking Fountain	1	1,500
122216-EDE-P-CF-13: Room 18	Classroom Faucet	1	1,300
122216-EDE-P-CDF-14: Room 18	Classroom Drinking Fountain	1	1,400
122216-EDE-P-CF-15: Room 17	Classroom Faucet	1	1,200
122216-EDE-P-CDF-16: Room 17	Classroom Drinking Fountain	<1.0	1,500
122216-EDE-P-CF-17: Room 15	Classroom Faucet	<1.0	1,300
122216-EDE-P-CDF-18: Room 15	Classroom Drinking Fountain	<1.0	1,400
122216-EDE-P-CF-19: Room 15	Classroom Faucet	4	1,500
122216-EDE-P-CF-20 : Room 1	Classroom Faucet	2	650
122216-EDE-P-CDF-21: Room 1	Classroom Drinking Fountain	<1.0	1,200
122216-EDE-P-CF-22: Room 1	Classroom Faucet	3	1,500
122216-EDE-P-CF-23: Room 3	Classroom Faucet	1	990
122216-EDE-P-CDF-24: Room 3	Classroom Drinking Fountain	2	1,500
122216-EDE-P-CF-25: Room 3	Classroom Faucet	2	1,500
122216-EDE-P-CF-26: Room 5	Classroom Faucet	2	890
122216-EDE-P-CDF-27: Room 5	Classroom Drinking Fountain	1	1,400
122216-EDE-P-CF-28: Room 5	Classroom Faucet	4	1,400
122216-EDE-P-CF-29: Room 6	Classroom Faucet	1	1,100
122216-EDE-P-CDF-30: Room 6	Classroom Drinking Fountain	<1.0	1,300
122216-EDE-P-CF-31: Room 6	Classroom Faucet	2	1,300
122216-EDE-P-CF-32: Room 7	Classroom Faucet	1	910
122216-EDE-P-CDF-33: Room 7	Classroom Drinking Fountain	<1.0	1,500
122216-EDE-P-CF-34: Room 9	Classroom Faucet	2	930
122216-EDE-P-CDF-35: Room 9	Classroom Drinking Fountain	<1.0	1,300 c
122216-EDE-P-CF-36: Room 9	Classroom Faucet	4	1,500
122216-EDE-P-CF-37: Room 8	Classroom Faucet	<1.0	1,400
122216-EDE-P-CDF-38: Room 8	Classroom Drinking Fountain	<1.0	1,300



Sample Identification and Location	Fixture Type	Lead Results (µg/L)	Copper Results (µg/L)
122216-EDE-P-CF-39: Room 8	Classroom Faucet	3	1,300
122216-EDE-P-CF-40: Music Room	Classroom Faucet	2	830
122216-EDE-P-CDF-41: Music Room	Classroom Drinking Fountain	1	1,000
122216-EDE-P-CF-42: Room 19	Classroom Faucet	2	900
122216-EDE-P-CDF-43: Room 19	Classroom Drinking Fountain	<1.0	1,400
122216-EDE-P-CF-44: Room 21	Classroom Faucet	2	1,200
122216-EDE-P-KF-45: Laboratory Blank	Distilled Water Blank	<1.0	<10
122216-EDE-P-DF-46: Laboratory Spike	Lead and Copper Spike	16	1,300
EPA Action Level	·	15	1,300

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 $15 \,\mu$ g/L for lead and 1,300 μ g/L for copper Results indicated in *italics* are quality assurance spike and blank samples.

Tab	le 2: pH and T	Semperature Data	Summary

Sample Number		pН	pН	Temperature	Temperature
Sample Number	Fixture Type	Flush	Sample	(°C) Flush	(°C) Sample
122216-EDE-P-NF-01: Nurse's Office	Nurse's Faucet	7.91	7.76	20.0	19.1
122216-EDE-P-CF-05: Room 10	Classroom Faucet	7.66	7.65	22.3	21.5
122216-EDE-P-CF-09: Room 14	Classroom Faucet	7.69	7.72	21.5	21.8
122216-EDE-P-CF-13: Room 18	Classroom Faucet	7.55	7.67	21.9	22.0
122216-EDE-P-CF-17: Room 15	Classroom Faucet	7.77	7.70	21.1	21.8
122216-EDE-P-CDF-21: Room 1	Classroom Drinking Fountain	7.70	7.81	20.0	19.0
122216-EDE-P-CF-25: Room 3	Classroom Faucet	7.70	7.89	19.5	19.4
122216-EDE-P-CF-29: Room 6	Classroom Faucet	7.83	7.73	21.2	19.5
122216-EDE-P-CDF-33: Room 7	Classroom Drinking Fountain	7.65	7.77	20.1	20.1
122216-EDE-P-CDF-33: Room 7	Classroom Faucet	7.78	7.76	20.1	19.9
122216-EDE-P-CDF-41: Music Room	Classroom Drinking Fountain	7.67	7.68	20.8	21.2

Table 3: Remedial Sampling Analytical Results

		Sample Identification											entificat															
Sampling Event	CF-05	CDF-06	CDF-08	CF-09	CDF-10	CDF-12	CF-13	CDF-14	CDF-16	CF-17	CDF-18	CF-19	CF-22	CDF-24	CF-25	CDF-27	CF-28	CDF-30	CF-31	CDF-33	CDF-35	CF-36	CF-37	CDF-38	CF-39	CDF-43	Laboratory Blank (-45)	Laboratory Spike (46)
Initial (12/22/16)	1,300	1,400	1,300	1,300	1,500	1,500	1,300	1,400	1,500	1,300	1,400	1,500	1,500	1,500	1,500	1,400	1,400	1,300	1,300	1,500	1,300	1,500	1,400	1,300	1,300	1,400	<10	1,300
Aggressive Flush (3/4/17)	565	799	1,050	586	914	787	633	908	786	603	1,040	965	867	838	763	771	704	1,040	933	766	986	762	595	936	769	795	0.524	1,110
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	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300

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 Edison Elementary School, Kennewick, Washington



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

Subject: Chemical Analysis Report

Columbia Basin Analytical Laboratories received 46 sample(s) on 12/22/16 for analysis. These sample(s) have been assigned a login order number of W612124. 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. Samples that exceeded the instrument calibration range were rerun at a 1:100 dilution, necessitating a 10-fold increase in the PQL. Each is noted with an "X" qualifier.

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:

Z

Project Coordinator II, M. Fernanda Pincheira

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

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

WWW.RJLEEGROUP.COM

02/22/17

Date

RJ Lee Group No.:W612124

Report Date: 02/22/17

Samples Received: 12/22/16

Analysis/Prep Date: 02/21/17

COC No.: Kennewick



Laboratory Report

R	yan	Ma	ath	ews	
-			-		

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

Client Project:

Fulcrum Kennewick

Sample Name: RJ Lee Grp. ID:	122216-EI W612124-	DE-P-NF-01 Matrix: Pot	able Water		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		0.002	0.001	
ample Name: RJ Lee Grp. ID:	122216-EI W612124-	DE-P-KF-02 Matrix: Pot	able Water		Date Received Date Analyzed	
Analy	te	Method		Result mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8		1.1	0.1	Х
Lead		EPA 200.8		0.008	0.001	
ample Name: RJ Lee Grp. ID:	122216-EI W612124-	DE-P-KF-03 Matrix: Pot	able Water		Date Received Date Analyzed	
Analy	te	Method		Result mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8		0.94	0.01	
Lead		EPA 200.8		0.005	0.001	
ample Name: 3J Lee Grp. ID:	122216-EI W612124-	DE-P-KF-04 Matrix: Pot 04	able Water		Date Received: Date Analyzed:	
Analy	te	Method		Result mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8		1.1	0.1	Х
Lead		EPA 200.8		0.003	0.001	
ample Name: 3J Lee Grp. ID:	122216-EI W612124-	DE-P-CF-05 Matrix: Pot	able Water		Date Received Date Analyzed	
Analy	te	Method		Result mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8		1.3	0.1	Х
Lead		EPA 200.8		0.001	0.001	

Sample Name:	122216-ED	E-P-CDF-06Matrix: Potab	le Water	Date Received	: 12/22/16
RJ Lee Grp. ID:	W612124-)6		Date Analyzed	: 02/21/17
Analyt	æ	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8	1.4	0.1	Х
Lead		EPA 200.8	< 0.0010	0.001	
Sample Name: RJ Lee Grp. ID:	122216-ED W612124-(PE-P-CF-07 Matrix: Potab 07	le Water	Date Received Date Analyzed	
Analyt	e	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8	0.99	0.01	
Lead		EPA 200.8	0.001	0.001	
Sample Name: RJ Lee Grp. ID:	122216-ED W612124-(PE-P-CDF-08 Matrix: Potab 08	le Water	Date Received Date Analyzed	
Analyt	æ	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8	1.3	0.1	Х
Lead		EPA 200.8	< 0.0010	0.001	
Sample Name: RJ Lee Grp. ID:	122216-ED W612124-(PE-P-CF-09 Matrix: Potab 09	le Water	Date Received Date Analyzed	
Analyt	e	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8	1.3	0.1	Х
Lead		EPA 200.8	< 0.0010	0.001	
Sample Name: RJ Lee Grp. ID:	122216-ED W612124-	PE-P-CDF-10 Matrix: Potab 10	le Water	Date Received Date Analyzed	
Analyt	e	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8	1.5	0.1	Х
Lead		EPA 200.8	< 0.0010	0.001	
Sample Name: RJ Lee Grp. ID:	122216-ED W612124-	PE-P-CF-11 Matrix: Potab	le Water	Date Received Date Analyzed	
Analyt	e	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8	1.1	0.1	Х
Lead		EPA 200.8	0.001	0.001	

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

Sample Name:	122216 FI	DE D CDE 12		Date Received	: 12/22/16
RJ Lee Grp. ID:	W612124-	DE-P-CDF-12 Matrix: Potable Wat 12	er	Date Analyzed	
Analy	te	Method	Result	PQL	Qualifiers
			(mg/L)	(mg/L)	
Copper		EPA 200.8	1.5	0.1	Х
Lead		EPA 200.8	< 0.0010	0.001	
Sample Name:	122216-EI	DE-P-CF-13 Matrix: Potable Wat	er	Date Received	: 12/22/16
RJ Lee Grp. ID:	W612124-	13		Date Analyzed	: 02/21/17
Analy	te	Method	Result	PQL	Qualifiers
			(mg/L)	(mg/L)	
Copper		EPA 200.8	1.3	0.1	Х
Lead		EPA 200.8	0.001	0.001	
Sample Name:	122216-EI	DE-P-CDF-14 Matrix: Potable Wat	er	Date Received	: 12/22/16
RJ Lee Grp. ID:	W612124-	14		Date Analyzed	: 02/21/17
Analy	te	Method	Result	PQL	Qualifiers
			(mg/L)	(mg/L)	
Copper		EPA 200.8	1.4	0.1	Х
Lead		EPA 200.8	< 0.0010	0.001	
Sample Name:	122216-EI	DE-P-CF-15 Matrix: Potable Wat	an	Date Received	: 12/22/16
RJ Lee Grp. ID:	W612124-		CI	Date Analyzed	: 02/21/17
Analy	te	Method	Result	PQL	Qualifiers
			(mg/L)	(mg/L)	
Copper		EPA 200.8	1.2	0.1	Х
Lead		EPA 200.8	0.001	0.001	
Sample Name:	122216-EI	DE-P-CDF-16 Matrix: Potable Wat		Date Received	: 12/22/16
RJ Lee Grp. ID:	W612124-	16	er	Date Analyzed	: 02/21/17
Analy	te	Method	Result	PQL	Qualifiers
·			(mg/L)	(mg/L)	
Copper		EPA 200.8	1.5	0.1	Х
Lead		EPA 200.8	< 0.0010	0.001	
Sample Name:	122216-FI	DE-P-CF-17 Matrix, Potable Wat		Date Received	: 12/22/16
RJ Lee Grp. ID:	W612124-	Mairix. I blable wat	er	Date Analyzed	
Analy	te	Method	Result	PQL	Qualifiers
			(mg/L)	(mg/L)	
Copper		EPA 200.8	1.3	0.1	Х
Lead		EPA 200.8	0.001	0.001	

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

Sample Name: RJ Lee Grp. ID:	122216-ED W612124-	DE-P-CDF-18 Matrix: Potable Wa	ıter	Date Received Date Analyzed	
Analyt	e	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper Lead		EPA 200.8 EPA 200.8	1.4 < 0.0010	0.1 0.001	Х
Sample Name: RJ Lee Grp. ID:	122216-ED W612124-	DE-P-CF-19 Matrix: Potable Wa	iter	Date Received Date Analyzed	
Analyt	e	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper Lead		EPA 200.8 EPA 200.8	1.5 0.004	0.1 0.001	Х
Sample Name: RJ Lee Grp. ID:	122216-ED W612124-2	DE-P-CF-20 Matrix: Potable Wa	iter	Date Received Date Analyzed	
Analyt	e	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper Lead		EPA 200.8 EPA 200.8	0.65	0.01	
Sample Name: RJ Lee Grp. ID:	122216-ED W612124-2	DE-P-CDF-21 Matrix: Potable Wa	ıter	Date Received Date Analyzed	
Analyt	e	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper Lead		EPA 200.8 EPA 200.8	1.2 < 0.0010	0.1 0.001	Х
Sample Name: RJ Lee Grp. ID:	122216-ED W612124-2	DE-P-CF-22 Matrix: Potable Wa	iter	Date Received Date Analyzed	
Analyt	e	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper Lead		EPA 200.8 EPA 200.8	1.5 0.003	0.1 0.001	Х
Sample Name: RJ Lee Grp. ID:	122216-ED W612124-2	DE-P-CF-23 Matrix: Potable Wa	iter	Date Received Date Analyzed	
Analyt	e	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper Lead		EPA 200.8 EPA 200.8	0.99	0.01	

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

I. N	100016 55			Date Received	: 12/22/16
Sample Name: RJ Lee Grp. ID:	W612124-	DE-P-CDF-24 Matrix: Potable Wate 24	r	Date Analyzed	-
Analy	te	Method	Result	PQL	Qualifiers
			(mg/L)	(mg/L)	
Copper		EPA 200.8	1.5	0.1	Х
Lead		EPA 200.8	0.002	0.001	
Sample Name:	122216-EI	DE-P-CF-25 Matrix: Potable Wate	r	Date Received	12/22/16
RJ Lee Grp. ID:	W612124-	25	-	Date Analyzed	: 02/21/17
Analy	te	Method	Result	PQL	Qualifiers
			(mg/L)	(mg/L)	
Copper		EPA 200.8	1.5	0.1	Х
Lead		EPA 200.8	0.002	0.001	
Sample Name:	122216-EI	DE-P-CF-26 Matrix: Potable Wate	r	Date Received	12 /22/16
RJ Lee Grp. ID:	W612124-	26	1	Date Analyzed	l: 02/16/17
Analy	te	Method	Result	PQL	Qualifiers
			(mg/L)	(mg/L)	
Copper		EPA 200.8	0.89	0.01	
Lead		EPA 200.8	0.002	0.001	
Sample Name:	122216-EI	DE-P-CDF-27 Matrix: Potable Wate		Date Received	12/22/16
RJ Lee Grp. ID:	W612124-	27 Watrix: Polable wate	51	Date Analyzed	l: 02/21/17
Analy	te	Method	Result	PQL	Qualifiers
			(mg/L)	(mg/L)	
Copper		EPA 200.8	1.4	0.1	Х
Lead		EPA 200.8	0.001	0.001	
Sample Name:	122216-EI	DE-P-CF-28 Matrix: Potable Wate		Date Received	12 /22/16
RJ Lee Grp. ID:	W612124-		21	Date Analyzed	l: 02/21/17
Analy	te	Method	Result	PQL	Qualifiers
·			(mg/L)	(mg/L)	-
Copper		EPA 200.8	1.4	0.1	Х
Lead		EPA 200.8	0.004	0.001	
Sample Name:	122216-FI	DE-P-CF-29 Matrix: Potable Wate		Date Received	12/22/16
RJ Lee Grp. ID:	W612124-		r	Date Analyzed	
Analy	te	Method	Result	PQL	Qualifiers
			(mg/L)	(mg/L)	
Copper		EPA 200.8	1.1	0.1	X
Lead		EPA 200.8	0.001	0.001	-

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

	100016 EF			Date Receive	d: 12/22/16
Sample Name: RJ Lee Grp. ID:	W612124-	DE-P-CDF-30 Matrix: Potable W 30	Vater	Date Analyze	
Analyt	te	Method	Result	PQL	Qualifiers
			(mg/L)	(mg/L)	C
Copper		EPA 200.8	1.3	0.1	X
Lead		EPA 200.8	< 0.0010	0.001	
Sample Name:	122216-EI	DE-P-CF-31 Matrix: Potable W	/ater	Date Receive	d: 12/22/16
RJ Lee Grp. ID:	W612124-	31		Date Analyze	d: 02/21/17
Analyt	te	Method	Result	PQL	Qualifiers
			(mg/L)	(mg/L)	
Copper		EPA 200.8	1.3	0.1	Х
Lead		EPA 200.8	0.002	0.001	
Sample Name:		DE-P-CF-32 Matrix: Potable W	Vater	Date Receive	
RJ Lee Grp. ID:	W612124-	32		Date Analyze	d: 02/16/17
Analyt	te	Method	Result	PQL	Qualifiers
			(mg/L)	(mg/L)	
Copper		EPA 200.8	0.91	0.01	
Lead		EPA 200.8	0.001	0.001	
Sample Name:	122216-EI	DE-P-CDF-33 Matrix: Potable W	later	Date Receive	d: 12/22/16
RJ Lee Grp. ID:	W612124-	33		Date Analyze	d: 02/21/17
Analyt	te	Method	Result	PQL	Qualifiers
			(mg/L)	(mg/L)	
Copper		EPA 200.8	1.5	0.1	Х
Lead		EPA 200.8	< 0.0010	0.001	
Sample Name:	122216-EI	DE-P-CF-34 Matrix: Potable W	later	Date Receive	d: 12/22/16
RJ Lee Grp. ID:	W612124-	34		Date Analyze	d: 02/16/17
Analyt	te	Method	Result	PQL	Qualifiers
			(mg/L)	(mg/L)	
Copper		EPA 200.8	0.93	0.01	
Lead		EPA 200.8	0.002	0.001	
Sample Name:	122216-EI	DE-P-CDF-35 Matrix: Potable W	/ater	Date Receive	d: 12/22/16
RJ Lee Grp. ID:	W612124-	35		Date Analyze	d: 02/21/17
Analyt	te	Method	Result	PQL	Qualifiers
			(IT)	(17.)	
			(mg/L)	(mg/L)	
Copper		EPA 200.8	(mg/L) 1.3	(mg/L) 0.1	X

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

Sample Name: RJ Lee Grp. ID:	122216-ED W612124-	DE-P-CF-36 Matrix: Potable Wate	er	Date Received: Date Analyzed:	
Analyt	te	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8	1.5	0.1	Х
Lead Sample Name: RJ Lee Grp. ID:	122216-ED W612124-	EPA 200.8 DE-P-CF-37 Matrix: Potable Wate 37	0.004	0.001 Date Received: Date Analyzed:	
Analyt	te	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper Lead		EPA 200.8 EPA 200.8	1.4 < 0.0010	0.1 0.001	Х
Sample Name: RJ Lee Grp. ID:	122216-ED W612124-	DE-P-CDF-38 Matrix: Potable Wate	r	Date Received: Date Analyzed:	
Analyt	te	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper Lead		EPA 200.8 EPA 200.8	1.3 < 0.0010	0.1 0.001	Х
Sample Name: RJ Lee Grp. ID:	122216-ED W612124-	DE-P-CF-39 Matrix: Potable Wate	er	Date Received: Date Analyzed:	
Analyt	te	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper Lead		EPA 200.8 EPA 200.8	1.3 0.003	0.1 0.001	Х
Sample Name: RJ Lee Grp. ID:	122216-ED W612124-4	DE-P-CF-40 Matrix: Potable Wate	er	Date Received: Date Analyzed:	
Analyt	te	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8	0.83	0.01	
Lead		EPA 200.8	0.002	0.001	
Sample Name: RJ Lee Grp. ID:	122216-ED W612124-	DE-P-CDF-41 Matrix: Potable Wate	er	Date Received: Date Analyzed:	
Analyt	te	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper Lead		EPA 200.8 EPA 200.8	1.00 0.001	0.01 0.001	

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

Sample Name: RJ Lee Grp. ID:	122216-ED W612124-4	DE-P-CF-42 Matrix: Potable Water 42	r	Date Received: Date Analyzed:	
Analyt	e	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8	0.90	0.01	
Lead		EPA 200.8	0.002	0.001	
Sample Name: RJ Lee Grp. ID:	122216-ED W612124-4	DE-P-CDF-43 Matrix: Potable Water 43	r	Date Received: Date Analyzed:	
Analyt	e.	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8	1.4	0.1	Х
Lead		EPA 200.8	< 0.0010	0.001	
Sample Name: RJ Lee Grp. ID:	122216-ED W612124-4	DE-P-CF-44 Matrix: Potable Water 44	r	Date Received: Date Analyzed:	
Analyt	æ	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8	1.2	0.1	Х
Lead		EPA 200.8	0.002	0.001	
Sample Name: RJ Lee Grp. ID:	122216-ED W612124-4	DE-P-KF-45 Matrix: Potable Water 45	r	Date Received: Date Analyzed:	
Analyt	e	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8	< 0.010	0.01	
Lead		EPA 200.8	< 0.0010	0.001	
Sample Name: RJ Lee Grp. ID:	122216-ED W612124-4	DE-P-DF-46 Matrix: Potable Water 46	r	Date Received: Date Analyzed:	
Analyt	e	Method	Result (mg/L)	PQL (mg/L)	Qualifiers
Copper		EPA 200.8	1.3	0.1	Х
Lead		EPA 200.8	0.016	0.001	

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



- 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 II DeNomy Dage

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.

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

7 W 7		r		-	,			_													-	W	61	212	24,	Pa	ge	11	of	15	-
Pennsylvania - HQ 350 Hochberg Road Monroeville, PA 15146	Chain of Custody	Custody	Chain of	12221	122216	1222/6	17221	6)22216	12221	12 22/6	12221	1222/	1222	122246	Clie	Special Instructions		0	Send Invoice							Report	-			Lab Use	ATTENTION TO:
46	Relinquished By (Signature): Relinquished By (Print Name): Company Name:	Company Name:	Relinquished By (Signature):	6-EFEP-C	5-4-101-6-6	- 101-10-	6- F DC-P-0	7-4-2021-	6-12012-0-0	1-202-1-0	1-0-20-1	6-EDE-P-K	6-EVEP-K	-EDE-P-NI	Client Sample ID		Phone: (509) 574-0839	e, Z	Address:	Company:	Name: Jorrie Boutillier	Email Results To:	Call With Verbai Kesults:	Phone: (509) 574-0839	ate, Zi	Address: 406 Nort	Company: Fulcrum	Name: Amanda Enbysk, Ryan Mathews	Date Logged In:	Project No.:	
Washington Columbia Basin Analytical Laboratories 2710 North 20th Avenue Pasco, WA 99301	ture): Name):	Manuel Lada PO		E-11 Rml	2	09 Rm 1		F-07 Rm 1	05-06 Rm 1	F-05 Rm K	FOU Kitche	FOR K, tchrin	FOZ Kitchen	-01 Health	Sample Description			Yakima, WA, 98901		nvironmental		aenbysk@efulcrum.net, CC: rmathews@efulcrum.net		0839	Yakima, WA, 98901	406 North 2nd Street	Fulcrum Environmental Consulting		-	0	RYAN MATHEWS
oratories	Date: Relinquished To: Method of Shipment:	Method of Shipment:		6 Sink VI	YDF	4Sink	DE	Xevil	20F	Sink		2		Faucet 12/22	on Sample Date		Fax: (509) 575-8453			Email: lboutillier@efulcrum.net		: rmathews@efulcrum.		Fax: (509) 575-8453					Logged in By:	Client No:	
	Time: 1 To: hipment:	hipment:	122 Time:				_								Start S	Cassala Tino	453			um.net		net		453							
			= 1912												Stop Wipe Area / Air Volume																2
	Chain of Custody	Custody	Chain of													EPA 200.8: Pb, Cu		-			Analysis Key	Chemistry			Sample Only	Water	Drinking		Request	Turnaround	Purchase Order No.:
	Received By (Signature): Received By (Print Name): Company Name:	Company Name	Received By Genarice):																Analysis Requested	Other Na ₂ SO ₄	HNO	4°C HCI	2	Sample Purpose: A	Multiple Sources #s:		System ID #:	Sample Purpose: Info	standard: Yes		er No.:
	ture): Name)::	JUL FU																	equested	E=EXTLACT	S=Soil/Sludge	WW=Groudwater	Matrix:					Information X Regulatory	NO IT N		
RJ LEE GROUP	Date: Relinqu Method	Method	oa∰€C												Pres. U	pon Re	ceipt	(Y/	'N)	X=Other		n DW=Drinking Water						Y Accreditation (please list below):	IT NO, NO, OT BUSINESS DAYS:		Client Job No.:
EE GRO	Date: Time: Relinquished To: Method of Shipment:	Method of Shipment:	Date C 7 7 2016 Time:											UNPR. DW		Preserva Matr ontaine	ix	e		א-און (ווונפו טו נמטפ)			ter P=Plactic	Containor				ease list below):	S:		162017
OUP			1315	16	16.	165	2	16	16.6	8.11	16	10	14	1	N	pH o. Conta	ainer			פו טו נמטפן											7

R4	
12	
032	
015	

DELIVERING SCIENTIFIC RESOLUTION RJ LEE GROUP

509.545.4989 Phone 509.544.6010 Fax

724,325.1776 Phone 724,733.1799 Fax

Monroeville, PA 15146 Pennsylvanla - HQ 350 Hochberg Road

Pasco, WA 99301

2710 North 20th Avenue Columbia Basin Analytical Laboratories

Washington

	Custody	Chain of		Custody	Chain of	12.22	1217 1	1222	12221	1222	12221	1222	1222/	12221	12221	1222	Clie		Special Instructions		ō	JEIN IIIVUICE	Cond Invoice				ē	То	Reculto		0		Only	Lab Use
Company Name:	Relinquished By (Print Name):	Relinquished By (Signature):	Company Name:	Relinquished By (Print Name):	Relinquished By (Signature):	6- EDE-1-	6-12012-10	16-EDE-P	8-606-1	6- EDF-P	6-EDE-A	16-EDE-P	- 1- 10 - C	6-EDE-Pol	6- FDE-P-1	16-EDE-P-4	Client Sample ID			Phone: (509) 574-0839	City, State, Zip:	Address:	Company:	Name: Lorrie Boutillier	Fax Results To:	Email Results To:	Call with Verbal Results:	09) 574	City, State, Zip:		Company: Fulcrum E	Name: Amanda Enbysk, Ryan Mathews	Date Logged In:	Project No.:
	Name):	ture):	/	Name): 1090 M	ture):	-CK-22	-COF-21	-CE-20	-CF-19	- CIDE - 18	-2(-)7	-COF-16 K	CE-15 1	10E-14 1	E-13 6	01-12 k	Sample Description			-0839	Yakima, WA, 98901	406 North 2nd Street	Fulcrum Environmental			aenbysk@efulcrum.net, CC: rmathews@efulcrum.net	5:	-0839	Yakima, WA, 98901	406 North 2nd Street	Fulcrum Environmental Consulting	k, Ryan Mathews		
3	R	Q	, N	LOPCZ R	22	Rm I Falue	RmA Up	Rm 2 Sink	Rm15 fauce	10.50 W	lais Sidk	MIT DE	en 17 Sink	Cm 19 mm	m 18 Sink	2m 160F 1				Fax: (!			Email: lboutillier@efulcrum.net			net, CC: rmathews@		Fax: ()			lting		Logged In By:	Client No:
Method of Shipment:	Relinquished To:	Date:	Method of Shipment:	Relinquished To:	Date: 12	cetu			Ť			-		_		2/22	Date			509) 575-8453			er@efulcru			0efulcrum.n		509) 575-8453						
ipment:	To:		ipment:	To:	177												Start	Sample Time		53			m.net			et		153						
		Time:			Time:												Stop	e Time																
					5												Wipe Area / Air Volume																	
	Custody	Chain of		Custody	Chain of													Pb, Cu	EPA 200.8:						Analysis Kov	Chamistry			Sample Only	Water	Drinking		Request	Turnaround
Company Name:	Received By (Print Name):	Received By (Signature):	Company Name:	Received By (Print Name	Received By (Signature																	Analysis Requested	L	Other Na.SO.	4 0	Unpres	러		-	DOH Source #:	System ID #:	Sample Purpose: Information X Regulatory		Standard: Ves
	ame):	re):	esuc)	時にしつにし	1396																	uested		E=Extract	S=Soil/Sludge	WW=Wastewater	Matrix:	B D Other D				nation X Regulatory		
M	Re	Da	M	Re	Da																. ().(X=Other	0=0il	SW=Surface Water						Accreditati		If 'No ' No of Business Davs:
Method of Shipment:	Relinquished To:	Date:	Method of Shipment:	Relinquished To:												UNPR.	Pres.		on Rei eserva	-		/ (14)			ING WALET	e Water						Accreditation (please list below):	so voys.	r Dave
ipment:		Time:	ipment:		Time:	2046										DW		Con	Matri tainer		De	_		A=Air (I	W=Wipe	P=Plastic	Container:					st below):		
		Ū.			() ()	-	-					-				P			pH	71				A=Air (filter or tube)	ñ ⁽	" ic	ner:							
					5	17.5	17.3	111	17.2	16.	16	16	16.	16.6	17.1	17.1		No.	Conta	ine	rs			ube)										

Request for Environmental and IH Laboratory Analytical Services

W612124, Page 12 of 1 ATTENTION TO:

RYAN MATHEWS

Purchase Order No.:

Client Job No.:

162017

Page Z

q, 5

R4	
1	
ũ3	
201	
ίπ.	

DELIVERING SCIENTIFIC RESOLUTION RJ LEE GROUP

12



724.325.1776 Phone 724.733.1799 Fax

509.544.6010 Fax 509.545.4989 Phone Pasco, WA 99301

Monroeville, PA 15146

Columbia Basin Analytical Laboratories 2710 North 20th Avenue Washington

350 Hochberg Road

Pennsylvania - HQ

Doport	Address: 406 North 2nd Street	d Street					Water	DOH Source #:					
Paculto	City, State, Zip: Yaki	Yakima, WA, 98901					Sample Only	Multiple Sources #s:					
То	09) 574	39 Fax:		(509) 575-8453				Ľ١	B D Other D				
;	Call with Verbal Results:							Preservation:	Matrix:		Container:	л	
	Email Results To: aen	aenbysk@efulcrum.net, CC: rmathews@efulcrum.net	rmathews@eful	crum.net				ſes	WW=Wastewater	SW=Surface Water			
	Fax Results To:								GW=Groudwater S=Soil/Shudee	O=Oil	r G=Glass		
	Name: Lorrie Boutillier						Mildiysis Ney	Other Na.SO.	E=Extract	X=Other	A=Air (filt	A=Air (filter or tube)	
	Company: Fulcrum Environmental		Email: lboutillier@efulcrum.net	efulcrum.net									
	Address: 406 North 2nd Street							Analysis Requested	uested	/N)			
ā	City, State, Zip: Yaki	Yakima, WA, 98901								_			s
	09) 574	39 Fax:	_	509) 575-8453							<		iner
Special							EPA				atri>	н	ntai
Instructions							200.8			on R eser	Ma	pl	Con
			Cam	Γ	Sample Time		_						No.
Clie	Client Sample ID	Sample Description	n Date	e Start	Stop	Volume				Pres.			
1222	P-EDER-CE	23 Rm3	PINY:S	2							UNPR. DW	1	1618
12221	6-1-101-1-COF	-24 Dm 2	DE										7.0
12224	C F-	25 823	Faucet										R
1222/6	2-101-P-CK-	6 Rin 5	Sink										123
17771	6-FOE-P-CMF-	-27 Rm 5	л Л										17.8
122216	-101-0-21-	28 Km5	Laudt										17.3
1222	6-1202-P-CK-	24 Rmh	Sint										16
12221	6-EDE-P-CDE	-30 Rm6	<i>ή</i> Γ										16-5
2221	6-FDF-P-OF-	31 12-6	Faucet										16.2
1222/1	~ ビのビーターークレー	32 Rm7	Sink										17.2
1222/6	-TEPE-P-CAR	33 R. 7	DE	4				2					17.2
Chain of	Relinquished By (Signature):	× 12	Date:	12/22	Time:	20	Chain of	Received By Shatule	PL-	DateDEC	2.2 201 me:	1318	1
Custody	Relinquished By (Print Name):	1 1 110.00 10 01 1	OPCZ Reling	Relinquished To:			Custody	Received By Print Name	the a Rel	Relinquished To:	ed To		
	Company Name:	~	Metho	Method of Shipment:				Company Name:	Kr (Se	Method of	Method of Shipment:		
Chain of	Relinquished By (Signature):)=	Date:		Time:		Chain of	Received By (Signature):	re):	Date:	Time:		
Custody	Relinquished By (Print Name):	ie):	Reling	Relinquished To:			Custody	Received By (Print Name):	ime):	Relinguished To:	ed To:		
	Company Name:		Metho	Method of Shipment:	1			Company Name:		Method of	Method of Shipment:		

Request for Environmental and IH Laboratory Analytical Services

W612124, Page 13 of 15

Company:

Fulcrum Environmental Consulting

Name: Amanda Enbysk, Ryan Mathews

Date Logged In: Project No.:

Logged in By: Client No: ATTENTION TO:

RYAN MATHEWS

Purchase Order No.: Turnaround

Drinking

System ID #:

Sample Purpose: Information X Regulatory
Accreditation (please list below):

Request

Standard:

Yes

No

If 'No,' No. of Business Days:

Client Job No.:

162017

Lab Use Only

> Page S q,

R4
120
3201
5

DELIVERING SCIENTIFIC RESOLUTION **RJ LEE GROUP**



509.545.4989 Phone 509.544,6010 Fax Pasco, WA 99301

724.325.1776 Phone 724.733.1799 Fax

350 Hochberg Road Monroeville, PA 15146

Pennsylvania - HQ

0.0

2

Washington Columbia Basin Analytical Laboratories 2710 North 20th Avenue

			-				1	1		2	-	-			-	-		1_	—			-	_	_	W	61	21	24,	Pa	age	e 14	<u>4 o</u>	f 1	
	Custody	Chain of		Custody	Chain of	1222	1222	1222	2221	91222	222 16	1222/	222/6	9/222	2224	222/	Clie	Special Instructions		ō		and Invoice					5	Results	Renort			Only	Lab Use	ATTENTION TO:
Company Name:	Relinquished By (Print Name):	Relinquished By (Signature):	Company Name:	Relinquished By (Print Name):	Relinquished By (Signature):	16-EDE-P-	16-1-05-4	16- EDE-P-	16- EDE-P-C	-EDE-P-C	-EDE-1-6	6-EDE-P-C	7-60E-6-6	-FDE-L-C	2-1-30-1-1	6-EDE-P-	Client Sample ID		Phone: (509) 574-0839	City, State, Zip:	Address:	Company:	Name: Lorrie Boutillier	Fax Results To:	Email Results To:	Call with Verbal Results:	Phone: (509) 574-0839	City, State, Zip:	Address: 406 Nort	Company: Fulcrum	Name: Amanda Enbysk, Ryan Mathews	Date Logged In:	Project No.:	
	Name):	iture):		Name): Logu	iture): 7	CE-44	COL-43	CE-42	DEMI	Fijo N	F-39 R	\$ 82-10	F-37 K	E-36 R	DE-35 K	CE-34 X	Sample Description		4-0839	Yakima, WA, 98901	406 North 2nd Street	Fulcrum Environmental			aenbysk@efulcrum.net, CC: rmathews@efulcrum.net	12	4-0839	Yakima, WA, 98901	406 North 2nd Street	Fulcrum Environmental Consulting	sk, Ryan Mathews			RYAN MATHEWS
~	R	Q	N	nuoper	Y	K~2/5m	Ren 19 DF	Rm 19510	M"SicDE	Jugic Sink	m 8 Faute	AD & W	m & Sink	Km 9 Faucet	Em qDF	In 9 Sink 1			Fax: (!			Email: Iboutillier@efulcrum.net			et, CC: rmathews@		Fax: (!			ting		Logged In By:	Client No:	
Method of Shipment:	Relinquished To:	Date:	Method of Shipment:	Relinguished To:	Date: 12	KV		K			t					22/21	Sample Date		509) 575-8453			er@efulcrur			efulcrum.n		509) 575-8453							
ipment:	To:		ipment:	1000	122												Start S		53			n.net			et		53							
		Time:			Time:												Stop																	
					5												Wipe Area / Air Volume																	
	Custody	Chain of		Custody	Chain of													EPA 200.8: Pb, Cu					culary sis we	Analysis Kev	Chamistry			Sample Only	Water	Drinking		Request	Turnaround	Purchase Order No.:
Company Name:	Received By (Print Name):	Received By (Signature):	Company Name:	Received By (Print Name):	Received By (Signa																Analysis Requested		Other Na-SO	4 C	res	Preservation:	Sample Purpose: A	_	DOH Source #:	System ID #:	Sample Purpose: Info			r No.:
	Name):	ture):	Whie's	Namer 2 D Muc	てるのイ																quested		E=Extract	S=Soil/Sludge	WW=Wastewater	Matrix:	B D Other D				Sample Purpose: Information X Regulatory			
Meth	Reling	Date:	Meth	Relinc	Dates												Pres. U	pon Re	ceip	t (Y,	/N)		X=Other		SW=Surface Water						Accreditation (please list below):		Vo of Business D	Client Job No.:
Method of Shipment:	Relinquished To:		Method of Shipment:	Relinquished To:	22											UNPR.	F	reserva	-					Watch	later Nator						please list l	ays.	סעני	
ment:		Time:	ment:	2:	2016ime:										-	DW P	Ca	Matr		e	_		A=Air (filter or tube)	W=Wipe	G=Glass	Container:					below):			162017
					3													pН					er or tub			л								7
					7	16.	16	16	16	16	17.	16	16	160	16	16,	N	o. Conta	aine	rs			e)											

m

Request for Environmental and IH Laboratory Analytical Services

Purchase Order No.:

Page

<u>q</u>

2

R4
V
12
032
015







1

724.325.1776 Phone 724.733.1799 Fax

Pasco, WA 99301

Columbia Basin Analytical Laboratories 2710 North 20th Avenue

Pennsylvanla - HQ 350 Hochberg Road Monroeville, PA 15146 Washington

ř–		_		-				_		-													-	_	_	W	61	212	24,	Pa	ige	15	0	f 1	
		Chain of			Chain of									F	222/6	12221	Cliei		Special Instructions				Send Invoice					10	Results	Report			Only	Lab Use	ATTENTION TO:
Company Name:	Relinquished By (Print Name):	Relinquished By (Signature):	Company Name:	Relinquished By (Print N	Relinquished By (Signature):									1	6-EDE-P-1	6-1EDE-14	Client Sample ID			Phone: (509) 574-0839	City, State, Zip: Y	Address: 406 North		Name: Lorrie Boutillier	Fax Results To:	Email Results To: a	Call with Verbal Results:	Phone: (509) 574-0839	City, State, Zip:	Address: 406 North	Company: Fulcrum Ei	Name: Amanda Enbysk, Ryan Mathews	Date Logged In:	Project No.:	
	lame):	ure):	1	lame): 120 cha h	ure):									/	01-46 GVMU	KF-45 Home	Sample Description			0839 Fax:	Yakima, WA, 98901	406 North 2nd Street	Fukrum Environmental Emai			aenbysk@efulcrum.net, CC: rmathews@efulcrum.net		0839 Fax:	Yakima, WA, 98901	406 North 2nd Street	Fulcrum Environmental Consulting		Logge	Client No:	RYAN MATHEWS
M	Re	Da	M	11 RE	Da	-				-	-	_	_	 	Or	Ec l				(5			Email: lboutillier@efulcrum.net			nathews@		(5					Logged In By:	t No:	
ethod of S	Relinquished To:	Date:	Method of Shipment:	Relinquished To:	Date:	1				$\langle \langle \rangle$	-					1/22	Date	- annie		509) 575-8453			r@efulcri			efulcrum.		(509) 575-8453							
Method of Shipment:	d To:		hipment:	- N	1/22			-									Start	Samp		453			Jm.net			net		453							
		Time:			Time:									Stop	Sample Time																				
					5										k		Volume	Wine Area / Ale																	
	Custody	Chain of		Clistody	fo nich)				-				_					, cu	EPA 200.8:					and and some set	Analysis Key	Chemistry			Sample Only	Water	Drinking		Request	Turnaround	Purchase Order No.:
Company Name:	Received By (Print Name):	Received By (Signature):	Company Name:	Received By (Print Name):	Received By (Signature)																	Analysis Requested	1	Other		res	말	Sample Purpose: A 🗆	Only Multiple Sources #s:	DOH Source #:	System ID #:	Sample Purpose: Information X		Standard.	n No.:
	lame):	ure):	KALEN V	ANA CHERT	あるイ																	juested		E=Extract	S=Soil/Sludge	GW=Groudwater	Matrix:	B D Other D				mation X Regulatory	NO II NO, I		
Method of Shipment:	Relinquished To:	Date:	Method of Shipment:	Relinquished To:	Date: DEC 22						_					UNPR	Pres		oon Red eserva	_		/ //N)		X=Other		SW=Surface Water						Accreditation (please list below):	II NO, NO: OI DASITIESS DAYS.	In of Business Dave:	Client Job No.:
Shipment:	d To:	T	hipment:		22 201he:									 		DW			Matri	_				A=Air	W=Wipe	G=Glass	Container:					list below):			162
		Time:			de:		-		_			-	-			P		Coi	ntainer pH	ту	oe	_		A=Air (filter or tube)	'ipe	ISTIC	ainer:								162017
					2										15	14.		No	. Conta	aine	rs			tube)											
				-		-	1 10	-	-		-	-		 _	X	5					-	-		-	-	-		-	-					-	

Request for Environmental and IH Laboratory Analytical Services

Page S

of.



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 Drinking Water - Edison Elementary Work Order Number: 1703040

March 10, 2017

Attention Ryan Mathews:

Fremont Analytical, Inc. received 36 sample(s) on 3/6/2017 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

CC: Amanda Enbysk

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

Work Order Sample Summary



Fulcrum Environmental

CLIENT:

Project: Kennewick SD Drinking Water - Edison Ele Work Order: 1703040 **Date/Time Collected Date/Time Received** Lab Sample ID **Client Sample ID** 1703040-001 EDE3417-P-CF-05 03/04/2017 10:30 AM 03/06/2017 8:47 AM 1703040-002 EDE3417-S-CF-05 03/04/2017 10:30 AM 03/06/2017 8:47 AM 1703040-003 EDE3417-T-CF-05 03/04/2017 10:30 AM 03/06/2017 8:47 AM 1703040-004 EDE3417-P-CDF-06 03/04/2017 10:30 AM 03/06/2017 8:47 AM 1703040-005 EDE3417-P-CDF-08 03/04/2017 10:30 AM 03/06/2017 8:47 AM 1703040-006 EDE3417-P-CDF-10 03/04/2017 10:30 AM 03/06/2017 8:47 AM EDE3417-P-CDF-12 1703040-007 03/04/2017 10:30 AM 03/06/2017 8:47 AM 1703040-008 03/04/2017 10:30 AM 03/06/2017 8:47 AM EDE3417-P-CF-13 1703040-009 EDE3417-S-CF-13 03/04/2017 10:30 AM 03/06/2017 8:47 AM 1703040-010 EDE3417-T-CF-13 03/04/2017 10:30 AM 03/06/2017 8:47 AM 1703040-011 EDE3417-P-CDF-14 03/04/2017 10:30 AM 03/06/2017 8:47 AM EDE3417-P-CDF-16 1703040-012 03/04/2017 10:30 AM 03/06/2017 8:47 AM 1703040-013 EDE3417-P-CF-17 03/04/2017 10:30 AM 03/06/2017 8:47 AM EDE3417-P-CDF-18 03/04/2017 10:30 AM 1703040-014 03/06/2017 8:47 AM 1703040-015 EDE3417-P-CF-19 03/04/2017 10:30 AM 03/06/2017 8:47 AM 1703040-016 EDE3417-P-CF-22 03/04/2017 10:30 AM 03/06/2017 8:47 AM EDE3417-P-CDF-24 1703040-017 03/04/2017 10:30 AM 03/06/2017 8:47 AM 1703040-018 EDE3417-S-CDF-24 03/04/2017 10:30 AM 03/06/2017 8:47 AM 1703040-019 EDE3417-T-CDF-24 03/04/2017 10:30 AM 03/06/2017 8:47 AM 1703040-020 EDE3417-P-CF-25 03/04/2017 10:30 AM 03/06/2017 8:47 AM 1703040-021 EDE3417-P-CDF-27 03/04/2017 10:30 AM 03/06/2017 8:47 AM 1703040-022 EDE3417-P-CF-28 03/04/2017 10:30 AM 03/06/2017 8:47 AM 1703040-023 EDE3417-P-CDF-30 03/04/2017 10:30 AM 03/06/2017 8:47 AM 1703040-024 EDE3417-P-CF-31 03/04/2017 10:30 AM 03/06/2017 8:47 AM 1703040-025 EDE3417-P-CDF-33 03/04/2017 10:30 AM 03/06/2017 8:47 AM 1703040-026 EDE3417-P-CDF-35 03/04/2017 10:30 AM 03/06/2017 8:47 AM 1703040-027 EDE3417-P-CF-36 03/04/2017 10:30 AM 03/06/2017 8:47 AM 1703040-028 EDE3417-P-CF-37 03/04/2017 10:30 AM 03/06/2017 8:47 AM 1703040-029 EDE3417-S-CF-37 03/04/2017 10:30 AM 03/06/2017 8:47 AM 1703040-030 EDE3417-T-CF-37 03/04/2017 10:30 AM 03/06/2017 8:47 AM EDE3417-P-CDF-38 1703040-031 03/04/2017 10:30 AM 03/06/2017 8:47 AM 1703040-032 EDE3417-P-CF-39 03/04/2017 10:30 AM 03/06/2017 8:47 AM 1703040-033 EDE3417-P-CDF-43 03/04/2017 10:30 AM 03/06/2017 8:47 AM 1703040-034 EDE3417-P-KF-45 03/04/2017 10:30 AM 03/06/2017 8:47 AM 1703040-035 EDE3417-P-DF-46 03/04/2017 10:30 AM 03/06/2017 8:47 AM

1703040-036

EDE3417-P-CF-09

03/04/2017 10:30 AM

03/06/2017 8:47 AM



Case Narrative

WO#: **1703040** Date: **3/10/2017**

CLIENT:Fulcrum EnvironmentalProject:Kennewick SD Drinking Water - Edison 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:

	•.							
1703040-001A 209701:	Prep	Comments	for	EPA200.8,	Sample	1703040-001A:	Turbidity: 0.00	NTU
1703040-004A 209705:	Prep	Comments	for	EPA200.8,	Sample	1703040-004A:	Turbidity: 0.01	NTU
1703040-005A 209706:	Prep	Comments	for	EPA200.8,	Sample	1703040-005A:	Turbidity: 0.01	NTU
1703040-006A 209707:	Prep	Comments	for	EPA200.8,	Sample	1703040-006A:	Turbidity: 0.00	NTU
1703040-007A 209708:	Prep	Comments	for	EPA200.8,	Sample	1703040-007A:	Turbidity: 0.00	NTU
1703040-008A 209709:	Prep	Comments	for	EPA200.8,	Sample	1703040-008A:	Turbidity: 0.04	NTU
1703040-011A 209710:	Prep	Comments	for	EPA200.8,	Sample	1703040-011A:	Turbidity: 0.00	NTU
1703040-012A 209711:	Prep	Comments	for	EPA200.8,	Sample	1703040-012A:	Turbidity: 0.00	NTU
1703040-013A 209712:	Prep	Comments	for	EPA200.8,	Sample	1703040-013A:	Turbidity: 0.01	NTU
1703040-014A 209713:	Prep	Comments	for	EPA200.8,	Sample	1703040-014A:	Turbidity: 0.05	NTU
1703040-015A 209714:	Prep	Comments	for	EPA200.8,	Sample	1703040-015A:	Turbidity: 0.04	NTU
1703040-016A 209715:	Prep	Comments	for	EPA200.8,	Sample	1703040-016A:	Turbidity: 0.01	NTU
1703040-017A 209716:	Prep	Comments	for	EPA200.8,	Sample	1703040-017A:	Turbidity: 0.00	NTU
1703040-020A 209717:	Prep	Comments	for	EPA200.8,	Sample	1703040-020A:	Turbidity: 0.00	NTU
1703040-021A 209718:	Prep	Comments	for	EPA200.8,	Sample	1703040-021A:	Turbidity: 0.00	NTU
1703040-022A 209719:	Prep	Comments	for	EPA200.8,	Sample	1703040-022A:	Turbidity: 0.00	NTU
1703040-023A 209720:	Prep	Comments	for	EPA200.8,	Sample	1703040-023A:	Turbidity: 0.00	NTU
1703040-024A 209721:	Prep	Comments	for	EPA200.8,	Sample	1703040-024A:	Turbidity: 0.00	NTU
1703040-025A 209722:	Prep	Comments	for	EPA200.8,	Sample	1703040-025A:	Turbidity: 0.00	NTU
1703040-026A 209723:	Prep	Comments	for	EPA200.8,	Sample	1703040-026A:	Turbidity: 0.00	NTU
1703040-027A 209726:	Prep	Comments	for	EPA200.8,	Sample	1703040-027A:	Turbidity: 0.00	NTU
1703040-028A 209730:	Prep	Comments	for	EPA200.8,	Sample	1703040-028A:	Turbidity: 0.00	NTU
1703040-031A 209731:	Prep	Comments	for	EPA200.8,	Sample	1703040-031A:	Turbidity: 0.00	NTU
1703040-032A 209732:	Prep	Comments	for	EPA200.8,	Sample	1703040-032A:	Turbidity: 0.00	NTU
1703040-033A 209733:	Prep	Comments	for	EPA200.8,	Sample	1703040-033A:	Turbidity: 0.00	NTU
1703040-034A 209734:	Prep	Comments	for	EPA200.8,	Sample	1703040-034A:	Turbidity: 0.00	NTU
1703040-035A 209735:	Prep	Comments	for	EPA200.8,	Sample	1703040-035A:	Turbidity: 0.00	NTU
1703040-036A 209736:	Prep	Comments	for	EPA200.8,	Sample	1703040-036A:	Turbidity: 0.00	NTU

Qualifiers & Acronyms



WO#: **1703040** Date Reported: **3/10/2017**

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:
 1703040

 Date Reported:
 3/10/2017

CLIENT: Fulcrum Environmental **Project:** Kennewick SD Drinking Water - Edison Elementary Collection Date: 3/4/2017 10:30:00 AM Lab ID: 1703040-001 Client Sample ID: EDE3417-P-CF-05 Matrix: Drinking Water Analyses **Date Analyzed RL** Qual Units DF Result Batch ID: 16427 Analyst: TN Drinking Water Metals by EPA Method 200.8 Copper 565 0.500 µg/L 1 3/10/2017 2:15:17 PM Lab ID: 1703040-004 Collection Date: 3/4/2017 10:30:00 AM Client Sample ID: EDE3417-P-CDF-06 Matrix: Drinking Water DF Analyses Result **RL** Qual Units **Date Analyzed Drinking Water Metals by EPA Method 200.8** Batch ID: 16427 Analyst: TN Copper 799 0.500 µg/L 3/10/2017 2:39:29 PM 1 Lab ID: 1703040-005 Collection Date: 3/4/2017 10:30:00 AM Client Sample ID: EDE3417-P-CDF-08 Matrix: Drinking Water Analyses Result **RL** Qual Units DF **Date Analyzed** Drinking Water Metals by EPA Method 200.8 Batch ID: 16427 Analyst: TN Copper 1,050 0.500 µg/L 1 3/10/2017 2:43:31 PM



Analytical Report

 Work Order:
 1703040

 Date Reported:
 3/10/2017

CLIENT: Fulcrum Environmental **Project:** Kennewick SD Drinking Water - Edison Elementary Collection Date: 3/4/2017 10:30:00 AM Lab ID: 1703040-006 Client Sample ID: EDE3417-P-CDF-10 Matrix: Drinking Water Analyses **Date Analyzed RL** Qual Units DF Result Batch ID: 16427 Analyst: TN Drinking Water Metals by EPA Method 200.8 Copper 914 0.500 µg/L 1 3/10/2017 2:47:33 PM Lab ID: 1703040-007 Collection Date: 3/4/2017 10:30:00 AM Client Sample ID: EDE3417-P-CDF-12 Matrix: Drinking Water DF Analyses Result **RL** Qual Units **Date Analyzed Drinking Water Metals by EPA Method 200.8** Batch ID: 16427 Analyst: TN Copper 787 0.500 µg/L 3/10/2017 2:51:34 PM 1 Lab ID: 1703040-008 Collection Date: 3/4/2017 10:30:00 AM Client Sample ID: EDE3417-P-CF-13 Matrix: Drinking Water Analyses Result **RL** Qual Units DF **Date Analyzed** Drinking Water Metals by EPA Method 200.8 Batch ID: 16427 Analyst: TN Copper 633 0.500 µg/L 1 3/10/2017 2:55:36 PM



Fulcrum Environmental

CLIENT:

Analytical Report

 Work Order:
 1703040

 Date Reported:
 3/10/2017

Project: Kennewick SD Drinking Water - Edison Elementary Collection Date: 3/4/2017 10:30:00 AM Lab ID: 1703040-011 Client Sample ID: EDE3417-P-CDF-14 Matrix: Drinking Water Analyses **Date Analyzed RL** Qual Units DF Result Batch ID: 16427 Analyst: TN Drinking Water Metals by EPA Method 200.8 Copper 908 0.500 µg/L 1 3/10/2017 2:59:37 PM Lab ID: 1703040-012 Collection Date: 3/4/2017 10:30:00 AM Client Sample ID: EDE3417-P-CDF-16 Matrix: Drinking Water DF Analyses Result **RL** Qual Units **Date Analyzed** Drinking Water Metals by EPA Method 200.8 Batch ID: 16427 Analyst: TN Copper 786 0.500 µg/L 3/10/2017 3:03:39 PM 1 Lab ID: 1703040-013 Collection Date: 3/4/2017 10:30:00 AM Client Sample ID: EDE3417-P-CF-17 Matrix: Drinking Water Analyses Result **RL** Qual Units DF **Date Analyzed** Drinking Water Metals by EPA Method 200.8 Batch ID: 16427 Analyst: TN

0.500

µg/L

1

603

Copper

3/10/2017 3:15:46 PM



 Work Order:
 1703040

 Date Reported:
 3/10/2017

CLIENT: Fulcrum Environmental **Project:** Kennewick SD Drinking Water - Edison Elementary Lab ID: 1703040-014 Collection Date: 3/4/2017 10:30:00 AM Matrix: Drinking Water Client Sample ID: EDE3417-P-CDF-18 Analyses Units DF **Date Analyzed** Result **RL** Qual Batch ID: 16427 Analyst: TN Drinking Water Metals by EPA Method 200.8 Copper 1,040 0.500 µg/L 1 3/10/2017 3:19:48 PM

Lab ID: 1703040-015 Client Sample ID: EDE3417-P-CF	-19		Collectior Matrix: D		3/4/2017 10:30:00 AM Water
Analyses	Result	RL Qual	Units	DF	Date Analyzed
Drinking Water Metals by EPA Met	<u>hod 200.8</u>		Batch	n ID: 164	27 Analyst: TN
Copper	965	0.500	μg/L	1	3/10/2017 3:23:49 PM
Lab ID: 1703040-016			••••••		3/4/2017 10:30:00 AM
Client Sample ID: EDE3417-P-CF	-22		Matrix: D	rinking \	Water
Analyses	Result	RL Qual	Units	DF	Date Analyzed
Drinking Water Metals by EPA Met	<u>hod 200.8</u>		Batch	n ID: 164	27 Analyst: TN
Copper	867	0.500	µg/L	1	3/10/2017 3:27:51 PM



 Work Order:
 1703040

 Date Reported:
 3/10/2017

CLIENT: Fulcrum Environmental **Project:** Kennewick SD Drinking Water - Edison Elementary Collection Date: 3/4/2017 10:30:00 AM Lab ID: 1703040-017 Client Sample ID: EDE3417-P-CDF-24 Matrix: Drinking Water Analyses **Date Analyzed RL** Qual Units DF Result Batch ID: 16427 Analyst: TN Drinking Water Metals by EPA Method 200.8 Copper 838 0.500 µg/L 1 3/10/2017 3:31:53 PM Lab ID: 1703040-020 Collection Date: 3/4/2017 10:30:00 AM Client Sample ID: EDE3417-P-CF-25 Matrix: Drinking Water DF Analyses Result **RL** Qual Units **Date Analyzed** Drinking Water Metals by EPA Method 200.8 Batch ID: 16427 Analyst: TN Copper 763 0.500 µg/L 3/10/2017 3:35:55 PM 1 Lab ID: 1703040-021 Collection Date: 3/4/2017 10:30:00 AM Client Sample ID: EDE3417-P-CDF-27 Matrix: Drinking Water Analyses Result **RL** Qual Units DF **Date Analyzed** Drinking Water Metals by EPA Method 200.8 Batch ID: 16427 Analyst: TN Copper 771 0.500 µg/L 1 3/10/2017 3:39:56 PM



 Work Order:
 1703040

 Date Reported:
 3/10/2017

CLIENT: Fulcrum Environmental **Project:** Kennewick SD Drinking Water - Edison Elementary Collection Date: 3/4/2017 10:30:00 AM Lab ID: 1703040-022 Client Sample ID: EDE3417-P-CF-28 Matrix: Drinking Water Analyses **Date Analyzed RL** Qual Units DF Result Batch ID: 16427 Analyst: TN Drinking Water Metals by EPA Method 200.8 Copper 704 0.500 µg/L 1 3/10/2017 3:43:58 PM Lab ID: 1703040-023 Collection Date: 3/4/2017 10:30:00 AM Client Sample ID: EDE3417-P-CDF-30 Matrix: Drinking Water DF Analyses Result **RL** Qual Units **Date Analyzed** Drinking Water Metals by EPA Method 200.8 Batch ID: 16427 Analyst: TN Copper 1,040 0.500 µg/L 3/10/2017 3:48:00 PM 1 Lab ID: 1703040-024 Collection Date: 3/4/2017 10:30:00 AM Client Sample ID: EDE3417-P-CF-31 Matrix: Drinking Water Result **RL** Qual Units DF **Date Analyzed** Analyses Drinking Water Metals by EPA Method 200.8 Batch ID: 16427 Analyst: TN Copper 933 0.500 µg/L 1 3/10/2017 3:52:01 PM



 Work Order:
 1703040

 Date Reported:
 3/10/2017

CLIENT: Fulcrum Environmental **Project:** Kennewick SD Drinking Water - Edison Elementary Collection Date: 3/4/2017 10:30:00 AM Lab ID: 1703040-025 Client Sample ID: EDE3417-P-CDF-33 Matrix: Drinking Water Analyses **Date Analyzed RL** Qual Units DF Result Batch ID: 16427 Analyst: TN Drinking Water Metals by EPA Method 200.8 Copper 766 0.500 µg/L 1 3/10/2017 4:04:07 PM Lab ID: 1703040-026 Collection Date: 3/4/2017 10:30:00 AM Client Sample ID: EDE3417-P-CDF-35 Matrix: Drinking Water DF Analyses Result **RL** Qual Units **Date Analyzed** Drinking Water Metals by EPA Method 200.8 Batch ID: 16427 Analyst: TN Copper 986 0.500 µg/L 3/10/2017 4:08:09 PM 1 Lab ID: 1703040-027 Collection Date: 3/4/2017 10:30:00 AM Client Sample ID: EDE3417-P-CF-36 Matrix: Drinking Water Result **RL** Qual Units DF **Date Analyzed** Analyses Drinking Water Metals by EPA Method 200.8 Batch ID: 16428 Analyst: TN Copper 762 0.500 µg/L 1 3/10/2017 4:24:16 PM



 Work Order:
 1703040

 Date Reported:
 3/10/2017

CLIENT: Fulcrum Environmental **Project:** Kennewick SD Drinking Water - Edison Elementary Collection Date: 3/4/2017 10:30:00 AM Lab ID: 1703040-028 Client Sample ID: EDE3417-P-CF-37 Matrix: Drinking Water Analyses **RL** Qual Units DF **Date Analyzed** Result Batch ID: 16428 Analyst: TN Drinking Water Metals by EPA Method 200.8 Copper 595 0.500 µg/L 1 3/10/2017 4:40:22 PM Lab ID: 1703040-031 Collection Date: 3/4/2017 10:30:00 AM Client Sample ID: EDE3417-P-CDF-38 Matrix: Drinking Water DF Analyses Result **RL** Qual Units **Date Analyzed** Drinking Water Metals by EPA Method 200.8 Batch ID: 16428 Analyst: TN Copper 936 0.500 µg/L 3/10/2017 4:52:30 PM 1 Lab ID: 1703040-032 Collection Date: 3/4/2017 10:30:00 AM Client Sample ID: EDE3417-P-CF-39 Matrix: Drinking Water Analyses Result **RL** Qual Units DF **Date Analyzed** Drinking Water Metals by EPA Method 200.8 Batch ID: 16428 Analyst: TN Copper 769 0.500 µg/L 1 3/10/2017 4:56:31 PM



Fulcrum Environmental

CLIENT:

Analytical Report

 Work Order:
 1703040

 Date Reported:
 3/10/2017

Project: Kennewick SD Drinking Water - Edison Elementary Collection Date: 3/4/2017 10:30:00 AM Lab ID: 1703040-033 Client Sample ID: EDE3417-P-CDF-43 Matrix: Drinking Water Analyses **RL** Qual Units DF **Date Analyzed** Result Batch ID: 16428 Analyst: TN Drinking Water Metals by EPA Method 200.8 Copper 795 0.500 µg/L 1 3/10/2017 5:00:33 PM Lab ID: 1703040-034 Collection Date: 3/4/2017 10:30:00 AM Client Sample ID: EDE3417-P-KF-45 Matrix: Drinking Water DF Analyses Result **RL** Qual Units **Date Analyzed** Drinking Water Metals by EPA Method 200.8 Batch ID: 16428 Analyst: TN Copper 0.524 0.500 µg/L 3/10/2017 5:04:35 PM 1 Lab ID: 1703040-035 Collection Date: 3/4/2017 10:30:00 AM Client Sample ID: EDE3417-P-DF-46 Matrix: Drinking Water Result **RL** Qual Units DF **Date Analyzed** Analyses Drinking Water Metals by EPA Method 200.8 Batch ID: 16428 Analyst: TN

0.500

µg/L

1

1,110

Copper

3/10/2017 5:08:37 PM



 Work Order:
 1703040

 Date Reported:
 3/10/2017

CLIENT: Project:	Fulcrum Environmental Kennewick SD Drinking		n Element	ary			
	1703040-036 nple ID: EDE3417-P-C	F-09			Collectior Matrix: D		3/4/2017 10:30:00 AM Water
Analyses		Result	RL	Qual	Units	DF	Date Analyzed
Drinking \	Water Metals by EPA Me	<u>ethod 200.8</u>			Batch	n ID: 164	428 Analyst: TN
Copper		586	0.500		μg/L	1	3/10/2017 5:12:38 PM



Work Order: CLIENT:	1703040 Fulcrum Env	ironmontal								QC S	SUMMA	RY REF	ORT
Project:	Kennewick S		Water -	Edison El	е				Drinkin	g Water Me	tals by EF	PA Metho	d 200.8
Sample ID MB-164 Client ID: MBLK		SampType: Batch ID:	MBLK 16428			Units: µg/L		Prep Da Analysis Da	te: 3/6/201 te: 3/10/20		RunNo: 34 SeqNo: 66		
Analyte		R	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper			ND	0.500									
Sample ID LCS-16	6428	SampType	LCS			Units: µg/L		Prep Da	te: 3/6/201	17	RunNo: 34	875	
Client ID: LCSW		Batch ID:	16428					Analysis Da	te: 3/10/20)17	SeqNo: 66	5890	
Analyte		R	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper			89.7	0.500	100.0	0	89.7	85	115				
Sample ID 170304	0-027ADUP	SampType	DUP			Units: µg/L		Prep Da	te: 3/6/201	17	RunNo: 34	875	
Client ID: EDE34	17-P-CF-36	Batch ID:	16428					Analysis Da	te: 3/10/20)17	SeqNo: 66	5892	
Analyte		R	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper			734	0.500						761.6	3.63	30	
Sample ID 170304	0-027AMS	SampType	MS			Units: µg/L		Prep Da	te: 3/6/201	17	RunNo: 34	875	
Client ID: EDE34	17-P-CF-36	Batch ID:	16428					Analysis Da	te: 3/10/20)17	SeqNo: 66	5893	
Analyte		R	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper			941	0.500	200.0	761.6	89.7	70	130				
Sample ID 170304	0-027AMSD	SampType	MSD			Units: µg/L		Prep Da	te: 3/6/201	17	RunNo: 34	875	
Client ID: EDE34	17-P-CF-36	Batch ID:	16428					Analysis Da	te: 3/10/20	017	SeqNo: 66	5894	
Analyte		R	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper			915	0.500	200.0	761.6	76.6	70	130	940.9	2.82	30	



Work Order: CLIENT:	1703040 Fulcrum Env	vironmental							QC S	SUMMAI	RY REF	PORT
Project:		SD Drinking Wa	ater - Edison E	Ele				Drinking	g Water Me	tals by EF	PA Metho	d 200.8
Sample ID MB-164 Client ID: MBLK		SampType: MI Batch ID: 16	3LK 427		Units: µg/L		Prep Da Analysis Da	te: 3/6/201 te: 3/10/20		RunNo: 34 SeqNo: 66		
Analyte		Resu	lt RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper		Ν	D 0.500									
Sample ID LCS-16	6427	SampType: LC	S		Units: µg/L		Prep Da	te: 3/6/201	7	RunNo: 34	874	
Client ID: LCSW		Batch ID: 16	427				Analysis Da	te: 3/10/20	17	SeqNo: 66	5835	
Analyte		Resu	lt RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper		93.	2 0.500	100.0	0	93.2	85	115				
Sample ID 170304	0-001ADUP	SampType: D	JP		Units: µg/L		Prep Da	te: 3/6/201	7	RunNo: 34	874	
Client ID: EDE34	17-P-CF-05	Batch ID: 16	427				Analysis Da	te: 3/10/20	17	SeqNo: 66	5839	
Analyte		Resu	lt RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper		55	6 0.500						564.7	1.63	30	
Sample ID 170304	0-001AMS	SampType: M	6		Units: µg/L		Prep Da	te: 3/6/201	7	RunNo: 34	874	
Client ID: EDE34	17-P-CF-05	Batch ID: 16	427				Analysis Da	te: 3/10/20	17	SeqNo: 66	5840	
Analyte		Resu	lt RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper		74	5 0.500	200.0	564.7	90.1	70	130				
Sample ID 170304	0-001AMSD	SampType: M	SD		Units: µg/L		Prep Da	te: 3/6/201	7	RunNo: 34	874	
Client ID: EDE34	17-P-CF-05	Batch ID: 16	427				Analysis Da	te: 3/10/20	17	SeqNo: 66	5841	
Analyte		Resu	lt RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper		70	8 0.500	200.0	564.7	71.7	70	130	744.8	5.05	30	



Sample Log-In Check List

С	lient Name:	FE	Work Order Num	nber: 1703040		
Lo	ogged by:	Clare Griggs	Date Received:	3/6/2017	8:47:00 AM	
<u>Cha</u>	nin of Cust	ody				
1.	Is Chain of C	ustody complete?	Yes 🖌	No 🗌	Not Present	
2.	How was the	sample delivered?	<u>FedEx</u>			
Log	In					
-	Coolers are p	present?	Yes 🖌	No 🗌		
4.	Shipping con	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	is 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 sar	nple volume for indicated test(s)?	Yes 🔽	No 🗌		
10.	Are samples	properly preserved?	Yes 🔽	No 🗌		
11.	Was preserva	ative added to bottles?	Yes 🖌	No 🗌	NA 🗌	
			🗖		HNO3	
		Ispace in the VOA vials?	Yes	No 🗌	NA 🗹	
-		es containers arrive in good condition(unbroken)?	Yes ✔ Yes ✔	No 🗌		
14.	Does paperw	ork match bottle labels?	res 💌	No 🗀		
15.	Are matrices	correctly identified on Chain of Custody?	Yes 🗹	No 🗌		
		at analyses were requested?	Yes 🖌	No 🗌		
17.	Were all hold	ling times able to be met?	Yes 🖌	No 🗌		
Sne	cial Handl	ing (if applicable)				
-		ning (In apprication) otified of all discrepancies with this order?	Yes	No 🗌	NA 🗹	
.0.						
	By Who		4	hone 🗌 Fax	In Person	
	Regardi					
	-	ng.				
	Additional rer	P				

Item Information

Item #	Temp ⁰C
Cooler	5.6
Sample	1.8

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

www.fremontanalytical.com

		Received	Rec		Date/ Ime	Da	
TR:ASAP	17 OK47	x V P C	, xe	0	17,130	3/4/1	× On May
	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 greement to each of the terms on the front and backside of this Agreement.	ytical on behalf of the Client nam	with Fremont Anal is Agreement.	Agreement ackside of th	front and ba	n authorized to en	I represent that I am authorized to enter into this Agreement with Fremont agreement to each of the terms on the front and backside of this Agreement.
av. Planse preserve all impressived samples	A fee may be on the following business day.	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	Disposal by Lab (Samples will be held for 30 da assessed if samples are retained after 30 days,	Disposal by assessed if s	lient	Return to Client	Sample Disposal:
oles Special Remarks:	Nitrate+Nitrite Turn-around times for samples received after 4:00pm will begin	O-Phosphate Fluoride Nitr	e Bromide	de Sulfate	2 Chloride	Nitrate Nitrite	**Anions (Circle):
Ni Pb Sb Se Sr Sn Ti TI U V Zn	1 Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb	Individual: Ag Al As B Ba Be Ca Cd	TAL	Priority Pollutants	RCRA-8	ircle): MTCA-5	*Metals Analysis (Circle):
How; unpr.			K	ę	4	-cF-13	10 EDE3417-T-
HOLD; unpr.						-CF-13	5-4-2-5-45303°
*	8					P-0F-13	8EDE3417-P.
	8					-COF-12	, EOE347-1-COF-12
	>					COF-10	6EDE347-P-
	8			-		OF -08	5053417-8-COF-08
HNO2 pres.	8			-		- COF-de	EDEZTIT-P-COF-de
¢						CF-05	3E0E3477-CF-05
HOLD; WARE.				-		-CF-05	2 EDE3417-5-CF-05
thos pres.	8		DW	\$20/ TI	3/4/2017	P-0F-05	1EDE3417-1
Comments		4953 107 4955 107 49 4953 107 4955 107 49 410 40 107 49 410 40 107 49 410 40 107 40 410 40 107 40 40 100 400 400 400 400 400 400 400 400 4	Sample Type (Matrix)*	Sample Time	Sample		Sample Name
SW = Storm Water, WW = Waste Water	DW = Drinking Water, GW = Ground Water, SW	Sediment, SL = Solid, W = Water, DW	S = Soil, SD =	O = Other, P = Product,	B = Bulk, O = C	AQ = Aqueous,	*Matrix Codes: A = Air,
sk@efulcrum.net	rmathews@efulcrum.net; cc:aenbysk@efulcrum.net	PM Email:	Fax: 509.575.8453	Fax:	9839	509.574.0839	Telephone:
The set and the strength of the product of the set of the set of the		Report To (PM):			Yakima, WA, 98901	Yakima,	City, State, Zip:
(Edison Elementary, Kennewick, WA	Location:		treet	406 North Second Street	406 Nort	Address:
collected by: Inuda Ertysk	Kennewick SD Drinking Water - Edison Elementary 162017.25 Collected	Project Name: Project No:		Fulcrum Environmental Consulting	Environment	Fulcrum E	Client:
Page:				7178	Tel: 206-352-3790 Fax: 206-352-7178	,<	3600 Fremont Ave N. Seattle, WA 98103
Laboratory Project No (internal):	Date: 3/4/2017			2	alytic	An	
Laboratory Services Agreement	Chain of Custody Record and	Chain of Cu		a	ğ	remo	

Relinquished J Date	Nalas 3/4	I represent that I am authorized to enter into this Agreement with Fremont agreement to each of the terms on the front and backside of this Agreement.	Sample Disposal: Return to Client	***Anions (Circle): Nitrate Nitrite	**Metals Analysis (Circle): MTCA-5	10EPE347-P-0F-25	EDE341チューのテーナキ	8EDE3417-S-COF-24	,EDE347-1-COF-24	6EDE347-8-CF-J2	5EDE347-1-CF-19	4EDE3417-8-00F-18	ましをろりキーターケートチ	EDE347-P-OF-16	1EDE3417-1-COF-14	ne	*Matrix Codes: A = Air. AO = Aqueous. B = Bu				Client: Fulcrum Er	3600 Fremont Ave N. Tel: Seattle, WA 98103 Fax:	Ama	Fremon
Date/Time	17 1300	r into this Agreeme ont and backside of	ent Disposal assessec	Chloride Su	RCRA-8 Priority Pollutants	e									3/4/2017 /030	ample Se	k D = Other	In, Josof	14 02001	406 North Second Street	Fulcrum Environmental Consulting	Tel: 206-352-3790 Fax: 206-352-7178	nalytical	ont
Received	Received	nt with Fremont Analytical of this Agreement.	Disposal by Lab (Samples will be held for 30 day assessed if samples are retained after 30 days.)	Sulfate Bromide O-Phosphate	ollutants TAL Individual: Ag	Ę									DW	r - rroduct, s = soil, su = sealment, su sample Sample Sample States States Type South States	Fax: 509.575.8453				ting			
1 Date/Time	A B C Cote/Time	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.	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.)	sphate Fluoride Nitrate+Nitrite	Al As B Ba Be Ca Cd Co Cr				8	8	8	8	 ○ ○ ○ ○ ○ 	8		SL = Solid, W = Water, DW = Dril SL = Solid, W = Water, DW = Dril SL = Solid, W = State SL = Solid, SL = State SL = State	PM Email:	Report To (PM): Rya	Location: Edi	rioject NO:	ne:		Date:	Chain of Custody R
ne v l	1750 (that I have verified Client's	be on the following business day.	Turn-a	Cu Fe Hg K Mg Mn Mo Na Ni Pb											ater, GW = Ground Water, GS = 1780 St GS = 1780 St GS = 187 GS = 187 St = 187 GS = 187 GS = 187 St = 187 GS = 1	gefulcrum.net; cc:aenl	Ryan Mathews	Edison Elementary, Kennewick, WA	C7./T070T	inking Water - Edison E		te: 3/4/2017	ecord and
TAT → SameDay^ NextDay^ 2 Day 3 Day STD		Toolar T	5	Special Remarks:		HND2 rescred	£	told;umpr.	*						HNOZ arts	SW = Storm Water, WW = Waste Water	@efulcrum.net			Collected by: Whende Cherose	Ome la C 1	Page: of:	Laboratory Project No (internal):	Laboratory Services Agreement

3600 Fremont Ave N.	remont		Chain of Custody R	bate: 3/4/2017	ecord and Laboratory Services Agreement 3/4/2017 Laboratory Project No (Internal): Page: 3 of: ↓ 21
3600 Fremont Ave N. Seattle, WA 98103	Tel: 206-352-3790 Fax: 206-352-7178				Ŵ
Client:	Fulcrum Environmental Consulting	nsulting	Project No:	163017 25	mentary
Address:	406 North Second Street		1		
City, State, Zip:	Yakima, WA, 98901		(PM):	Rvan Mathews	
Telephone:	509.574.0839	Fax: 509.575.8453	1	rmathews@efulcrum.net; cc:aenbvsk@efulcrum.net	sfulcrum.net
*Matrix Codes: A = Air, AQ = /	AQ = Aqueous, B = Bulk, O = Other,	SD = Sediment,	SL = Solid, W = Water, DW = Drin	ing Water, GW = Ground Water,	SW = Storm Water, WW = Waste Water
Sample Name	Sample S Date	Sample Sample South			
EDE3417-P-	H 3/4/2017	1030 DW			HNO3 poseved
3 FDE3417-8-05-38	-28				
4 EOE 3417- P- CF-	-31				
5EDE3417-8-CDF-33	-33			8	
· EDE3417-P-CDF-35	DF-35			8	
, EPE3+17-P-0F-36	98-				
8 EDE3 417-P-CF-37	-37 TE-		6.0	×	<
, EDE3417-5-CF-37	37				Hr D: moreeved
10 ビアビスサナテー した-	37 V	E			Hry D: mad
**Metals Analysis (Circle): /	MTCA-5 RCRA-8 Prior	Priority Pollutants TAL Individual: Ag	Al As B Ba Be Ca Cd Co	Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb	10
***Anions (Circle): Nitrate	Nitrite Chloride	Sulfate Bromide O-Phosphate	te Fluoride Nitrate+Nitrite		Special Remarks:
Sample Disposal:	Return to Client Disp asse	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.)	iys unless otherwise noted. A fee n	nay be on the following business day.	
I represent that I am authorized to enter into this Agreement with Fremont agreement to each of the terms on the front and backside of this Agreement.	rized to enter into this Agre ms on the front and backsid	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.	ehalf of the Client named abo	ove, that I have verified Client's	See page I
Relinquished	Date/Time 5/4/17:1300		2 3 6 (J	Date/Time	
	Date/ IIme	Received	l Date	Date/Time	TAT → SameDay^ NextDay^ 2 Day 3 Day STD
					^Please coordinate with the lab in advance

	^Please coordinate with the lab in advance	without a string in a merical	A STATEST	×	And the state		and the second	
		pl (1 064)	VL 2 6	Received		17,1306 ate/Time	5/4/17;13	x (M /// Cu
	1	egreement to each of the terms on the front and backside of this Agreement.	Dad	ement. Beceived	side of this Agre	e front and back Date/Time	ne terms on the fro	agreement to each of the terms on the front and backside of this Agreement.
and so the second	Ser pare 1	may be on the following business day.	assessed if samples are retained after 30 days unless otherwise noted. A tee may be assessed if samples are retained after 30 days.	assessed if samples are retained after 30 days.)	ssessed if samples	rinto this Ac	Return to Client	Sample Disposal: I represent that I am a
	Special Remarks:	Vitrite Turn-around times for samples received after 4:00pm will begin	phate Fluoride Nitrate+Nitrite	Bromide O-Phosphate	Sulfate	Chloride	Nitrate Nitrite	le):
100 100 100	b Sb Se Sr Sn Ti TI U V Zn	Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb	Al As B Ba Be Ca Cd Co	TAL Individual: Ag	Priority Pollutants	RCRA-8 Pr	MTCA-5	**Metals Analysis (Circle):
			10 M					10
								9
								ω
								7
	¢	8	the state of the second s		9	7	-CF-09	6E0E3417-P
		8			e	*	OF-16	5 EDE3417-P-
20.02	P		the sector sector and				KF-45	4EDE3+17-8-KF-45
		Ø					COF-43	3EDE347-8-COF-43
		8			-	-	JF-39	2E0E3+17-8-CF-39
	twos nesered	8			1030 DW	3/4/2017	-COF-38	1 EDE347-8-COF-38
seedjaar Laapur e eesperii Meessaatuu o	Comments			DIe DIe 4953 (374) 10)************************************	Sample Sample Time (Matrix)*	Sample Date		Sample Name
	SW = Storm Water, WW = Waste Water	ing Water, GW = Ground Water,	SL = Solid, W = Water,	S = Soil, SD = Sediment,	P = Product,	Bulk, O = Other,	AQ = Aqueous, B = Bulk,	*Matrix Codes: A = Air,
	fulcrum.net	rmathews@efulcrum.net; cc:aenbysk@efulcrum.net	PM Email:	75.8453	Fax: 509.575.8453	39	509.574.0839	Telephone:
	No. 1996 The second sec	Ryan Mathews	Report To (PM):		and a first	/A, 98901	Yakima, WA, 98901	City, State, Zip:
		ary, Kennewick, WA	Location:		eet	406 North Second Street	406 North	Address:
Pag	lementary Collected by:	Kennewick SD Drinking Water - Edison Elementary 162017.25	Project Name:		Consulting	Fulcrum Environmental Consulting	Fulcrum En	Client:
e 21 of	Page: <u>4</u> of: <u>4</u>				90 78	Tel: 206-352-3790 Fax: 206-352-7178	Ŗ	3600 Fremont Ave N. Seattle, WA 98103
21	Laboratory Project No (internal):	Date: 3/4/2017			6	alytical	And	
ement	Chain of Custody Record and Laboratory Services Agreement	tody Record and L	Chain of Cust			On	remo	
			All the second s			Constanting of the	10 1 H 1 1 1 1 1 1 1 1 1 1	